FINAL

Program Environmental Impact Report

City of Corona 2018 Reclaimed Water Master Plan

SCH No. 2020050497

March 2021

Prepared for:

City of Corona
400 S. Vicentia Avenue, Suite 220
Corona, California 92882
Contact: Ulises Escalona, Associate Engineer

Prepared by:

Harris & Associates
600 B Street, Suite 2000
San Diego, California 92101
Contact: Kristin Blackson, Project Manager

This document is printed on recycled paper with 30 percent post-consumer content.

Table of Contents

Revisions to the Draft Program Environmental Impact Report Rev-1
Introduction Rev-1
Draft Program Environmental Impact Report Revisions Rev-1
Executive Summary Rev-1
Chapter 2, Project Description Rev-18
Section 3.4, Biological Resources Rev-18
Section 3.5, Cultural Resources Rev-36
Section 3.11, Land Use and Planning Rev-42
Section 3.18, Tribal Cultural Resources Rev-52
Chapter 5, Alternatives to the Proposed Project Rev-54
Chapter 7, References Rev-55
Appendix C, Biological Resources Technical Report Rev-55
Appendix D, Cultural and Tribal Cultural Resources Technical Report . Rev-71
Responses to Comments RTC-1
Mitigation Monitoring and Reporting Program MMRP-1
Draft Program Environmental Impact Report in Strikeout/Underline PEIR-1

Tables

Table RTC-1. Comment Letters Received RTC-1

This page intentionally left blank.

Revisions to the Draft Program Environmental Impact Report

Introduction

This section contains revisions to the Draft Program Environmental Impact Report (PEIR) for the 2018 Reclaimed Water Master Plan (project or 2018 RWMP) based on (1) additional or revised information required to prepare a response to a specific comment, (2) applicable updated information that was not available at the time of Draft PEIR publication, and (3) typographical errors. This section also includes clarifications to the Biological Resources Technical Report and Cultural and Tribal Cultural Resources Technical Report and corresponding Draft PEIR sections in response to consultation with the Western Riverside County Regional Conservation Authority and tribal consultation pursuant to Assembly Bill (AB) 52.

Pursuant to California Environmental Quality Act Guidelines, Section 15088.5(a), recirculation of a Draft EIR is only required when significant new information is added to the Draft EIR after public review of the Draft EIR but before certification. Significant new information may include changes to the project or environmental setting and additional data or other information. New information added to a Draft EIR is not significant unless the Draft EIR is changed in a way that deprives the public of a meaningful opportunity to comment on a substantial adverse effect of the project or a feasible way to mitigate or avoid such an effect (including feasible alternatives) that the project proponents have declined to implement. Recirculation is not required where the new information merely clarifies, amplifies, or makes insignificant modifications (California Environmental Quality Act Guidelines, Section 15088.5).

All modifications to the Draft PEIR were evaluated to determine whether new or more severe impacts were identified and whether feasible mitigation or avoidance measures were identified but rejected. None of the changes made would add any new significant information; therefore, recirculation is not required.

Changes made to the Draft PEIR are identified in ~~strikeout~~ text to indicate deletions and in <u>underlined</u> text to signify additions.

Draft Program Environmental Impact Report Revisions

The following sections of the Draft PEIR have been revised in response to comments received on the Draft PEIR, consultation with the Western Riverside County Regional Conservation Authority, and tribal consultation pursuant to AB 52.

Executive Summary

Table ES-5, Summary of Impacts of the Proposed Project, has been revised as follows.

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
Aesthetics		
Substantial Degradation of the Existing Visual Character or Conflict with Applicable Regulations	**AES-1: Landscape Plan.** To screen aboveground project facilities during facility design, the design consultant shall prepare a Landscape Plan for each aboveground project facility identified in the 2018 Reclaimed Water Master Plan, including the Chase Tank facility. The Landscape Plan shall include measures to restore disturbed areas by re-establishing existing topography, including replanting trees or reseeding with a native seed mix typical of the immediately surrounding area. The Landscape Plan shall include a required seed mix and plant palette. Vegetation screening shall be included in the Landscape Plan to shield proposed aboveground facilities from public view. The Landscape Plan shall include a Monitoring Plan to ensure that site restoration and vegetation establishment is successful.	Less than Significant
Biological Resources		
Sensitive Plant Species	**BIO-1: Multiple Species Habitat Conservation Plan Consistency Analysis Report Sensitive Plant Species Surveys.** For projects proposed in the City of Corona 2018 Reclaimed Water Master Plan on undeveloped land, including the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline, a Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis Report site-specific biological resources survey shall be completed during the project design phase. The Consistency Analysis Report shall be prepared for each project to demonstrate consistency with the Multiple Species Habitat Conservation Plan Implementation Structure and shall include project-level existing conditions documentation consisting of vegetation mapping and identification of sensitive habitats (non-native grassland, riparian and riverine areas, and vernal pools), plants, and animals (including burrowing owl [*Athene cunicularia*]) on the project site. The Consistency Analysis Report shall be used as the basis for determining if a project is subject to a Joint Project Review and is required to complete a Joint Project Review Application. The Multiple Species Habitat Conservation Plan Consistency Analysis Report template and requirements can be accessed on the Western Riverside County Regional Conservation Authority Document Library: https://www.wrc-rca.org/document-library/. The Western Riverside County Multiple Species Habitat Conservation Plan Permittee Implementation Guidance Manual (2007) shall also be reviewed and followed to ensure project consistency with the Multiple Species Habitat Conservation Plan requirements. ~~If one or more sensitive plant species has the potential to occur on the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, focused species surveys shall be conducted before construction to determine the presence and absence of these species to adequately evaluate potential direct or indirect impacts to these species.~~	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	~~Sensitive plant species surveys shall be conducted by a qualified biologist retained by the City of Corona during the appropriate season to detect the species as part of the project design phase. Surveys shall be floristic in nature and include lists of the plants identified in the survey area. Surveys shall be conducted on foot, employing a level of effort sufficient to provide comprehensive coverage. The locations and prevalence (estimated total numbers and percent cover, as applicable) of sensitive plants shall be recorded. The sensitive plant species surveys shall be valid for 3 years.~~ ~~If site-specific surveys are not required because a survey was conducted within the last 3 years, impact assessment and minimization and mitigation requirements shall be based on the most recent available survey. These requirements shall also include an analysis of the potential for sensitive plant species to occur on site based on existing site conditions and shall be consistent with the most recent U.S. Fish and Wildlife Service and California Department of Fish and Wildlife survey protocols.~~ ~~If sensitive plant species are observed, they shall be avoided if possible. If species cannot be avoided, impacts shall be mitigated through conservation of habitat that supports the impacted species in accordance with Mitigation Measures BIO-2 and BIO-3.~~ ~~**BIO-2: Permanent Impacts to Non-Native Grassland.** Permanent impacts to sensitive non-native grassland shall be mitigated through the preservation of habitat, habitat creation, or enhancement, or combination thereof, in the City of Corona or off site through habitat acquisition and preservation or purchase of credits from an approved conservation bank. Mitigation for impacts to non-native grassland shall be in-kind using native grasses. Permanent impacts to sensitive non-native grassland shall be mitigated at a ratio of 0.5:1.~~ ~~For on-site mitigation, a detailed Mitigation Plan shall be prepared before the start of construction (not applicable to mitigation met through the purchase of credits from an approved wetland mitigation bank). The Mitigation Plan shall include at a minimum the proposed location of the mitigation areas, site preparation, a plant palette, installation procedures, success criteria, fencing and signage, monitoring requirements, and other details of the habitat restoration effort and shall be prepared by a qualified biologist.~~ ~~**BIO-3: Temporary Impacts to Non-Native Grassland.** Temporary impacts to non-native grassland shall be restored in place or elsewhere on the project site at a 1:1 replacement ratio using native grasses species.~~ ~~A Revegetation Plan shall be prepared. The Revegetation Plan shall include site preparation specifications, a plant palette, installation procedures, development of reasonable success criteria, appropriate monitoring and reporting protocols, implementation timelines, and contingency measures in the event of restoration failure. The City of Corona shall provide guidance for and oversight of the Revegetation Plan and implementation.~~	

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	~~In the event that non-native grassland vegetation cannot be restored in place or elsewhere on the project site after construction, these impacts would be considered permanent, and Mitigation Measure BIO-2 would be implemented.~~ ~~The 0.5:1 permanent impacts and 1:1 temporary impacts mitigation ratios for the project would follow the accepted ratios established by the Western Riverside County Multiple Species Habitat Conservation Plan to reduce potentially significant impacts to sensitive vegetation communities to less than significant.~~ **BIO-2~~4~~: Invasive Plant Species Prevention.** During construction of the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects, the following measures shall be implemented to minimize the spread of invasive plant species: • Construction equipment shall be cleaned before coming to the project sites. • Weed-free straw wattles shall be used for erosion control. **BIO-3~~5~~: Flagging and Fencing**. If sensitive biological resources are identified on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, the construction limits shall be clearly identified on construction drawings and flagged on the project sites to ensure impacts to sensitive biological resources are avoided or minimized to the extent feasible. Before implementing construction activities, a qualified biologist shall verify that the flagging clearly delineates the construction limits and sensitive resources to be avoided. **BIO-4~~6~~: Contractor Training Program.** If sensitive biological resources are known to occur on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a project-specific contractor training program shall be developed and implemented to educate project contractors on the sensitive biological resources on and adjacent to the project sites and measures being implemented to avoid or minimize impacts to these species. A qualified biologist shall develop and implement the contractor training program. **BIO-5~~7~~: Biological Monitor.** If sensitive biological resources are present on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, and impacts may occur from implementation of construction activities, a qualified biological monitor may be required during all or a portion of the construction activities to ensure impacts to the sensitive biological resources are avoided or minimized to the extent feasible. The specific biological monitoring requirements shall be evaluated on a project-by-project	

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	basis. The qualified biological monitor shall be approved by the City of Corona based on applicable experience with the sensitive biological resources that may be impacted.	
Sensitive Animal Species	**BIO-15, and BIO-36, and through BIO-57.** **~~BIO-8: Burrowing Owl Surveys.~~** ~~A burrowing owl clearance survey shall be conducted before any ground-disturbing activities in accordance with the California Department of Fish and Wildlife 2012 Staff Report on Burrowing Owl Mitigation. Two preconstruction clearance surveys shall be conducted 14–30 days and 24 hours before ground-disturbing activities to document the continued absence of burrowing owl from the project sites. The burrowing owl surveys shall be valid for 1 year.~~ **BIO-69: Preconstruction Nesting Bird Surveys**. To the extent feasible, grubbing, trimming, or clearing of vegetation from project sites shall not occur during the general bird nesting season (January 15 through September 15). If grubbing, trimming, or clearing of vegetation cannot feasibly occur outside of the general bird nesting season, a qualified biologist shall perform a preconstruction nesting bird survey at project sites with vegetation supporting nesting birds. Nesting bird surveys shall occur within ~~10~~7 days before the start of vegetation clearing or grubbing to determine if active bird nests are present. If no active bird nests are identified on the project sites or within a 300-foot buffer of the project sites, no further mitigation is necessary. If active nests of bird species covered by the Migratory Bird Treaty Act are detected on the project site during the ~~10~~7-day preconstruction survey, construction activities should stay outside of a 300-foot buffer around the active nest. For raptor species, this buffer is expanded to 500 feet. It is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged, and a qualified biologist has determined the nest is inactive, normal construction activities can occur. **BIO-710: Night Lighting.** If temporary night lighting is necessary during construction adjacent to sensitive vegetation communities, construction contractors shall ensure lights are directed away from sensitive vegetation communities and shielded to minimize temporary lighting of the surrounding habitat and should be of the lowest illumination necessary for human safety.	Less than Significant
Riparian Habitat or Other Sensitive Natural Community	**BIO-12 and BIO-3.** **~~BIO-11: Biological Resources Survey/Habitat Assessment.~~** ~~For projects proposed in the 2018 Reclaimed Water Master Plan on undeveloped land, including the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline, a site-specific biological resources survey shall be conducted during the project design phase. The~~	

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	~~biological resources survey shall be conducted by a qualified biologist and shall include but not be limited to the following:~~ • ~~An analysis of available literature and biological databases, such as the California Natural Diversity Database, to determine sensitive biological resources that have been reported historically from the proposed project vicinity.~~ • ~~A review of current land use and land ownership within the project vicinity.~~ • ~~An assessment and mapping of vegetation communities present within the proposed project vicinity. If vegetation community mapping has not been conducted on the site in the previous 3 years, updated vegetation mapping shall be conducted by a qualified biologist as part of the project planning and environmental review process. Vegetation communities shall be mapped according to the Manual of California Vegetation at the alliance level, and a crosswalk table with Holland vegetation communities shall be provided.~~ • ~~A general assessment of the potential for aquatic resources, including wetlands and riparian habitats, to occur on site.~~ • ~~An evaluation of potential local and regional wildlife movement corridors.~~ • ~~If the project sites support vegetation communities that may provide habitat for plant or animal species, a focused habitat assessment conducted by a qualified biologist to determine the potential for sensitive plant or animal species to occur on or adjacent to the project sites.~~ ~~The results of the biological survey shall be presented in a biological survey letter report.~~	
Jurisdictional Aquatic Resources	**BIO-1.** **BIO-~~8~~12: Aquatic Resources Delineation**. If sensitive aquatic resources are identified on the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a qualified biologist shall conduct an aquatic resources delineation following the methods outlined in the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the U.S. Army Corps of Engineers Wetland Delineation Manual: Arid West Region to map the extent of wetlands and non-wetland waters, determine jurisdiction, and assess potential impacts. The results of the delineation shall be presented in an Aquatic Resources Delineation Report and shall be incorporated into the California Environmental Quality Act documents required for approval and permitting of the proposed project. The Aquatic Resources Delineation Report shall be included as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1).	

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	BIO-~~9~~13: Aquatic Resources Permitting and Multiple Species Habitat Conservation Plan Consistency. If the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would impact sensitive aquatic resources, permits and authorizations shall be obtained from the U.S. Army Corps Engineers, California Department of Fish and Wildlife, or Regional Water Quality Control Board. The regulatory agency authorizations would include impact avoidance and minimization measures and mitigation measures for unavoidable impacts. Specific avoidance, minimization, and mitigation measures for impacts to jurisdictional resources shall be determined through discussions with the regulatory agencies during the proposed project permitting process and may include monetary contributions to a mitigation bank or habitat creation, restoration, or enhancement. In addition, consistent with the Western Riverside Multiple Species Habitat Conservation Plan and as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1), a Determination of Biologically Equivalent or Superior Preservation Report shall be prepared to identify mitigation that demonstrates equivalent or superior function and value, including re-establishment, establishment, and/or permanent conservation of aquatic resources, as feasible. The Determination of Biologically Equivalent or Superior Preservation Report shall be included as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1).	
Cultural Resources		
Historic Resources	**CUL-1: Construction-Related Vibration.** Construction Plans for individual projects under the 2018 Reclaimed Water Master Plan shall include a requirement that no vibratory equipment be operated within 40 feet of a structure eligible or listed on the National Register of Historic Places, California Register of Historical Resources, or Corona Register. Instead, alternative construction equipment shall be used, such as smooth wheel rollers without a vibratory component. This requirement shall be included on individual project Construction Plans and be submitted to the City of Corona, Public Works Department, for review before approval of final design. For structures that have not been previously evaluated, the City Engineer shall consult with a qualified Architectural Historian, approved by the City of Corona, to conduct an evaluation of the structure. If the structure is determined eligible or already eligible or listed in the National Register of Historic Places, California Register of Historical Resources, or Corona Register, structural evaluation shall be conducted by a Professional Structural Engineer to identify maximum allowable levels of vibration during construction. If a historic determination is required, the engineer shall provide recommendations on approaches to stabilization in conjunction with vibration monitoring. Permanent stabilization measures shall follow the Secretary of the Interior's guidelines for the treatment of historic properties. If the buildings are temporarily stabilized for the duration of construction activities, when removed, the buildings shall be	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	restored to their preconstruction condition when the stabilization measures are removed.	
Archaeological Resources	**CUL-2: Project-Specific Archaeological Survey.** Projects identified in the 2018 Reclaimed Water Master Plan should be reviewed by the City of Corona to determine if a site-specific archaeological survey should be conducted. Site-specific archaeological surveys should be conducted for individual projects identified in the 2018 Reclaimed Water Master Plan that are in areas that have not been previously developed or would impact land with visible ground surface, or projects that may impact built environment resources that meet the age threshold for eligibility. A Native American monitor shall be on site during the site-specific archaeological surveys. If cultural resources are identified during the site-specific archaeological survey, then evaluation of the resources for the California Register of Historical Resources and the Corona Register should be conducted in conjunction with the Native American monitor to determine if the resource is significant under the California Environmental Quality Act and would be adversely impacted by the project. A Native American monitor from a culturally affiliated tribe should be present during any archaeological excavations involving prehistoric cultural resources. If no significant resources are found, and site conditions are such that there is no potential for further discoveries, then no further action is required. Resources found to be non-significant as a result of a survey and evaluation shall require no further work beyond documentation of the resources on the appropriate Department of Parks and Recreation site forms and inclusion of results in a technical report. If significant resources are present, consulting tribes or bands should be notified and consulted with on treatment. ~~then a~~ Avoidance, preservation in place, or a data recovery program is recommended. The data recovery program is subject to the provisions outlined in California Public Resources Code, Section 21083.2. The data recovery program should be conducted in accordance with the Office of Historic Preservation's Archaeological Resource Management Reports: Recommended Contents and Format and Guidelines for Archaeological Research Designs. The data recovery program must be reviewed and approved by the City. If no significant resources are found, but if there is a potential for unknown archaeological resources, or tribal cultural resources to be uncovered during construction activities, then implementation of Mitigation Measure CUL-3 is recommended. **CUL-3: Archaeological and Native American Monitoring Program.** Because there is always a potential for encountering cultural and tribal cultural resources during excavation, the creation of an archaeological and Native American monitoring program is recommended for projects identified in the 2018 Reclaimed Water Master Plan that would conduct new ground disturbance in areas identified as moderate or high sensitivity for cultural resources, ~~and~~ for project components that are within 100 feet of previously recorded archaeological resources, and for those projects where tribal	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	consultation has identified traditional cultural properties/tribal cultural landscapes. Prior to the commencement of ground-disturbing activities below the road base, the City of Corona, Public Works Department, shall enter into an agreement with the consulting tribes or bands for Native American monitors. The Native American monitor shall be approved by the Gabrieleño Band of Mission Indians – Kizh Nation, Soboba Band of Luiseño Indians, and Rincon Band of Luiseño Indians—the tribes that consulted on the project pursuant to Assembly Bill 52 (consulting tribes or bands). A copy of the executed contract shall be submitted to the City of Corona prior to the issuance of any permit necessary to start a ground-disturbing activity. The Native American monitor shall be on site during all initial ground-disturbing activities and excavation of each portion of the project site, including clearing, grubbing, tree removals, grading, and trenching. Monitoring will not take place within the imported fill soils in the road base and for potholing above known utility lines. In conjunction with the archaeological monitor, the Native American monitor shall have the authority to temporarily divert, redirect, or halt the ground-disturbing activities to allow identification, evaluation, and potential recovery of cultural resources. The on-site monitoring shall end when all ground-disturbing activities on the project site are completed or when the tribal representatives and Native American monitor have indicated that all upcoming ground-disturbing activities on the project site have little to no potential for impacting cultural or tribal cultural resources. Upon discovery of any tribal cultural resources, construction activities shall cease in the immediate vicinity of the find (not less than the surrounding 100 feet) until the find can be assessed. All tribal cultural resources unearthed by project activities shall be evaluated by the qualified archaeologist and Native American monitor approved by the consulting tribe or band. If the resources are Native American in origin, the consulting tribe or band shall retain it/them in the form and/or manner the consulting tribe or band deems appropriate for educational, cultural, and/or historic purposes. If a non-Native American resource is determined by the qualified archaeologist to constitute a “historical resource” or “unique archaeological resource,” time allotment and funding sufficient to allow for implementation of avoidance measures or appropriate mitigation must be available. The treatment plan established for the resources shall be in accordance with the California Environmental Quality Act Guidelines, Section 15064.5(f), for historical resources and California Public Resources Code, Sections 21083.2(b), for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the	

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	historic archaeological material, it shall be offered to a local school or historical society in the area for educational purposes. The City of Corona, Public Works Department, shall obtain a fully executed agreement(s) with the consulting tribes or bands to ensure compliance with this mitigation measure. This agreement shall not modify any condition of approval or mitigation measure. ~~The archaeological and Native American monitoring program shall consist of the full-time presence of a qualified archaeologist and traditionally and culturally affiliated Native American monitor during new ground-disturbing activities. New ground disturbance can include new trenching or expanding previously excavated trenches, grading, and vegetation removal. The archaeological and Native American monitoring program should include the following:~~ ~~1. Noting archaeological and Native American monitoring on applicable construction documents, including plans, shall be required.~~ ~~2. The archaeologist and Native American monitor should attend the preconstruction meeting with the contractor or the City of Corona.~~ ~~3. The archaeologist shall maintain ongoing collaborative consultation with the Native American monitor during ground-disturbing or altering activities as identified above.~~ The City of Corona, Public Works Department, and the consulting tribes or bands shall develop an Archaeological Monitoring Plan to address details, timing, and responsibilities of all archaeological activities that will occur on the project site when it is determined by either the City of Corona, Public Works Department, or the consulting tribes or bands to be necessary. The Archaeological Monitoring Plan shall include the following: 1. The development of a schedule in coordination with the City of Corona, Public Works Department, the project archaeologist, and the consulting tribes or bands for Native American and archaeological monitoring during ground-disturbing activities on the site, including the scheduling, safety requirements, duties, scope of work, and Native American monitor's authority to stop and redirect grading activities in coordination with all project archaeologists. 2. The protocols and stipulations that the City of Corona, Public Works Department, the consulting tribes or bands, and project archaeologist would follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resource evaluation. Such procedures include the following: a. The archaeologist or Native American monitor may halt ground-disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground-disturbing activities shall be directed away from these deposits for a short time to allow for identification, evaluation, and potential recovery of cultural resources ~~a determination of potential significance, the subject of which shall be determined~~ by the archaeologist and the Native American monitor. Ground-disturbing activities shall not resume until the archaeologist, in consultation with the Native American monitor and the City of	

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	Corona, deems the cultural resource or feature has been appropriately documented and protected. b. All discovered resources shall be temporarily curated in a secure location on site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with Native American monitor oversight of the process. c. The City of Corona, Public Works Department, shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains, as part of the required mitigation for impacts to cultural resources. The City of Corona, Public Works Department, shall relinquish the artifacts through one or more of the following methods and provide the consulting tribes or bands with evidence of the same: i. Accommodate the process for on-site reburial of the discovered items with the consulting tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloging and basic recordation have been completed. ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per Title 36, Part 79, of the Code of Federal Regulations and, therefore, would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility in Riverside County to be accompanied by payment of the fees necessary for permanent curation. iii. If more than one Native American tribe or band is involved with the project and cannot come to a consensus on the disposition of cultural materials, the cultural materials shall be curated at the Western Science Center. d. At the completion of grading, excavation, and ground-disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City of Corona, Public Works Department, documenting monitoring activities conducted by the project archaeologist and Native American monitor within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; and in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the consulting tribes or bands, Eastern Information Center, and interested tribes or bands.	

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	~~4. Archaeological isolates and non-significant materials shall be minimally documented in the field, and ground disturbance shall be allowed to resume.~~ ~~5. The avoidance and protection of discovered unknown and significant cultural resources and/or unique archaeological resources is the preferable mitigation for the proposed project. If avoidance is not feasible, a Data Recovery Plan may be authorized by the City of Corona as the lead agency under the California Environmental Quality Act.~~ ~~6. Before the release of any bonds associated with the construction of the project components, a Monitoring Report or Evaluation Report that describes the results, analysis, and conclusions of the archaeological and Native American monitoring program (including but not limited to a data recovery program) shall be submitted by the archaeologist, along with the Native American monitor's notes and comments, to the City of Corona for approval.~~	
Human Remains	**CUL-2 and CUL-3.** **CUL-4: Identification and Treatment of Human Remains**. In the event that human remains, ~~or~~ possible human remains, and/or grave goods are encountered during any work associated with the projects identified in the 2018 Reclaimed Water Master Plan, ground disturbance within ~~25~~ 100 feet of the remains shall immediately halt. The project proponent shall then immediately inform the Riverside County Coroner and the City of Corona, Public Works Department, and the County Coroner shall be permitted to examine the remains as required by California Health and Safety Code, Section 7050.5(b). Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains until the County Coroner can determine whether the remains are those of a Native American. If human remains are determined to be of Native American origin, the applicant shall comply with the state relating to the disposition of Native American burials that fall within the jurisdiction of the California Native American Heritage Commission (California Public Resources Code, Section 5097). The County Coroner shall contact the California Native American Heritage Commission to determine the most likely descendant. The most likely descendant shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The disposition of the remains shall be overseen by the most likely descendant to determine the most appropriate means of treating the human remains and any associated grave artifacts. The specific locations of Native American burials and reburials will be proprietary and not disclosed to the general public. The County Coroner will notify the California Native American Heritage Commission in accordance with California Public Resources Code, Section 5097.98. According to California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052) as determined in consultation between the project proponent and the most likely descendant. ~~and California Environmental Quality Act~~	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	~~Guidelines, Section 15064.5(e); California Public Resource Code, Section 5097.98; and California Health and Safety Code, Section 7050.5, should be followed. If Native American remains are discovered, the remains shall be kept in situ (in place) or in a secure location approved by the Native American monitor until the repatriation process can be completed.~~	
Geology, Soils, and Paleontological Resources		
Seismic Hazards	**GEO-1: Site-Specific Soil and Geotechnical Study.** The City of Corona shall prepare a site-specific soil and geotechnical engineering study before final design of individual projects under the 2018 Reclaimed Water Master Plan that would involve ground disturbance, including grading and excavation. Each study shall be performed by a licensed professional, including but not limited to a geologist, certified soil scientist, certified agronomist, registered agricultural engineer, registered civil or structural engineer, and/or certified professional erosion and sediment control specialist with expertise in geotechnical engineering issues, who is registered and/or certified in the State of California, to determine site-specific impacts and to recommend site-specific mitigations. Feasible recommendations addressing potential seismic hazards and soil constraints shall be implemented.	Less than Significant
Geological Stability	**GEO-1.**	Less than Significant
Expansive Soils	**GEO-1.**	Less than Significant
Paleontological Resources	**GEO-2: Paleontological Monitoring.** Paleontological monitoring during excavation, grading or trenching shall be required for all projects identified in the 2018 Reclaimed Water Master Plan that would excavate to a depth of 10 feet or more in areas identified as having a high paleontological sensitivity. Before the approval of project-specific construction documents for each project, the City Engineer shall retain a qualified professional paleontologist to observe all earth-disturbing activities in areas greater than 10 feet in depth. Fossil materials recovered during paleontological monitoring shall be cleaned, identified, cataloged, and analyzed in accordance with standard professional practices. The results of the fieldwork and laboratory analysis shall be submitted in a technical report and the entire collection transferred to an approved facility. If no resources are found during the monitoring effort, a monitoring summary shall be submitted to the City Engineer within 4 weeks of completion of the monitoring effort.	Less than Significant
Hazards and Hazardous Materials		
Accidental Release of Hazardous Materials	**HAZ-1: Preparation of Phase 1 Environmental Site Assessment.** Before construction of the Rimpau California Pipeline, River Pipeline, Sampson Pipeline, Buena Vista Tenth Avenue Pipeline, and Klug Pipeline, the City of Corona shall conduct a Phase 1 Environmental Site Assessment. The Phase 1 Environmental Site Assessment shall be prepared by a registered environmental assessor or equally qualified professional to assess the potential for contaminated soil or groundwater conditions at the project sites and along conveyance alignments. The Phase 1 Environmental Site Assessment shall	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	include a review of appropriate federal and state hazardous materials databases and relevant local hazardous material site databases for hazardous waste in on-site and off-site locations within a one-quarter mile radius of the project sites and along conveyance alignments. The Phase 1 Environmental Site Assessment shall also include a review of existing or past land uses and aerial photographs, a summary of results of reconnaissance site visits, and a review of other relevant existing information that could identify the potential existence of contaminated soil or groundwater. If no contaminated soil or groundwater is identified, or if the Phase 1 Environmental Site Assessment does not recommend any further investigation, the City of Corona shall proceed with final project design and construction. If existing soil or groundwater contamination is identified, and if the Phase 1 Environmental Site Assessment recommends further review, the City of Corona shall retain a registered environmental assessor to conduct follow-up sampling to characterize the contamination and to identify any required remediation that shall be conducted consistent with applicable regulations before any earth-disturbing activities. The registered environmental assessor shall prepare a report that includes but is not limited to activities performed for the assessment, a summary of anticipated contaminants and contaminant concentrations at the proposed construction sites, and recommendations for appropriate handling of any contaminated materials during construction. **HAZ-2: Halt of Construction Work if Hazardous Materials Are Encountered.** Before construction, workers shall be trained on how to identify hazardous materials and procedures if undefined, suspected contaminated soil or groundwater is encountered. If unidentified or suspected contaminated soil or groundwater is encountered during construction activities of the projects identified in the 2018 Reclaimed Water Master Plan, the construction contractors shall immediately stop surface or subsurface activities in the event that potentially hazardous materials are encountered, an odor is identified, or considerably stained soil is visible. Contractors shall notify the City of Corona Public Works Department Project Manager immediately and follow the applicable local, state, and federal regulations regarding the discovery, response, disposal, and remediation of hazardous materials encountered during the construction process. This requirement shall be included in individual project Construction Plans and submitted to the City of Corona Public Works Department for review before approval of final design.	
Emergency Response Plan or Evacuation Plan	**HAZ-3: Prepare and Implement a Construction Traffic Control Plan.** The construction contractor shall prepare and implement a Construction Traffic Control Plan for roadways and intersections affected by the individual projects identified in the 2018 RWMP. This requirement shall be included on individual project Construction Plans and be submitted to the City of Corona Public Works Department for review before approval of final design. The Construction Traffic Control Plan shall comply with local agency requirements with jurisdiction over project construction and shall	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	include but not be limited to the following elements based on local site and roadway conditions: • Provide street layout showing location of construction activity and surrounding streets to be used as detour routes, including special signage. • Post a minimum 72-hour advance warning of construction activities in affected roadways to allow motorists to select alternative routes. • Restrict delivery of construction materials to non-peak travel periods (9:00 a.m.–3:00 p.m.) as appropriate. • Maintain the maximum travel lane capacity during non-construction periods and provide flagger control at construction sites to manage traffic control and flows • Maintain access for driveways and private roads, except for brief periods of construction, in which case property owners shall be notified. • Require temporary steel plate trench crossings as needed to maintain reasonable access to homes, businesses, and streets. When required by the applicable encroachment permit, maintain the existing lane configuration during nonworking hours by covering the trench or jack pit with steel plates or by using temporary backfill. • Require appropriate warning signage and safety lighting for construction zones. • Access for emergency vehicles shall be maintained at all times. Police, fire, and emergency services shall be notified of the timing, location, and duration of construction activities that could hinder or delay emergency access through the construction period. • Coordinate with regional transit agencies, including Corona Cruiser and Riverside Transit Agency, to plan as needed for the temporary relocation of bus stops or detour of transit routes on affected distribution pipeline alignments. • Identify detours where available for bicyclists and pedestrians in areas potentially affected by project construction. • Provide adequate off-street parking locations for worker vehicles and construction equipment where on-street parking availability is insufficient. • Repair or restore the roadway right-of-way to its original condition or better upon completion of work.	
Wildland Fire	**HAZ-4: Maintain Construction Area Clear of Combustible Materials.** During construction, the contractor shall ensure that staging areas, welding areas, or areas slated for construction using spark-producing equipment shall be cleared of combustible vegetation or other materials that could serve as fire fuel. Vegetation clearing shall be coordinated with a qualified biologist before removal. The contractor shall keep these areas clear of combustible materials to maintain a firebreak. Any construction equipment that normally includes a spark arrester shall be in good working order.	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	This includes but is not limited to vehicles, heavy equipment, and chainsaws. This requirement shall be included on individual project Construction Plans and be submitted to the City of Corona Public Works Department for review before approval of final design. **HAZ-5: Provide Accessible Fire Suppression Equipment.** Work crews shall be required to have sufficient fire suppression equipment readily available to ensure that any fire resulting from construction activities is immediately extinguished. Off-road equipment using internal combustion engines shall be equipped with spark arrestors. This requirement shall be included on individual project Construction Plans and be submitted to the City of Corona Public Works Department for review before approval of final design.	
Land Use and Planning		
Conflict with Land Use Plan, Policy, or Regulation	**AES-1, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9, ~~BIO-10, BIO-11, BIO-12, BIO-13,~~ CUL-1, CUL-2, CUL-3, CUL-4, GEO-1, HAZ-3, and NOI-1.**	Less than Significant
Noise		
Exceedance of Noise Standards	**NOI-1: Construction Noise Reduction Measures.** Individual projects under the 2018 Reclaimed Water Master Plan shall implement construction noise reduction measures to ensure compliance with the City of Corona's Noise Ordinance. The following measures shall be included on individual project Construction Plans and be submitted to the City of Corona, Public Works Department, for review before approval of final design: • Construction equipment shall be properly outfitted and maintained with manufacturer recommended noise reduction devices. • Diesel equipment shall be operated with closed engine doors and equipped with factory recommended mufflers. • Mobile or fixed "package" equipment (e.g., arc-welders and air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment. • Electrically powered equipment shall be used instead of pneumatic or internal-combustion powered equipment, where feasible. • Unnecessary idling of internal combustion engines (e.g., in excess of 5 minutes) shall be prohibited. • Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors. • The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be limited to safety warning purposes only.	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	• No project-related public address or music system shall be audible at any adjacent sensitive receptor. • The City of Corona shall notify residences within 100 feet of the construction area in writing at least 2 weeks prior to any construction activity such as concrete sawing, asphalt removal, or heavy grading operations. The notification shall describe the activities anticipated, provide dates and hours, and provide contact information with a description of a complaint and response procedure. • In the event that a complaint is received, noise monitoring shall be conducted to determine whether hourly average noise levels during construction exceed ambient noise levels by more than 5 A-weighted decibels Equivalent Energy Level. A 1-hour noise measurements shall be taken during a normal weekday without construction activity, and a 1-hour measurement during typical construction. In the event that the above measures do not reduce noise levels to 5 A-weighted decibels or less above ambient conditions at the affected receptor, temporary sound barriers or sound blankets may be installed between construction operations and adjacent noise-sensitive receptors. Due to equipment exhaust pipes being approximately 7–8 feet above ground, a sound barrier at least 10 feet in height above grade would be required to mitigate noise to an acceptable level. • The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal process for the affected resident shall be established before construction begins to allow for resolution of noise problems that cannot be immediately solved by the site supervisor. • All construction activities, including deliveries and engine warm-up, shall be prohibited between the hours of 8:00 p.m. and 7:00 a.m., Monday through Saturday, and 6:00 p.m. to 10:00 a.m. on Sundays and federal holidays.	
Excessive Groundborne Vibration and Noise	**NOI-2: Vibratory Equipment Limitations.** Construction Plans for individual projects under the 2018 Reclaimed Water Master Plan shall include a requirement that no vibratory equipment be operated within 40 feet of a structure eligible or listed on the National Register of Historic Places, California Register of Historical Resources, or Corona Register. Instead, alternative construction equipment shall be used, such as smooth wheel rollers without a vibratory component. This requirement shall be included on individual project Construction Plans and be submitted to the City of Corona, Public Works Department, for review before approval of final design.	Less than Significant
Transportation		
Conflict with Program, Plan, Ordinance, or Policy	**HAZ-3.**	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
Inadequate Emergency Access	**HAZ-3.**	Less than Significant
Tribal Cultural Resources		
Tribal Cultural Resources	**CUL-2, CUL-3, and CUL-4.**	Less than Significant
Utilities and Service Systems		
Relocation or Construction of New Facilities	**AES-1, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9, ~~BIO-10, BIO-11, BIO-12, BIO-13,~~ CUL-1, CUL-2, CUL-3, CUL-4, GEO-1, GEO-2, HAZ-1, HAZ-2, HAZ-3, HAZ-4, HAZ-5, NOI-1, and NOI-2.**	Less than Significant
Wildfire		
Emergency Response or Evacuation Plan	**HAZ-3.**	Less than Significant
Uncontrolled Spread of Wildfire	**HAZ-4 and HAZ-5.**	Less than Significant
Requirement of Installation or Maintenance of Associated Infrastructure	**HAZ-4 and HAZ-5.**	Less than Significant

Chapter 2, Project Description

In Section 2.4.1.1, WRCRWA Booster Pump Station, the following clarification has been added.

> This source of supply project would replace the existing booster pump station that completes the transmission system loop between the existing WRCRWA Plant at 14634 River Road in the City of Eastvale and existing WRF1 Tank and would provide reclaimed water to the 833 Subzone. Final design would meet the requirements of the agreement between the WRCRWA and the City, which includes delivery of 2.4 million gallons per day of reclaimed water. This project was evaluated in the 2010 Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project Environmental Impact Report.

Section 3.4, Biological Resources

In Section 3.4.2.3, Local, the following text has been included in the Western Riverside County Multiple Species Habitat Conservation Plan subsection.

> Within the Western Riverside County MSHCP Plan Area, the City is within the Eastvale Area Plan and the Temescal Canyon Area Plan.
>
> The Western Riverside County MSHCP area plans are organized into the following components:

- **Criteria Areas:** Areas within Western Riverside County in which land can be acquired for the MSHCP.
- **Core Areas:** Large habitats within the reserve that have the resources to support the species covered under the MSHCP. Existing areas consist of conserved land, such as national forests, wildlife refuges, and wilderness area. Proposed Core Areas will be assembled from the land acquired within the Criteria Area. Noncontiguous Criteria Cells are connected by Linkages. Additional reserve lands will come from these areas.
- **Linkages:** Land bridges between two Core Areas are called Linkages. These narrower strips of land allow wildlife to travel between conserved habitat.
- **Criteria Cells:** Series of grids used to organize and track development and conservation within the Criteria Area.

In combination, these components are intended to result in a MSHCP Conservation Area configuration that provides significant blocks of habitat, minimizes internal fragmentation and edge effects, and maximizes the ratio of surface area to perimeter.

In Section 3.4.4.1, Threshold 1: Sensitive Plant Species, the following clarification has been added.

> Sensitive plant species have been documented in the water service area. Implementation of the projects included in the 2018 RWMP in developed/disturbed land would not impact sensitive plant species. Although the likelihood is low, implementation of some projects included in the 2018 RWMP in undeveloped areas have the potential to impact sensitive plant species. The WRCRWA Booster Pump Station, WRCRWA Transmission Pipeline, WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects are proposed on undeveloped sites that may contain sensitive plant species. The WRCRWA Booster Pump Station and WRCRWA Transmission Pipeline projects were previously evaluated under CEQA in the 2010 Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project EIR (WRCRWA 2010) and the 2016 Proposition 1 IS/MND (City of Corona 2016), respectively. No further analysis of these projects is required or provided in this PEIR. The WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites contain non-native grassland habitat that could support sensitive plant species. Impacts to non-native grassland habitat that could support sensitive plant species on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites would be potentially significant.

In Section 3.4.4.1, Threshold 1: Sensitive Plant Species, the following text has been included in the Mitigation Measures subsection.

> The mitigation measures in this section were clarified following consultation with the Western Riverside County Regional Conservation Authority and in response to public comments

received during the 2018 RWMP PEIR public review period. Mitigation Measure BIO-1 was renamed and refined to more accurately describe the Western Riverside County MSHCP Consistency Analysis Report process and components. Mitigation Measure BIO-1, Multiple Species Habitat Conservation Plan Consistency Analysis Report, includes requirements for identifying the presence of sensitive plant and animal species, including burrowing owl (*Athene cunicularia*), and potential sensitive habitats. It was determined that Mitigation Measure BIO-1 would mitigate for potential impacts to sensitive plant species, sensitive habitats, and burrowing owl. Separate mitigation measures were previously included to address potential impacts to sensitive plant species (previous Mitigation Measure BIO-1), sensitive habitat (previous Mitigation Measures BIO-2 and BIO-3), and burrowing owl (previous Mitigation Measure BIO-8). Consistent with CEQA Guidelines, Section 15088.5(b), and following consultation with the Western Riverside County Regional Conservation Authority, these separate mitigation measures were determined not to be necessary because they are included in the requirements of Mitigation Measure BIO-1 and, therefore, have been removed. These mitigation refinements resulted in removing previous Mitigation Measures BIO-2, BIO-3, BIO-8, and BIO-11; renaming and refining Mitigation Measure BIO-1; and renumbering the remaining mitigation measures. Additional language was added to clarify Mitigation Measures BIO-8 and BIO-9 (previously Mitigation Measures BIO-12 and BIO-13) by including the applicable requirements for jurisdictional aquatic resources identification under Mitigation Measure BIO-1, Multiple Species Habitat Conservation Plan Consistency Analysis Report. The equivalent mitigation measures in the Biological Resources Technical Report (included as Appendix C) were revised to be consistent with the clarifications made in this PEIR section.

In Section 3.4.4.1, Threshold 1: Sensitive Plant Species, the following text and Mitigation Measure BIO-1 have been revised as follows in the Survey Requirements subsection.

Implementation of Mitigation Measure BIO-1, Multiple Species Habitat Conservation Plan Consistency Analysis Report, would ~~require~~ include identification of sensitive plant species and potential surveys for projects including the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline ~~project sites~~. If sensitive plant species are identified on the project site during implementation of Mitigation Measure BIO-1, potential impacts shall be documented consistent with the MSHCP requirements, including conservation easements for avoidance areas and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures.

BIO-1: **Multiple Species Habitat Conservation Plan Consistency Analysis Report** ~~**Sensitive Plant Species Surveys**~~**.** For projects proposed in the City of Corona 2018 Reclaimed Water Master Plan on undeveloped land, including the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline, a Western Riverside Multiple Species Habitat Conservation

Plan Consistency Analysis Report site-specific biological resources survey shall be completed during the project design phase. The Consistency Analysis Report shall be prepared for each project to demonstrate consistency with the Multiple Species Habitat Conservation Plan Implementation Structure and shall include project-level existing conditions documentation consisting of vegetation mapping and identification of sensitive habitats (non-native grassland, riparian and riverine areas, and vernal pools), plants, and animals (including burrowing owl [*Athene cunicularia*]) on the project site.

The Consistency Analysis Report shall be used as the basis for determining if a project is subject to a Joint Project Review and is required to complete a Joint Project Review Application. The Multiple Species Habitat Conservation Plan Consistency Analysis Report template and requirements can be accessed on the Western Riverside County Regional Conservation Authority Document Library: https://www.wrc-rca.org/document-library/. The Western Riverside County Multiple Species Habitat Conservation Plan Permittee Implementation Guidance Manual (2007) shall also be reviewed and followed to ensure project consistency with the Multiple Species Habitat Conservation Plan requirements.

~~If one or more sensitive plant species has the potential to occur on the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, focused species surveys shall be conducted before construction to determine the presence and absence of these species to adequately evaluate potential direct or indirect impacts to these species.~~

~~Sensitive plant species surveys shall be conducted by a qualified biologist retained by the City of Corona during the appropriate season to detect the species as part of the project design phase. Surveys shall be floristic in nature and include lists of the plants identified in the survey area. Surveys shall be conducted on foot, employing a level of effort sufficient to provide comprehensive coverage. The locations and prevalence (estimated total numbers and percent cover, as applicable) of sensitive plants shall be recorded. The sensitive plant species surveys shall be valid for 3 years.~~

~~If site-specific surveys are not required because a survey was conducted within the last 3 years, impact assessment and minimization and mitigation requirements shall be based on the most recent available survey. These requirements shall also include an analysis of the potential for sensitive plant species to occur on site based on existing site conditions and shall be consistent with the most recent U.S. Fish and Wildlife Service and California Department of Fish and Wildlife survey protocols.~~

~~If sensitive plant species are observed, they shall be avoided if possible. If species cannot be avoided, impacts shall be mitigated through conservation of habitat that supports the impacted species in accordance with Mitigation Measures BIO-2 and BIO-3.~~

In Section 3.4.4.1, Threshold 1: Sensitive Plant Species, the following text has been revised as follows in the Habitat Mitigation Requirements subsection under Permanent Impacts, and Mitigation Measure BIO-2 has been removed.

If a project site is identified as occupied or potentially occupied habitat for sensitive plant or animal species during preparation of the MSHCP Consistency Analysis Report (Mitigation Measure BIO-1), potential impacts shall be documented consistent with the MSHCP requirements, including project-level vegetation mapping, adherence to narrow endemic plant species protection policies, conservation easements for avoidance areas, and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures. ~~Implementation of Mitigation Measure BIO-2 would reduce permanent impacts to non-native grassland that could support sensitive plant species on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites to less than significant.~~

~~**BIO-2: Permanent Impacts to Non-Native Grassland.** Permanent impacts to sensitive non-native grassland shall be mitigated through the preservation of habitat, habitat creation, or enhancement, or combination thereof, in the City of Corona or off site through habitat acquisition and preservation or purchase of credits from an approved conservation bank. Mitigation for impacts to non-native grassland shall be in-kind using native grasses. Permanent impacts to sensitive non-native grassland shall be mitigated at a ratio of 0.5:1.~~

~~For on-site mitigation, a detailed Mitigation Plan shall be prepared before the start of construction (not applicable to mitigation met through the purchase of credits from an approved wetland mitigation bank). The Mitigation Plan shall include at a minimum the proposed location of the mitigation areas, site preparation, a plant palette, installation procedures, success criteria, fencing and signage, monitoring requirements, and other details of the habitat restoration effort and shall be prepared by a qualified biologist.~~

In Section 3.4.4.1, Threshold 1: Sensitive Plant Species, the following text has been revised as follows in the Habitat Mitigation Requirements subsection under Temporary Impacts, and Mitigation Measure BIO-3 has been removed.

If a project site is identified as occupied or potentially occupied habitat for sensitive plant or animal species during preparation of the Western Riverside County MSHCP Consistency Analysis Report (Mitigation Measure BIO-1), potential impacts shall be documented consistent with the MSHCP requirements, including project-level vegetation mapping,

adherence to narrow endemic plant species protection policies, conservation easements for avoidance areas, and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures. ~~Implementation of Mitigation Measure BIO-3 would reduce temporary impacts to non-native grassland that could support sensitive plant species to less than significant.~~

~~**BIO-3: Temporary Impacts to Non-Native Grassland.** Temporary impacts to non-native grassland shall be restored in place or elsewhere on the project site at a 1:1 replacement ratio using native grass species.~~

~~A Revegetation Plan shall be prepared. The Revegetation Plan shall include site preparation specifications, a plant palette, installation procedures, development of reasonable success criteria, appropriate monitoring and reporting protocols, implementation timelines, and contingency measures in the event of restoration failure. The City of Corona shall provide guidance for and oversight of the Revegetation Plan and implementation.~~

~~In the event that non-native grassland vegetation cannot be restored in place or elsewhere on the project site after construction, these impacts would be considered permanent, and Mitigation Measure BIO-2 would be implemented.~~

~~The 0.5:1 permanent impacts and 1:1 temporary impacts mitigation ratios for the project would follow the accepted ratios established by the Western Riverside County Multiple Species Habitat Conservation Plan to reduce potentially significant impacts to sensitive vegetation communities to less than significant.~~

In Section 3.4.4.1, Threshold 1: Sensitive Plant Species, the following text has been revised as follows in the Construction subsection, and Mitigation Measures BIO-4, BIO-5, BIO-6, and BIO-7 have been renumbered.

Implementation of Mitigation Measures BIO-2~~4~~, BIO-3~~5~~, BIO-4~~6~~, and BIO-5~~7~~ would minimize construction impacts to sensitive plant species, including the spread of invasive non-native plant species, during the implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects.

BIO-2~~4~~: Invasive Plant Species Prevention. During construction of the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects, the following measures shall be implemented to minimize the spread of invasive plant species:

- Construction equipment shall be cleaned before coming to the project sites.
- Weed-free straw wattles shall be used for erosion control.

BIO-3~~5~~: **Flagging and Fencing.** If sensitive biological resources are identified on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, the construction limits shall be clearly identified on construction drawings and flagged on the project sites to ensure impacts to sensitive biological resources are avoided or minimized to the extent feasible. Before implementing construction activities, a qualified biologist shall verify that the flagging clearly delineates the construction limits and sensitive resources to be avoided.

BIO-4~~6~~: **Contractor Training Program.** If sensitive biological resources are known to occur on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a project-specific contractor training program shall be developed and implemented to educate project contractors on the sensitive biological resources on and adjacent to the project sites and measures being implemented to avoid or minimize impacts to these species. A qualified biologist shall develop and implement the contractor training program.

BIO-5~~7~~: **Biological Monitor.** If sensitive biological resources are present on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, and impacts may occur from implementation of construction activities, a qualified biological monitor may be required during all or a portion of the construction activities to ensure impacts to the sensitive biological resources are avoided or minimized to the extent feasible. The specific biological monitoring requirements shall be evaluated on a project-by-project basis. The qualified biological monitor shall be approved by the City of Corona based on applicable experience with the sensitive biological resources that may be impacted.

In Section 3.4.4.1, Threshold 1: Sensitive Plant Species, the following text has been revised as follows in the Level of Significance After Mitigation subsection.

With implementation of Mitigation Measures BIO-1 through BIO-5~~7~~, impacts to sensitive plant species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS from implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would be reduced to a less than significant level.

In Section 3.4.4.2, Threshold 2: Sensitive Animal Species, the following text has been revised as follows in the Mitigation Measures subsection under Burrowing Owl, and Mitigation Measure BIO-8 has been removed.

Implementation of Mitigation Measure BIO-1~~8~~, Multiple Species Habitat Conservation Plan Consistency Analysis Report, would require burrowing owl habitat analysis and potential focused ~~clearance~~ surveys on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites to reduce potential impacts to burrowing owl to less than significant. If burrowing owl is identified on the project site during implementation of Mitigation Measure BIO-1, potential impacts shall be documented consistent with the MSHCP requirements, including preparation of a Determination of Biological Equivalent or Superior Preservation Report to ensure that an appropriate mitigation strategy would be implemented, preparation of a Burrowing Owl Protection and Relocation Plan, and coordination with the Western Riverside County Regional Conservation Authority and CDFW prior to implementation of proposed mitigation measures.

~~**BIO-8: Burrowing Owl Surveys.** A burrowing owl clearance survey shall be conducted before any ground-disturbing activities in accordance with the California Department of Fish and Wildlife 2012 Staff Report on Burrowing Owl Mitigation. Two preconstruction clearance surveys shall be conducted 14–30 days and 24 hours before ground-disturbing activities to document the continued absence of burrowing owl from the project sites. The burrowing owl surveys shall be valid for 1 year.~~

In Section 3.4.4.2, Threshold 2: Sensitive Animal Species, the following text has been revised as follows in the Mitigation Measures subsection under Nesting Birds, and Mitigation Measure BIO-9 has been renumbered.

Implementation of Mitigation Measure BIO-6~~9~~ would reduce potential impacts to nesting birds protected by the CFG Code and MBTA to less than significant.

BIO-6~~9~~: Preconstruction Nesting Bird Surveys. To the extent feasible, grubbing, trimming, or clearing of vegetation from project sites shall not occur during the general bird nesting season (January 15 through September 15). If grubbing, trimming, or clearing of vegetation cannot feasibly occur outside of the general bird nesting season, a qualified biologist shall perform a preconstruction nesting bird survey at project sites with vegetation supporting nesting birds. Nesting bird surveys shall occur within ~~10~~7 days before the start of vegetation clearing or grubbing to determine if active bird nests are present. If no active bird nests are identified on the project sites or within a 300-foot buffer of the project sites, no further mitigation is necessary. If active nests of bird species covered by the Migratory Bird Treaty Act are detected on the project site during the ~~10~~7-day preconstruction survey, construction activities should stay outside of a 300-foot buffer around the active nest. For raptor species, this buffer is expanded to 500 feet. It is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to

monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged, and a qualified biologist has determined the nest is inactive, normal construction activities can occur.

In Section 3.4.4.2, Threshold 2: Sensitive Animal Species, the following text has been revised as follows in the Mitigation Measures subsection under Construction Lighting, and Mitigation Measure BIO-10 has been renumbered.

Construction is expected is occur primarily during the daylight hours. However, if night work is needed near sensitive biological resources, implementation of Mitigation Measure BIO-7~~10~~ shall be implemented at the project sites to reduce potential nighttime lighting impacts to sensitive animal species to less than significant.

BIO-7~~10~~: Night Lighting. If temporary night lighting is necessary during construction adjacent to sensitive vegetation communities, construction contractors shall ensure lights are directed away from sensitive vegetation communities and shielded to minimize temporary lighting of the surrounding habitat and should be of the lowest illumination necessary for human safety.

In Section 3.4.4.2, Threshold 2: Sensitive Animal Species, the following text has been revised as follows in the Level of Significance After Mitigation subsection.

With implementation of Mitigation Measures BIO-1 and BIO-3~~5~~ through BIO-7~~10~~, impacts to sensitive animal species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS would be reduced to a less than significant level.

In Section 3.4.4.3, Threshold 3: Riparian Habitat or Other Sensitive Natural Community, the following text has been revised as follows in the Impact Analysis subsection under Direct Impacts.

Potentially significant impacts to ~~one~~ sensitive vegetation communities~~y~~, including non-native grassland, could result during the implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline. As described in Mitigation Measure BIO-1~~2~~, a Consistency Analysis Report shall be prepared for each project to demonstrate consistency with the MSHCP Implementation Structure and shall include project-level existing conditions documentation of vegetation mapping and identification of sensitive habitats (non-native grassland, riparian and riverine areas, and vernal pools), plants, and animals (including burrowing owl) on the project site ~~a mitigation ratio of 0.5:1 would be applied following the accepted ratios established by the Western Riverside County MSHCP~~ to reduce potentially significant impacts to sensitive vegetation communities to less than significant~~. Temporary impacts to non-native grassland would be restored in place or elsewhere on the project site at a mitigation ratio of 1:1, as described in Mitigation Measure BIO-3~~.

~~Impacts to non-native grassland totaling less than 0.10 acre per construction phase would not be considered significant and would not require mitigation under CEQA because the small size of the impact would not be considered a substantial adverse effect. Exceptions to the previously described thresholds would be for projects impacting habitat occupied by federally or state-listed endangered or threatened species, which would be considered significant regardless of the acreage impacted.~~

In Section 3.4.4.3, Threshold 3: Riparian Habitat or Other Sensitive Natural Community, the following clarifications to the text have been added.

> Indirect impacts may occur during the construction of the projects included in the 2018 RWMP and post-construction operations. Potential indirect impacts to sensitive vegetation communities from implementation of the project includes decreased water quality (e.g., through sedimentation, contaminants, or fuel release). The majority (25 of 29) of the projects anticipated in the 2018 RWMP would be situated in currently developed (non-sensitive) areas of the water service area. However, the WRCRWA Booster Pump Station, WRCRWA Transmission Pipeline, WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects are planned in non-native grassland habitat. As previously discussed, the WRCRWA Booster Pump Station and WRCRWA Transmission Pipeline projects were previously evaluated under CEQA in the 2010 Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project EIR (WRCRWA 2010) and the 2016 Proposition 1 IS/MND (City of Corona 2016), respectively. No further analysis of these projects is required or provided in this PEIR.

In Section 3.4.4.3, Threshold 3: Riparian Habitat or Other Sensitive Natural Community, the following text has been revised as follows in the Mitigation Measures subsection.

> Implementation of Mitigation Measure BIO-1~~1~~ would minimize impacts to sensitive non-native grassland vegetation associated with the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects through the preparation of an MSHCP Consistency Analysis Report. If a project site is identified as occupied or potentially occupied habitat for sensitive plant or animal species during preparation of the MSHCP Consistency Analysis Report (Mitigation Measure BIO-1), potential impacts shall be documented consistent with the MSHCP requirements, including project-level vegetation mapping, adherence to narrow endemic plant species protection policies, conservation easements for avoidance areas, and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures. ~~Mitigation Measures BIO-2 and BIO-3 would reduce permanent and temporary impacts to non-native grassland to a less than significant level.~~

In Section 3.4.4.3, Threshold 3: Riparian Habitat or Other Sensitive Natural Community, the following text has been revised as follows in the Mitigation Measures subsection under Temporary Impacts, and Mitigation Measure BIO-11 has been removed.

Implementation of Mitigation Measure BIO-~~1~~1 would reduce temporary impacts to non-native grassland to less than significant through the preparation of an MSHCP Consistency Analysis Report.

~~**BIO-11: Biological Resources Survey/Habitat Assessment.** For projects proposed in the 2018 Reclaimed Water Master Plan on undeveloped land, including the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline, a site-specific biological resources survey shall be conducted during the project design phase. The biological resources survey shall be conducted by a qualified biologist and shall include but not be limited to the following:~~

- ~~An analysis of available literature and biological databases, such as the California Natural Diversity Database, to determine sensitive biological resources that have been reported historically from the proposed project vicinity.~~
- ~~A review of current land use and land ownership within the project vicinity.~~
- ~~An assessment and mapping of vegetation communities present within the proposed project vicinity. If vegetation community mapping has not been conducted on the site in the previous 3 years, updated vegetation mapping shall be conducted by a qualified biologist as part of the project planning and environmental review process. Vegetation communities shall be mapped according to the Manual of California Vegetation at the alliance level, and a crosswalk table with Holland vegetation communities shall be provided.~~
- ~~A general assessment of the potential for aquatic resources, including wetlands and riparian habitats, to occur on site.~~
- ~~An evaluation of potential local and regional wildlife movement corridors.~~
- ~~If the project sites support vegetation communities that may provide habitat for plant or animal species, a focused habitat assessment conducted by a qualified biologist to determine the potential for sensitive plant or animal species to occur on or adjacent to the project sites.~~

~~The results of the biological survey shall be presented in a biological survey letter report.~~

In Section 3.4.4.3, Threshold 3: Riparian Habitat or Other Sensitive Natural Community, the following text has been revised as follows in the Level of Significance After Mitigation subsection.

With implementation of Mitigation Measure~~s BIO-2, BIO-3, and~~ BIO-~~1~~1, impacts to sensitive natural communities would be reduced to a less than significant level.

In Section 3.4.4.4, Threshold 4: Jurisdictional Aquatic Resources, the following text has been revised as follows in the Impact Analysis subsection.

> The WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline are proposed on undeveloped land that could support jurisdictional aquatic resources, although unlikely. During implementation of Mitigation Measure BIO-1~~1~~, if the potential for jurisdictional aquatic resources to occur on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites is identified, impacts to state or federally protected jurisdictional aquatic resources could occur through direct removal, filling, hydrological interruption, or other means. Impacts to jurisdictional aquatic resources could be considered significant under CEQA depending on the type of aquatic resource and the extent of the proposed impact.

In Section 3.4.4.4, Threshold 4: Jurisdictional Aquatic Resources, the following text has been revised as follows in the Mitigation Measures subsection, and Mitigation Measures BIO-12 and BIO-13 have been revised and renumbered.

> In the event that jurisdictional aquatic resources are identified during implementation of Mitigation Measure BIO-1~~1~~, Mitigation Measures BIO-8~~12~~ and BIO-9~~13~~ shall be implemented.
>
> **BIO-8~~12~~: Aquatic Resources Delineation.** If sensitive aquatic resources are identified on the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a qualified biologist shall conduct an aquatic resources delineation following the methods outlined in the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the U.S. Army Corps of Engineers Wetland Delineation Manual: Arid West Region to map the extent of wetlands and non-wetland waters, determine jurisdiction, and assess potential impacts. The results of the delineation shall be presented in an Aquatic Resources Delineation Report and shall be incorporated into the California Environmental Quality Act documents required for approval and permitting of the proposed project. The Aquatic Resources Delineation Report shall be included as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1).
>
> **BIO-9~~13~~: Aquatic Resources Permitting and Multiple Species Habitat Conservation Plan Consistency.** If the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would impact sensitive aquatic resources, permits and authorizations shall be obtained from the U.S. Army Corps Engineers, California Department of Fish and Wildlife, or Regional Water Quality Control Board. The regulatory agency

authorizations would include impact avoidance and minimization measures and mitigation measures for unavoidable impacts. Specific avoidance, minimization, and mitigation measures for impacts to jurisdictional resources shall be determined through discussions with the regulatory agencies during the proposed project permitting process and may include monetary contributions to a mitigation bank or habitat creation, restoration, or enhancement.

In addition, consistent with the Western Riverside Multiple Species Habitat Conservation Plan and as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1), a Determination of Biologically Equivalent or Superior Preservation Report shall be prepared to identify mitigation that demonstrates equivalent or superior function and value, including re-establishment, establishment, and/or permanent conservation of aquatic resources, as feasible. The Determination of Biologically Equivalent or Superior Preservation Report shall be included as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1).

In Section 3.4.4.4, Threshold 4: Jurisdictional Aquatic Resources, the following text has been revised as follows in the Level of Significance After Mitigation subsection.

With implementation of Mitigation Measures BIO-1, BIO-8~~12~~, and BIO-9~~13~~, impacts to state- or federally protected aquatic resources through direct removal, filling, hydrological interruption, or other means would be reduced to a less than significant level.

In Section 3.4.4.6, Threshold 6: Local Policies and Ordinances, the following text has been revised as follows in the Impact Analysis subsection.

As discussed in Sections 3.4.4.1 through Sections 3.4.4.4, the projects' potential impacts to sensitive plants, animals, and vegetation communities would be less than significant with incorporation of Mitigation Measures BIO-1 through BIO-9~~11~~. Therefore, the projects included in the 2018 RWMP would comply with the City of Corona 2020–2040 General Plan Goal ER-6 and Policies ER-6.1 through ER-6.5 regarding protection of plant and animal species and sensitive vegetation communities in the City and its Planning Area.

In Section 3.4.4.7, Threshold 7: Regional Conservation Planning, the following text has been revised as follows in the Impact Analysis subsection.

The WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites are not within Western Riverside County MSHCP Criteria Areas, Core or Linkage Areas, Criteria Cells, or MSHCP-designated conserved lands (Figures 3-1 through 3-3, County of Riverside 2003). Therefore, implementation of these projects would be consistent with the

Western Riverside County MSHCP and would not result in impacts to the Western Riverside County MSHCP conservation and preservation goals. These projects would be required to implement Mitigation Measure BIO-1 to prepare an MSHCP Consistency Analysis Report once project design is available. At this time, it is not anticipated that these projects would require submittal of a Regional Conservation Authority Joint Project Review Application due to their anticipated location outside of Western Riverside County MSHCP Criteria Areas, Core or Linkage Areas, Criteria Cells, or MSHCP-designated conserved lands.

~~The avoidance, minimization, and mitigation measures proposed in Sections 6.1.1 through 6.1.4 would reduce potentially significant impacts to sensitive plant and animal species, sensitive vegetation communities, and jurisdictional aquatic resources to a less than significant level. Because the projects would not contribute to the loss of sensitive vegetation or sensitive species, the project would comply with the Western Riverside County MSHCP. Therefore, before~~ Prior to the implementation of the avoidance, minimization, and mitigation measures proposed to reduce potentially significant impacts to sensitive plant and animal species, sensitive vegetation communities, and jurisdictional aquatic resources as detailed in Section 3.4.4.4, potentially significant impacts would occur from conflicts with Western Riverside County MSHCP and other regional conservation plans and mitigation would be required.

In Section 3.4.4.7, Threshold 7: Regional Conservation Planning, the following text has been revised as follows in the Level of Significance After Mitigation subsection.

Before implementation of Mitigation Measures BIO-1 through BIO-9~~13~~, the projects' potentially significant impacts to biological resources would result in conflicts with the Western Riverside County MSHCP and other regional conservation plans and would be potentially significant.

In Section 3.4.4.7, Threshold 7: Regional Conservation Planning, the following text has been revised as follows in the Mitigation Measures subsection.

Mitigation Measures BIO-1 through BIO-9~~13~~ would reduce potentially significant impacts to biological resources to a less than significant level and avoid conflicts with the Western Riverside County MSHCP or other regional conservation plans.

In Section 3.4.4.7, Threshold 7: Regional Conservation Planning, the following text has been revised as follows in the Level of Significance After Mitigation subsection.

With implementation of Mitigation Measures BIO-1 through BIO-9~~13~~, impacts from conflicts with the Western Riverside County MSHCP or other regional conservation plans would be less than significant.

In Section 3.4.5.1, Cumulative Threshold 1: Sensitive Plant Species, the following text has been revised.

The geographic context for the analysis of cumulative impacts to sensitive plant species is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would result in a substantial adverse impact on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS. All projects, including the 2018 RWMP, approved in the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for impacts to sensitive plant species as appropriate. As analyzed in Section 3.4.4.1, potentially significant project-level impacts to sensitive plant species would be reduced to a less than significant level with implementation of Mitigation Measures BIO-1 through BIO-5~~7~~. Since cumulative projects and the 2018 RWMP would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements, and project-specific mitigation measures would be implemented to reduce the project's impacts to sensitive plant species to below a level of significance, the project's contribution would not be cumulatively considerable.

In Section 3.4.5.2, Cumulative Threshold 2: Sensitive Animal Species, the following text has been revised.

The geographic context for the analysis of cumulative impacts to sensitive animal species is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would result in a substantial adverse impact on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for impacts to sensitive animal species as appropriate. The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements. As analyzed in Section 3.4.4.2, potentially significant project-level impacts to burrowing owl and nesting birds would be reduced to a less than significant level with implementation of Mitigation Measures BIO-1~~5~~ through BIO-7~~10~~. Therefore, the project's contribution would not be cumulatively considerable.

In Section 3.4.5.3, Cumulative Threshold 3: Riparian Habitat or Other Sensitive Natural Community, the following text has been revised.

The geographic context for the analysis of cumulative impacts to riparian habitat or other sensitive natural communities is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would have a

substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for impacts to riparian habitat and sensitive vegetation communities as appropriate. The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements. As analyzed in Section 3.4.4.3, potentially significant project-level impacts to non-native grassland habitat would be reduced to a less than significant level with implementation of Mitigation Measure~~s BIO-2, BIO-3, and~~ BIO-1~~1~~. Therefore, the project's contribution would not be cumulatively considerable.

In Section 3.4.5.4, Cumulative Threshold 4: Jurisdictional Aquatic Resources, the following text has been revised.

The geographic context for the analysis of cumulative impacts to jurisdictional aquatic resources is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would have a substantial adverse impact on a state or federally protected wetland through direct removal, filling, hydrological interruption, or other means. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for impacts to jurisdictional aquatic resources as appropriate. The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements and implement project-specific mitigation measures to reduce significant impacts. As analyzed in Section 3.4.4.4, potentially significant project-level impacts to jurisdictional aquatic resources would be reduced to a less than significant level with implementation of Mitigation Measures BIO-1~~1~~, BIO-8<u>1</u>~~2~~, and BIO-9<u>1</u>~~3~~. Therefore, the project's contribution would not be cumulatively considerable.

In Section 3.4.5.6, Cumulative Threshold 6: Local Policies and Ordinances, the following text has been revised.

The geographic context for the analysis of cumulative impacts to local policies and ordinances is the City. A significant cumulative impact would occur if, in combination, cumulative projects would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the

Western Riverside County MSHCP and to provide mitigation for conflicts with local policies and ordinances as appropriate. As analyzed in Section 3.4.4.6, with implementation of Mitigation Measures BIO-1 through BIO-9~~13~~, the 2018 RWMP would have a less than significant impact from conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. No project-specific mitigation would be required. Therefore, the project's contribution would not be cumulatively considerable.

In Section 3.4.5.7, Cumulative Threshold 7: Regional Conservation Planning, the following text has been revised.

The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements and provide mitigation for significant impacts as appropriate. Consistency with regional conservation plans and mitigation measures, as appropriate, must be demonstrated in order for the project and other cumulative projects to be approved. Mitigation Measures BIO-1 through BIO-9~~13~~ would reduce project-level direct and indirect impacts on sensitive plants and animals, nesting birds, sensitive vegetation communities, and jurisdictional aquatic resources. Implementation of these mitigation measures would reduce project-level impacts and ensure the project would not contribute to cumulatively significant impacts from conflicts with regional conservation planning. The project would comply with the Western Riverside County MSHCP and would not contribute to loss of sensitive vegetation communities or sensitive species. Therefore, the project's contribution would not be cumulatively considerable.

In Section 3.4.6, Conclusion, the following text has been revised.

Implementation of Mitigation Measures BIO-1 through BIO-5~~7~~ would reduce potentially significant direct and indirect impacts to sensitive plant species on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites. These mitigation measures would require preconstruction sensitive plant species surveys, mitigation ~~ratios~~ for permanent and temporary impacts to non-native grassland that could support sensitive plant species, and prevention of the spread of invasive plant species during construction. General construction mitigation measures, including flagging and fencing, a contractor training program, and a biological monitor, shall be implemented for the projects included in the 2018 RWMP to minimize potential impacts to sensitive plant species.

Implementation of Mitigation Measures BIO-1~~5~~ through BIO-7~~10~~ would reduce potentially significant impacts to sensitive animal species at the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites. General construction mitigation measures (Mitigation Measures BIO-3~~5~~ through BIO-5~~7~~), including flagging and fencing, a contractor training program, and a biological monitor, shall also be implemented for the projects included in the 2018 RWMP to minimize potential impacts to sensitive animal species.

Potentially significant impacts to non-native grassland that could support burrowing owl would be mitigated by requiring burrowing owl habitat analysis and potential focused ~~clearance~~ surveys at the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites (Mitigation Measure BIO-1~~8~~). Implementation of Mitigation Measure BIO-6~~9~~ would reduce potentially significant impacts to nesting birds by conducting nesting bird surveys before construction of the projects included in the 2018 RWMP if construction activities occur during the general bird nesting season (January 15 through September 15). Potentially significant impacts to sensitive animal species from nighttime lighting during construction would be minimized with Mitigation Measure BIO-7~~10~~ on the project sites.

Implementation of Mitigation Measure~~s BIO-2, BIO-3,~~ and BIO-1~~1~~ would reduce potentially significant impacts to the non-native grassland sensitive vegetation community on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites. If a project site is identified as occupied or potentially occupied habitat for sensitive plant or animal species during preparation of the MSHCP Consistency Analysis Report (Mitigation Measure BIO-1), potential impacts shall be documented consistent with the MSHCP requirements, including project-level vegetation mapping, adherence to narrow endemic plant species protection policies, conservation easements for avoidance areas, and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures. ~~Mitigation Measures BIO-2 and BIO-3 would implement mitigation and replacement ratios for permanent and temporary impacts to non-native grassland.~~ Mitigation Measure BIO-1~~1~~ would require habitat assessments, including vegetation mapping, to be conducted before construction of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects.

Implementation of Mitigation Measures BIO-1, BIO-8~~12,~~ and BIO-9~~13~~ would reduce potentially significant impacts to jurisdictional aquatic resources if identified on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites during ~~preconstruction~~ habitat assessments as part of the MSHCP Consistency Analysis Report (Mitigation Measure BIO-1~~1~~). If jurisdictional aquatic resources are identified, aquatic resources delineations (Mitigation Measure BIO-8~~12~~) and permitting and MSHCP consistency analysis (Mitigation Measures BIO-1 and BIO-9~~13~~) would be conducted before construction of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline.

With implementation of Mitigation Measures BIO-1 through BIO-9, impacts from conflicts with the Western Riverside County MSHCP or other local and regional conservation plans would be less than significant.

With implementation of Mitigation Measures BIO-1 through BIO-9~~13~~, direct and indirect impacts to sensitive biological resources from implementation of the projects included in the 2018 RWMP would be reduced to a less than significant level.

Section 3.5, Cultural Resources

In Section 3.5.4.2, Threshold 2: Archaeological Resources, the following text has been revised as follows in response to tribal consultation pursuant to AB 52.

As shown on Figures 3.5-1a through 3.5-1d, much of the water service area has been identified as having a moderate to high sensitivity for cultural resources. Sensitivity is based on previously recorded archaeological findings and has not included ethno-historic or ethno-botanic research to further identify traditional cultural properties/tribal cultural landscapes. As described in Section 3.5.1.4, 96 previously recorded cultural resources are in the water service area. As shown in Table 3.5-4, 13 of the resources are within 100 feet of a project identified in the 2018 RWMP, and an additional 3 resources are intersected by a project identified in the 2018 RWMP.

In Section 3.5.4.2, Threshold 2: Archaeological Resources, the following mitigation measures have been revised as follows in response to tribal consultation pursuant to AB 52.

CUL-2: **Project-Specific Archaeological Survey.** Projects identified in the 2018 Reclaimed Water Master Plan should be reviewed by the City of Corona to determine if a site-specific archaeological survey should be conducted. Site-specific archaeological surveys should be conducted for individual projects identified in the 2018 Reclaimed Water Master Plan that are in areas that have not been previously developed or would impact land with visible ground surface, or projects that may impact built environment resources that meet the age threshold for eligibility. A Native American monitor shall be on site during site-specific archaeological surveys.

If cultural resources are identified during the site-specific archaeological survey, then evaluation of the resources for the California Register of Historical Resources and the Corona Register should be conducted in conjunction with the Native American monitor to determine if the resource is significant under the California Environmental Quality Act and would be adversely impacted by the project. A Native American monitor from a culturally affiliated tribe should be present during any archaeological excavations involving prehistoric cultural resources. If no significant resources are found, and site conditions are such that there is no potential for further discoveries, then no further action is required. Resources found to be non-significant as a result of a survey and evaluation shall require no further work

beyond documentation of the resources on the appropriate Department of Parks and Recreation site forms and inclusion of results in a technical report.

If significant resources are present, consulting tribes or bands should be notified and consulted with on treatment. ~~then a~~ Avoidance, preservation in place, or a data recovery program is recommended. The data recovery program is subject to the provisions outlined in California Public Resources Code, Section 21083.2. The data recovery program should be conducted in accordance with the Office of Historic Preservation's Archaeological Resource Management Reports: Recommended Contents and Format and Guidelines for Archaeological Research Designs. The data recovery program must be reviewed and approved by the City.

If no significant resources are found, but if there is a potential for unknown archaeological resources, or tribal cultural resources to be uncovered during construction activities, then implementation of Mitigation Measure CUL-3 is recommended.

CUL-3: **Archaeological and Native American Monitoring Program.** Because there is always a potential for encountering cultural and tribal cultural resources during excavation, the creation of an archaeological and Native American monitoring program is recommended for projects identified in the 2018 Reclaimed Water Master Plan that would conduct new ground disturbance in areas identified as moderate or high sensitivity for cultural resources, ~~and~~ for project components that are within 100 feet of previously recorded archaeological resources, and for those projects where tribal consultation has identified traditional cultural properties/tribal cultural landscapes. Prior to the commencement of ground-disturbing activities below the road base, the City of Corona, Public Works Department, shall enter into an agreement with the consulting tribes or bands for Native American monitors. The Native American monitor shall be approved by the Gabrieleño Band of Mission Indians – Kizh Nation, Soboba Band of Luiseño Indians, and Rincon Band of Luiseño Indians—the tribes that consulted on the project pursuant to Assembly Bill 52 (consulting tribes or bands). A copy of the executed contract shall be submitted to the City of Corona prior to the issuance of any permit necessary to start a ground-disturbing activity.

The Native American monitor shall be on site during all initial ground-disturbing activities and excavation of each portion of the project site, including clearing, grubbing, tree removals, grading, and trenching. Monitoring will not take place within the imported fill soils in the road base and for potholing above known utility lines. In conjunction with the archaeological monitor, the Native American monitor shall have the authority to temporarily divert, redirect, or halt the ground-disturbing

activities to allow identification, evaluation, and potential recovery of cultural resources. The on-site monitoring shall end when all ground-disturbing activities on the project site are completed or when the tribal representatives and Native American monitor have indicated that all upcoming ground-disturbing activities on the project site have little to no potential for impacting cultural or tribal cultural resources. Upon discovery of any tribal cultural resources, construction activities shall cease in the immediate vicinity of the find (not less than the surrounding 100 feet) until the find can be assessed. All tribal cultural resources unearthed by project activities shall be evaluated by the qualified archaeologist and Native American monitor approved by the consulting tribe or band. If the resources are Native American in origin, the consulting tribe or band shall retain it/them in the form and/or manner the consulting tribe or band deems appropriate for educational, cultural, and/or historic purposes.

If a non-Native American resource is determined by the qualified archaeologist to constitute a "historical resource" or "unique archaeological resource," time allotment and funding sufficient to allow for implementation of avoidance measures or appropriate mitigation must be available. The treatment plan established for the resources shall be in accordance with the California Environmental Quality Act Guidelines, Section 15064.5(f), for historical resources and California Public Resources Code, Sections 21083.2(b), for unique archaeological resources.

Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the historic archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.

The City of Corona, Public Works Department, shall obtain a fully executed agreement(s) with the consulting tribes or bands to ensure compliance with this mitigation measure. This agreement shall not modify any condition of approval or mitigation measure. ~~The archaeological and Native American monitoring program shall consist of the full-time presence of a qualified archaeologist and traditionally and culturally affiliated Native American monitor during new ground-disturbing~~

~~activities. New ground disturbance can include new trenching or expanding previously excavated trenches, grading, and vegetation removal. The archaeological and Native American monitoring program should include the following:~~

1. ~~Noting archaeological and Native American monitoring on applicable construction documents, including plans, shall be required.~~
2. ~~The archaeologist and Native American monitor should attend the preconstruction meeting with the contractor or the City of Corona.~~
3. ~~The archaeologist shall maintain ongoing collaborative consultation with the Native American monitor during ground-disturbing or altering activities as identified above.~~

The City of Corona, Public Works Department, and the consulting tribes or bands shall develop an Archaeological Monitoring Plan to address details, timing, and responsibilities of all archaeological activities that will occur on the project site when it is determined by either the City of Corona, Public Works Department, or the consulting tribes or bands to be necessary. The Archaeological Monitoring Plan shall include the following:

1. The development of a schedule in coordination with the City of Corona, Public Works Department, the project archaeologist, and the consulting tribes or bands for Native American and archaeological monitoring during ground-disturbing activities on the site, including the scheduling, safety requirements, duties, scope of work, and Native American monitor's authority to stop and redirect grading activities in coordination with all project archaeologists.
2. The protocols and stipulations that the City of Corona, Public Works Department, the consulting tribes or bands, and project archaeologist would follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resource evaluation. Such procedures include the following:
    a. The archaeologist or Native American monitor may halt ground-disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground-disturbing activities shall be directed away from these deposits for a short time to allow for identification, evaluation, and potential recovery of cultural resources ~~a determination of potential significance, the subject of which shall be determined~~ by the archaeologist and the Native American monitor. Ground-disturbing activities shall not resume until the archaeologist, in consultation with the Native American monitor and the City of Corona, deems the cultural resource or feature has been appropriately documented and protected.

b. All discovered resources shall be temporarily curated in a secure location on site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with Native American monitor oversight of the process.

c. The City of Corona, Public Works Department, shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains, as part of the required mitigation for impacts to cultural resources. The City of Corona, Public Works Department, shall relinquish the artifacts through one or more of the following methods and provide the consulting tribes or bands with evidence of the same:

   i. Accommodate the process for on-site reburial of the discovered items with the consulting tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloging and basic recordation have been completed.

   ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per Title 36, Part 79, of the Code of Federal Regulations and, therefore, would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility in Riverside County to be accompanied by payment of the fees necessary for permanent curation.

   iii. If more than one Native American tribe or band is involved with the project and cannot come to a consensus on the disposition of cultural materials, the cultural materials shall be curated at the Western Science Center.

d. At the completion of grading, excavation, and ground-disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City of Corona, Public Works Department, documenting monitoring activities conducted by the project archaeologist and Native American monitor within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; and in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced

will be submitted to the consulting tribes or bands, Eastern Information Center, and interested tribes or bands.

4. ~~Archaeological isolates and non-significant materials shall be minimally documented in the field, and ground disturbance shall be allowed to resume.~~
5. ~~The avoidance and protection of discovered unknown and significant cultural resources and/or unique archaeological resources is the preferable mitigation for the proposed project. If avoidance is not feasible, a Data Recovery Plan may be authorized by the City of Corona as the lead agency under the California Environmental Quality Act.~~
6. ~~Before the release of any bonds associated with the construction of the project components, a Monitoring Report or Evaluation Report that describes the results, analysis, and conclusions of the archaeological and Native American monitoring program (including but not limited to a data recovery program) shall be submitted by the archaeologist, along with the Native American monitor's notes and comments, to the City of Corona for approval.~~

In Section 3.4.5.3, Threshold 3: Human Remains, the following mitigation measure has been revised as follows in response to tribal consultation pursuant to AB 52.

CUL-4: **Identification and Treatment of Human Remains**. In the event that human remains, ~~or~~ possible human remains, and/or grave goods are encountered during any work associated with the projects identified in the 2018 Reclaimed Water Master Plan, ground disturbance within ~~25~~ 100 feet of the remains shall immediately halt. The project proponent shall then immediately inform the Riverside County Coroner and the City of Corona, Public Works Department, and the County Coroner shall be permitted to examine the remains as required by California Health and Safety Code, Section 7050.5(b). Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains until the County Coroner can determine whether the remains are those of a Native American. If human remains are determined to be of Native American origin, the applicant shall comply with the state relating to the disposition of Native American burials that fall within the jurisdiction of the California Native American Heritage Commission (California Public Resources Code, Section 5097). The County Coroner shall contact the California Native American Heritage Commission to determine the most likely descendant. The most likely descendant shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The disposition of the remains shall be overseen by the most likely descendant to determine the most appropriate means of treating the human remains and any associated grave artifacts. The specific locations of Native

American burials and reburials will be proprietary and not disclosed to the general public. The County Coroner will notify the California Native American Heritage Commission in accordance with California Public Resources Code, Section 5097.98. According to California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052) as determined in consultation between the project proponent and the most likely descendant. ~~and California Environmental Quality Act Guidelines, Section 15064.5(e); California Public Resource Code, Section 5097.98; and California Health and Safety Code, Section 7050.5, should be followed. If Native American remains are discovered, the remains shall be kept in situ (in place) or in a secure location approved by the Native American monitor until the repatriation process can be completed.~~

Section 3.11, Land Use and Planning

Table 3.11-2, Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies, has been revised as follows.

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
Land Use Element	
Policy LU-4.5. Manage the timing of development and allow development to occur only when public infrastructure and services needed to support that development are available, will be provided concurrently, or are committed to be provided within a reasonable time frame.	**Consistent.** The project would expand and improve the City's reclaimed water program and implement system improvements to better serve existing and future City demands.
Policy LU-15.4. Ensure that the City's public buildings, sites, and infrastructure are designed to be compatible in scale, mass, character, and architecture with the district and neighborhood in which they are located and pertinent design and development characteristics specified by this plan.	**Consistent.** The project includes the operation of belowground pipelines and aboveground facilities, including the Chase Tank and Chase Booster Pump Station, WRCRWA Booster Pump Station, and WRCRWA Flow Control Improvements Projects. Upon completion of construction, pipelines would be buried underground, trenches would be backfilled with on-site material, and the surface elevation would be restored to match the original ground surface and pavement elevations. The Chase Booster Pump Station and the WRCRWA Booster Pump Station would include aboveground turbine pumps necessary to deliver reclaimed water from reclamation treatment plants to the reclaimed system, and lift water from lower zones to the higher zones. The WRCRWA Flow Control Improvements would include aboveground flow control valves and flow meters to manage the flow of reclaimed water. These facilities would be colored purple because the City uses purple pipes to distinguish reclaimed water facilities from potable water infrastructure. These facilities would have a low profile and would be relatively small in nature. In addition, the Chase Tank would be partially buried based on the elevations of the project

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
	location. Implementation of Mitigation Measure AES-1 would require the development of a Landscaping Plan, which would require visual screening of aboveground facilities from public views.
Policy LU-16.3. Protect viewsheds by prohibiting the placement of electrical transmission lines, substations, and other types of overhead or at grade heavy infrastructure into public open space or other sensitive areas.	**Consistent.** Project components include water storage tanks, pump stations, and distribution pipelines that are primarily in or adjacent to existing facilities or public ROWs and would not be constructed in public open space or other sensitive areas.
Policy LU-16.5. Require that improvements required to be placed in open space areas (e.g., reservoirs, lighting, and other infrastructure) be designed to minimize the impact on the landscape, avoid obstructing viewsheds, and be shielded to the extent feasible by landscaping, trees, and other natural forms.	**Consistent.** The projects identified in the 2018 RWMP would be confined to existing facilities or easements or in existing ROWs and would be designed to minimize the impact on the landscape and avoid obstructing viewsheds. Distribution pipelines would be buried underground, trenches would be backfilled with on-site material, and surface elevation would be restored to match the original ground surface and pavement elevations. The aboveground facilities would have a low profile and would be relatively small in nature. In addition, the Chase Tank would be partially buried based on the elevations of the project location. Furthermore, implementation of Mitigation Measure AES-1 would require the development of a Landscaping Plan, which would require visual shielding of aboveground facilities to the extent feasible.
Policy LU-23.4. Review proposed projects within the airport influence area of the Corona Municipal Airport for consistency with applicable airport land use compatibility plan policies adopted by the Riverside County Airport Land Use Commission and City of Corona.	**Consistent.** The following projects identified in the 2018 RWMP would be constructed in the Airport Influence Area of the Corona Municipal Airport: Monica, Klug, Citation, Glider, Helicopter, Cessna, Airport Circle, and Jenk small distribution pipelines and the WRCRWA Flow Control Improvements project. These projects would be outside the 60-decibel contour lines and would not be in the Airport Safety Zone.
Historic Resources Element	
Policy HR-1.1. Continue to implement and expand upon, as feasible, the following historic resources management strategies: • A local Corona Historic Register that includes significant "Landmark" properties, "Historic Districts," and "Historical Markers" as prescribed in the Corona Municipal Code. • A Corona Heritage Inventory that includes surveyed properties meeting all of the criteria as prescribed in the Corona Municipal Code to be considered a local historic resource. • Procedures and criteria for determining the eligibility for listing properties on the Corona Historic Register and the Corona Heritage Inventory. • Standards and regulations governing the identification, protection, restoration, maintenance, alteration, relocation, or removal of historic resources.	**Consistent.** As discussed in Section 3.5.4.1, construction that would involve use of vibratory equipment within 40 feet of a historic structure eligible for the NRHP, CRHR, or Corona Register would have the potential to result in damaging vibration levels, which would have the potential to result in a substantial adverse change in a historic resource. Implementation of Mitigation Measure CUL-1 requires that no vibratory equipment be operated within 40 feet of a structure eligible or listed on the NRHP, CRHR, or Corona Register. For structures that have not been previously evaluated, the City Engineer shall consult with a qualified Architectural Historian, approved by the City, to conduct an evaluation of the structure.

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
Policy HR-3.1. Require appropriate treatment/preservation of archaeological collections in a culturally appropriate manner, in accordance with state and federal standards, and in consultation with interested Native American tribes that have traditional cultural affiliation with the project area and/or the resources affected by the project. **Policy HR-3.2.** Require that development proposals incorporate specific measures to identify, protect, and preserve cultural resources in the planning, environmental review, and development process. **Policy HR-3.3.** Archaeological resources found prior to or during construction shall be evaluated by a qualified archaeologist and appropriate mitigation measures applied, pursuant to Section 21083.2 of CEQA, before the resumption of development activities. Any measures applied shall include the preparation of a report meeting professional standards, which shall be submitted to the appropriate CHRIS [California Historical Resources Information System] information center. **Policy HR-3.4.** Any project that involves earth-disturbing activities in an area determined to be archaeologically or culturally sensitive shall require evaluation of the site by a qualified archaeologist. The applicant shall implement the recommendations of the archaeologist, subject to the approval of the City. Planning Department. **Policy HR-3.5.** Any project that involves earth-disturbing activities in an area determined to be archaeologically or culturally sensitive shall require consultation by the applicant with interested federally recognized American Indian Tribe(s) that have a traditional cultural affiliation with the project area and/or the resources affected by the project, for the purposes of determining resources impacts and appropriate mitigation to address such impacts. Applicant shall also arrange for monitoring of earth-disturbing activities by interested federally recognized American Indian Tribe(s) that have a traditional cultural affiliation with the project area and/or the resources affected by the project, if requested. **Policy HR-3.8.** In the event of the discovery of a burial, human bone, or suspected human bone, all excavation or grading in the vicinity of the find shall halt immediately and the area shall be protected and the project applicant immediately shall notify the Riverside County Coroner and comply with provisions of the Health and Safety Code § 7050.5, including PRC § 5097.98, if applicable. If the find is determined to be Native American human remains, the applicant shall consult with the Most Likely Descendent to determine appropriate treatment for such remains.	**Consistent.** As discussed in Section 3.5.4.2, the water service area has been identified as moderate to high for cultural resources and tribal cultural resources. Implementation of Mitigation Measure CUL-2 requires that a site-specific archaeological survey be conducted for the individual projects identified in the 2018 RWMP that are in areas that have not been previously developed, that would impact land with visible ground surface, or that may impact built environment resources that meet the age threshold for eligibility. Implementation of Mitigation Measure CUL-3 requires an archaeological and Native American monitoring program for the projects identified in the 2018 RWMP that would result in ground disturbance in areas identified as moderate or high sensitivity for cultural resources and that are within 100 feet of previously recorded archaeological resources. Finally, implementation of Mitigation Measure CUL-4 would provide for the identification and treatment of human remains if found during construction activities.
Policy HR-3.6. Any project that involves earth-disturbing activities in soil or rock units known or reasonably suspected to be fossil-bearing shall require monitoring by a qualified	**Consistent.** The water service area contains rock formations with varying levels of paleontological sensitivity. Implementation of the project includes the construction of

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
paleontologist retained by the project applicant for the duration of excavation or trenching. **Policy HR-3.7.** Paleontological resources found prior to or during construction shall be evaluated by a qualified paleontologist, and appropriate mitigation measures applied, pursuant to § 21083.2 of CEQA, before the resumption of development activities. Any measures applied shall include the preparation of a report meeting professional standards, which shall be submitted to the Riverside County Museum of Natural History.	distribution pipelines, storage tanks, and pump stations that would result in ground disturbance, including excavation, grading, and backfilling, in known and unknown sensitive areas. Implementation of Mitigation Measure GEO-1, which requires paleontological monitoring during construction, would prevent the harm or destruction of potentially valuable paleontological resources and allow these resources to be properly documented and preserved.
Circulation Element	
Policy CE-1.4. Design and employ traffic control measures to ensure City streets and roads function with safety and efficiency.	**Consistent.** The project is anticipated to generate minimal construction traffic, which would be temporary and would not result in long-term degradation in operating conditions on area roadways or at area intersections. During construction, temporary full or partial lane closures may be necessary, especially for distribution pipeline projects. The full or partial lane closures could result in the redistribution of traffic along adjacent and surrounding roadways. During construction, the City would maintain, to the extent feasible, continuous, unobstructed, safe, and adequate pedestrian and vehicular access to and from public facilities (e.g., public utility stations and community centers). To mitigate this impact, the project would prepare and implement a Construction Traffic Control Plan consistent with Mitigation Measure HAZ-3. Following the installation of the individual projects identified in the 2018 RWMP, affected roadways and driveways would be restored to pre-project conditions. A temporary asphalt material may be installed to allow traffic to use the roadway immediately after construction, followed by a permanent overlay. Once operational, the individual projects would not result in any significant, long-term impacts to the local roadway network.
Policy CE-1.10. Require a traffic analysis to be prepared in accordance with the City's adopted Traffic Impact Study Guidelines and require projects to mitigate impacts on the City's circulation system that exceed the City's adopted service thresholds for near term and future conditions.	**Consistent.** Minimal construction-related traffic and maintenance trips would result from the reclaimed water infrastructure projects; therefore, the project would not result in the need to prepare a traffic analysis or to mitigate impacts to the City's circulation system.
Policy CE-1.12. Consider the effects on transportation systems of public utility improvements, including extensions of underground pipelines and overhead transmission lines and associated utility rights-of-way.	**Consistent.** During construction, temporary full or partial lane closures may be necessary, especially for distribution pipeline projects. The full or partial lane closures could result in the redistribution of traffic along adjacent and surrounding roadways. Depending on the roadways affected, the redistribution of traffic could result in additional delay at one or more roadway segments or intersections. Therefore, project construction-related activities could result in intermittent decrease to the level of service in the local or regional transportation system. The project would prepare and implement a Construction Traffic Control Plan pursuant to Mitigation Measure HAZ-3 to minimize the effect on transportation systems. Following the installation of the individual projects identified in the 2018 RWMP, affected

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
	roadways and driveways would be restored to pre-project conditions. Once operational, the individual projects identified in the 2018 RWMP would not result in effects to the transportation system.
Policy CE-1.13. Ensure that, to the extent possible, all pipelines and electrical transmission lines are placed underground.	**Consistent.** Pipeline projects identified in the 2018 RWMP would be buried underground. Trenches would be backfilled with on-site material, and the surface elevation would be restored to match the original ground surface and pavement surface elevations.
Infrastructure and Utilities Element	
Policy IU-5.8. During construction projects, ensure compliance with all terms and conditions outlined in the NPDES [National Pollutant Discharge Elimination System] permit, including the implementation of the latest best management practices and determination of need for any additional water quality management plans to reduce pollutants and urban runoff flows to the maximum extent practicable.	**Consistent.** Construction of the projects identified in the 2018 RWMP would involve the use of heavy-duty machinery for surface preparation, excavation, surface restoration, and construction of aboveground facilities. Pollutants associated with construction activities that could result in water quality impacts include soils, debris, other materials generated during clearing, fuels and other fluids associated with the equipment used for construction, other hazardous materials, and asphalt materials. The project would employ BMPs that address pollutant source reduction and provide measures and controls necessary to mitigate potential pollutant sources. Construction-related BMPs include but are not limited to the following: • Proper storage, use, and disposal of construction materials • Regular removal of sediment from surface runoff before it leaves the site by silt fences or other similar devices around the site perimeter, with particular attention to protecting impaired water bodies listed on the 303(d) list for sediment and protecting downstream environmentally sensitive habitats, such as wetlands • Protection of storm drain inlets on site or downstream of the construction site to eliminate entry of sediment • Stabilization of cleared or graded slopes • Diversion of runoff from uphill areas around disturbed areas of the site • Prevention of tracking soil off site through use of a gravel strip or wash facilities at exit areas • Protection or stabilization of stockpiled soils • Continual inspection and maintenance of the specified BMPs throughout the duration of construction, with special emphasis before and after rain events
Policy IU-5.2. Reduce pollutant loading through passive treatment systems such as vegetated filter strips, grass swales, and infiltration/ sedimentation areas in suitable open space areas, overland flow channels, and landscaping adjacent to parking lots and streets.	**Consistent.** The new facilities would be incorporated into the existing maintenance schedule, which consists of daily maintenance checks for the pump stations and weekly maintenance checks for the water storage tanks, and would not contribute to water quality contamination. The use of

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
	passive treatment systems would be implemented as necessary on a project-by-project basis.
Public Safety Element	
Policy PS-1.2. In areas subject to seismic and geologic hazards, require development proposals to include a geotechnical hazard analysis and specific mitigations to reduce risks to acceptable levels as a condition of approval.	**Consistent.** Projects identified in the 2018 RWMP would be designed to withstand seismic conditions anticipated to occur in the water service area. In addition, Mitigation Measure GEO-1 would require the completion of site-specific geotechnical engineering studies to identify potential constraints and recommend methods to construct, install, and design water storage tanks, booster pump stations, flow controls, and distribution pipelines to minimize risks from seismic and geological risks.
Policy PS-1.4. Require adherence to the latest California Building Codes and associated regulations in the City's Municipal Code; update local codes and development requirements periodically for the latest best practices.	**Consistent.** The project would comply with the California Building Code and the Corona Municipal Code.
Policy PS-2.4. Locate, when feasible, new essential public facilities outside of flood zones; for those that must remain or are built in flood hazard zones, harden structures to maintain the structural and operational integrity of such public facilities in case of flooding.	**Consistent.** No projects identified in the 2018 RWMP would be in a flood zone.
Policy PS-9.4. Maintain safe and accessible evacuation routes throughout the community; take precautions and ensure backup or mitigations for routes crossing high hazard areas (e.g., flood, seismic, high fire, etc.).	**Consistent.** During construction, temporary full or partial lane closures may be necessary, especially for distribution pipeline projects. The full or partial lane closures could result in the redistribution of traffic along adjacent and surrounding roadways. As construction progresses, access for emergency vehicles could be impaired as result of reduced roadway widths (or capacity) and increased volumes of construction-related traffic or redistributed traffic. As a result, construction could impair or physically interfere with adopted Emergency Response Plans or Emergency Evacuation Plans. To mitigate this impact, the project would prepare and implement a Construction Traffic Control Plan as described in Mitigation Measure HAZ-3. Following the installation of the individual project components, affected roadways and driveways would be restored to pre-project conditions. A temporary asphalt material may be installed to allow traffic to use the roadway immediately after construction, followed by a permanent overlay. Once operational, the individual projects identified in the 2018 RWMP would not result in any significant, long-term impacts to the local roadway network.
Policy PS-10.1. Locate, when feasible, new essential public facilities outside of high fire risk areas; if not feasible, require construction and other methods to harden and minimize damage for existing/planned facilities in such areas.	**Consistent.** The proposed distribution pipelines would be installed underground. For aboveground facilities that are situated in high-risk fire areas, these facilities would maintain adequate City-required brush clearance areas to protect facilities from damage.

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
Noise Element	
Policy N-1.4. Require municipal vehicles and noise-generating mechanical equipment purchased or used by the City to comply with noise performance standards consistent with the latest available noise reduction technology to the extent practicable and cost-effective.	**Consistent.** As described in Section 3.13.4.1, with the exception of two new pump stations, most of the projects identified in the 2018 RWMP would be passive, new, or upgraded pipelines and water storage facilities and would not result in any new sources of operational noise. The flow of water through underground pipes and water storage does not generate audible noise. The two new booster pump stations would be installed with an enclosure and would not exceed the daytime threshold of 55 A-weighted decibels beyond 55 feet from the pump stations.
Policy N-2.7. Require construction activities that occur in close proximity to existing "noise sensitive" uses, including schools, libraries, health care facilities, and residential uses, to limit the hours and days of operation in accordance with the City Noise Ordinance.	**Consistent.** Construction of the projects identified in the 2018 RWMP would result in a temporary increase in the ambient noise environment and would be noticeably audible to existing nose sensitive uses in the vicinity of the active project. Implementation of Mitigation Measure NOI-1 would require construction noise reduction measures that would ensure compliance with the City's Noise Ordinance.
Healthy Community Element	
Policy HC-2.5. Require the preparation of air quality, noise, and vibration technical studies to determine the impact of proposed new development on adjacent and surrounding land uses and to identify the appropriate measures required to mitigate such impacts.	**Consistent.** An Air Quality Impact Analysis (Appendix B) and Noise Impact Analysis (Appendix F) were prepared for the project.
Environmental Resources Element	
Policy ER-1.2. Require all public and private grading and construction activities to minimize adverse impacts on the City's water resources through the use of best management practices, as established and updated from time to time by the City of Corona.	**Consistent.** The project would implement construction-period BMPs, which include the implementation of erosion and sediment control BMPs to prevent contamination of hydrologic resources and minimize impacts on water resources.
Policy ER-1.4. Prohibit the discharge of toxins, debris, refuse, and other contaminants into watercourses, other drainages, water bodies, and groundwater basins. Work with appropriate entities to ensure the cleanup of contamination of existing water resources.	**Consistent.** Operations and maintenance activities would include the continuation of the existing condition assessment program of pump stations and water storage tanks. No ground disturbing activities are expected. In addition, there would be no use of generators or portable pumps in the reclaimed system. Operation and maintenance activities would not contribute to water quality contamination.
Policy ER-4.2. Avoid altering floodways or channelization wherever possible; however, limit alterations to those that meet the following criteria: • Alterations necessary for the protection of public health and safety only after all other options are exhausted • Alterations essential to public service projects where no other feasible construction method or alternative project location exists • Projects where the primary function is the improvement of fish and wildlife habitats	**Consistent.** The installation of pipelines, pump stations, water storage tanks, and flow control improvements would be adjacent to existing infrastructure or in existing public ROWs and would not alter floodways or channelize waterways.

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
Policy ER-5.1. Prohibit encroachment of development into wetlands; provide buffer zones, setbacks, or other effective techniques in project siting and design to minimize direct and indirect effects to wetland habitats.	**Consistent.** Implementation of the project is not expected to impact jurisdictional aquatic resources and would not encroach into wetlands. However, the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline are proposed on undeveloped land that could support jurisdictional aquatic resources, although it is unlikely. Implementation of Mitigation Measures BIO-8~~12~~ and BIO-9~~13~~ would minimize direct and indirect effects to wetland habitats.
Policy ER-6.2. Preserve the wildlife and plant species and habitats listed in Tables 4-12 and 4-13 of the Technical Background Report for the General Plan and EIR [Environmental Impact Report] (City of Corona 2020) and those that may be considered by the City of Corona in the future.	**Consistent.** The WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites would contain non-native grassland habitat that could support sensitive plant species listed in Tables 4-12 and 4-13 of the City of Corona 2020–2040 General Plan. In addition, potential indirect impacts to sensitive plant species from implementation of the project include colonization of invasive plant species and fugitive dust. Implementation of Mitigation Measures BIO-1 through BIO-5~~7~~ would reduce impacts to less than significant. Non-native grassland vegetation on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites has the potential to support sensitive animal species, and implementation would result in potentially significant indirect impacts from noise and nighttime lighting on burrowing owl (*Athene cunicularia*) and nesting birds. Implementation of Mitigation Measures BIO-1~~8~~, BIO-6~~9~~, and BIO-7~~10~~ would reduce impacts to less than significant.
Policy ER-6.3. Ensure that new developments and circulation improvement demonstrate compliance with state and federal regulations concerning the status, location, and condition of significant and sensitive biological species and habitats and riparian and riverine corridors. Biological surveys, as required and defined by the Western Riverside County Multiple Species Habitat Conservation Plan, should identify potential impacts on biological resources and include mitigation measures to protect/replace resources in like kind.	**Consistent.** Mitigation Measure BIO-1~~1~~ requires the preparation of site-specific Multiple Species Habitat Conservation Plan Consistency Analysis Report for the projects identified in the 2018 RWMP that would be located on undeveloped land, including the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline, during the project design phase. The surveys would identify potential impacts on biological resources and include site-specific mitigation measures.
Policy ER-6.4. Ensure that new developments through the development review process adhere to the Western Riverside County Multiple Species Habitat Conservation Plan, the Stephens' Kangaroo Rat Habitat Conservation Plan, and other habitat plans as appropriate to conserve biological diversity through protection of natural communities.	**Consistent.** The project would be consistent with the conservation goals outlined in the Western Riverside County MSHCP. The project's compliance with the Western Riverside County MSHCP is discussed in detail in Section 3.4.4.7.
Policy ER-6.5. Preserve wildlife habitat of significant natural open space areas, including expanding habitat ranges, movement corridors, and nesting sites by adhering to and implementing the core biological linkages identified in the MSHCP for parts of the Any proposed recreational use of those areas such as trails shall be designed to not interfere with the preservation efforts established in the MSHCP.	**Consistent.** Projects identified in the 2018 RWMP would be confined to existing facilities or easements or in existing ROWs. However, potentially significant impacts to one sensitive vegetation community, non-native grassland, could result during the implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline. Implementation of Mitigation Measure~~s~~ BIO-1~~2 and~~

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
	~~BIO-3~~ would reduce potentially significant impacts to sensitive vegetation communities to less than significant. Federally and state-protected nesting birds have the potential to occur on or adjacent to the projects included in the 2018 RWMP, including projects in developed/disturbed land. Implementation of the projects included in the 2018 RWMP would have the potential to impact nesting birds (including raptors) through direct removal of nesting habitat and disturbance to nesting birds from substantial sources of noise generated at the start of new construction during the nesting season. Implementation of Mitigation Measures BIO-1~~8~~ and BIO-6~~9~~ would reduce impacts to less than significant. No significant impacts to natural open spaces, including movement corridors, is anticipated. In addition, no recreational use is proposed as part of the project.
Policy ER-7.1. Require that public and private construction activities be conducted in a manner to minimize adverse impacts on natural resources and biological resources in proximity to MSHCP conservation areas and adhere to the MSHCP Guidelines pertaining to Urban/Wildlife Interface for drainage, toxics, lighting, noise, invasive barriers, and grading [MSHCP Section 6.4.1].	**Consistent.** The project would be consistent with the conservation goals outlined in the Western Riverside County MSHCP. The projects' compliance with the Western Riverside County MSHCP is discussed in detail in Section 3.4.4.7.
Policy ER-8.5. Conserve the oak tree resources in the City to the extent feasible.	**Consistent.** No oak trees were identified to be impacted by implementation of the project.
Policy ER-9.2. Conserve existing wetlands and wetland functions and values in the Temescal Canyon Wash, Prado Basin, and the Santa Ana River with a focus on conservation of existing riparian, woodland, coastal sage scrub, alluvial fan scrub, and open water habitats.	**Consistent.** The project does not propose development in the Temescal Canyon Plan Area, Santa Ana River, or other regional washes.
Policy ER-9.3. Conserve existing known populations of least Bell's vireo and southwestern willow flycatcher in the Temescal Canyon Area Plan, including at Prado Basin, Santa Ana River, and Temescal Canyon Wash. Maintain existing breeding habitat for these species at Prado Basin, Santa Ana River, and Temescal Wash where applicable to a particular project and location. **Policy ER-9.4.** Conserve and manage suitable habitat for species known to exist in the Temescal Canyon Area Plan of Western Riverside County's Multiple Species Habitat Conservation Plan. **Policy ER-9.5.** Conserve clay soils supporting sensitive plant species known to occur in the Temescal Canyon area, including Munz's onion, Palmer's grappling hook, small-flowered morning glory, long-spined spineflower, thread-leaved brodiaea, small-flowered microseris, and many-stemmed dudleya. **Policy ER-9.6.** Conserve sandy soils co-occurring with chaparral supporting Palomar monkeyflower, known to occur in the Temescal Canyon area.	**Consistent.** The project does not propose development in the Temescal Canyon Plan Area, Santa Ana River, or other regional washes.

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
Policy ER-9.7. Conserve locations supporting California muhly, heart-leaved pitcher sage, Hall's monardella, and other sensitive plant species that may occur in a wide variety of habitat types within the Temescal Canyon Area Plan. **Policy ER-9.8.** Provide for and maintain connection(s) from the Cleveland National Forest to Prado Basin and the Santa Ana River within Temescal Canyon, providing opportunities for offsite connections to Chino Hills State Park. **Policy ER-9.9.** Conserve upland habitat adjacent to the Temescal Canyon Wash to augment existing upland habitat conservation in the Lake Matthews/Estelle Mountain Reserve areas and provide for contiguous connection of upland habitat blocks from the existing reserve to Temescal Wash. Habitat conservation should focus on blocks of existing upland habitat east of Temescal Canyon Wash connecting to Lake Matthews/Estelle Mountain Reserve. **Policy ER-9.10.** Conserve floodplain areas supporting sensitive plant species known to occur in Temescal Canyon, including Parry's spineflower, peninsular spineflower, smooth tarplant, and Coulter's matilija poppy. **Policy ER-9.11.** Conserve rocky soils co-occurring with coastal sage scrub, peninsular jumper, or chaparral supporting Payson's jewelflower, known to occur in the Temescal Canyon area. **Policy ER-9.12.** Provide for and maintain a continuous linkage along the Temescal Canyon Wash from the southern boundary of the Temescal Canyon to the Santa Ana River.	
Policy ER-10.1. Maintain the use of the city's Mineral Resource Overlay Zone in the City's Zoning Ordinance to ensure lands having a state classification of MRZ-2 through the Department of Conservation have the opportunity to be made available for mineral materials.	**Consistent.** Utility improvements, such as those identified in the 2018 RWMP, are considered compatible with land uses. In addition, the majority of the projects identified in the 2018 RWMP would be in existing facilities and public ROWs and would not result in substantial land disturbance that would impact existing or future mining operations.
Policy ER-12.3. Establish and strictly enforce controls on land use activities that contain operations or materials that individually or cumulatively add significantly to the degradation of air quality in Corona.	**Consistent.** Project construction and operational emissions of criteria pollutants would not exceed applicable thresholds established to assist maintaining or achieving regional attainment in the South Coast Air Basin. Additional detail is provided in Section 3.3, Air Quality.

Source: City of Corona 2020.

Notes: BMP = best management practice; City = City of Corona; CRHR = California Register of Historic Resources; MSHCP = Multiple Species Habitat Conservation Plan; NRHP = National Register of Historic Properties; ROW = right-of-way; WRCRWA = Western Riverside County Regional Wastewater Authority

In Section 3.11.4.2, Threshold 2: Conflict with Land Use Plan, Policy, or Regulation, the following text has been revised as follows in Mitigation Measures subsection.

The project would have potentially significant impact related to the conflict with an applicable land use plan, policy, or regulation. However, the mitigation measures identified in other Program Environmental Impact Report sections, including Mitigation Measures AES-1 (Section 3.1,

Aesthetics); BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, and BIO-9~~, BIO-10, BIO-11, BIO-12, and BIO-13~~ (Section 3.4, Biological Resources); CUL-1, CUL-2, CUL-3, and CUL-4 (Section 3.5, Cultural Resources); GEO-1 (Section 3.7, Geology, Soils, and Paleontological Resources); HAZ-3 (3.9, Hazards and Hazardous Materials); and NOI-1 (Section 3.13, Noise), would reduce impacts to less than significant.

In Section 3.11.4.2, Threshold 2: Conflict with Land Use Plan, Policy, or Regulation, the following text has been revised as follows in Level of Significance After Mitigation subsection.

With implementation of Mitigation Measures AES-1, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9~~, BIO-10, BIO-11, BIO-12, BIO-13~~, CUL-1, CUL-2, CUL-3, CUL-4, GEO-1, HAZ-3, and NOI-1, the project would be consistent with the City of Corona 2020–2040 General Plan and would not conflict with an applicable land use plan, policy, or regulation. Impacts would be less than significant.

In Section 3.11.6, Conclusion, the following text has been revised.

Implementation of the project would potentially conflict with the relevant City of Corona 2020–2040 General Plan policies that were adopted to avoid or mitigate an environmental effect as detailed in Table 3.11-1. With the implementation of Mitigation Measures AES-1, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9~~, BIO-10, BIO-11, BIO-12, BIO-13~~, CUL-1, CUL-2, CUL-3, CUL-4, GEO-1, HAZ-3, and NOI-1, the project would be consistent with the City of Corona 2020–2040 General Plan. Therefore, direct and cumulative impacts would be less than significant.

Section 3.18, Tribal Cultural Resources

In Section 3.18.4.1, Threshold 1: Tribal Cultural Resources, the following language describing government-to-government consultation pursuant to AB 52 was updated to reflect consultation activities that occurred after the close of public review.

The significance of a cultural resource is impaired when a project demolishes or materially alters those physical characteristics that convey significance. Impacts to TCRs, archaeological resources, or human remains most often occur as the result of trenching and grading. These resources may also be subject to indirect impacts as the result of project-related activities that increase erosion, compression, or accessibility. Under CEQA, an effect on nonphysical values (such as tribal values or other spiritual or religious values) is not considered an environmental effect; however, when a project would result in a physical effect, these values may be considered in determining whether the physical effect is significant.

A ~~scared~~ sacred lands file search ~~conducted by the NAHC~~ was requested of the NAHC on March 30, 2020. The NAHC responded on April 2, 2020, that the results were positive and

provided a list of 37 tribal organizations and individuals to contact for additional information. Red Tail Environmental sent information request letters to the 37 tribal organizations and individuals on April 6, 2020. To date, three responses have been received. Jill McCormick, Historic Preservation Officer for the Fort Yuma Quechan Tribe, responded on April 14, 2020, that the tribe has no comments on the project. Cheryl Madrigal, Tribal Historic Preservation Officer and Cultural Resources Manager for the Rincon Band of Luiseño Indians, responded that the project is within the territory of the Luiseño people and within the band's specific area of historic interest. They have identified Luiseño place names but no known TCRs or traditional cultural properties in the water service area. They recommend that an archaeological/cultural resources study be conducted and a final copy of the study be provided to the band for their review and comment and inclusion of appropriate provisions for inadvertent discoveries. On June 9, 2020, Patricia Garcia Plotkin, Director of Historic Preservation for the Agua Caliente Band of Cahuilla Indians, responded that the project is not located within the tribe's traditional use area and they defer to other tribes in the area.

A review of the Sacred Lands File held by the Native American Heritage Commission was requested on March 30, 2020. On April 2, 2020, the NAHC responded that the review of the Sacred Lands File was positive. The NAHC provided contact information for 37 Native American tribes that are traditionally and culturally affiliated with the geographic area of the project. On April 6, 2020, letters were forwarded to the tribes requesting additional information on the project area of any concerns they may have related to the project. Three responses have been received. Jill McCormick, Historic Preservation Officer for the Fort Yuma Quechan Tribe, responded on April 14, 2020, that the tribe has no comments on the project. Cheryl Madrigal, Tribal Historic Preservation Officer and Cultural Resources Manager for the Rincon Band of Luiseño Indians, responded that the project is within the territory of the Luiseño people and within the Band's specific area of historic interest. They have identified Luiseño place names within the project area but no known tribal cultural resources or traditional cultural properties, and they recommend an archaeological/cultural resources study be conducted and a final copy of the study be provided to the Band for their review and comment, as well the inclusion of appropriate provisions for inadvertent discoveries. On June 9, 2020, Patricia Garcia Plotkin, Director of Historic Preservation, Agua Caliente Band of Cahuilla Indians, responded that the project is not located within the tribe's traditional use area, they defer to other tribes in the area, and this concludes their consultation efforts. This information was provided to the City.

Government-to-government consultation pursuant to AB 52 was initiated on September 14, 2020, and a letter was sent to each tribal contact by the City with a summary and maps of the project and a request for consultation. The letter provided contact information for the City of Corona, Public Works Department, and a request that the tribe contact the City

within 30 days if they would like to begin formal consultation. The Gabrieleño Band of Mission Indians – Kizh Nation, Soboba Band of Luiseño Indians, and Rincon Band of Luiseño Indians requested consultation with the City. On November 5, 2020, a meeting with held with the City and the Soboba Band of Luiseño Indians to discuss the project and its relationship to the tribe's traditional use area. On November 18, 2020, a meeting was held with the City and the Rincon Band of Luiseño to discuss tribal concerns. Finally, on December 16, 2020, a meeting was held with the City and the Gabrieleño Band of Mission Indians – Kizh Nation where the tribe advised that the project site was highly sensitive and highly used during ceremonies and contains villages and transportation routes.

In Section 3.18.4.1, Threshold 1: Tribal Cultural Resources, the following language describing the mitigation measures has been revised as follows in response to tribal consultation pursuant to AB 52.

Mitigation Measures CUL-2, CUL-3, and CUL-4 in Sections 3.5.4.2 and 3.5.4.3 in Section 3.5 would be implemented to reduce impacts to TCRs. Mitigation Measure CUL-2 would require site-specific archaeological surveys to be conducted for individual projects identified in the 2018 RWMP, which would be located in areas that have not been previously developed and that would impact land with visible ground surface, or projects that may impact built environment resources that meet the age threshold for eligibility. If any resource are identified, they should be evaluated for significance. Mitigation Measure CUL-3 requires an archaeological and Native American monitoring program for projects identified in the 2018 RWMP, which would result in new ground disturbance in areas identified as moderate or high sensitivity for cultural resources, ~~and~~ for projects identified in the 2018 RWMP that are within 100 feet of previously recorded archaeological resources, and for those projects where tribal consultation has identified traditional cultural properties/tribal cultural landscapes. The identification of TCRs during construction activities would occur through implementation of Mitigation Measure CUL-3~~4~~. Mitigation Measure CUL-4 requires that, in the event that human remains, possible human remains, and/or grave goods are encountered during any work associated with the project, ground disturbance within ~~25~~ 100 feet of the remains shall halt, and California Environmental Quality Act Guidelines, Section 15064.5(e); California Public Resource Code, Section 5097.98; and California Health and Safety Code, Section 7050.5, shall be followed. See Sections 3.5.4.2 and 3.5.4.3 in Section 3.5 for a complete description of these mitigation measures.

Chapter 5, Alternatives to the Proposed Project

Section 5.5.2.3, Biological Resources, has been revised as follows.

Compared to the proposed project, the Reduced Project Alternative would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the 2018 RWMP. Projects identified in the Reduced Project Alternative would

be on developed/disturbed land and would avoid the project's less than significant impact with mitigation to sensitive plant and animal species, sensitive natural communities, or jurisdictional aquatic resources. Mitigation Measures BIO-1 through BIO-4~~8~~ and BIO-7~~11~~ through BIO-9~~13~~ would not be required. Similar to the proposed project, the Reduced Project Alternative could result in impacts to nesting birds (including raptors) through direct removal of nesting habitat and through disturbance to nesting birds from substantial sources of noise generated at the start of new construction during the nesting season. Implementation of Mitigation Measure BIO-6~~9~~ would reduce impacts to less than significant. In addition, similar to the proposed project, the Reduced Project Alternative would result in less than significant impacts to wildlife corridors and linkages, local policies and ordinances, and regional conservation planning. Therefore, the Reduced Project Alternative would have reduced biological resources impacts compared to the proposed project.

Section 5.5.2.10, Land Use and Planning, has been revised as follows.

Compared to the proposed project, the Reduced Project Alternative would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline Projects from the 2018 RWMP. Similar to the proposed project, the Reduced Project Alternative would not physically divide an established community. Implementation would conflict with an applicable land use plan, policy, or regulation and would be reduced to less than significant with Mitigation Measures AES-1, BIO-6~~9~~, BIO-7~~10~~, CUL-1, CUL-2, CUL-3, CUL-4, GEO-1, HAZ-3, and NOI-1. Therefore, the Reduced Project Alternative would result in similar land use and planning impacts compared to the proposed project.

Chapter 7, References

In Section 3.4, Biological Resources, the following reference has been added.

WRCRWA (Western Riverside County Regional Wastewater Authority). 2010. Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project Environmental Impact Report. August.

Appendix C, Biological Resources Technical Report

The Executive Summary has been revised as follows.

Implementation of Mitigation Measure~~s~~ BIO-1~~, BIO-2, and BIO-3~~ would reduce potentially significant impacts to the non-native grassland sensitive vegetation community on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites. If a project site is identified as occupied or potentially occupied habitat for sensitive plant or animal species during preparation of the MSHCP Consistency Analysis Report (Mitigation Measure BIO-1), potential impacts shall be documented consistent with the MSHCP requirements, including project-level vegetation mapping, adherence to narrow endemic plant

species protection policies, conservation easements for avoidance areas, and preparation of a Determination of Biological Equivalent or Superior Preservation report for proposed mitigation measures. ~~Mitigation Measure BIO-1 would require habitat assessments, including vegetation mapping, to be conducted before construction of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects. Mitigation Measures BIO-2 and BIO-3 would implement mitigation and replacement ratios for permanent and temporary impacts to non-native grassland.~~

Implementation of Mitigation Measures BIO-1~~2~~ through BIO-5~~8~~ would reduce potentially significant direct and indirect impacts to sensitive plant species on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites. These mitigation measures would require preconstruction sensitive plant species surveys, mitigation ~~ratios~~ for permanent and temporary impacts to non-native grassland that could support sensitive plant species, and prevention of the spread of invasive plant species during construction. General construction mitigation measures, including flagging and fencing, a contractor training program, and a biological monitor, shall be implemented for the projects to minimize potential impacts to sensitive plant species.

Implementation of Mitigation Measures BIO-1~~9~~ through BIO-7~~11~~ would reduce potentially significant impacts to sensitive animal species at the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites. General construction mitigation measures (Mitigation Measures BIO-3~~6~~ through BIO-5~~8~~), including flagging and fencing, a contractor training program, and a biological monitor, shall also be implemented for the projects to minimize potential impacts to sensitive animal species. Potentially significant impacts to non-native grassland that could support burrowing owl (*Athene cunicularia*) would be mitigated by requiring burrowing owl habitat analysis and potential focused ~~clearance~~ surveys at the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites (Mitigation Measures BIO-1~~9~~). Implementation of Mitigation Measure BIO-6~~10~~ would reduce potentially significant impacts to nesting birds by conducting nesting bird surveys before construction of the projects if construction activities occur during the general bird nesting season (January 15 through September 15). Potentially significant impacts to sensitive animal species from nighttime lighting during construction would be minimized with Mitigation Measure BIO-7~~11~~ on the project sites.

Implementation of Mitigation Measures BIO-1, BIO-8~~12~~, and BIO-9~~13~~ would reduce potentially significant impacts to jurisdictional aquatic resources, if identified on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites during ~~preconstruction~~ habitat assessments as part of the MSHCP Consistency Analysis Report (Mitigation Measure BIO-1). If jurisdictional aquatic resources are identified, aquatic resources delineations (Mitigation Measure BIO-8~~12~~) and permitting and MSHCP consistency analysis

(Mitigation Measures BIO-1 and BIO-~~9~~13) would be conducted before construction of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects.

The following text has been included in Section 4.3.2, Western Riverside County Multiple Species Habitat Conservation Plan.

Within the Western Riverside County MSHCP Plan Area, the City is within the Eastvale Area Plan and the Temescal Canyon Area Plan.

The Western Riverside County MSHCP area plans are organized into the following components:

- **Criteria Areas:** Areas within Western Riverside County in which land can be acquired for the MSHCP.
- **Core Areas:** Large habitats within the reserve that have the resources to support the species covered under the MSHCP. Existing areas consist of conserved land, such as national forests, wildlife refuges, and wilderness area. Proposed Core Areas will be assembled from the land acquired within the Criteria Area. Noncontiguous Criteria Cells are connected by Linkages. Additional reserve lands will come from these areas.
- **Linkages:** Land bridges between two Core Areas are called Linkages. These narrower strips of land allow wildlife to travel between conserved habitat.
- **Criteria Cells:** Series of grids used to organize and track development and conservation within the Criteria Area.

In combination, these components are intended to result in a MSHCP Conservation Area configuration that provides significant blocks of habitat, minimizes internal fragmentation and edge effects, and maximizes the ratio of surface area to perimeter.

Section 6.1.1, Riparian Habitat or Other Sensitive Vegetation Community, has been revised as follows.

Potentially significant impacts to ~~one~~ sensitive vegetation communities~~y~~, including non-native grassland, could result during the implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites.

~~Impacts to non-native grassland totaling less than 0.10 acre per construction phase would not be considered significant and would not require mitigation under CEQA because the small size of the impact would not be considered a substantial adverse effect. Exceptions to the previously described thresholds would be for projects impacting habitat occupied by federally or state-listed endangered or threatened species, which would be considered significant regardless of the acreage impacted.~~

Section 6.1.7, Regional Conservation Planning, has been revised as follows.

The WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites are not within Western Riverside County MSHCP Criteria Areas, Core or Linkage Areas, Criteria Cells, or MSHCP-designated conserved lands (Figures 3-1 through 3-3, County of Riverside 2003). Therefore, implementation of these projects would be consistent with the Western Riverside County MSHCP and would not result in impacts to the Western Riverside County MSHCP conservation and preservation goals. These projects would be required to implement Mitigation Measure BIO-1 to prepare an MSHCP Consistency Analysis Report once project design is available. At this time, it is not anticipated that these projects would require submittal of a Regional Conservation Authority Joint Project Review Application due to their anticipated location outside of Western Riverside County MSHCP Criteria Areas, Core or Linkage Areas, Criteria Cells, or MSHCP-designated conserved lands.

~~The avoidance, minimization, and mitigation measures proposed in Sections 6.1.1 through 6.1.4 would reduce potentially significant impacts to sensitive plant and animal species, sensitive vegetation communities, and jurisdictional aquatic resources to a less than significant level. Because the projects would not contribute to the loss of sensitive vegetation or sensitive species, the project would comply with the Western Riverside County MSHCP. Therefore, before~~ Prior to the implementation of the avoidance, minimization, and mitigation measures proposed to reduce potentially significant impacts to sensitive plant and animal species, sensitive vegetation communities, and jurisdictional aquatic resources as detailed in Section 6.3, potentially significant impacts would occur from conflicts with Western Riverside County MSHCP and other regional conservation plans and mitigation would be required.

In Section 6.1.2, Sensitive Plant Species, the following clarification has been added.

Sensitive plant species have been documented in the water service area. Implementation of the projects located in developed/disturbed land would not impact sensitive plant species. Although the likelihood is low, implementation of some projects in undeveloped areas have the potential to impact sensitive plant species. The WRCRWA Booster Pump Station, WRCRWA Transmission Pipeline, WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects are proposed on undeveloped sites that may contain sensitive plant species. The WRCRWA Booster Pump Station and WRCRWA Transmission Pipeline projects were previously evaluated under CEQA in the 2010 Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project EIR (WRCRWA 2010) and the 2016 Proposition 1 IS/MND (City of Corona 2016), respectively. No further analysis of these projects is required or provided in this report.

In Section 6.1.3, Sensitive Animal Species, the following clarification has been added.

In total, 45 sensitive animal species have been documented in the water service area. Sensitive animal species have been documented in undeveloped areas near the WRCRWA Transmission Pipeline, WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites. The undeveloped areas on these project sites may contain sensitive animal species. The majority of sensitive animal species, including least Bell's vireo and tricolored blackbird (Agelaius tricolor), occur in the Santa Ana River floodplain adjacent to the WRCRWA Transmission Pipeline, which was previously evaluated under CEQA in the 2010 Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project EIR (WRCRWA 2010) and the 2016 Proposition 1 IS/MND (City of Corona 2016), respectively. No further analysis of this project is required or provided in this report. None of the other projects identified in the 2018 RWMP have the potential to impact least Bell's vireo or tricolored blackbird. Therefore, impacts would not occur to these species as a result of project implementation.

In Section 6.2.1, Water Quality, the following clarification has been added.

Indirect impacts may occur during the construction of the projects and post-construction operations. Potential indirect impacts to sensitive vegetation communities from implementation of the project includes decreased water quality (e.g., through sedimentation, contaminants, or fuel release). The majority (25 of 29) of the projects anticipated in the project would be situated in currently developed (non-sensitive) areas of the water service area. However, the WRCRWA Booster Pump Station, WRCRWA Transmission Pipeline, WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects are planned in non-native grassland habitat. As previously discussed, the WRCRWA Booster Pump Station and WRCRWA Transmission Pipeline projects were previously evaluated under CEQA in the 2010 Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project EIR (WRCRWA 2010) and the 2016 Proposition 1 IS/MND (City of Corona 2016), respectively. No further analysis of these projects is required or provided in this report.

Section 6.3, Mitigation Measures, has been revised as follows, and Table 6, Biological Resources Mitigation Measure Equivalency Table for the 2018 Reclaimed Water Master Plan Project, has been updated with new mitigation measure numbering.

The mitigation measures listed in Table 6 were clarified following consultation with the Western Riverside County Regional Conservation Authority and in response to public comments received during the 2018 RWMP PEIR public review period. Mitigation Measure BIO-1 was renamed and refined to more accurately describe the Western Riverside County MSHCP Consistency Analysis Report process and components. Mitigation Measure BIO-1, Multiple Species Habitat Conservation Plan Consistency Analysis Report, includes

requirements for identifying the presence of sensitive plant and animal species, including burrowing owl, and potential sensitive habitats. It was determined that Mitigation Measure BIO-1 would mitigate for potential impacts to sensitive plant species, sensitive habitats, and burrowing owl. Separate mitigation measures were previously included to address potential impacts to sensitive plant species (previous Mitigation Measure BIO-4), sensitive habitat (previous Mitigation Measures BIO-2 and BIO-3), and burrowing owl (previous Mitigation Measure BIO-9). Consistent with CEQA Guidelines, Section 15088.5(b), and following consultation with the Western Riverside County Regional Conservation Authority, these separate mitigation measures were determined not to be necessary because they are included in the requirements of Mitigation Measure BIO-1 and, therefore, have been removed. These mitigation refinements resulted in removing previous stand-alone Mitigation Measures BIO-2, BIO-3, BIO-4, and BIO-9 and renumbering the remaining mitigation measures. Additional language was added to clarify Mitigation Measures BIO-8 and BIO-9 (previously Mitigation Measures BIO-12 and BIO-13) by including the applicable requirements for jurisdictional aquatic resources identification under Mitigation Measure BIO-1, Multiple Species Habitat Conservation Plan Consistency Analysis Report. The equivalent Mitigation Measures in PEIR Section 3.4, Biological Resources, were revised to be consistent with the clarifications made in this Biological Resources Technical Report.

Table 6. Biological Resources Mitigation Measure Equivalency Table for the 2018 Reclaimed Water Master Plan Project

Biological Resources Technical Report	PEIR Section 3.4: Biological Resources
BIO-1: Multiple Species Habitat Conservation Plan Consistency Analysis Report ~~Biological Resources Survey/Habitat Assessment~~	BIO-1~~11~~
~~BIO-2: Permanent Impacts to Non-native Grassland~~	~~BIO-2~~
~~BIO-3: Temporary Impacts to Non-native Grassland~~	~~BIO-3~~
~~BIO-4: Sensitive Plant Species Surveys~~	~~BIO-1~~
BIO-2~~5~~: Invasive Plant Species Prevention	BIO-2~~4~~
BIO-3~~6~~: Flagging and Fencing	BIO-3~~5~~
BIO-4~~7~~: Contractor Training Program	BIO-4~~6~~
BIO-5~~8~~: Biological Monitor	BIO-5~~7~~
~~BIO-9: Burrowing Owl Surveys~~	~~BIO-8~~
BIO-6~~10~~: Preconstruction Nesting Bird Surveys	BIO-6~~9~~
BIO-7~~11~~: Night Lighting	BIO-7~~10~~
BIO-8~~12~~: Aquatic Resources Delineation	BIO-8~~12~~
BIO-9~~13~~: Aquatic Resources Permitting and Multiple Species Habitat Conservation Plan Consistency	BIO-9~~13~~

Notes: PEIR = Program Environmental Impact Report

In Section 6.3.1.1, Survey Requirements, Mitigation Measure BIO-1 has been revised as follows.

BIO-1: **Multiple Species Habitat Conservation Plan Consistency Analysis Report** ~~**Biological Resources Survey/Habitat Assessment.**~~ For projects proposed in the City of Corona 2018 Reclaimed Water Master Plan on undeveloped land, including the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline, a Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis Report site-specific biological resources survey shall be ~~conducted~~ completed during the project design phase. The Consistency Analysis Report shall be prepared for each project to demonstrate consistency with the Multiple Species Habitat Conservation Plan Implementation Structure and shall include project-level existing conditions documentation of vegetation mapping and identification of sensitive habitats (non-native grassland, riparian and riverine areas, and vernal pools), plants, and animals (including burrowing owl [*Athene cunicularia*]) on the project site.

The Consistency Analysis Report shall be used as the basis for determining if a project is subject to a Joint Project Review and is required to complete a Joint Project Review Application. The Multiple Species Habitat Conservation Plan Consistency Analysis Report template and requirements can be accessed on the Western Riverside County Regional Conservation Authority Document Library: https://www.wrc-rca.org/document-library/. The Western Riverside County Multiple Species Habitat Conservation Plan Permittee Implementation Guidance Manual (2007) shall also be reviewed and followed to ensure project consistency with Multiple Species Habitat Conservation Plan requirements.

~~The biological resources survey shall be conducted by a qualified biologist and shall include, but not be limited to, the following:~~

~~An analysis of available literature and biological databases, such as the California Natural Diversity Database, to determine sensitive biological resources that have been reported historically from the proposed project vicinity.~~

- ~~A review of current land use and land ownership within the project vicinity.~~
- ~~An assessment and mapping of vegetation communities present within the proposed project vicinity. If vegetation community mapping has not been conducted on the site in the previous 3 years, updated vegetation mapping shall be conducted by a qualified biologist as part of the project planning and environmental review process. Vegetation communities shall be mapped according to the Manual of California Vegetation at the alliance level and a crosswalk table with Holland vegetation communities shall be provided.~~
- ~~A general assessment of the potential for aquatic resources, including wetlands and riparian habitats, to occur onsite.~~

- ~~An evaluation of potential local and regional wildlife movement corridors.~~
- ~~If the project sites support vegetation communities that may provide habitat for plant or animal species, a focused habitat assessment conducted by a qualified biologist to determine the potential for sensitive plant or animal species to occur on or adjacent to the project sites.~~

~~The results of the biological survey shall be presented in a biological survey letter report.~~

In Section 6.3.1.2, Habitat Mitigation Requirements, text has been revised as follows in the Permanent Impacts subsection in response to Comment Letter A received from the California Department of Fish and Wildlife, and Mitigation Measure BIO-2 has been removed.

Permanent Impacts

If a project site is identified as occupied or potentially occupied habitat for sensitive plant or animal species during preparation of the MSHCP Consistency Analysis Report (Mitigation Measure BIO-1), potential impacts shall be documented consistent with the MSHCP requirements, including project-level vegetation mapping, adherence to narrow endemic plant species protection policies, conservation easements for avoidance areas, and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures. ~~Implementation of Mitigation Measure BIO-2, a mitigation ratio of 0.5:1, would be applied to reduce potentially significant impacts to sensitive vegetation communities to less than significant. Mitigation Measure BIO-2 would reduce permanent impacts to non-native grassland to a less than significant level.~~

~~**BIO-2: Permanent Impacts to Non-Native Grassland.** Permanent impacts to sensitive non-native grassland shall be mitigated through the preservation of habitat, habitat creation, or enhancement, or combination thereof, in the City of Corona or off site through habitat acquisition and preservation or purchase of credits from an approved conservation bank. Mitigation for impacts to non-native grassland shall be in-kind using native grasses. Permanent impacts to sensitive non-native grassland shall be mitigated at a ratio of 0.5:1.~~

~~For on-site mitigation, a detailed Mitigation Plan shall be prepared before the start of construction (not applicable to mitigation met through the purchase of credits from an approved wetland mitigation bank). The Mitigation Plan shall include at a minimum the proposed location of the mitigation areas, site preparation, a plant palette, installation procedures, success criteria, fencing and signage, monitoring requirements, and other details of the habitat restoration effort and shall be prepared by a qualified biologist.~~

In Section 6.3.1.2, Habitat Mitigation Requirements, text has been revised as follows in the Temporary Impacts subsection as follows in response to Comment Letter A received from the California Department of Fish and Wildlife, and Mitigation Measure BIO-3 has been removed.

Temporary Impacts

If a project site is identified as occupied or potentially occupied habitat for sensitive plant or animal species during preparation of the Western Riverside County MSHCP Consistency Analysis Report (Mitigation Measure BIO-1), potential impacts shall be documented consistent with the MSHCP requirements, including project-level vegetation mapping, adherence to narrow endemic plant species protection policies, conservation easements for avoidance areas, and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures. ~~With implementation of Mitigation Measure BIO-3, temporary impacts to non-native grassland would be restored in place or elsewhere on the project site at a mitigation ratio of 1:1, as described in Mitigation Measure BIO-3. Mitigation Measure BIO-3 would reduce temporary impacts to non-native grassland to a less than significant level.~~

~~**BIO-3: Temporary Impacts to Non-Native Grassland.** Temporary impacts to non-native grassland shall be restored in place or elsewhere on the project site at a 1:1 replacement ratio using native grass species.~~

~~A Revegetation Plan shall be prepared. The Revegetation Plan shall include site preparation specifications, a plant palette, installation procedures, development of reasonable success criteria, appropriate monitoring and reporting protocols, implementation timelines, and contingency measures in the event of restoration failure. The City of Corona shall provide guidance for and oversight of the Revegetation Plan and implementation.~~

~~In the event that non-native grassland vegetation cannot be restored in place or elsewhere on the project site after construction, these impacts would be considered permanent, and Mitigation Measure BIO-2 would be implemented.~~

Section 6.3.2.1, Survey Requirements, has been revised as follows, and Mitigation Measure BIO-4 has been removed.

Implementation of Mitigation Measure BIO-14, Multiple Species Habitat Conservation Plan Consistency Analysis Report, would ~~require~~ include identification of sensitive plant species and potential surveys for projects including ~~at~~ the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline ~~project sites~~. If sensitive plant species are identified on the project site during implementation of Mitigation Measure BIO-1, potential impacts shall be documented consistent with the MSHCP requirements, including conservation

easements for avoidance areas and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures.

~~**BIO-4: Sensitive Plant Species Surveys.** If one or more sensitive plant species has the potential to occur on the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, focused species surveys shall be conducted before construction to determine the presence and absence of these species to adequately evaluate potential direct or indirect impacts to these species.~~

~~Sensitive plant species surveys shall be conducted by a qualified biologist retained by the City of Corona during the appropriate season for to detect species as part of the project design phase. Surveys shall be floristic in nature and include lists of the plants identified in the survey area. Surveys shall be conducted on foot, employing a level of effort sufficient to provide comprehensive coverage. The locations and prevalence (estimated total numbers and percent cover, as applicable) of sensitive plants shall be recorded. The sensitive plant species surveys shall be valid for 3 years.~~

~~If site-specific surveys are not required because a survey was conducted within the last 3 years, impact assessment and minimization and mitigation requirements shall be based on the most recent available survey. These requirements shall also include an analysis of the potential for sensitive plant species to occur on site based on existing site conditions and shall be consistent with the most recent U.S. Fish and Wildlife Service and California Department of Fish and Wildlife survey protocols.~~

~~If sensitive plant species are observed, they shall be avoided if possible. If species cannot be avoided, impacts shall be mitigated through conservation of habitat that supports the impacted species in accordance with Mitigation Measures BIO-2 and BIO-3.~~

In Section 6.3.2.1, Survey Requirements, in the Construction subsection, Mitigation Measures BIO-5, BIO-6, BIO-7, and BIO-8 have been renumbered as follows.

BIO-2~~5~~: **Invasive Plant Species Prevention.** During construction of the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects, the following measures shall be implemented to minimize the spread of invasive plant species:

- Construction equipment shall be cleaned before coming to the project sites.
- Weed-free straw wattles shall be used for erosion control.

BIO-3~~6~~: **Flagging and Fencing.** If sensitive biological resources are identified on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control

Improvements, Promenade Pipeline, and Research Pipeline project sites, the construction limits shall be clearly identified on construction drawings and flagged on the project site to ensure impacts to sensitive biological resources are avoided or minimized to the extent feasible. Before implementing construction activities, a qualified biologist shall verify that the flagging clearly delineates the construction limits and sensitive resources to be avoided.

BIO-~~4~~7: Contractor Training Program. If sensitive biological resources are known to occur on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a project-specific contractor training program shall be developed and implemented to educate project contractors on the sensitive biological resources on and adjacent to the project sites and measures being implemented to avoid or minimize impacts to these species. A qualified biologist shall develop and implement the contractor training program.

BIO-~~5~~8: Biological Monitor. If sensitive biological resources are present on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites and impacts may occur from implementation of construction activities, a qualified biological monitor may be required during all or a portion of the construction activities to ensure impacts to the sensitive biological resources are avoided or minimized to the extent feasible. The specific biological monitoring requirements shall be evaluated on a project-by-project basis. The qualified biological monitor shall be approved by the City of Corona based on applicable experience with the sensitive biological resources that may be impacted.

Section 6.3.3.1, Burrowing Owl, has been revised as follows, and Mitigation Measure BIO-9 has been removed.

Implementation of Mitigation Measure BIO-~~1~~9, Multiple Species Habitat Conservation Plan Consistency Analysis Report, would require burrowing owl habitat analysis and potential focused ~~clearance~~ surveys on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites to reduce potential impacts to burrowing owl to less than significant. If burrowing owl is identified on the project site during implementation of Mitigation Measure BIO-1, potential impacts shall be documented consistent with the MSHCP requirements, including preparation of a Determination of Biological Equivalent or Superior Preservation Report to ensure that an appropriate mitigation strategy will be implemented, preparation of a Burrowing Owl Protection and Relocation Plan, and

coordination with the Western Riverside County Regional Conservation Authority and CDFW prior to implementation of proposed mitigation measures.

~~**BIO-9: Burrowing Owl Surveys.** A burrowing owl clearance survey shall be conducted before any ground-disturbing activities in accordance with the California Department of Fish and Wildlife 2012 Staff Report on Burrowing Owl Mitigation. Two preconstruction clearance surveys shall be conducted 14–30 days and 24 hours before ground-disturbing activities to document the continued absence of burrowing owl from the project sites. The burrowing owl surveys shall be valid for 1 year.~~

Section 6.3.3.2, Nesting Birds, has been revised as follows in response to Comment Letter A received from the California Department of Fish and Wildlife, and Mitigation Measure BIO-6 has been renumbered.

Implementation of Mitigation Measure BIO-6~~10~~ would reduce potential impacts to nesting birds protected by the CFG Code and MBTA to less than significant.

BIO-6~~10~~: Preconstruction Nesting Bird Surveys. To the extent feasible, grubbing, trimming, or clearing of vegetation from project sites shall not occur during the general bird nesting season (January 15 through September 15). If grubbing, trimming, or clearing of vegetation cannot feasibly occur outside of the general bird nesting season, a qualified biologist shall perform a preconstruction nesting bird survey at project sites with vegetation supporting nesting birds. Nesting bird surveys shall occur within ~~10~~7 days before the start of vegetation clearing or grubbing to determine if active bird nests are present. If no active bird nests are identified on the project sites or within a 300-foot buffer of the project sites, no further mitigation is necessary. If active nests of bird species covered by the Migratory Bird Treaty Act are detected on the project site during the ~~10~~7-day preconstruction survey, construction activities should stay outside of a 300-foot buffer around the active nest. For raptor species, this buffer is expanded to 500 feet. It is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged, and a qualified biologist has determined the nest is inactive, normal construction activities can occur.

Section 6.3.3.3, Construction Lighting, has been revised as follows, and Mitigation Measure BIO-11 has been renumbered.

Construction is expected is occur primarily during the daylight hours. However, if night work is needed near sensitive biological resources, implementation of Mitigation Measure BIO-7~~11~~

shall be implemented at the project sites to reduce potential nighttime lighting impacts to sensitive animal species to less than significant.

BIO-7~~11~~: **Night Lighting.** If temporary night lighting is necessary during construction adjacent to sensitive vegetation communities, construction contractors shall ensure lights are directed away from sensitive vegetation communities and shielded to minimize temporary lighting of the surrounding habitat and should be of the lowest illumination necessary for human safety.

Section 6.3.4, Jurisdictional Aquatic Resources, has been revised as follows, and Mitigation Measures BIO-12 and BIO-13 have been revised and renumbered.

In the event that state- or federally protected jurisdictional aquatic resources are identified during implementation of Mitigation Measure BIO-1, the Mitigation Measures BIO-8~~12~~ and BIO-9~~13~~ shall be implemented.

BIO-8~~12~~: **Aquatic Resources Delineation.** If sensitive aquatic resources are identified on the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a qualified biologist shall conduct an aquatic resources delineation following the methods outlined in the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the U.S. Army Corps of Engineers Wetland Delineation Manual: Arid West Region to map the extent of wetlands and non-wetland waters, determine jurisdiction, and assess potential impacts. The results of the delineation shall be presented in an aquatic resources delineation report and shall be incorporated into the California Environmental Quality Act documents required for approval and permitting of the proposed project. The Aquatic Resources Delineation Report shall be included as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1).

BIO-9~~13~~: **Aquatic Resources Permitting and Multiple Species Habitat Conservation Plan Consistency.** If the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would impact sensitive aquatic resources, permits and authorizations shall be obtained from the U.S. Army Corps Engineers, California Department of Fish and Wildlife, or Regional Water Quality Control Board. The regulatory agency authorizations would include impact avoidance and minimization measures and mitigation measures for unavoidable impacts. Specific avoidance, minimization, and mitigation measures for impacts to jurisdictional resources shall be determined through discussions with the regulatory agencies during the proposed project

permitting process and may include monetary contributions to a mitigation bank or habitat creation, restoration, or enhancement.

In addition, consistent with the Western Riverside Multiple Species Habitat Conservation Plan and as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1), a Determination of Biologically Equivalent or Superior Preservation Report shall be prepared to identify mitigation that demonstrates equivalent or superior function and value, including re-establishment, establishment, and/or permanent conservation of aquatic resources, as feasible. The Determination of Biologically Equivalent or Superior Preservation shall be included as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1).

Section 6.4, Level of Significance After Mitigation has been revised as follows.

With implementation of Mitigation Measures~~s~~ BIO-1~~ through BIO-3~~, impacts to the sensitive habitat ~~vegetation community~~, non-native grassland, from implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would be reduced to a less than significant level.

With implementation of Mitigation Measures BIO-1~~2~~ through BIO-5~~8~~, impacts to sensitive plant species identified as candidate, sensitive, or special-status species by the CDFW or USFWS from implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would be reduced to a less than significant level.

With implementation of Mitigation Measures BIO-1~~9~~ through BIO-7~~11~~, direct and indirect impacts to sensitive animal species identified as candidate, sensitive, or special-status species by the CDFW or USFWS from implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would be reduced to a less than significant level.

With implementation of Mitigation Measures BIO-1, BIO-8~~12~~, and BIO-9~~13~~, impacts to state or federally protected aquatic resources through direct removal, filling, hydrological interruption, or other means from implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would be reduced to a less than significant level.

With implementation of Mitigation Measures BIO-1 through BIO-9~~13~~, impacts from conflicts with the Western Riverside County MSHCP or other regional conservation plans would be less than significant.

With implementation of Mitigation Measures BIO-1 through BIO-9~~13~~, direct and indirect impacts to sensitive biological resources from implementation of the projects would be less than significant.

Section 7, Cumulative Impacts and Mitigation, Subsection 7.1, Riparian Habitat or Other Sensitive Natural Community, has been revised as follows.

The geographic context for the analysis of cumulative impacts to riparian habitat or other sensitive natural communities is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for impacts to riparian habitat and sensitive vegetation communities, as appropriate. The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements. As analyzed in Section 6.3.1, potentially significant project-level impacts to non-native grassland habitat would be reduced to a less than significant level with implementation of Mitigation Measure~~s~~ BIO-1~~ through BIO-3~~. Therefore, the project's contribution would not be cumulatively considerable.

Section 7.2, Sensitive Plant Species, has been revised as follows.

The geographic context for the analysis of cumulative impacts to sensitive plant species is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would result in a substantial adverse impact on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS. All projects, including the 2018 RWMP, approved in the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for impacts to sensitive plant species, as appropriate. As analyzed in Section 6.3.2, potentially significant project-level impacts to sensitive plant species would be reduced to a less than significant level with implementation of Mitigation Measures BIO-1~~2~~ through BIO-5~~8~~. Since cumulative projects and the 2018 RWMP would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements, and project-specific mitigation measures would be implemented to reduce the project's impacts to sensitive plant species to below a level of significance, the project's contribution would not be cumulatively considerable.

Section 7.3, Sensitive Animal Species, has been revised as follows.

The geographic context for the analysis of cumulative impacts to sensitive animal species is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would result in a substantial adverse impact on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for impacts to sensitive animal species, as appropriate. The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements. As analyzed in Section 6.3.3, potentially significant project-level impacts to burrowing owl and nesting birds would be reduced to a less than significant level with implementation of Mitigation Measures BIO-1~~9~~ through BIO-7~~11~~. Therefore, the project's contribution would not be cumulatively considerable.

Section 7.4, Jurisdictional Aquatic Resources, has been revised as follows.

The geographic context for the analysis of cumulative impacts to jurisdictional aquatic resources is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would have a substantial adverse impact on a state or federally protected wetland through direct removal, filling, hydrological interruption, or other means. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for impacts to jurisdictional aquatic resources, as appropriate. The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements, and implement project-specific mitigation measures to reduce significant impacts. As analyzed in Section 6.3.4, potentially significant project-level impacts to jurisdictional aquatic resources would be reduced to a less than significant level with implementation of Mitigation Measures BIO-1, BIO-8~~12~~, and BIO-9~~13~~. Therefore, the project's contribution would not be cumulatively considerable.

Section 7.6, Local Policies and Ordinances, has been revised as follows.

The geographic context for the analysis of cumulative impacts to local policies and ordinances is the City. A significant cumulative impact would occur if, in combination, cumulative projects would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona

2020–2040 General Plan natural resources goals and policies (City of Corona 2020b), and the Western Riverside County MSHCP and to provide mitigation for conflicts with local policies and ordinances, as appropriate. As analyzed in Section 6.1.6, with implementation of Mitigation Measures BIO-1 through BIO-9~~13~~, the 2018 RWMP would have a less than significant impact from conflicts with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance. Therefore, the project's contribution would not be cumulatively considerable.

Section 7.7, Regional Conservation Planning, has been revised as follows.

The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed Western Riverside County MSHCP regional conservation requirements and provide mitigation for significant impacts, as appropriate. Consistency with regional conservation plans and mitigation measures, as appropriate, must be demonstrated in order for the project and other cumulative projects to be approved. Mitigation Measures BIO-1 through BIO-9~~13~~ would reduce project-level direct and indirect impacts on sensitive plants and animals, nesting birds, sensitive vegetation communities, and jurisdictional aquatic resources. Implementation of these mitigation measures would reduce project-level impacts and ensure the project would not contribute to cumulatively significant impacts from conflicts with regional conservation planning. The project would comply with the Western Riverside County MSHCP and would not contribute to loss of sensitive vegetation communities or sensitive species. Therefore, the project's contribution would not be cumulatively considerable.

Section 8, References, the following reference has been added.

WRCRWA (Western Riverside County Regional Wastewater Authority). 2010. Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project Environmental Impact Report. August.

Appendix D, Cultural and Tribal Cultural Resources Technical Report

Section 6.3, Archaeological Resources Impact analysis, has been revised as follows.

Based on the cultural resource sensitivity analysis much of the RWMP Project area has been identified as having a moderate to high sensitivity for cultural resources. Sensitivity is based on previously recorded archaeological findings and has not included ethno-historic or ethno-botanic research to further identify traditional cultural properties/tribal cultural landscapes. The record search conducted for the *City of Corona General Plan Update: Cultural Resources Technical Report* identified 96 previously recorded cultural resources are located within the RWMP Project area, 30 of which are included as built environment resources, discussed above (SWCA 2018). Thirteen of the resources are within 100 feet of a Project Component and an

additional three of the resources are intersected by a Project Component (Table 6, below and Confidential Appendix C).

Section 7.2.2, Mitigation Measure CULT-2: Project Specific Archaeological Survey, has been revised as follows.

Each Project Component should be reviewed by the City to determine if a site-specific archaeological survey should be conducted. Site specific archaeological surveys should be conducted for Project Components which are located in areas that have not been previously developed, that will impact land with visible ground surface, and/or projects which may impact built environment resources that meet the age threshold for eligibility. A Native American monitor shall be on site during the site-specific archaeological surveys.

If cultural resources are identified during the site-specific archaeological survey then evaluation of the resources to the CRHR and the Corona Register should be conducted in conjunction with the Native American monitor to determine if the resource is significant under CEQA, and would be adversely impacted by the project. A Native American monitor from a culturally affiliated Tribe should be present during any archaeological excavations involving prehistoric cultural resources. If no significant resources are found, and site conditions are such that there is no potential for further discoveries, then no further action is required. Resources found to be non-significant as a result of a survey and/or evaluation will require no further work beyond documentation of the resources on the appropriate Department of Parks and Recreation (DPR) site forms and inclusion of results in a technical report.

If significant resources are present, consulting tribes or bands should be notified and consulted with on treatment. ~~Then a~~ Avoidance, preservation in place, or a data recovery program is recommended. The data recovery program is subject to the provisions as outlined in CEQA, Section 21083.2. The data recovery program should be conducted in accordance with the Office of Historic Preservation's *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format* (1990) and *Guidelines for Archaeological Research Designs* (1991). The data recovery program must be reviewed and approved by the City

Section 7.2.3, Mitigation Measure CULT-3: Archaeological and Native American Monitoring Program, has been revised as follows.

Because there is always a potential for encountering cultural and tribal cultural resources during excavation, the creation of an archaeological and Native American monitoring program is recommended for projects identified in the 2018 Reclaimed Water Master Plan that would conduct new ground disturbance in areas identified as moderate or high sensitivity for cultural resources, for project components that are within 100 feet of previously recorded archaeological resources, and for those projects where tribal consultation has identified

traditional cultural properties/tribal cultural landscapes. Prior to the commencement of ground-disturbing activities below the road base, the City of Corona, Public Works Department, shall enter into an agreement with the consulting tribes or bands for Native American monitors. The Native American monitor shall be approved by the Gabrieleño Band of Mission Indians – Kizh Nation, Soboba Band of Luiseño Indians, and Rincon Band of Luiseño Indians—the tribes that consulted on the project pursuant to Assembly Bill 52 (consulting tribes or bands). A copy of the executed contract shall be submitted to the City of Corona prior to the issuance of any permit necessary to start a ground-disturbing activity.

The Native American monitor shall be on site during all initial ground-disturbing activities and excavation of each portion of the project site, including clearing, grubbing, tree removals, grading, and trenching. Monitoring will not take place within the imported fill soils in the road base and for potholing above known utility lines. In conjunction with the archaeological monitor, the Native American monitor shall have the authority to temporarily divert, redirect, or halt the ground-disturbing activities to allow identification, evaluation, and potential recovery of cultural resources. The on-site monitoring shall end when all ground-disturbing activities on the project site are completed or when the tribal representatives and Native American monitor have indicated that all upcoming ground-disturbing activities on the project site have little to no potential for impacting cultural or tribal cultural resources. Upon discovery of any tribal cultural resources, construction activities shall cease in the immediate vicinity of the find (not less than the surrounding 100 feet) until the find can be assessed. All tribal cultural resources unearthed by project activities shall be evaluated by the qualified archaeologist and Native American monitor approved by the consulting tribe or band. If the resources are Native American in origin, the consulting tribe or band shall retain it/them in the form and/or manner the consulting tribe or band deems appropriate for educational, cultural, and/or historic purposes.

If a non-Native American resource is determined by the qualified archaeologist to constitute a "historical resource" or "unique archaeological resource," time allotment and funding sufficient to allow for implementation of avoidance measures or appropriate mitigation must be available. The treatment plan established for the resources shall be in accordance with the California Environmental Quality Act Guidelines, Section 15064.5(f), for historical resources and California Public Resources Code, Sections 21083.2(b), for unique archaeological resources.

Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees

to accept the material. If no institution accepts the historic archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.

The City of Corona, Public Works Department, shall obtain a fully executed agreement(s) with the consulting tribes or bands to ensure compliance with this mitigation measure. This agreement shall not modify any condition of approval or mitigation measure.

The City of Corona, Public Works Department, and the consulting tribes or bands shall develop an Archaeological Monitoring Plan to address details, timing, and responsibilities of all archaeological activities that will occur on the project site when it is determined by either the City of Corona, Public Works Department, or the consulting tribes or bands to be necessary. The Archaeological Monitoring Plan shall include the following:

1. The development of a schedule in coordination with the City of Corona, Public Works Department, the project archaeologist, and the consulting tribes or bands for Native American and archaeological monitoring during ground-disturbing activities on the site, including the scheduling, safety requirements, duties, scope of work, and Native American monitor's authority to stop and redirect grading activities in coordination with all project archaeologists.
2. The protocols and stipulations that the City of Corona, Public Works Department, the consulting tribes or bands, and project archaeologist would follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resource evaluation. Such procedures include the following:
    a. The archaeologist or Native American monitor may halt ground-disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground-disturbing activities shall be directed away from these deposits for a short time to allow for identification, evaluation, and potential recovery of cultural resources by the archaeologist and the Native American monitor. Ground-disturbing activities shall not resume until the archaeologist, in consultation with the Native American monitor and the City of Corona, deems the cultural resource or feature has been appropriately documented and protected.
    b. All discovered resources shall be temporarily curated in a secure location on site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with Native American monitor oversight of the process.
    c. The City of Corona, Public Works Department, shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains, as part of the required mitigation for impacts to cultural resources. The City of Corona, Public Works Department, shall relinquish

the artifacts through one or more of the following methods and provide the consulting tribes or bands with evidence of the same:

i. Accommodate the process for on-site reburial of the discovered items with the consulting tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloging and basic recordation have been completed.

ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per Title 36, Part 79, of the Code of Federal Regulations and, therefore, would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility in Riverside County to be accompanied by payment of the fees necessary for permanent curation.

iii. If more than one Native American tribe or band is involved with the project and cannot come to a consensus on the disposition of cultural materials, the cultural materials shall be curated at the Western Science Center.

d. At the completion of grading, excavation, and ground-disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City of Corona, Public Works Department, documenting monitoring activities conducted by the project archaeologist and Native American monitor within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; and in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the consulting tribes or bands, Eastern Information Center, and interested tribes or bands.

~~As there is always a potential for encountering cultural resources during excavation, therefore the creation of an archaeological and Native American monitoring program is recommended for Project Components which will conduct new ground disturbance in areas identified as moderate or high sensitivity for cultural resources and for Project Components that are located within 100 ft of previously recorded archaeological resources. The archaeological and Native American monitoring program shall consist of the full-time presence of a qualified archaeologist and traditionally and culturally affiliated Native American monitor during new ground disturbing activities. New ground disturbance can include new trenching, or expanding previously excavated trenches, grading, and vegetation removal. The archaeological and Native American monitoring program should include the following:~~

~~1. The requirement for the archaeological and Native American monitoring to be noted on applicable construction documents, including plans;~~

~~2. The archaeologist and Native American monitor should attend the preconstruction meeting with the contractor and/or the City;~~

~~3. The archaeologist shall maintain ongoing collaborative consultation with the Native American Monitor during all ground disturbing or altering activities, as identified above;~~

~~4. The archaeologist and/or Native American Monitor may halt ground disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground-disturbing activities shall be directed away from these deposits for a short time to allow a determination of potential significance, the subject of which shall be determined by the archaeologist and the Native American Monitor. Ground disturbing activities shall not resume until the archaeologist, in consultation with the Native American Monitor and the City, deems the cultural resource or feature has been appropriately documented and/or protected;~~

~~5. Archaeological isolates and non-significant materials will be minimally documented in the field and ground disturbance will be allowed to resume;~~

~~6. The avoidance and protection of discovered unknown and significant cultural resources and/or unique archaeological resources is the preferable mitigation for the proposed project. If avoidance is not feasible, a Data Recovery Plan may be authorized by the City as the Lead Agency under CEQA; and~~

~~7. Prior to the release of any Bonds associated with the construction of the Project Components a Monitoring Report and/or Evaluation Report, which describes the results, analysis and conclusions of the archaeological and Native American monitoring program (such as, but not limited to, a Data Recovery Program) shall be submitted by the archaeologist, along with the Native American monitor's notes and comments, to the City for approval.~~

Section 7.2.4, Mitigation Measure CULT-4: Identification and Treatment of Human Remains, has been revised as follows.

In the event that human remains, or possible human remains, and/or grave goods are encountered during any work associated with the projects identified in the 2018 Reclaimed Water Master Plan, ground disturbance within 100 feet of the remains shall immediately halt. The project proponent shall then immediately inform the Riverside County Coroner and the City of Corona, Public Works Department, and the County Coroner shall be permitted to examine the remains as required by California Health and Safety Code, Section 7050.5(b). Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains until the County Coroner can determine whether the remains are those of a Native American.

If human remains are determined to be of Native American origin, the applicant shall comply with the state relating to the disposition of Native American burials that fall within the jurisdiction of the California Native American Heritage Commission (California Public Resources Code, Section 5097). The County Coroner shall contact the California Native American Heritage Commission to determine the most likely descendant. The most likely descendant shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The disposition of the remains shall be overseen by the most likely descendant to determine the most appropriate means of treating the human remains and any associated grave artifacts. The specific locations of Native American burials and reburials will be proprietary and not disclosed to the general public. The County Coroner will notify the California Native American Heritage Commission in accordance with California Public Resources Code, Section 5097.98. According to California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052) as determined in consultation between the project proponent and the most likely descendant.

~~In the event that human remains or possible human remains are encountered during any work associated with the RWMP all ground disturbance within 25 ft of the remains shall halt and CEQA Guidelines Section 15064.5, subdivision (e), California Public Resource Code Section 5097.98, and California Health and Safety Code §7050.5 should be followed. If Native American remains are discovered, the remains shall be kept *in situ* (in place), or in a secure location, as approved by the Native American monitor until the repatriation process can be completed.~~

This page intentionally left blank.

Responses to Comments

Section 15088 of the California Environmental Quality Act (CEQA) Guidelines requires the lead agency (i.e., City of Corona [City]) to evaluate comments on environmental issues received from public agencies and interested parties that reviewed the Draft Program Environmental Impact Report (PEIR) for the 2018 Reclaimed Water Master Plan (project or 2018 RWMP) and to prepare written responses.

This section provides all written comments received on the Draft PEIR and the City's responses to each comment. Comment letters and specific comments are given letters and numbers for reference. Where sections of the Draft PEIR are excerpted in this document, the sections are indented. Changes to Draft PEIR text are shown in underlined text for additions and ~~strikeout~~ for deletions.

The following is a list of agencies and interested parties that submitted comments on the Draft PEIR during the public review period.

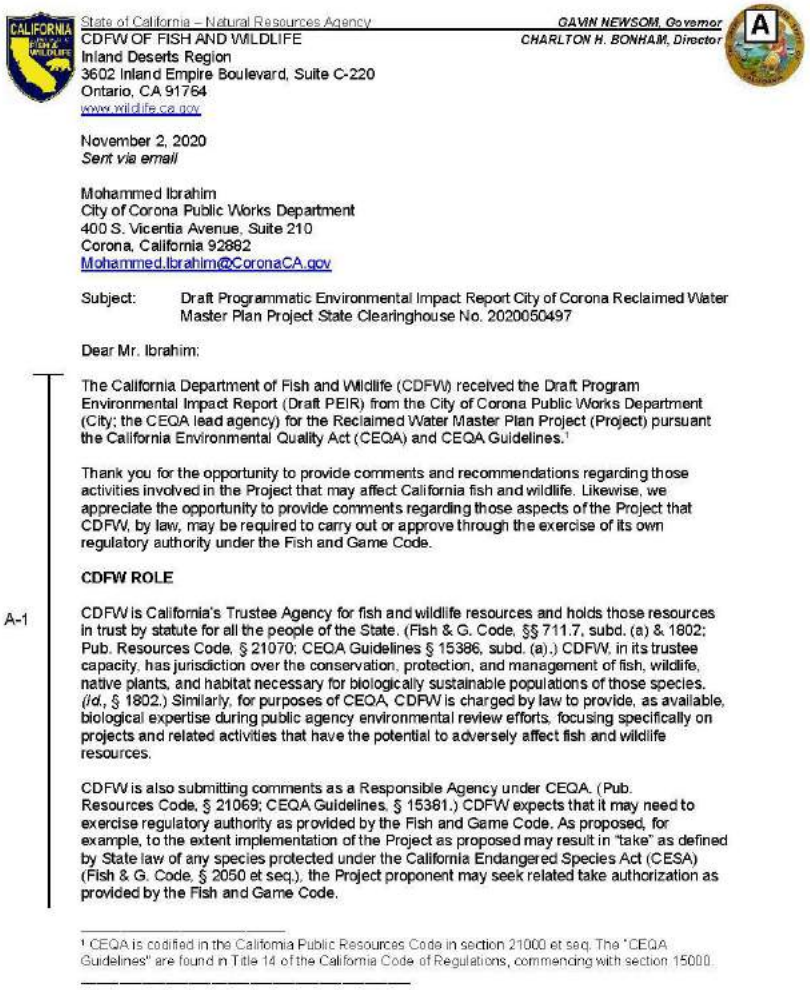
Table RTC-1. Comment Letters Received

Comment Letter Number	Commenter	Date of Comment Letter
A	California Department of Fish and Wildlife	November 2, 2020
B	Orange County Water District	October 30, 2020

Pursuant to the California Public Resources Code, Section 21092.5, and CEQA Guidelines, Section 15088(b), the City provided each public agency that commented on the Draft PEIR a copy of the City's response to those comments at least 10 days before certifying the Final PEIR.

This page intentionally left blank.

Comment Letter A: California Department of Fish and Wildlife, November 2, 2020



State of California – Natural Resources Agency
CDFW OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Boulevard, Suite C-220
Ontario, CA 91764
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

November 2, 2020
Sent via email

Mohammed Ibrahim
City of Corona Public Works Department
400 S. Vicentia Avenue, Suite 210
Corona, California 92882
Mohammed.Ibrahim@CoronaCA.gov

Subject: Draft Programmatic Environmental Impact Report City of Corona Reclaimed Water Master Plan Project State Clearinghouse No. 2020050497

Dear Mr. Ibrahim:

The California Department of Fish and Wildlife (CDFW) received the Draft Program Environmental Impact Report (Draft PEIR) from the City of Corona Public Works Department (City; the CEQA lead agency) for the Reclaimed Water Master Plan Project (Project) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

A-1

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

A-1 The City of Corona (City) appreciates the California Department of Fish and Wildlife's (CDFW) participation in the review of the Draft Program Environmental Impact Report (PEIR) for the proposed 2018 Reclaimed Water Master Plan (project or 2018 RWMP). This comment is an introductory comment and summarizes the CDFW's role pursuant to the California Environmental Quality Act (CEQA) and the project description. This comment does not raise a significant environmental issue regarding the adequacy or accuracy of information provided in the Draft PEIR. Therefore, no further response is required.

PROJECT DESCRIPTION

The Project is located within the northwestern portion of the County of Riverside, near the convergence of the Counties of Los Angeles, Orange, and Riverside and is bordered by the City of Norco to the north, City of Riverside to the east, unincorporated County of Riverside to the west and south, Cleveland National Forest to the south and southwest, and Prado Flood Control Basin to the northeast. The City's water service area encompasses approximately 39 square miles and delineates the extent of the City's potable water, reclaimed water, and wastewater services. The water service area boundary differs slightly from the City's jurisdictional boundary because it also includes the unincorporated communities of El Cerrito and Coronita and parts of Temescal Canyon. The water service area is a jurisdictional boundary bordered by the neighboring water service areas for the Cities of Norco and Eastvale to the north, City of Riverside to the northeast, Home Gardens County Water District to the east, and Temescal Valley Water District to the south (see Figure 1).

The City is a member of the Western Riverside County Regional Wastewater Authority (WRCRWA), which operates a new wastewater reclamation facility in the City of Eastvale. The WRCRWA is a future source of reclaimed water for the City. To meet the supply and demand needs of the City, improvements to the reclaimed water transmission system between the WRCRWA and customers in the southern part of the water service area and improvements to the wastewater collection system between sewer customers in the southern part of the sewer shed and the Water Reclamation Facilities (WRFs) in the northern part will occur. In total, 33 separate projects will occur, including: (1) improvements surrounding the WRCRWA facilities, (2) improvements to supply reclaimed water based on increased demand, (3) enhancements to data collection, and (4) additional studies.

A-1 cont.

Six sources of supply that involve future allocation from the WRCRWA have been designed. The WRCRWA Booster Pump Station will supply and replace the existing booster pump station that completes the transmission system loop between the WRCRWA Plant and existing WRF1 Tank and will provide reclaimed water to the 833 Subzone. A 5,133-foot-long, 20-inch-wide transmission pipeline (WRCRWA Transmission Pipeline) will connect the WRCRWA Plant Booster Pump Station 833 Subzone to the River Flow Control Station (FCS)-833 Subzone (see Figure 2, Source of Supply Project). Three control valve stations will direct flow from the WRCRWA to the desired destinations in the existing system. This source of supply will control flows from the WRCRWA plant to deliver reclaimed water to either the Lincoln-Cota Ponds or the existing WRF1 Tank. The Rimpau California Pipeline will provide the additional capacity needed to move the WRCRWA supply from potable water to reclaimed water in the southern portion of the water service area between City Park and Chase Park. The Chase Booster Pump Station will complete the primary loop between the existing WRF1 and the 1380 Zone and will provide redundancy in conjunction with the existing Border Tank facility for serving large demands in areas south of the City. A booster pump station will be constructed adjacent to the future Chase Tank and 1,600 feet of new 12-inch pipe will be installed in Chase Park and California Avenue.

Approximately 27 miles of large distribution pipelines are proposed to supply irrigation demands at schools, parks, City landscaping, and the industrial, commercial, institutional, and multifamily residential sectors, including four large distribution pipelines (see Figure 3a, Large Distribution Pipelines); nine medium distribution pipelines (see Figure 3b, Medium Distribution Pipelines); and ten small distribution pipelines (see Figure 3c, Small Distribution Pipelines).

PROJECT BACKGROUND

The City originally adopted a Reclaimed Water Master Plan (RWMP) in 2001. The City filed for a Wastewater Change Petition (WW0056) with the State Water Resources Control Board (State Water Board), Division of Water Rights on December 17, 2009, pursuant to section 1211 of the Water Code. The petition sought to decrease the amount of treated wastewater into Butterfield Drain, tributary to Temescal Creek, by reallocating discharge from WRF3, which is situated adjacent to Temescal Creek just upstream from Cajalco Road, to WRF1, located directly south of Prado Basin on Railroad Street. CDFW filed protests to the petition between 2010 and 2012, with the State Water Board determining there was "no substantial evidence to support that the proposed changes would have an adverse effect on fish and wildlife resources". The protest was canceled in 2012. (Wat. Code§ 1335.).

A-1 cont.

In 2016, the City of Corona Department of Power and Water prepared a separate Initial Study/Mitigated Negative Declaration for the WRCRWA Transmission Pipeline (WRCRWA Proposition 1 – Reclaimed Water Distribution System SCH # 2016071005), which would provide the primary water transmission from the WRCRWA plant. An updated RWMP (2018) along with the accompanying Draft PEIR was prepared to provide guidance to utilize treated effluent from existing and future WRFs supplemented by non-potable groundwater from the Bedford Basin to reduce dependence on imported water and potable groundwater.

COMMENTS AND RECOMMENDATIONS

After reviewing the documents above, CDFW is providing the following comments and recommendations to assist the City in mitigating significant impacts to biological resources.

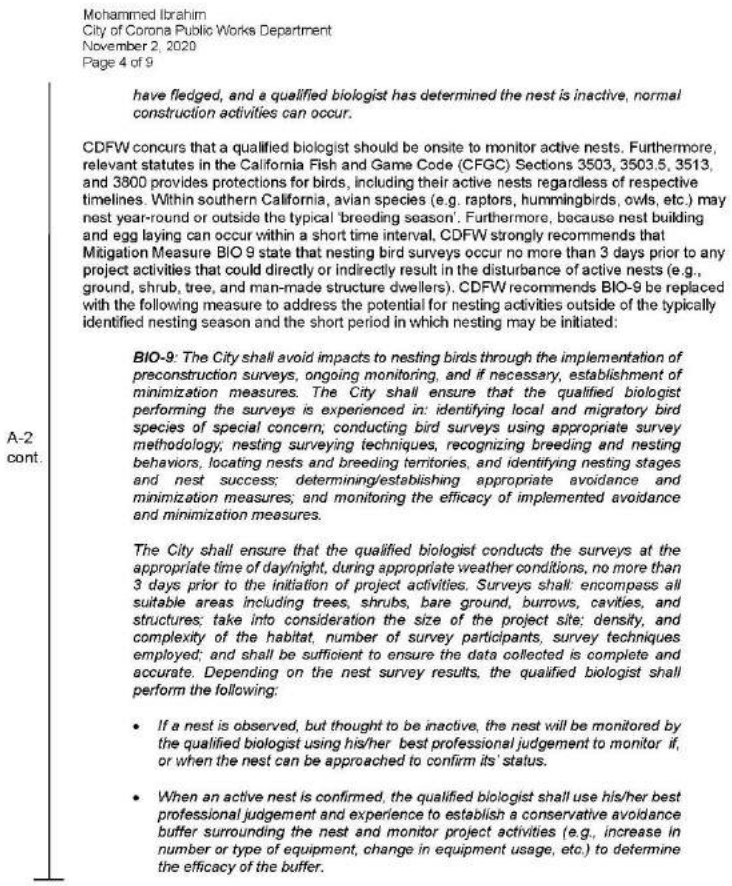
Mitigation Measures for Project Impacts to Biological Resources

Mitigation measures should emphasize avoidance and reduction of Project impacts. Within the Draft PEIR (3.4 Biological Resources 3.4.4 Environmental Analysis 3.4.4.2 *Threshold 2: Sensitive Animal Species*) BIO-9 (Preconstruction Nesting Bird Surveys) states the following:

A-2

To the extent feasible, grubbing, trimming, or clearing of vegetation from project sites shall not occur during the general bird nesting season (January 15 through September 15). If grubbing, trimming, or clearing of vegetation cannot feasibly occur outside of the general bird nesting season, a qualified biologist shall perform a preconstruction nesting bird survey at project sites with vegetation supporting nesting birds. Nesting bird surveys shall occur within 10 days before the start of vegetation clearing or grubbing to determine if active bird nests are present. If no active bird nests are identified on the project sites or within a 300-foot buffer of the project sites, no further mitigation is necessary. If active nests of bird species covered by the Migratory Bird Treaty Act are detected on the project site during the 10-day preconstruction survey, construction activities should stay outside of a 300-foot buffer around the active nest. For raptor species, this buffer is expanded to 500 feet. It is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young

A-2 This comment suggests revisions to the preconstruction nesting bird survey mitigation measure in Draft PEIR Section 3.4, Biological Resources, Mitigation Measure BIO-9, and Biological Resources Technical Report (BRTR) Section 6.3, Mitigation Measure BIO-10. As a result of other Final PEIR revisions, Draft PEIR Mitigation Measure BIO-9 (BRTR Mitigation Measure BIO-10) has been renumbered to Mitigation Measure BIO-6 (BRTR Mitigation Measure BIO-6). The Draft PEIR is a program-level document, and the Final PEIR Mitigation Measure BIO-6 (BRTR Mitigation Measure BIO-6) is consistent with the City's Final EIR for the Corona General Plan Technical Update Mitigation Measure BIO-7 (City of Corona 2020). In fact, Final PEIR Mitigation Measure BIO-6 (BRTR Mitigation Measure BIO-6) requires preconstruction nesting bird surveys if construction is planned to begin during the general nesting bird season from January 15 through September 15, which covers a greater time period than the City's Final EIR for the Corona General Plan Technical Update period of February 1 through August 31. To be fully consistent with the City's Final EIR for the Corona General Plan Technical Update Mitigation Measure BIO-7, the period in which general nesting bird surveys would be conducted before construction as required in Final PEIR Mitigation Measure BIO-6 (BRTR Mitigation Measure BIO-6) has been revised from 10 days to 7 days. Draft PEIR Mitigation Measure BIO-9 (BRTR Mitigation Measure BIO-10), renumbered to Final PEIR Mitigation Measure BIO-6 (BRTR Mitigation Measure BIO-6), has been revised to state the following:



Mohammed Ibrahim
City of Corona Public Works Department
November 2, 2020
Page 4 of 9

have fledged, and a qualified biologist has determined the nest is inactive, normal construction activities can occur.

CDFW concurs that a qualified biologist should be onsite to monitor active nests. Furthermore, relevant statutes in the California Fish and Game Code (CFGC) Sections 3503, 3503.5, 3513, and 3800 provides protections for birds, including their active nests regardless of respective timelines. Within southern California, avian species (e.g. raptors, hummingbirds, owls, etc.) may nest year-round or outside the typical 'breeding season'. Furthermore, because nest building and egg laying can occur within a short time interval, CDFW strongly recommends that Mitigation Measure BIO 9 state that nesting bird surveys occur no more than 3 days prior to any project activities that could directly or indirectly result in the disturbance of active nests (e.g., ground, shrub, tree, and man-made structure dwellers). CDFW recommends BIO-9 be replaced with the following measure to address the potential for nesting activities outside of the typically identified nesting season and the short period in which nesting may be initiated:

A-2 cont.

***BIO-9**: The City shall avoid impacts to nesting birds through the implementation of preconstruction surveys, ongoing monitoring, and if necessary, establishment of minimization measures. The City shall ensure that the qualified biologist performing the surveys is experienced in: identifying local and migratory bird species of special concern; conducting bird surveys using appropriate survey methodology; nesting surveying techniques, recognizing breeding and nesting behaviors, locating nests and breeding territories, and identifying nesting stages and nest success; determining/establishing appropriate avoidance and minimization measures; and monitoring the efficacy of implemented avoidance and minimization measures.*

The City shall ensure that the qualified biologist conducts the surveys at the appropriate time of day/night, during appropriate weather conditions, no more than 3 days prior to the initiation of project activities. Surveys shall: encompass all suitable areas including trees, shrubs, bare ground, burrows, cavities, and structures; take into consideration the size of the project site; density, and complexity of the habitat, number of survey participants, survey techniques employed; and shall be sufficient to ensure the data collected is complete and accurate. Depending on the nest survey results, the qualified biologist shall perform the following:

- *If a nest is observed, but thought to be inactive, the nest will be monitored by the qualified biologist using his/her best professional judgement to monitor if, or when the nest can be approached to confirm its' status.*
- *When an active nest is confirmed, the qualified biologist shall use his/her best professional judgement and experience to establish a conservative avoidance buffer surrounding the nest and monitor project activities (e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer.*

BIO-~~6~~9: Preconstruction Nesting Bird Surveys. To the extent feasible, grubbing, trimming, or clearing of vegetation from project sites shall not occur during the general bird nesting season (January 15 through September 15). If grubbing, trimming, or clearing of vegetation cannot feasibly occur outside of the general bird nesting season, a qualified biologist shall perform a preconstruction nesting bird survey at project sites with vegetation supporting nesting birds. Nesting bird surveys shall occur within ~~10~~ 7 days before the start of vegetation clearing or grubbing to determine if active bird nests are present. If no active bird nests are identified on the project sites or within a 300-foot buffer of the project sites, no further mitigation is necessary. If active nests of bird species covered by the Migratory Bird Treaty Act are detected on the project site during the ~~10~~ 7-day preconstruction survey, construction activities should stay outside of a 300-foot buffer around the active nest. For raptor species, this buffer is expanded to 500 feet. It is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged, and a qualified biologist has determined the nest is inactive, normal construction activities can occur.

The Draft PEIR is consistent with the City's Final EIR for the Corona General Plan Technical Update and adequately addresses the potential impacts to nesting birds. Therefore, no additional changes to the Draft PEIR are required.

Mohammed Ibrahim
City of Corona Public Works Department
November 2, 2020
Page 5 of 9

Analysis of Biological Resources

Within CEQA, a project should determine if any riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations or by CDFW will be substantially adversely affected. In the Draft PEIR (3.4 Biological Resources 3.4.5 *Cumulative Impacts and Mitigation*), it states that "*All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for impacts to riparian habitat and sensitive vegetation communities as appropriate. The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements. As analyzed in Section 3.4.4.3, potentially significant project level impacts to non-native grassland habitat would be reduced to a less than significant level with implementation of Mitigation Measures BIO-2, BIO-3, and BIO-11.*"

A-3 CDFW is concerned with the lack of consistency in vegetation classifications and mapping between the Draft PEIR and the Western Riverside County Multiple Species Habitat Conservation Plan and Natural Community Conservation Plan (MSHCP/NCCP), and the City's ability to identify and mitigate losses of habitat consistent with the MSHCP given the inconsistency in defining and mapping vegetation. According to the Draft PEIR (3.4 Biological Resources 3.4.1 *Environmental Setting* 3.4.1.2 Existing Biological Resources), "*the water service area consists of nine sensitive vegetation communities and two land use types*" (County of Riverside 2003; City of Corona 2018; Holland 1986). Specifically, the Draft PEIR identified areas as chaparral, coastal sage scrub (Diegan and Riversidian), and oak woodland. However, using Western Riverside County MSHCP/NCCP vegetation mapping (2008-second edition and online updates of the *Manual of California Vegetation* [Sawyer, Keeler-Wolf and Evens 2009], the Project would be mapped as having at least seven alliances/associations (e.g., Laurel Sumac Alliance, Coast Live Oak – Sycamore, Hoaryleaf Ceanothus - Laurel Sumac Association). Similarly, Prado Basin, which was mapped within the Draft PEIR as freshwater marsh (coastal and valley), grassland (non-native), open water, southern riparian forest, and southern riparian scrub, is mapped by the MSHCP/NCCP as more than twelve associations/alliances consisting of, but not limited to, Black Willow - Shining Willow - Fremont Cottonwood Association, Black Willow - Shining Willow - Fremont Cottonwood Association, and Black Willow/Mulefat Association. CDFW strongly encourages the City to include the MSHCP/NCCP GIS map in the Draft PEIR, and compare and contrast the vegetation communities/alliances to ensure all sensitive communities are identified, along with feasible mitigation that will compensate for loss to state sensitive associations/alliances.

A-4 CDFW also is concerned with how vegetation impacts were determined. CDFW compared the MSHCP/NCCP GIS vegetation community layer and the maps provided within the Draft PEIR (see Figures 4 and 5a), and identified discrepancies between "urban" and California Annual Grassland Alliance (Figure 5b), as well as, "nonnative grassland" and willow scrub association classifications (Figure 5c). In particular, where the Draft PEIR indicates that nonnative grasslands are present, some of these areas are distinguished as willow scrub in the MSHCP/NCCP, while some urban polygons (Draft PEIR) are delineated as California Annual Grassland (MSHCP/NCCP). To maintain consistency with the MSHCP/NCCP, CDFW recommends the City coordinate with the Western Riverside County Regional Conservation Authority (RCA) on the identification of vegetation impacts and, if necessary, reevaluate the

A-3 This comment states the CDFW's concern regarding the lack of consistency in vegetation community classifications and mapping between the Draft PEIR and the Western Riverside County Multiple Species Habitat Conservation Plan and Natural Community Conservation Plan (MSHCP/NCCP) and the City's ability to identify and mitigate losses of habitat consistent with the Western Riverside County MSHCP/NCCP given the inconsistencies in vegetation mapping. The City notes this comment. Draft PEIR Mitigation Measure BIO-1 (BRTR Mitigation Measure BIO-1) was clarified in response to the CDFW's comments and following consultation with the Western Riverside County Regional Conservation Authority. Draft PEIR Mitigation Measure BIO-1 was renamed and refined to more accurately describe the Western Riverside County MSHCP Consistency Analysis Report process and components. Mitigation Measure BIO-1 includes requirements for identifying the presence of sensitive plant and animal species, including burrowing owl (*Athene cunicularia*), and potential sensitive habitats. It was determined that Mitigation Measure BIO-1 would mitigate for potential impacts to sensitive plant species, sensitive habitats, and burrowing owl. Separate mitigation measures were previously included to address potential impacts to sensitive plant species (previous Mitigation Measure BIO-1), sensitive habitat (previous Mitigation Measures BIO-2 and BIO-3), and burrowing owl (previous Mitigation Measure BIO-8). Consistent with CEQA Guidelines, Section 15088.5(b), and following consultation with the Western Riverside County Regional Conservation Authority, these separate mitigation measures were determined not to be necessary because they are included in the requirements of Mitigation Measure BIO-1 and, therefore, have been removed.

These mitigation refinements resulted in removing previous stand-alone Mitigation Measures BIO-2, BIO-3, BIO-8, and BIO-11; renaming and refining Mitigation Measure BIO-1; and renumbering the remaining mitigation measures. The following revisions were made to Draft PEIR Mitigation Measures BIO-1 through BIO-11:

Survey Requirements

Implementation of Mitigation Measure BIO-1, Multiple Species Habitat Conservation Plan Consistency Analysis Report, would ~~require~~ include identification of sensitive plant species and potential surveys for projects including the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline ~~project sites~~. If sensitive plant species are identified on the project site during implementation of Mitigation Measure BIO-1, potential impacts shall be documented consistent with the MSHCP requirements, including conservation easements for avoidance areas and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures.

BIO-1: Multiple Species Habitat Conservation Plan Consistency Analysis Report ~~Sensitive Plant Species Surveys.~~ For projects proposed in the City of Corona 2018 Reclaimed Water Master Plan on undeveloped land, including the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline, a Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis Report site-specific biological resources survey shall be completed

during the project design phase. The Consistency Analysis Report shall be prepared for each project to demonstrate consistency with the Multiple Species Habitat Conservation Plan Implementation Structure and shall include project-level existing conditions documentation consisting of vegetation mapping and identification of sensitive habitats (non-native grassland, riparian and riverine areas, and vernal pools), plants, and animals (including burrowing owl [*Athene cunicularia*]) on the project site.

The Consistency Analysis Report shall be used as the basis for determining if a project is subject to a Joint Project Review and is required to complete a Joint Project Review Application. The Multiple Species Habitat Conservation Plan Consistency Analysis Report template and requirements can be accessed on the Western Riverside County Regional Conservation Authority Document Library: https://www.wrc-rca.org/document-library/. The Western Riverside County Multiple Species Habitat Conservation Plan Permittee Implementation Guidance Manual (2007) shall also be reviewed and followed to ensure project consistency with the Multiple Species Habitat Conservation Plan requirements.

~~If one or more sensitive plant species has the potential to occur on the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, focused species surveys shall be conducted before~~

~~construction to determine the presence and absence of these species to adequately evaluate potential direct or indirect impacts to these species.~~

~~Sensitive plant species surveys shall be conducted by a qualified biologist retained by the City of Corona during the appropriate season to detect the species as part of the project design phase. Surveys shall be floristic in nature and include lists of the plants identified in the survey area. Surveys shall be conducted on foot, employing a level of effort sufficient to provide comprehensive coverage. The locations and prevalence (estimated total numbers and percent cover, as applicable) of sensitive plants shall be recorded. The sensitive plant species surveys shall be valid for 3 years.~~

~~If site-specific surveys are not required because a survey was conducted within the last 3 years, impact assessment and minimization and mitigation requirements shall be based on the most recent available survey. These requirements shall also include an analysis of the potential for sensitive plant species to occur on site based on existing site conditions and shall be consistent with the most recent U.S. Fish and Wildlife Service and California Department of Fish and Wildlife survey protocols.~~

~~If sensitive plant species are observed, they shall be avoided if possible. If species cannot be avoided, impacts shall be mitigated through conservation of habitat that supports the impacted~~

~~species in accordance with Mitigation Measures BIO-2 and BIO-3.~~

Habitat Mitigation Requirements

Permanent Impacts

If a project site is identified as occupied or potentially occupied habitat for sensitive plant or animal species during preparation of the MSHCP Consistency Analysis Report (Mitigation Measure BIO-1), potential impacts shall be documented consistent with the MSHCP requirements, including project-level vegetation mapping, adherence to narrow endemic plant species protection policies, conservation easements for avoidance areas, and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures. ~~Implementation of Mitigation Measure BIO-2, a mitigation ratio of 0.5:1, would be applied to reduce potentially significant impacts to sensitive vegetation communities to less than significant. Mitigation Measure BIO-2 would reduce permanent impacts to non-native grassland to a less than significant level.~~

~~**BIO-2: Permanent Impacts to Non-Native Grassland.** Permanent impacts to sensitive non-native grassland shall be mitigated through the preservation of habitat, habitat creation, or enhancement, or combination thereof, in the City of Corona or off site through habitat acquisition and preservation or purchase of credits from an approved conservation bank. Mitigation for impacts to non-native grassland shall be in-kind using native~~

~~grasses. Permanent impacts to sensitive non-native grassland shall be mitigated at a ratio of 0.5:1.~~

~~For on-site mitigation, a detailed Mitigation Plan shall be prepared before the start of construction (not applicable to mitigation met through the purchase of credits from an approved wetland mitigation bank). The Mitigation Plan shall include at a minimum the proposed location of the mitigation areas, site preparation, a plant palette, installation procedures, success criteria, fencing and signage, monitoring requirements, and other details of the habitat restoration effort and shall be prepared by a qualified biologist.~~

Temporary Impacts

If a project site is identified as occupied or potentially occupied habitat for sensitive plant or animal species during preparation of the Western Riverside County MSHCP Consistency Analysis Report (Mitigation Measure BIO-1), potential impacts shall be documented consistent with the MSHCP requirements, including project-level vegetation mapping, adherence to narrow endemic plant species protection policies, conservation easements for avoidance areas, and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures. ~~With implementation of Mitigation Measure BIO-3, temporary impacts to non-native grassland would be restored in place or elsewhere on the project site at a mitigation ratio of 1:1, as described in Mitigation Measure BIO-3. Mitigation Measure~~

~~BIO-3 would reduce temporary impacts to non-native grassland to a less than significant level.~~

~~**BIO-3: Temporary Impacts to Non-Native Grassland.** Temporary impacts to non-native grassland shall be restored in place or elsewhere on the project site at a 1:1 replacement ratio using native grass species.~~

~~A Revegetation Plan shall be prepared. The Revegetation Plan shall include site preparation specifications, a plant palette, installation procedures, development of reasonable success criteria, appropriate monitoring and reporting protocols, implementation timelines, and contingency measures in the event of restoration failure. The City of Corona shall provide guidance for and oversight of the Revegetation Plan and implementation.~~

~~In the event that non-native grassland vegetation cannot be restored in place or elsewhere on the project site after construction, these impacts would be considered permanent, and Mitigation Measure BIO-2 would be implemented.~~

Construction

BIO-24: Invasive Plant Species Prevention. During construction of the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects, the following measures shall be implemented to minimize the spread of invasive plant species:

- Construction equipment shall be cleaned before coming to the project sites.
- Weed-free straw wattles shall be used for erosion control.

BIO-3~~5~~: Flagging and Fencing. If sensitive biological resources are identified on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, the construction limits shall be clearly identified on construction drawings and flagged on the project site to ensure impacts to sensitive biological resources are avoided or minimized to the extent feasible. Before implementing construction activities, a qualified biologist shall verify that the flagging clearly delineates the construction limits and sensitive resources to be avoided.

BIO-4~~6~~: Contractor Training Program. If sensitive biological resources are known to occur on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a project-specific contractor training program shall be developed and implemented to educate project contractors on the sensitive biological resources on and adjacent to the project sites and measures being implemented to avoid or minimize impacts to these species. A qualified biologist shall develop and implement the contractor training program.

BIO-5~~7~~: Biological Monitor. If sensitive biological resources are present on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites and impacts may occur from implementation of construction activities, a qualified biological monitor may be required during all or a portion of the construction activities to ensure impacts to the sensitive biological resources are avoided or minimized to the extent feasible. The specific biological monitoring requirements shall be evaluated on a project-by-project basis. The qualified biological monitor shall be approved by the City of Corona based on applicable experience with the sensitive biological resources that may be impacted.

Burrowing Owl

Implementation of Mitigation Measure BIO-1~~8~~, Multiple Species Habitat Conservation Plan Consistency Analysis Report, would require burrowing owl habitat analysis and potential focused ~~clearance~~ surveys on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites to reduce potential impacts to burrowing owl to less than significant. If burrowing owl is identified on the project site during implementation of Mitigation Measure BIO-1, potential impacts shall be documented consistent with the MSHCP requirements, including preparation of a Determination of Biological Equivalent or Superior Preservation Report to ensure that an appropriate mitigation strategy would be implemented, preparation of a Burrowing Owl Protection and

Relocation Plan, and coordination with the Western Riverside County Regional Conservation Authority and CDFW prior to implementation of proposed mitigation measures.

~~**BIO-8: Burrowing Owl Surveys.** A burrowing owl clearance survey shall be conducted before any ground-disturbing activities in accordance with the California Department of Fish and Wildlife 2012 Staff Report on Burrowing Owl Mitigation. Two preconstruction clearance surveys shall be conducted 14 30 days and 24 hours before ground-disturbing activities to document the continued absence of burrowing owl from the project sites. The burrowing owl surveys shall be valid for 1 year.~~

Nesting Birds

BIO-~~6~~9: Preconstruction Nesting Bird Surveys. To the extent feasible, grubbing, trimming, or clearing of vegetation from project sites shall not occur during the general bird nesting season (January 15 through September 15). If grubbing, trimming, or clearing of vegetation cannot feasibly occur outside of the general bird nesting season, a qualified biologist shall perform a preconstruction nesting bird survey at project sites with vegetation supporting nesting birds. Nesting bird surveys shall occur within ~~10~~7 days before the start of vegetation clearing or grubbing to determine if active bird nests are present. If no active bird nests are identified on the project sites or within a 300-foot buffer of the project sites, no further mitigation is necessary. If active nests of bird species covered by the Migratory Bird Treaty Act are detected on the project site during the ~~10~~7-day preconstruction survey, construction

activities should stay outside of a 300-foot buffer around the active nest. For raptor species, this buffer is expanded to 500 feet. It is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged, and a qualified biologist has determined the nest is inactive, normal construction activities can occur.

BIO-7~~10~~: Night Lighting. If temporary night lighting is necessary during construction adjacent to sensitive vegetation communities, construction contractors shall ensure lights are directed away from sensitive vegetation communities and shielded to minimize temporary lighting of the surrounding habitat and should be of the lowest illumination necessary for human safety.

Temporary Impacts

Implementation of Mitigation Measure BIO-1~~1~~ would reduce temporary impacts to non-native grassland to less than significant through the preparation of an MSHCP Consistency Analysis Report.

~~**BIO-11: Biological Resources Survey/Habitat Assessment.** For projects proposed in the 2018 Reclaimed Water Master Plan on undeveloped land, including the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline, a site-specific biological resources survey shall be conducted during the project design phase. The biological resources survey shall be conducted by a qualified biologist and shall include but not be limited to the following:~~

- ~~An analysis of available literature and biological databases, such as the California Natural Diversity Database, to determine sensitive biological resources that have been reported historically from the proposed project vicinity.~~
- ~~A review of current land use and land ownership within the project vicinity.~~
- ~~An assessment and mapping of vegetation communities present within the proposed project vicinity. If vegetation community mapping has not been conducted on the site in the previous 3 years, updated vegetation mapping shall be conducted by a qualified biologist as part of the project planning and environmental review process. Vegetation communities shall be mapped according to the Manual of California Vegetation at the alliance level, and a crosswalk table with Holland vegetation communities shall be provided.~~
- ~~A general assessment of the potential for aquatic resources, including wetlands and riparian habitats, to occur on site.~~
- ~~An evaluation of potential local and regional wildlife movement corridors.~~
- ~~If the project sites support vegetation communities that may provide habitat for plant or animal species, a focused habitat assessment conducted by a qualified biologist to determine the potential for sensitive plant or animal species to occur on or adjacent to the project sites.~~

~~The results of the biological survey shall be presented in a biological survey letter report.~~

A-4 cont.

vegetation communities within the Project and include an updated map and analysis of the Project impacts.

Finally, CDFW is concerned with the mitigation ratios offered in BIO-2 and BIO-3. The Draft PEIR (3.4 Biological Resources 3.4.4 Environmental Analysis 3.4.4.1 *Threshold 1: Sensitive Plant Species*), Measure BIO-2 asserts:

> *"Permanent impacts to sensitive non-native grassland shall be mitigated through the preservation of habitat, habitat creation, or enhancement, or combination thereof, in the City of Corona or off site through habitat acquisition and preservation or purchase of credits from an approved conservation bank. Mitigation for impacts to non-native grassland shall be in-kind using native grasses.* ***Permanent impacts to sensitive nonnative grassland shall be mitigated*** *at a* ***ratio of 0.5:1*** (emphasis added)."

Similarly, BIO-3 states the following:

> *Temporary impacts to non-native grassland shall be restored in place or elsewhere on the project site at a 1:1 replacement ratio using native grass species. A Revegetation Plan shall be prepared. The Revegetation Plan shall include site preparation specifications, a plant palette, installation procedures, development of reasonable success criteria, appropriate monitoring and reporting protocols, implementation timelines, and contingency measures in the event of restoration failure. The City of Corona shall provide guidance for and oversight of the Revegetation Plan and implementation.*

A-5

> *In the event that non-native grassland vegetation cannot be restored in place or elsewhere on the project site after construction, these impacts would be considered permanent, and Mitigation Measure BIO-2 would be implemented. The 0.5:1 permanent impacts and 1:1 temporary impacts* ***mitigation ratios for the project would follow the accepted ratios established by the Western Riverside County Multiple Species Habitat Conservation Plan to reduce potentially significant impacts to sensitive vegetation communities to less than significant*** (emphasis added)".

Finally, BIO-11 states the following:

> *"For projects proposed in the 2018 Reclaimed Water Master Plan on undeveloped land, including the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline, a site-specific biological resources survey shall be conducted during the project design phase. The biological resources survey shall be conducted by a qualified biologist and shall include but not be limited to the following:*
>
> *An analysis of available literature and biological databases, such as the California Natural Diversity Database, to determine sensitive biological resources that have been reported historically from the proposed project vicinity.*
>
> *• A review of current land use and land ownership within the project vicinity.*

A-4 This comment states the CDFW's recommendation that the Draft PEIR vegetation identification and impacts be re-evaluated using the Western Riverside County MSHCP/NCCP and updated maps and analysis. The Final PEIR mitigation measures have been clarified to address this comment. Please refer to response to comment A-3, which addresses the same issue raised in this comment.

A-5 This comment states the CDFW's concern regarding the mitigation ratios in Draft PEIR Mitigation Measures BIO-2 and BIO-3 (BRTR Mitigation Measures BIO-2 and BIO-3) and requests that the mitigation ratios be replaced with language referencing the Western Riverside County MSHCP/NCCP project review process when determining appropriate mitigation. The Final PEIR mitigation measures have been clarified to address this comment. Please refer to response to comment A-3, which addresses the same issue raised in this comment.

• An assessment and mapping of vegetation communities present within the proposed project vicinity. If vegetation community mapping has not been conducted on the site in the previous 3 years, updated vegetation mapping shall be conducted by a qualified biologist as part of the project planning and environmental review process. Vegetation communities shall be mapped according to the Manual of California Vegetation at the alliance level, and a crosswalk table with Holland vegetation communities shall be provided.

• A general assessment of the potential for aquatic resources, including wetlands and riparian habitats, to occur on site.

• An evaluation of potential local and regional wildlife movement corridors.

• If the project sites support vegetation communities that may provide habitat for plant or animal species, a focused habitat assessment conducted by a qualified biologist to determine the potential for sensitive plant or animal species to occur on or adjacent to the project sites.

The results of the biological survey shall be presented in a biological survey letter report".

A-5 cont.

The Project occurs within the MSHCP/NCCP area and is subject to the provisions and policies of the MSHCP/NCCP. In order to be considered a covered activity, Permittees need to demonstrate that proposed actions are consistent with the MSHCP/NCCP and its associated Implementing Agreement. This may include, but not limited to: a Joint Project Review (JPR) process through the Regional Conservation Authority (RCA), Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools (MSHCP section 6.1.2), Protection of Narrow Endemic Plant Species (MSHCP section 6.1.3), Additional Survey Needs and Procedures for burrowing owl and Criteria Area Species (MSHCP section 6.3.2), and the Guidelines Pertaining to the Urban/Wildlands Interface (MSHCP section 6.1.4).

In addition, mitigation to offset impacts to sensitive vegetation communities should be determined in coordination with the RCA and wildlife agencies during the various processes described above, as the MSHCP/NCCP does not offer standard ratios, but rather determines the mitigation necessary on an individual project basis dependent upon several factors, including, but not limited to, whether the individual project is within a Criteria Cell or whether the certain habitat being impacted is out of "rough step" (i.e., impacts are occurring at a faster pace than preservation). As such, CDFW believes the representation that, "*the project would follow the accepted ratios established by the Western Riverside County Multiple Species Habitat Conservation Plan*" by adopting a 0.5:1 or 1:1 mitigation ratio is incorrect and should be replaced with language referencing the MSHCP/NCCP project review process described above when determining appropriate mitigation.

Analysis of Direct, Indirect, and Cumulative Effects to Biological Resources

A-6

CDFW is concerned that the Draft PEIR only addresses direct impacts resulting from the construction of infrastructure related to water transmission and system performance. While these direct effects should be included within the Draft PEIR, CDFW also believes that other impacts, such as water removal, redirection, or reallocating groundwater should be analyzed for impacts to biological resources. If these impacts have been addressed in separate CEQA documents, CDFW recommends these related CEQA analysis and findings be incorporated by reference into the Draft PEIR. Of particular interset and relevance would be any findings from required monitoring plans resulting from the change in use of wastewater. For instance, when

the protest to the wastewater change petition WW0056 was dismissed, the State Water Board concluded as part of this reasoning that "*The Petitioner has developed and prior to reducing the quantity of treated wastewater discharged to the stream system must implement the 2011 Monitoring Plan, which is located in the WW0056 file. The Monitoring Plan requires the Petitioner to conduct baseline monitoring at the selected monitoring sites. All monitoring shall be conducted by a biologist acceptable to the Deputy Director for Water Rights. The Deputy Director for Water Rights may modify the plan upon a determination that it is ineffective or unsuccessful, or provide relief from this term upon a determination that the Monitoring Plan is no longer required. Petitioner shall provide an annual letter report documenting compliance with the Monitoring Plan, on or around the beginning of each calendar year, throughout the monitoring period established in the plan*".

A-6 cont.

The full scope of the Project, including indirect and cumulative impacts, should be described in the Draft PEIR to ensure the public is not deprived of a meaningful opportunity to review and comment on the environmental effects of the Project. As it is unclear whether impacts resulting from the redirection and use of previously discharged wastewater have been analyzed, CDFW recommends the City either include a mitigation measure to address potential future hydrological and ecological effects of the Project through relevant, scientific based data collection (e.g., piezometers, monitoring wells, etc.), monitoring (i.e., vegetation composition/density, water levels, etc.), modeling (i.e., hydrologic, numerical, etc.), and adaptive management approaches, or revise the Draft PEIR prior to certification to identify the associated CEQA analysis and findings related to these potential impacts. If no prior analysis of the change in wastewater usage was completed, CDFW recommends the following measure be added to the Draft PEIR:

> *The City shall prepare and implement a monitoring and adaptive management plan focused on avoiding and minimizing impacts of water withdrawal on sensitive habitats and species. The plan shall include, but not be limited to, data collection (e.g., piezometers, monitoring wells, etc.), monitoring (i.e., vegetation composition/density, water levels, modeling (i.e., hydrologic, numerical, etc.), and adaptive management approaches. The plan shall be submitted to CDFW, and other interested resource agencies, for review and approval.*

LAKE AND STREAMBED ALTERATION PROGRAM

A-7

Fish and Game Code section 1602 requires an entity to notify the CDFW prior to commencing any activity that may do one or more of the following: Substantially divert or obstruct the natural flow of any river, stream or lake; Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or Deposit debris, waste or other materials that could pass into any river, stream or lake. Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

Upon receipt of a complete notification, the CDFW determines if the proposed project activities may substantially adversely affect existing fish and wildlife resources and whether a Lake and Streambed Alteration (LSA) Agreement is required. An LSA Agreement includes measures

A-6 This comment states the CDFW's concern that the Draft PEIR only addresses direct impacts resulting from the construction of infrastructure related to water transmission and system performance. The CDFW requests that other impacts, such as water removal, redirection, or reallocating groundwater, be analyzed for indirect and cumulative impacts to biological resources. This comment recommends the inclusion of a mitigation measure to address the change in wastewater use from implementation of the project in the Draft PEIR.

The City has an obligation to contribute effluent to the Santa Ana River as part of an agreement for management of the Santa Ana River. The City's annual discharge to the Santa Ana River is established at 2.25 cubic feet per second (1,625 acre-feet). With implementation of the 2018 RWMP, the City's use of recycled water from the WRCRWA treatment plant will remain the same. Therefore, implementation of the project would not change the existing water discharge and would not result in the removal, redirection, or reallocation of groundwater or wastewater. Because no change in wastewater use would occur from implementation of the project, no mitigation to address the potential impact raised in this comment is necessary. No further response is needed.

Mohammed Ibrahim
City of Corona Public Works Department
November 2, 2020
Page 9 of 9

A-7 cont.

necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify your project that would eliminate or reduce harmful impacts to fish and wildlife resources.

The CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if necessary, the DEIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with the CDFW is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources. To obtain a Lake or Streambed Alteration notification package, please go to https://www.wildlife.ca.gov/Conservation/LSA/Forms.

FURTHER COORDINATION

The CDFW appreciates the opportunity to comment on the Draft Programmatic Environmental Impact Report for City of Corona Reclaimed Water Master Plan Project (State Clearinghouse No. 2020050497) and recommends that the IEUA address the CDFW's comments and concerns.

A-8

If you should have any questions pertaining to the comments provided in this letter, or wish to schedule a meeting and/or site visit, please contact Kim Romich at 760) 938-1380 or at kimberly.romich@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Kim Freeburn
81F92FFEEF32408...

Scott Wilson
Environmental Program Manager

A-9

Attachments:
Figure 1 – Project footprint
Figure 2 – Source of Supply Map
Figure 3a –Large Distribution Pipes Map
Figure 3b – Medium Distribution Pipes Map
Figure 3c – Small Distribution Pipes Map
Figure 4 – Western Riverside Multispecies Habitat Conservation Plan and Natural Community Conservation Plan GIS Vegetation Community Map.
Figure 5a - Overall Comparison between the Draft PEIR and MSHCP/NCCP GIS Maps
Figure 5b - Comparison between the Draft PEIR urban GIS layer and MSHCP/NCCP California Annual Grassland Alliance layer GIS layer
Figure 5c - Comparison between the Draft PEIR nonnative grassland GIS layer and MSHCP/ NCCP California willow scrub association layer

cc: Office of Planning and Research, State Clearinghouse, Sacramento
ec: HCPB CEQA Coordinator

A-7 This comment states the requirements of the Lake and Streambed Alteration Program. As described in Draft PEIR Section 3.4.4.4, Mitigation Measures BIO-12 (BRTR Mitigation Measure BIO-12) and BIO-13 (BRTR Mitigation Measure BIO-13) were renumbered to Mitigation Measures BIO-8 (BRTR Mitigation Measure BIO-8) and BIO-9 (BRTR Mitigation Measure BIO-9) after revisions were made to the previous mitigation measures. Additional language was added to clarify Final PEIR and BRTR Mitigation Measures BIO-8 and BIO-9 by including the applicable requirements for jurisdictional aquatic resources identification under Final PEIR Mitigation Measure BIO-1, Multiple Species Habitat Conservation Plan Consistency Analysis Report. For revisions to Draft PEIR Mitigation Measure BIO-1 (BRTR Mitigation Measure BIO-1), please refer to response to comment A-3. The following revisions were made to Draft PEIR Mitigation Measures BIO-12 (BRTR Mitigation Measure BIO-12) and BIO-13 (BRTR Mitigation Measure BIO-13), renumbered as Final PEIR Mitigation Measures BIO-8 (BRTR Mitigation Measure BIO-8) and BIO-9 (BRTR Mitigation Measure BIO-9):

BIO-~~8~~12: Aquatic Resources Delineation. If sensitive aquatic resources are identified on the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a qualified biologist shall conduct an aquatic resources delineation following the methods outlined in the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the U.S. Army Corps of Engineers Wetland Delineation Manual: Arid

West Region to map the extent of wetlands and non-wetland waters, determine jurisdiction, and assess potential impacts. The results of the delineation shall be presented in an aquatic resources delineation report and shall be incorporated into the California Environmental Quality Act documents required for approval and permitting of the proposed project. The Aquatic Resources Delineation Report shall be included as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1).

BIO-~~13~~13: Aquatic Resources Permitting and Multiple Species Habitat Conservation Plan Consistency. If the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would impact sensitive aquatic resources, permits and authorizations shall be obtained from the U.S. Army Corps Engineers, California Department of Fish and Wildlife, or Regional Water Quality Control Board. The regulatory agency authorizations would include impact avoidance and minimization measures and mitigation measures for unavoidable impacts. Specific avoidance, minimization, and mitigation measures for impacts to jurisdictional resources shall be determined through discussions with the regulatory agencies during the proposed project permitting process and may include monetary contributions to a mitigation bank or habitat creation, restoration, or enhancement.

In addition, consistent with the Western Riverside Multiple Species Habitat Conservation Plan and as a component of the

Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1), a Determination of Biologically Equivalent or Superior Preservation Report shall be prepared to identify mitigation that demonstrates equivalent or superior function and value, including re-establishment, establishment, and/or permanent conservation of aquatic resources, as feasible. The Determination of Biologically Equivalent or Superior Preservation Report shall be included as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1).

Notification and authorization of project impacts through the CDFW's Lake and Streambed Alteration Program is included in Final PEIR Mitigation Measure BIO-9 (BRTR Mitigation Measure BIO-9). This issue is adequately addressed in the Draft PEIR, and no further response is needed.

A-8 This is a closing comment and does not raise a significant environmental issue regarding the adequacy or accuracy of the information provided in the Draft PEIR. Therefore, no further response is required.

A-9 This comment is a list of the nine attachments provided by the CDFW. Each is described and addressed below.

The first five attachments include Figures 1, 2, and 3a through 3c from the Draft PEIR. This comment does not raise a significant environmental issue regarding the adequacy or accuracy of the information provided in the Draft PEIR. Therefore, no further response is required.

The last four attachments are labeled Figure 4, Western Riverside Multispecies Habitat Conservation Plan and Natural Community Conservation Plan GIS Vegetation Community Map; Figure 5a, Overall Comparison between the Draft PEIR and MSHCP/NCCP GIS Maps; Figure 5b, Comparison between the Draft PEIR urban GIS layer and MSHCP/NCCP California Annual Grassland Alliance GIS layer; and Figure 5c, Comparison between the Draft PEIR non-native grassland GIS layer and MSHCP/NCCP California willow scrub association layer. While not specifically stated in the comment, these maps appear to be included as references for comments A-3 and A-4. Please refer to responses to comments A-3 and A-4, which address the same issues raised by attached Figures 4 and 5a through 5c.

References

City of Corona. 2020. General Plan Technical Update: Final Environmental Impact Report.

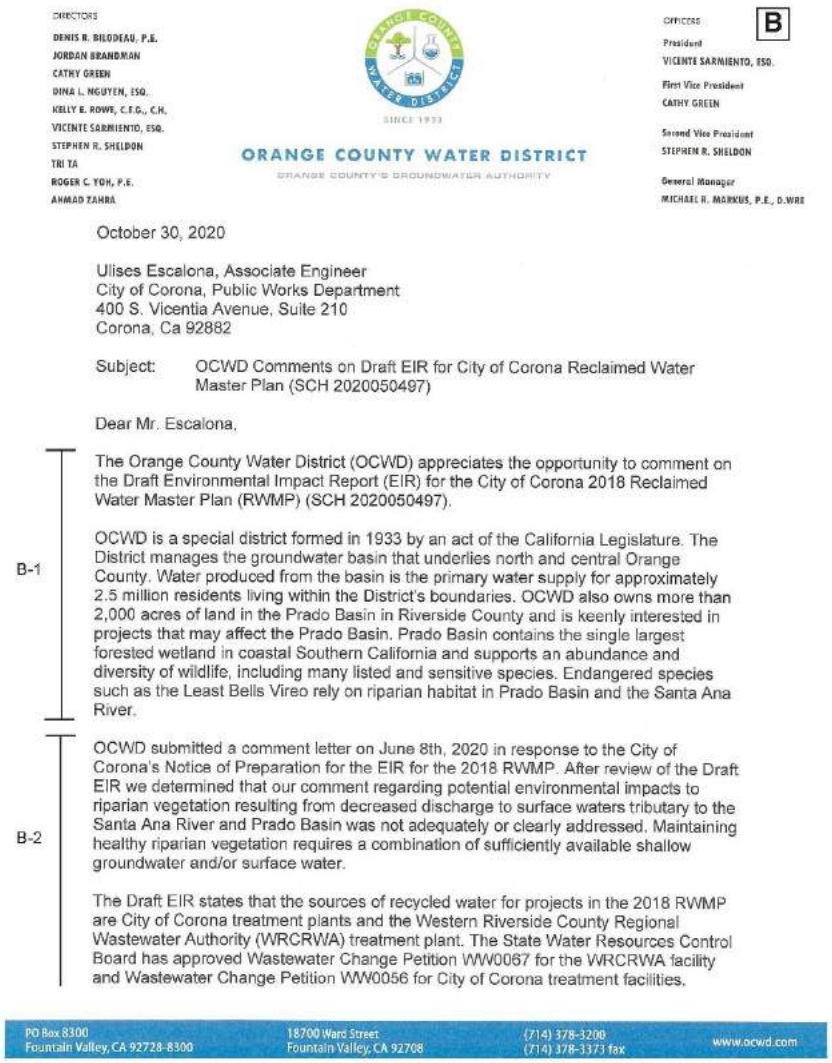
Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Game. October.

Holland, R.F. 1992. Update: Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Game.

Riverside County. 2003. Western Riverside County Multiple Species Habitat Conservation Plan. Approved June 17.

This page intentionally left blank.

Comment Letter B: Orange County Water District, October 30, 2020



DIRECTORS
DENIS R. BILODEAU, P.E.
JORDAN BRANDMAN
CATHY GREEN
DINA L. NGUYEN, ESQ.
KELLY E. ROWE, C.E.G., C.H.
VICENTE SARMIENTO, ESQ.
STEPHEN R. SHELDON
TRI TA
ROGER C. YOH, P.E.
AHMAD ZAHRA

ORANGE COUNTY WATER DISTRICT
ORANGE COUNTY'S GROUNDWATER AUTHORITY
SINCE 1933

OFFICERS
President
VICENTE SARMIENTO, ESQ.
First Vice President
CATHY GREEN
Second Vice President
STEPHEN R. SHELDON
General Manager
MICHAEL R. MARKUS, P.E., D.WRE

B

October 30, 2020

Ulises Escalona, Associate Engineer
City of Corona, Public Works Department
400 S. Vicentia Avenue, Suite 210
Corona, Ca 92882

Subject: OCWD Comments on Draft EIR for City of Corona Reclaimed Water Master Plan (SCH 2020050497)

Dear Mr. Escalona,

B-1

The Orange County Water District (OCWD) appreciates the opportunity to comment on the Draft Environmental Impact Report (EIR) for the City of Corona 2018 Reclaimed Water Master Plan (RWMP) (SCH 2020050497).

OCWD is a special district formed in 1933 by an act of the California Legislature. The District manages the groundwater basin that underlies north and central Orange County. Water produced from the basin is the primary water supply for approximately 2.5 million residents living within the District's boundaries. OCWD also owns more than 2,000 acres of land in the Prado Basin in Riverside County and is keenly interested in projects that may affect the Prado Basin. Prado Basin contains the single largest forested wetland in coastal Southern California and supports an abundance and diversity of wildlife, including many listed and sensitive species. Endangered species such as the Least Bells Vireo rely on riparian habitat in Prado Basin and the Santa Ana River.

B-2

OCWD submitted a comment letter on June 8th, 2020 in response to the City of Corona's Notice of Preparation for the EIR for the 2018 RWMP. After review of the Draft EIR we determined that our comment regarding potential environmental impacts to riparian vegetation resulting from decreased discharge to surface waters tributary to the Santa Ana River and Prado Basin was not adequately or clearly addressed. Maintaining healthy riparian vegetation requires a combination of sufficiently available shallow groundwater and/or surface water.

The Draft EIR states that the sources of recycled water for projects in the 2018 RWMP are City of Corona treatment plants and the Western Riverside County Regional Wastewater Authority (WRCRWA) treatment plant. The State Water Resources Control Board has approved Wastewater Change Petition WW0067 for the WRCRWA facility and Wastewater Change Petition WW0056 for City of Corona treatment facilities.

PO Box 8300
Fountain Valley, CA 92728-8300
18700 Ward Street
Fountain Valley, CA 92708
(714) 378-3200
(714) 378-3373 fax
www.ocwd.com

B-1 The City of Corona (City) appreciates the Orange County Water District's participation in the review of the Draft Program Environmental Impact Report (PEIR) for the 2018 Reclaimed Water Master Plan (project or 2018 RWMP). This comment is an introductory comment and summarizes the Orange County Water District's role as a special district. This comment does not raise a significant environmental issue regarding the adequacy or accuracy of information provided in the Draft PEIR. Therefore, no further response is required.

B-2 The comment requests clarification that the Final PEIR document is consistent with Wastewater Change Petition WW0067 related to the Western Riverside County Regional Wastewater Authority (WRCRWA) treatment plant and Wastewater Change Petition WW0056 related to the City's water reclamation facilities (WRFs). The comment asks for documentation in the final PEIR if the 2018 RWMP will result in a decreased recycled water discharge rate from City facilities or the WRCRWA facility that would not be consistent with Wastewater Change Petitions WW0067 or WW0056.

The City will contribute recycled water effluent to the Santa Ana River as part of a management agreement. With implementation of the 2018 RWMP, the City's use of recycled water from the WRCRWA treatment plant will remain consistent with Wastewater Change Petition WW0067. Per Wastewater Change Petition WW0056, the City's annual discharge to the Santa Ana River will remain at 2.25 cubic feet per second (1,625 acre-feet).

Page 2 of 2
Mr. Ulises Escalona
October 30, 2020

B-2 cont. Part of the evaluation done to support approval of these Wastewater Change Petitions was technical analysis of potential impacts to riparian habitat in Prado Basin. Please document in the Final EIR if the 2018 RWMP will result in any decreases in the discharge rate of recycled water from City of Corona facilities or the WRCRWA facility that are not consistent with the approved Wastewater Change Petitions. If the 2018 RWMP will result in decreases in the discharge rate that are not consistent with the approved Wastewater Change Petitions, please describe the process that will be followed to seek new Wastewater Change Petitions.

B-3 If you have any questions, please contact Kevin O'Toole at (714) 378-8248 or kotoole@ocwd.com.

Sincerely,

Michael R. Markus, P.E., D.WRE, BCEE, F.ASCE
General Manager

The Draft PEIR adequately addresses the potential impacts to riparian vegetation in Section 3.4, Biological Resources, because the discharge rates to the surface water tributary to the Santa Ana River and Prado Basin will not change in a manner inconsistent with Wastewater Change Petitions WW0067 and WW0056. Therefore, no additional changes to the Draft PEIR are required.

B-3 This comment states the contact information for the Orange County Water District. This comment provides a conclusion to the comment letter. This comment does not raise a significant environmental issue regarding the adequacy or accuracy of information provided in the Draft PEIR. Therefore, no further response is required.

References

CalEPA and SWRCB (California Environmental Protection Agency and State Water Resources Control Board). 2013. Wastewater Petition WW0067. Order Approving Change in Place of Use, Purpose of Use, and Quality of Discharge. Prado Basin.

CalEPA and SWRCB. 2016. Wastewater Petition WW0056. Order Canceling Protest, Approving Change in Purpose of Use, Place of Use, and Discharge Quantity. Prado Basin.

Mitigation Monitoring and Reporting Program for the 2018 Reclaimed Water Master Plan

Mitigation Measure No.	Measure	Person(s) to Verify	Timing of Verification			Responsible Party	Completed		Completed
			Pre-Const.	During Const.	Post-Const.		Initials	Date	
Aesthetics									
Substantial Degradation of the Existing Visual Character or Conflict with Applicable Regulations									
AES-1	**Landscape Plan.** To screen aboveground project facilities during facility design, the design consultant shall prepare a Landscape Plan for each aboveground project facility identified in the 2018 Reclaimed Water Master Plan, including the Chase Tank facility. The Landscape Plan shall include measures to restore disturbed areas by re-establishing existing topography, including replanting trees or reseeding with a native seed mix typical of the immediately surrounding area. The Landscape Plan shall include a required seed mix and plant palette. Vegetation screening shall be included in the Landscape Plan to shield proposed aboveground facilities from public view. The Landscape Plan shall include a Monitoring Plan to ensure that site restoration and vegetation establishment is successful.	City	X		X	City, Construction Contractor			
Biological Resources									
Sensitive Plant Species									
BIO-1	**BIO-1: Multiple Species Habitat Conservation Plan Consistency Analysis Report.** For projects proposed in the City of Corona 2018 Reclaimed Water Master Plan on undeveloped land, including the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline, a Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis Report site-specific biological resources survey shall be completed during the project design phase. The Consistency Analysis Report shall be prepared for each project to demonstrate consistency with the Multiple Species Habitat Conservation Plan Implementation Structure and shall include project-level existing conditions documentation consisting of vegetation mapping and identification of sensitive habitats (non-native grassland, riparian and riverine areas, and vernal pools), plants, and animals (including burrowing owl [*Athene cunicularia*]) on the project site. The Consistency Analysis Report shall be used as the basis for determining if a project is subject to a Joint Project Review and is required to complete a Joint Project Review Application. The Multiple Species Habitat Conservation Plan Consistency Analysis Report template and requirements can be accessed on the Western Riverside County Regional Conservation Authority Document Library: https://www.wrc-rca.org/document-library/. The Western Riverside County Multiple Species Habitat Conservation Plan Permittee Implementation Guidance Manual (2007) shall also be reviewed and followed to ensure project consistency with the Multiple Species Habitat Conservation Plan requirements.	City	X			City, Qualified Biologist			

Mitigation Monitoring and Reporting Program for the 2018 Reclaimed Water Master Plan

Mitigation Measure No.	Measure	Person(s) to Verify	Timing of Verification			Responsible Party	Completed		Completed
			Pre-Const.	During Const.	Post-Const.		Initials	Date	
BIO-2	**Invasive Plant Species Prevention.** During construction of the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects, the following measures shall be implemented to minimize the spread of invasive plant species: • Construction equipment shall be cleaned before coming to the project sites. • Weed-free straw wattles shall be used for erosion control.	City		X		City, Construction Contractor			
BIO-3	**Flagging and Fencing.** If sensitive biological resources are identified on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, the construction limits shall be clearly identified on construction drawings and flagged on the project sites to ensure impacts to sensitive biological resources are avoided or minimized to the extent feasible. Before implementing construction activities, a qualified biologist shall verify that the flagging clearly delineates the construction limits and sensitive resources to be avoided.	City, Qualified Biologist	X			City, Qualified Biologist, Construction Contractor			
BIO-4	**Contractor Training Program.** If sensitive biological resources are known to occur on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a project-specific contractor training program shall be developed and implemented to educate project contractors on the sensitive biological resources on and adjacent to the project sites and measures being implemented to avoid or minimize impacts to these species. A qualified biologist shall develop and implement the contractor training program.	City, Qualified Biologist	X			City, Construction Contractor, Qualified Biologist			
BIO-5	**Biological Monitor.** If sensitive biological resources are present on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, and impacts may occur from implementation of construction activities, a qualified biological monitor may be required during all or a portion of the construction activities to ensure impacts to the sensitive biological resources are avoided or minimized to the extent feasible. The specific biological monitoring requirements shall be evaluated on a project-by-project basis. The qualified biological monitor shall be approved by the City of Corona based on applicable experience with the sensitive biological resources that may be impacted.	City	X	X		City, Construction Contractor, Qualified Biologist			

Mitigation Monitoring and Reporting Program for the 2018 Reclaimed Water Master Plan

Mitigation Measure No.	Measure	Person(s) to Verify	Timing of Verification			Responsible Party	Completed		Completed
			Pre-Const.	During Const.	Post-Const.		Initials	Date	
Sensitive Animal Species									
See BIO-1, BIO-3 through BIO-5									
BIO-6	**Preconstruction Nesting Bird Surveys.** To the extent feasible, grubbing, trimming, or clearing of vegetation from project sites shall not occur during the general bird nesting season (January 15 through September 15). If grubbing, trimming, or clearing of vegetation cannot feasibly occur outside of the general bird nesting season, a qualified biologist shall perform a preconstruction nesting bird survey at project sites with vegetation supporting nesting birds. Nesting bird surveys shall occur within 7 days before the start of vegetation clearing or grubbing to determine if active bird nests are present. If no active bird nests are identified on the project sites or within a 300-foot buffer of the project sites, no further mitigation is necessary. If active nests of bird species covered by the Migratory Bird Treaty Act are detected on the project site during the 7-day preconstruction survey, construction activities should stay outside of a 300-foot buffer around the active nest. For raptor species, this buffer is expanded to 500 feet. It is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged, and a qualified biologist has determined the nest is inactive, normal construction activities can occur.	City	X			City, Qualified Biologist			
BIO-7	**Night Lighting.** If temporary night lighting is necessary during construction adjacent to sensitive vegetation communities, construction contractors shall ensure lights are directed away from sensitive vegetation communities and shielded to minimize temporary lighting of the surrounding habitat and should be of the lowest illumination necessary for human safety.	City		X		City, Construction Contractor			
Riparian Habitat or Other Sensitive Natural Community									
Jurisdictional Aquatic Resources									
BIO-8	**Aquatic Resources Delineation**. If sensitive aquatic resources are identified on the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a qualified biologist shall conduct an aquatic resources delineation following the methods outlined in the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the U.S. Army Corps of Engineers Wetland Delineation Manual: Arid West Region to map the extent of wetlands and non-wetland waters, determine jurisdiction, and assess potential impacts. The results of the delineation shall be presented in an Aquatic Resources Delineation Report and shall be incorporated into the California Environmental Quality Act documents required for approval and permitting of the proposed project. The Aquatic Resources Delineation Report shall be included as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1).	City	X			City, Qualified Biologist			

Mitigation Monitoring and Reporting Program for the 2018 Reclaimed Water Master Plan

Mitigation Measure No.	Measure	Person(s) to Verify	Timing of Verification			Responsible Party	Completed		Completed
			Pre-Const.	During Const.	Post-Const.		Initials	Date	
BIO-9	**Aquatic Resources Permitting and Multiple Species Habitat Conservation Plan Consistency**. If the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would impact sensitive aquatic resources, permits and authorizations shall be obtained from the U.S. Army Corps Engineers, California Department of Fish and Wildlife, or Regional Water Quality Control Board. The regulatory agency authorizations would include impact avoidance and minimization measures and mitigation measures for unavoidable impacts. Specific avoidance, minimization, and mitigation measures for impacts to jurisdictional resources shall be determined through discussions with the regulatory agencies during the proposed project permitting process and may include monetary contributions to a mitigation bank or habitat creation, restoration, or enhancement. In addition, consistent with the Western Riverside Multiple Species Habitat Conservation Plan and as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1), a Determination of Biologically Equivalent or Superior Preservation Report shall be prepared to identify mitigation that demonstrates equivalent or superior function and value, including re-establishment, establishment, and/or permanent conservation of aquatic resources, as feasible. The Determination of Biologically Equivalent or Superior Preservation Report shall be included as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1).	City	X			City, Qualified Biologist			
	Cultural Resources								
	Historic Resources								
CUL-1	**Construction-Related Vibration.** Construction plans for individual projects under the 2018 Reclaimed Water Master Plan shall include a requirement that no vibratory equipment be operated within 40 feet of a structure eligible or listed on the National Register of Historic Places, California Register of Historical Resources, or Corona Register. Instead, alternative construction equipment shall be used, such as smooth wheel rollers without a vibratory component. This requirement shall be included on individual project Construction Plans and be submitted to the City of Corona, Public Works Department, for review before approval of final design. For structures that have not been previously evaluated, the City Engineer shall consult with a qualified Architectural Historian, approved by the City of Corona, to conduct an evaluation of the structure. If the structure is determined eligible or already eligible or listed in the National Register of Historic Places, California Register of Historical Resources, or Corona Register, structural evaluation shall be conducted by a Professional Structural Engineer to identify maximum allowable levels of vibration during construction. If a historic determination is required, the engineer shall provide recommendations on approaches to stabilization in conjunction with	City	X	X		City, Construction Contractor			

Mitigation Monitoring and Reporting Program for the 2018 Reclaimed Water Master Plan

Mitigation Measure No.	Measure	Person(s) to Verify	Timing of Verification			Responsible Party	Completed		Completed
			Pre-Const.	During Const.	Post-Const.		Initials	Date	
	vibration monitoring. Permanent stabilization measures shall follow the Secretary of the Interior's guidelines for the treatment of historic properties. If the buildings are temporarily stabilized for the duration of construction activities, when removed, the buildings shall be restored to their preconstruction condition when the stabilization measures are removed.								
	Archaeological Resources								
CUL-2	**Project-Specific Archaeological Survey.** Projects identified in the 2018 Reclaimed Water Master Plan should be reviewed by the City of Corona to determine if a site-specific archaeological survey should be conducted. Site-specific archaeological surveys should be conducted for individual projects identified in the 2018 Reclaimed Water Master Plan that are in areas that have not been previously developed or would impact land with visible ground surface, or projects that may impact built environment resources that meet the age threshold for eligibility. A Native American monitor shall be on site during site-specific archaeological surveys. If cultural resources are identified during the site-specific archaeological survey, then evaluation of the resources for the California Register of Historical Resources and the Corona Register should be conducted in conjunction with the Native American monitor to determine if the resource is significant under the California Environmental Quality Act and would be adversely impacted by the project. A Native American monitor from a culturally affiliated tribe should be present during any archaeological excavations involving prehistoric cultural resources. If no significant resources are found, and site conditions are such that there is no potential for further discoveries, then no further action is required. Resources found to be non-significant as a result of a survey and evaluation shall require no further work beyond documentation of the resources on the appropriate Department of Parks and Recreation site forms and inclusion of results in a technical report. If significant resources are present, consulting tribes or bands should be notified and consulted with on treatment. Avoidance, preservation in place, or a data recovery program is recommended. The data recovery program is subject to the provisions outlined in California Public Resources Code, Section 21083.2. The data recovery program should be conducted in accordance with the Office of Historic Preservation's Archaeological Resource Management Reports: Recommended Contents and Format and Guidelines for Archaeological Research Designs. The data recovery program must be reviewed and approved by the City. If no significant resources are found, but if there is a potential for unknown archaeological resources, or tribal cultural resources to be uncovered during construction activities, then implementation of Mitigation Measure CUL-3 is recommended.	City	X			City, Qualified Archaeologist, Native American Monitor			

Mitigation Monitoring and Reporting Program for the 2018 Reclaimed Water Master Plan

Mitigation Measure No.	Measure	Person(s) to Verify	Timing of Verification			Responsible Party	Completed		Completed
			Pre-Const.	During Const.	Post-Const.		Initials	Date	
CUL-3	**Archaeological and Native American Monitoring Program.** Because there is always a potential for encountering cultural and tribal cultural resources during excavation, the creation of an archaeological and Native American monitoring program is recommended for projects identified in the 2018 Reclaimed Water Master Plan that would conduct new ground disturbance in areas identified as moderate or high sensitivity for cultural resources, for project components that are within 100 feet of previously recorded archaeological resources, and for those projects where tribal consultation has identified traditional cultural properties/tribal cultural landscapes. Prior to the commencement of ground-disturbing activities below the road base, the City of Corona, Public Works Department, shall enter into an agreement with the consulting tribes or bands for Native American monitors. The Native American monitor shall be approved by the Gabrieleño Band of Mission Indians – Kizh Nation, Soboba Band of Luiseño Indians, and Rincon Band of Luiseño Indians—the tribes that consulted on the project pursuant to Assembly Bill 52 (consulting tribes or bands). A copy of the executed contract shall be submitted to the City of Corona prior to the issuance of any permit necessary to start a ground-disturbing activity. The Native American monitor shall be on site during all initial ground-disturbing activities and excavation of each portion of the project site, including clearing, grubbing, tree removals, grading, and trenching. Monitoring will not take place within the imported fill soils in the road base and for potholing above known utility lines. In conjunction with the archaeological monitor, the Native American monitor shall have the authority to temporarily divert, redirect, or halt the ground-disturbing activities to allow identification, evaluation, and potential recovery of cultural resources. The on-site monitoring shall end when all ground-disturbing activities on the project site are completed or when the tribal representatives and Native American monitor have indicated that all upcoming ground-disturbing activities on the project site have little to no potential for impacting cultural or tribal cultural resources. Upon discovery of any tribal cultural resources, construction activities shall cease in the immediate vicinity of the find (not less than the surrounding 100 feet) until the find can be assessed. All tribal cultural resources unearthed by project activities shall be evaluated by the qualified archaeologist and Native American monitor approved by the consulting tribe or band. If the resources are Native American in origin, the consulting tribe or band shall retain it/them in the form and/or manner the consulting tribe or band deems appropriate for educational, cultural, and/or historic purposes. If a non-Native American resource is determined by the qualified archaeologist to constitute a “historical resource” or “unique archaeological resource,” time allotment and funding sufficient to allow for implementation of avoidance measures or appropriate mitigation must be available. The treatment plan established for	City		X	X	City, Qualified Archaeologist, Native American Monitor			

Mitigation Monitoring and Reporting Program for the 2018 Reclaimed Water Master Plan

Mitigation Measure No.	Measure	Person(s) to Verify	Timing of Verification			Responsible Party	Completed		Completed
			Pre-Const.	During Const.	Post-Const.		Initials	Date	
	the resources shall be in accordance with the California Environmental Quality Act Guidelines, Section 15064.5(f), for historical resources and California Public Resources Code, Sections 21083.2(b), for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the historic archaeological material, it shall be offered to a local school or historical society in the area for educational purposes. The City of Corona, Public Works Department, shall obtain a fully executed agreement(s) with the consulting tribes or bands to ensure compliance with this mitigation measure. This agreement shall not modify any condition of approval or mitigation measure. The City of Corona, Public Works Department, and the consulting tribes or bands shall develop an Archaeological Monitoring Plan to address details, timing, and responsibilities of all archaeological activities that will occur on the project site when it is determined by either the City of Corona, Public Works Department, or the consulting tribes or bands to be necessary. The Archaeological Monitoring Plan shall include the following: 1. The development of a schedule in coordination with the City of Corona, Public Works Department, the project archaeologist, and the consulting tribes or bands for Native American and archaeological monitoring during ground-disturbing activities on the site, including the scheduling, safety requirements, duties, scope of work, and Native American monitor's authority to stop and redirect grading activities in coordination with all project archaeologists. 2. The protocols and stipulations that the City of Corona, Public Works Department, the consulting tribes or bands, and project archaeologist would follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resource evaluation. Such procedures include the following: a. The archaeologist or Native American monitor may halt ground-disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground-disturbing activities shall be directed away from these deposits for a short time to allow for identification, evaluation, and potential recovery of cultural resources by the archaeologist and the Native American monitor. Ground-disturbing activities shall not resume until the archaeologist, in consultation with the Native American monitor and the City of Corona, deems								

Mitigation Monitoring and Reporting Program for the 2018 Reclaimed Water Master Plan

Mitigation Measure No.	Measure	Person(s) to Verify	Timing of Verification			Responsible Party	Completed		Completed
			Pre-Const.	During Const.	Post-Const.		Initials	Date	
	the cultural resource or feature has been appropriately documented and protected. b. All discovered resources shall be temporarily curated in a secure location on site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with Native American monitor oversight of the process. c. The City of Corona, Public Works Department, shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains, as part of the required mitigation for impacts to cultural resources. The City of Corona, Public Works Department, shall relinquish the artifacts through one or more of the following methods and provide the consulting tribes or bands with evidence of the same: i. Accommodate the process for on-site reburial of the discovered items with the consulting tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloging and basic recordation have been completed. ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per Title 36, Part 79, of the Code of Federal Regulations and, therefore, would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility in Riverside County to be accompanied by payment of the fees necessary for permanent curation. iii. If more than one Native American tribe or band is involved with the project and cannot come to a consensus on the disposition of cultural materials, the cultural materials shall be curated at the Western Science Center. d. At the completion of grading, excavation, and ground-disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City of Corona, Public Works Department, documenting monitoring activities conducted by the project archaeologist and Native American monitor within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; and in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the consulting tribes or bands, Eastern Information Center, and interested tribes or bands.								

Mitigation Monitoring and Reporting Program for the 2018 Reclaimed Water Master Plan

Mitigation Measure No.	Measure	Person(s) to Verify	Timing of Verification			Responsible Party	Completed		Completed
			Pre-Const.	During Const.	Post-Const.		Initials	Date	
Human Remains									
See CUL-2 and CUL-3									
CUL-4	**Identification and Treatment of Human Remains.** In the event that human remains, possible human remains, and/or grave goods are encountered during any work associated with the projects identified in the 2018 Reclaimed Water Master Plan, ground disturbance within 100 feet of the remains shall immediately halt. The project proponent shall then immediately inform the Riverside County Coroner and the City of Corona, Public Works Department, and the County Coroner shall be permitted to examine the remains as required by California Health and Safety Code, Section 7050.5(b). Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains until the County Coroner can determine whether the remains are those of a Native American. If human remains are determined to be of Native American origin, the applicant shall comply with the state relating to the disposition of Native American burials that fall within the jurisdiction of the California Native American Heritage Commission (California Public Resources Code, Section 5097). The County Coroner shall contact the California Native American Heritage Commission to determine the most likely descendant. The most likely descendant shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The disposition of the remains shall be overseen by the most likely descendant to determine the most appropriate means of treating the human remains and any associated grave artifacts. The specific locations of Native American burials and reburials will be proprietary and not disclosed to the general public. The County Coroner will notify the California Native American Heritage Commission in accordance with California Public Resources Code, Section 5097.98. According to California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052) as determined in consultation between the project proponent and the most likely descendant.	City		X	X	City, Qualified Archaeologist			

Mitigation Monitoring and Reporting Program for the 2018 Reclaimed Water Master Plan

Mitigation Measure No.	Measure	Person(s) to Verify	Timing of Verification			Responsible Party	Completed		Completed
			Pre-Const.	During Const.	Post-Const.		Initials	Date	
Geology, Soils, and Paleontological Resources									
Seismic Hazards									
GEO-1	**Site-Specific Soil and Geotechnical Study.** The City of Corona shall prepare a site-specific soil and geotechnical engineering study before final design of individual projects under the 2018 Reclaimed Water Master Plan that would involve ground disturbance, including grading and excavation. Each study shall be performed by a licensed professional, including but not limited to a geologist, certified soil scientist, certified agronomist, registered agricultural engineer, registered civil or structural engineer, and/or certified professional erosion and sediment control specialist with expertise in geotechnical engineering issues, who is registered and/or certified in the State of California, to determine site-specific impacts and to recommend site-specific mitigations. Feasible recommendations addressing potential seismic hazards and soil constraints shall be implemented.	City	X			City			
Geological Stability									
See GEO-1									
Expansive Soils									
See GEO-1									
Paleontological Resources									
GEO-2	**Paleontological Monitoring.** Paleontological monitoring during excavation, grading or trenching shall be required for all projects identified in the 2018 Reclaimed Water Master Plan that would excavate to a depth of 10 feet or more in areas identified as having a high paleontological sensitivity. Before the approval of project-specific construction documents for each project, the City Engineer shall retain a qualified professional paleontologist to observe all earth-disturbing activities in areas greater than 10 feet in depth. Fossil materials recovered during paleontological monitoring shall be cleaned, identified, cataloged, and analyzed in accordance with standard professional practices. The results of the fieldwork and laboratory analysis shall be submitted in a technical report and the entire collection transferred to an approved facility. If no resources are found during the monitoring effort, a monitoring summary shall be submitted to the City Engineer within 4 weeks of completion of the monitoring effort.	City			X	City, Qualified Paleontologist			
Hazards and Hazardous Materials									
Accidental Release of Hazardous Materials									
HAZ-1	**Preparation of Phase 1 Environmental Site Assessment**. Before construction of the Rimpau California Pipeline, River Pipeline, Sampson Pipeline, Buena Vista Tenth Avenue Pipeline, and Klug Pipeline, the City of Corona shall conduct a Phase 1 Environmental Site Assessment. The Phase 1 Environmental Site Assessment shall be prepared by a registered environmental assessor or equally qualified professional to assess the potential for contaminated soil or groundwater conditions at the project sites and along conveyance	City	X			City			

Mitigation Monitoring and Reporting Program for the 2018 Reclaimed Water Master Plan

Mitigation Measure No.	Measure	Person(s) to Verify	Timing of Verification			Responsible Party	Completed		Completed
			Pre-Const.	During Const.	Post-Const.		Initials	Date	
	alignments. The Phase 1 Environmental Site Assessment shall include a review of appropriate federal and state hazardous materials databases and relevant local hazardous material site databases for hazardous waste in on-site and off-site locations within a one-quarter mile radius of the project sites and along conveyance alignments. The Phase 1 Environmental Site Assessment shall also include a review of existing or past land uses and aerial photographs, a summary of results of reconnaissance site visits, and a review of other relevant existing information that could identify the potential existence of contaminated soil or groundwater. If no contaminated soil or groundwater is identified, or if the Phase 1 Environmental Site Assessment does not recommend any further investigation, the City of Corona shall proceed with final project design and construction. If existing soil or groundwater contamination is identified, and if the Phase 1 Environmental Site Assessment recommends further review, the City of Corona shall retain a registered environmental assessor to conduct follow-up sampling to characterize the contamination and to identify any required remediation that shall be conducted consistent with applicable regulations before any earth-disturbing activities. The registered environmental assessor shall prepare a report that includes but is not limited to activities performed for the assessment, a summary of anticipated contaminants and contaminant concentrations at the proposed construction sites, and recommendations for appropriate handling of any contaminated materials during construction.								
HAZ-2	**Halt of Construction Work if Hazardous Materials Are Encountered.** Before construction, workers shall be trained on how to identify hazardous materials and procedures if undefined, suspected contaminated soil or groundwater is encountered. If unidentified or suspected contaminated soil or groundwater is encountered during construction activities of the projects identified in the 2018 Reclaimed Water Master Plan, the construction contractors shall immediately stop surface or subsurface activities in the event that potentially hazardous materials are encountered, an odor is identified, or considerably stained soil is visible. Contractors shall notify the City of Corona Public Works Department Project Manager immediately and follow the applicable local, state, and federal regulations regarding the discovery, response, disposal, and remediation of hazardous materials encountered during the construction process. This requirement shall be included in individual project Construction Plans and submitted to the City of Corona Public Works Department for review before approval of final design.	City		X		City, Construction Contractor			
Emergency Response Plan or Evacuation Plan									
HAZ-3	**Prepare and Implement a Construction Traffic Control Plan.** The construction contractor shall prepare and implement a Construction Traffic Control Plan for roadways and intersections affected by the individual projects identified in the 2018 RWMP. This requirement shall be included on individual project Construction Plans and be submitted to the City of Corona Public Works Department for review before approval of final	City		X		City, Construction Contractor			

Mitigation Monitoring and Reporting Program for the 2018 Reclaimed Water Master Plan

Mitigation Measure No.	Measure	Person(s) to Verify	Timing of Verification			Responsible Party	Completed		Completed
			Pre-Const.	During Const.	Post-Const.		Initials	Date	
	design. The Construction Traffic Control Plan shall comply with local agency requirements with jurisdiction over project construction and shall include but not be limited to the following elements based on local site and roadway conditions: • Provide street layout showing location of construction activity and surrounding streets to be used as detour routes, including special signage. • Post a minimum 72-hour advance warning of construction activities in affected roadways to allow motorists to select alternative routes. • Restrict delivery of construction materials to non-peak travel periods (9:00 a.m.–3:00 p.m.) as appropriate. • Maintain the maximum travel lane capacity during non-construction periods and provide flagger control at construction sites to manage traffic control and flows. • Maintain access for driveways and private roads, except for brief periods of construction, in which case property owners shall be notified. • Require temporary steel plate trench crossings as needed to maintain reasonable access to homes, businesses, and streets. When required by the applicable encroachment permit, maintain the existing lane configuration during nonworking hours by covering the trench or jack pit with steel plates or by using temporary backfill. • Require appropriate warning signage and safety lighting for construction zones. • Access for emergency vehicles shall be maintained at all times. Police, fire, and emergency services shall be notified of the timing, location, and duration of construction activities that could hinder or delay emergency access through the construction period. • Coordinate with regional transit agencies, including Corona Cruiser and Riverside Transit Agency, to plan as needed for the temporary relocation of bus stops or detour of transit routes on affected distribution pipeline alignments. • Identify detours where available for bicyclists and pedestrians in areas potentially affected by project construction. • Provide adequate off-street parking locations for worker vehicles and construction equipment where on-street parking availability is insufficient. • Repair or restore the roadway right-of-way to its original condition or better upon completion of work.								

Mitigation Monitoring and Reporting Program for the 2018 Reclaimed Water Master Plan

Mitigation Measure No.	Measure	Person(s) to Verify	Timing of Verification			Responsible Party	Completed		Completed
			Pre-Const.	During Const.	Post-Const.		Initials	Date	
Wildland Fire									
HAZ-4	**Maintain Construction Area Clear of Combustible Materials.** During construction, the contractor shall ensure that staging areas, welding areas, or areas slated for construction using spark-producing equipment shall be cleared of combustible vegetation or other materials that could serve as fire fuel. Vegetation clearing shall be coordinated with a qualified biologist before removal. The contractor shall keep these areas clear of combustible materials to maintain a firebreak. Any construction equipment that normally includes a spark arrester shall be in good working order. This includes but is not limited to vehicles, heavy equipment, and chainsaws. This requirement shall be included on individual project Construction Plans and be submitted to the City of Corona Public Works Department for review before approval of final design.	City				City, Construction Contractor			
HAZ-5	**Provide Accessible Fire Suppression Equipment.** Work crews shall be required to have sufficient fire suppression equipment readily available to ensure that any fire resulting from construction activities is immediately extinguished. Off-road equipment using internal combustion engines shall be equipped with spark arrestors. This requirement shall be included on individual project Construction Plans and be submitted to the City of Corona Public Works Department for review before approval of final design.		X	X					
Land Use and Planning									
See AES-1, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9, CUL-1, CUL-2, CUL-3, CUL-4, GEO-1, HAZ-3, and NOI-1									
Noise									
Exceedance of Noise Standards									
NOI-1	**Construction Noise Reduction Measures.** Individual projects under the 2018 Reclaimed Water Master Plan shall implement construction noise reduction measures to ensure compliance with the City of Corona's Noise Ordinance. The following measures shall be included on individual project Construction Plans and be submitted to the City of Corona, Public Works Department, for review before approval of final design: • Construction equipment shall be properly outfitted and maintained with manufacturer recommended noise reduction devices. • Diesel equipment shall be operated with closed engine doors and equipped with factory recommended mufflers. • Mobile or fixed "package" equipment (e.g., arc-welders and air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.	City	X	X		City, Construction Contractor			

Mitigation Monitoring and Reporting Program for the 2018 Reclaimed Water Master Plan

Mitigation Measure No.	Measure	Person(s) to Verify	Timing of Verification			Responsible Party	Completed		Completed
			Pre-Const.	During Const.	Post-Const.		Initials	Date	
	• Electrically powered equipment shall be used instead of pneumatic or internal-combustion powered equipment, where feasible. • Unnecessary idling of internal combustion engines (e.g., in excess of 5 minutes) shall be prohibited. • Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors. • The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be limited to safety warning purposes only. • No project-related public address or music system shall be audible at any adjacent sensitive receptor. • The City of Corona shall notify residences within 100 feet of the construction area in writing at least 2 weeks prior to any construction activity such as concrete sawing, asphalt removal, or heavy grading operations. The notification shall describe the activities anticipated, provide dates and hours, and provide contact information with a description of a complaint and response procedure. • In the event that a complaint is received, noise monitoring shall be conducted to determine whether hourly average noise levels during construction exceed ambient noise levels by more than 5 A-weighted decibels Equivalent Energy Level. A 1-hour noise measurements shall be taken during a normal weekday without construction activity, and a 1-hour measurement during typical construction. In the event that the above measures do not reduce noise levels to 5 A-weighted decibels or less above ambient conditions at the affected receptor, temporary sound barriers or sound blankets may be installed between construction operations and adjacent noise-sensitive receptors. Due to equipment exhaust pipes being approximately 7–8 feet above ground, a sound barrier at least 10 feet in height above grade would be required to mitigate noise to an acceptable level. • The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal process for the affected resident shall be established before construction begins to allow for resolution of noise problems that cannot be immediately solved by the site supervisor. • All construction activities, including deliveries and engine warm-up, shall be prohibited between the hours of 8:00 p.m. and 7:00 a.m., Monday through Saturday, and 6:00 p.m. to 10:00 a.m. on Sundays and federal holidays.								

Mitigation Monitoring and Reporting Program for the 2018 Reclaimed Water Master Plan

Mitigation Measure No.	Measure	Person(s) to Verify	Timing of Verification			Responsible Party	Completed		Completed
			Pre-Const.	During Const.	Post-Const.		Initials	Date	
Excessive Groundborne Vibration or Noise									
NOI-2	**Vibratory Equipment Limitations.** Construction Plans for individual projects under the 2018 Reclaimed Water Master Plan shall include a requirement that no vibratory equipment be operated within 40 feet of a structure eligible or listed on the National Register of Historic Places, California Register of Historic Resources, or Corona Register. Instead, alternative construction equipment shall be used, such as smooth wheel rollers without a vibratory component. This requirement shall be included on individual project Construction Plans and be submitted to the City of Corona, Public Works Department, for review before approval of final design.	City	X	X		City, Construction Contractor			
Transportation									
Conflict with Program, Plan, Ordinance, or Policy									
See HAZ-3									
Inadequate Emergency Access									
See HAZ-3									
Tribal Cultural Resources									
Tribal Cultural Resources									
See CUL-2, CUL-3, and CUL-4									
Utilities									
Relocation or Construction of New Facilities									
See AES-1, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9, CUL-1, CUL-2, CUL-3, CUL-4, GEO-1, GEO-2, HAZ-1, HAZ-2, HAZ-3, HAZ-4, HAZ-5, NOI-1, and NOI-2									
Wildfire									
Emergency Response or Evacuation Plan									
See HAZ-3									
Uncontrolled Spread of Wildfire									
See HAZ-4 and HAZ-5									
Requirement of Installation or Maintenance of Associated Infrastructure									
See HAZ-4 and HAZ-5									

Notes: City = City of Corona

This page intentionally left blank.

Executive Summary

Introduction

This chapter provides a summary of the Program Environmental Impact Report (PEIR) prepared for the 2018 Reclaimed Water Master Plan (project or 2018 RWMP) prepared in compliance with the California Environmental Quality Act (CEQA). The City of Corona (City) is the lead agency for the PEIR and, as such, has the primary responsibility to evaluate the environmental effects of the proposed project and to consider whether to approve or disapprove the proposed project in light of these effects.

This PEIR has been prepared pursuant to the requirements of CEQA and the City's CEQA procedures. The City, as the lead agency, has reviewed all submitted drafts, technical studies, and reports as necessary to reflect its own independent judgment, including reliance on City technical personnel from other departments and review of all technical subconsultant reports.

Project Description

Project Location

The City is in the northwestern portion of the County of Riverside (County), near the convergence of the Counties of Los Angeles, Orange, and Riverside, 45 miles southeast of the City of Los Angeles, as shown on Figure 2-1, Regional Location, and Figure 2-2, Project Overview, in Chapter 2, Project Description. The City is in the Temescal Valley, which is framed by mountains and the Prado Flood Control Basin. The City is bordered by the City of Norco to the north, City of Riverside to the east, unincorporated County of Riverside to the west and south, Cleveland National Forest to the south and southwest, and Prado Flood Control Basin to the northeast.

The City's water service area encompasses approximately 39 square miles and delineates the extent of the City's potable water, reclaimed water, and wastewater services. The water service area boundary differs slightly from the City's jurisdictional boundary because it also includes the unincorporated communities of El Cerrito and Coronita and parts of Temescal Canyon, as shown on Figure 2-3, Water Service Area. The water service area is a jurisdictional boundary bordered by the neighboring water service areas for the Cities of Norco and Eastvale to the north, City of Riverside to the northeast, Home Gardens County Water District to the east, and Temescal Valley Water District to the south. The southeastern portion of the water service area is generally bounded by unincorporated County lands. The southwestern portion of the water service area is bounded by the Cleveland National Forest and other County lands.

Project Objectives

The primary purpose of the 2018 RWMP is to assist the City with meeting its goals for reclaimed water use through implementation of appropriate projects, programs, and additional studies.

The project objectives are as follows:

1. Expand and improve the City's recycled water program in accordance with Ordinance 2854 (Recycled Water Rules and Regulations)
2. Prioritize and implement system improvements pursuant to the 2018 Reclaimed Water Master Plan to maximize reclaimed water supply availability and reduce the use of potable water
3. Improve water supply system performance by facilitating supply management and maximizing water resources
4. Efficiently implement priority improvement projects to manage and distribute new sources of water supply as they become available

Project Components

The project is an update to the City's adopted Reclaimed Water Master Plan (2001), which provides guidance to create infrastructure to efficiently use treated effluent from its existing and future wastewater reclamation facilities (WRFs) supplemented by non-potable groundwater to reduce dependence on imported water and potable groundwater.

Future projects infrastructure and improvements to the reclaimed water system would be categorized as sources of supply, large distribution pipelines, medium distribution pipelines, small distribution pipelines, conversion of adjacent customers, data management, and additional studies. Table ES-1 provides a summary of the projects identified in the 2018 RWMP.

Table ES-1. Summary of Projects

Number	Project Component	Location	Description
Sources of Supply Projects			
1	WRCRWA Booster Pump Station	WRCRWA	The booster pumping stations would pump WRCRWA supply to the 833 Subzone.
2	WRCRWA Transmission Pipeline	Between WRCRWA and River FCS-833 Subzone	The transmission pipeline would connect the WRCRWA booster pumping station to the 833 Subzone.
3	WRCRWA Flow Control Improvements	Between Butterfield and WRF1 Tank	These control stations would direct WRCRWA supply to the Lincoln-Cota Ponds and the WRF1 Tank.

Table ES-1. Summary of Projects

Number	Project Component	Location	Description
4	Rimpau California Pipeline	Between Central Park and Chase Park	This transmission pipeline would provide the additional capacity needed to move WRCRWA supply to demands south of the water service area between City Park and Chase Park.
5	Chase Booster Pump Station	Chase Park	The booster pump station at Chase Park would an operational component of the Rimpau California Pipeline.
6	Chase Tank	Chase Park	The storage facility at Chase Park would be an operational component of the Rimpau California Pipeline.
Large Distribution Pipelines			
7	Buena Vista Tenth Pipeline	Railroad Street and Rimpau Avenue via Buena Vista Avenue and Tenth Street	This pipeline would reinforce the primary loop between WRF1 at the 1380 Zone following construction of the Rimpau California Pipeline.
8	Ontario Slipline	Compton Avenue and Lincoln Avenue	This sliplined pipeline would form a secondary loop along the length of the 1175 Subzone.
9	River Pipeline	River Road from Corydon Avenue through Main Street	This pipeline would expand the 833 Subzone north of Temescal Creek and west of Interstate 15.
10	Sampson Pipeline	Central Park and McKinley Street	This pipeline would form a secondary loop in the 1008.5 Zone to improve performance and eliminate the need for additional local storage.
Medium Distribution Pipelines			
11	Old Temescal Pipeline	Fullerton Avenue and Interstate 15	This pipeline would convert 15.1 gpm of potable water demand for irrigation to reclaimed water demand.
12	Lincoln Foothill Pipeline	Lincoln Avenue between Highgrove Street and Foothill Parkway	This pipeline would convert 12.5 gpm of potable water demand for irrigation to reclaimed water demand at one church and six existing LMD meters.
13	Avenida Del Vista Pipeline	Via Del Rio and MFR demands north of Via Santiago	This pipeline would convert 19.8 gpm of potable water demand for irrigation to reclaimed water demand at three MFR complexes.

Table ES-1. Summary of Projects

Number	Project Component	Location	Description
14	Border Pipeline	Brentwood Drive and MFR demands north of Tenth Street	This pipeline would convert 36.4 gpm of potable water demand for irrigation to reclaimed water demand at numerous MFR and CII complexes.
15	Promenade Pipeline	McKinley Avenue and Cresta Verde Park	This pipeline would convert 26.9 gpm of potable water demand for irrigation to reclaimed water demand at 2 MFR complexes and 15 existing landscaping irrigation meters.
16	Research Pipeline	CII demands west of Auto Center Drive	This pipeline would convert 9 gpm of potable water demand for irrigation to reclaimed water demand.
17	Smith Pipeline	Railroad Street and Pomona Road	This pipeline would convert 13.6 gpm of potable water demand for irrigation and car washing to reclaimed water demand.
18	Via Pacifica Pipeline	MFR and LMD demand north of Ontario Avenue	This pipeline would convert 21.3 gpm of potable water demand for irrigation to reclaimed water demand at two LMD meters and one MFR complex.
19	Tehachapi Pipeline	McKinley Avenue and Tehachapi Park	This pipeline would convert 6.2 gpm of potable water demand for irrigation to reclaimed water demand.
Small Distribution Pipelines			
20	Jenks Pipeline	North and south of Railroad Street	The pipeline would convert 5.8 gpm of potable water demand for irrigation to reclaimed water demand.
21	Airport Circle Pipeline	South of Railroad Street	The pipeline would convert 4.1 gpm of potable water demand for irrigation to reclaimed water demand.
22	Helicopter Pipeline	South of Railroad Street	This pipeline would convert 3.9 gpm of potable water demand for irrigation to reclaimed water demand.
23	Glider Pipeline	South of Railroad Street	The pipeline would convert 1.3 gpm of potable water demand for irrigation to reclaimed water demand.

Table ES-1. Summary of Projects

Number	Project Component	Location	Description
24	Citation Pipeline	South of Railroad Street	This pipeline would convert 1.2 gpm of potable water demand for irrigation to reclaimed water demand.
25	Klug Pipeline	North and south of Railroad Street	This pipeline would convert 3.9 gpm of potable water demand for irrigation to reclaimed water demand.
26	Monica Pipeline	North of Railroad Street	The pipeline would convert 3.2 gpm of potable water demand for irrigation to reclaimed water demand.
27	Chase Hudson Pipeline	LMD demands at Chase Drive and Hudson Avenue	This pipeline would convert 4.7 gpm at two LMD meters from potable water demand for irrigation to reclaimed water demand.
28	Cessna Pipeline	North of Railroad Street	This pipeline would convert 3 gpm of potable water demand for irrigation to reclaimed water demand.
29	Main Citrus Pipeline	Main Street at Citrus Avenue and four CII customers at Main Street and Magnolia Avenue	This pipeline would convert 21.4 gpm of potable water demand for irrigation to reclaimed water demand for CII customers.

Source: City of Corona 2018.

Notes: CII = commercial, industrial, and institutional; FCS = flow control valve/station; gpm = gallons per minute; LMD = landscape maintenance district; MFR = multi-family residential; WRCRWA = Western Riverside County Regional Wastewater Authority; WRF = water reclamation facility

Sources of Supply

The project includes six sources of supply projects that involve future supply from the Western Riverside County Regional Wastewater Authority (WRCRWA). The projects are necessary to accommodate the shift in supply from the existing WRF3 to WRCRWA and would assure adequate supply and transmission capacity related to reclaimed water from WRCRWA (see Figure 2-4a, Source of Supply Project). The projects focus on transmission and system performance.

Distribution Pipelines

Approximately 27 miles of large distribution pipelines are proposed to supply irrigation demands at schools, parks, City landscaping, and the industrial, commercial, institutional (CII), and multi-family residential (MFR) sectors. The project proposes four large distribution pipelines to open previously unserved neighborhoods, commercial zones, and industrial zones to reclaimed water service. Nine new medium distribution pipelines are proposed to target large demand

opportunities with a single feed pipe. In addition, the project proposes 10 small distribution pipelines to target demand opportunities near existing pipelines.

Conversion of Adjacent Customers

The project also includes the conversion of 139.9 gallons per minute (gpm) (225.7 acre-feet per year) of potable water demand for irrigation to reclaimed water demand by adding small irrigated areas one at a time throughout the system and would investigate the possibility of converting other CII demands (e.g., cooling water replenishment, industrial process water, industrial cleaning, dual plumbing). It would require the addition of new laterals and meters as necessary to capture irrigation demand adjacent to existing distribution pipelines.

Data Management Projects

Supervisory Control and Data Acquisition Upgrade

The City has an extensive automation system for its water facilities called Supervisory Control and Data Acquisition (SCADA). SCADA is used primarily for operational control and management of the City's water, wastewater, and reclaimed water assets. The project would install eight SCADA flow monitors to fill gaps in comprehensive supply monitoring and connect to existing remote terminal units at WRF1, WRF2, and WRF3; program SCADA human-machine interfaces for (1) monitoring instantaneous reclaimed water system demand, (2) monitoring reclaimed water supply allocation, and (3) reconciling supply and billing to compute non-revenue reclaimed water; and produce regular reports that summarize and monetize supply allocation.

Irrigation Monitoring

The bulk of irrigation demand is controlled by the City and the Corona-Norco Unified School District. Supply is controlled by the City. There is an opportunity to improve system performance during high-demand periods by adjusting irrigation demand patterns through coordination between operations, engineering, and landscape maintenance. The irrigation monitoring system would facilitate the coordination effort and enhance system performance. It would include the installation of SCADA flow registers at large irrigation meters controlled by the City and the school district; develop methods for adjusting irrigation demand patterns; facilitate data collection, reduction, and transfer among operations, engineering, and landscaping maintenance; and implement irrigation demand pattern adjustments as needed during high-demand periods.

Additional Studies

The 2018 RWMP recommends two studies related to future uses of reclaimed water that would recognize opportunities for the City's expansion of the reclaimed water system. The studies would focus on the entire water service area and would assist the City in refining user demands

for irrigation and groundwater recharge. The studies include the County Irrigation Ordinance Study and the Injection Well Study. The studies are recommended related to future uses of reclaimed water. Preparation of the studies is statutorily exempt from CEQA pursuant to CEQA Guidelines, Section 15262; therefore, they are not evaluated in this PEIR. Implementation of any findings or recommendations developed as a result of the additional studies is not covered under this PEIR and would require independent CEQA review.

Prioritization and Cost Study for the Reclaimed Water Capital Improvement Program

The ultimate goal of a Capital Improvement Program is to provide the City with a long-range planning tool, orchestrate construction of reclaimed water infrastructure improvements in an orderly manner, and keep pace with the City's growth. To accomplish this goal, it is necessary to determine the estimated cost of the needed improvements and to prioritize the projects in a manner that will guarantee that reliable service is maintained in a fiscally responsible manner. Funding mechanisms to finance the improvements can then be identified to implement the program.

The viability of a reclaimed water project is based on the City's reclaimed water policy that includes (1) technical feasibility, (2) financial feasibility, and (3) economic feasibility. In addition, there are intangibles that may make a specific project more or less attractive. By using the Capital Improvement Program, the City is able to prioritize and implement the reclaimed water projects in a manner that is most beneficial for the City and its goals.

Construction

Following certification of this PEIR, the City would determine the implementation schedule for the construction of the improvements contemplated under the project. Once selected for construction, the City would develop project-specific plans and specifications for each project, perform a project-level CEQA review, and file the appropriate documentation for the necessary permits and approvals in advance of awarding a construction contract. Table ES-2 provides an estimated time frame for construction for each project included in the 2018 RWMP.

Table ES-2. Project Construction Duration

Number	Project Component	Duration (Years)
	Sources of Supply	
1	WRCRWA Booster Pump Station (in progress)	2
2	WRCRWA Transmission Pipeline (in progress)	2
3	WRCRWA Flow Control Improvements	2
4	Rimpau California Pipeline	4
5	Chase Booster Pump Station	3
6	Chase Tank	3

Table ES-2. Project Construction Duration

Number	Project Component	Duration (Years)
	Large Distribution Pipelines	
7	Buena Vista Tenth Pipeline	4
8	Ontario Slipline	4
9	River Pipeline	3
10	Sampson Pipeline	4
	Medium Distribution Pipelines	
11	Old Temescal Pipeline (in progress)	2
12	Lincoln Foothill Pipeline	2
13	Avenida Del Vista Pipeline	2
14	Border Pipeline	2
15	Promenade Pipeline	3
16	Research Pipeline	2
17	Smith Pipeline	2
18	Via Pacifica Pipeline	2
19	Tehachapi Pipeline	2
	Small Distribution Pipelines	
20	Jenks Pipeline	2
21	Airport Circle Pipeline	1
22	Helicopter Pipeline	1
23	Glider Pipeline	1
24	Citation Pipeline	1
25	Klug Pipeline	2
26	Monica Pipeline	1
27	Chase Hudson Pipeline	2
28	Cessna Pipeline	1
29	Main Citrus Pipeline	1

Notes: WRCRWA = Western Riverside County Regional Wastewater Authority

Discretionary Actions

The project is a "discretionary project," which is defined in Section 15357 of the CEQA Guidelines as "a project that requires the exercise of judgment or deliberation when the public agency or body decides to approve or disapprove a particular activity." The project would require approval of several discretionary actions by the City and other responsible agencies, which are listed in Table ES-3.

Table ES-3. Discretionary Actions

Action	Approving Agency
Certification of the Program Environmental Impact Report and adoption of the Mitigation Monitoring and Reporting Program, Findings of Fact, and Statement of Overriding Considerations	City
Clean Water Act Section 401 Water Quality Certification and National Pollutant Discharge Elimination System Construction Permits	Santa Ana Regional Water Quality Control Board
Clean Water Act Section 404 Permit	U.S. Army Corps of Engineers
California Fish and Game Code Section 1602 Permit	California Department of Fish and Wildlife
Section 7 of the Endangered Species Act	U.S. Fish and Wildlife Service
Encroachment Permit	California Department of Transportation
Encroachment Permit	Riverside County Flood Control and Water Conservation District

Notes: City = City of Corona

Potential Areas of Controversy and Issues to Be Resolved

Section 15123 of the CEQA Guidelines requires the summary of an EIR to include areas of controversy known to the lead agency, including issues raised by agencies and the public, and to address issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects. The City circulated a Notice of Preparation (NOP) to solicit agency and public comments on the scope and content of the environmental analysis beginning May 20, 2020, and ending June 18, 2020. The NOP is included in Appendix A, NOP and NOP Comment Letters.

Comments were considered in preparation of this PEIR. Six comment letters were received during the NOP public review period. A copy of each letter is provided in Appendix A. Additionally, the complete text of the NOP and the NOP comments is included in Appendix A. An NOP scoping meeting was held on June 2, 2020. The comment letters received are summarized in Table ES-4.

Table ES-4. Notice of Preparation Comment Letter Summary

Comment Letter No.	Commenter	Subject of Comment	Location in PEIR Where Comment Is Addressed
1	California Native American Heritage Commission	Recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic region of the water service area and describes AB 52 tribal consultation requirements.	Section 3.5, Cultural Resources; Section 3.18, Tribal Cultural Resources
2	South Coast Air Quality Management District	Recommends using the CEQA Air Quality Handbook and CalEEMod land use emissions software and calculating both regional and localized air quality impacts. Recommends that the PEIR should calculate both construction and operational emissions.	Section 3.3, Air Quality

Table ES-4. Notice of Preparation Comment Letter Summary

Comment Letter No.	Commenter	Subject of Comment	Location in PEIR Where Comment Is Addressed
3	Riverside County Flood Control and Water Conservation District	States that the project facilities should be designed and constructed in a manner to avoid conflicts with the district's Master Drainage Plan facilities. Work that involves district rights-of-way, easements, or facilities will require an encroachment permit from the district. The district would be a CEQA responsible agency.	Chapter 2, Project Description; Section 3.10, Hydrology and Water Quality; and Section 3.19, Utilities and Service Systems
4	Orange County Water District	Discusses discharge rates to Santa Ana River and impacts to riparian habitat and endangered species.	Section 3.4, Biological Resources; Section 3.10, Hydrology and Water Quality
5	Metropolitan Water District of Southern California	States that the Metropolitan Water District would be a CEQA responsible agency. The project description and appropriate impact analysis should include a brief statement of the proposed potable water conversion incentives with the district.	Chapter 2, Project Description; Section 3.10, Hydrology and Water Quality; and Section 3.19, Utilities and Service Systems
6	California Department of Fish and Wildlife	States that the PEIR should include an assessment of biological resources, including habitat types, a general biological inventory of species that have the potential to be on site, and a complete inventory of sensitive species located in the project footprint and off-site areas. Recommends protocol surveys for state and federally listed endangered species and a state threatened species. States that the PEIR should provide a thorough discussion of the direct, indirect, and cumulative impacts expected to adversely affect biological resources as a result of the project. The discussion should include project-related changes on drainage patterns and water quality on, upstream, and downstream of the project site; potential indirect project impacts on biological resources; and impacts to adjacent open space lands. Recommends that the PEIR describe and analyze a range of reasonable alternatives and identify mitigation measures that would avoid or minimize impacts.	Section 3.4, Biological Resources

Notes: AB = Assembly Bill; CalEEMod = California Emissions Estimator Model; CEQA = California Environmental Quality Act; PEIR = Program Environmental Impact Report

Summary of Project Impacts

This EIR examines the potential environmental effects of the proposed project, including information related to existing site conditions, analyses of the types and magnitude of individual and cumulative environmental impacts, and feasible mitigation measures that could reduce or avoid environmental impacts. In accordance with Appendix G of the CEQA Guidelines, potential environmental effects of the proposed project were analyzed for the following areas:

- Aesthetics
- Agriculture and Forestry

- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology, Soils, and Paleontological Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

Table ES-5, Summary of Impacts of the Proposed Project, at the end of this chapter provides a summary of the significant environmental impacts that could result from implementation of the proposed project and feasible mitigation measures that would reduce or avoid the impacts. For each impact, Table ES-5 identifies the applicable mitigation measures and the level of significance of the impact after implementation of the mitigation measures.

Summary of Project Alternatives

Section 15126.6(d) of the CEQA Guidelines requires an EIR to provide sufficient information about each alternative to allow for meaningful evaluation, analysis, and comparison with the project. The City selected the alternatives for analysis based on the "rule of reason" and ability for each alternative to meet most of the basic project objectives. A description of the three alternatives carried forward for analysis is provided in the following subsections.

Alternative 1: No Project/Existing 2001 RWMP Alternative

Under the No Project/Existing 2001 RWMP Alternative, the 2018 RWMP would not be adopted and the City would continue with implementation of the adopted 2001 RWMP. Under this alternative, the existing reclaimed water system facilities and substructures would continue to operate. No new proposed reclaimed water source of supply, large distribution pipeline, medium distribution pipeline, or small distribution pipeline projects would be constructed or operated. In

addition, this alternative would exclude the conversion of adjacent customers, data management projects, and the proposed additional studies.

Alternative 2: Reduced Project Alternative

The Reduced Project Alternative proposes to reduce the number of projects proposed in the 2018 RWMP. Under the Reduced Project Alternative, the 2018 RWMP would not include the WRCRWA Flow Control Improvement Project, the Promenade Pipeline, or the Research Pipeline. All other source supply projects; small, medium, and large distribution pipelines; conversion of agricultural customers; data management projects; and other studies would be included. This alternative would reduce the biological impacts associated with implementation of the 2018 RWMP.

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
Aesthetics		
Substantial Degradation of the Existing Visual Character or Conflict with Applicable Regulations	**AES-1: Landscape Plan.** To screen aboveground project facilities during facility design, the design consultant shall prepare a Landscape Plan for each aboveground project facility identified in the 2018 Reclaimed Water Master Plan, including the Chase Tank facility. The Landscape Plan shall include measures to restore disturbed areas by re-establishing existing topography, including replanting trees or reseeding with a native seed mix typical of the immediately surrounding area. The Landscape Plan shall include a required seed mix and plant palette. Vegetation screening shall be included in the Landscape Plan to shield proposed aboveground facilities from public view. The Landscape Plan shall include a Monitoring Plan to ensure that site restoration and vegetation establishment is successful.	Less than Significant
Biological Resources		
Sensitive Plant Species	**BIO-1: Multiple Species Habitat Conservation Plan Consistency Analysis Report Sensitive Plant Species Surveys.** For projects proposed in the City of Corona 2018 Reclaimed Water Master Plan on undeveloped land, including the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline, a Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis Report site-specific biological resources survey shall be completed during the project design phase. The Consistency Analysis Report shall be prepared for each project to demonstrate consistency with the Multiple Species Habitat Conservation Plan Implementation Structure and shall include project-level existing conditions documentation consisting of vegetation mapping and identification of sensitive habitats (non-native grassland, riparian and riverine areas, and vernal pools), plants, and animals (including burrowing owl [*Athene cunicularia*]) on the project site. The Consistency Analysis Report shall be used as the basis for determining if a project is subject to a Joint Project Review and is required to complete a Joint Project Review Application. The Multiple Species Habitat Conservation Plan Consistency Analysis Report template and requirements can be accessed on the Western Riverside County Regional Conservation Authority Document Library:	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	https://www.wrc-rca.org/document-library/. The Western Riverside County Multiple Species Habitat Conservation Plan Permittee Implementation Guidance Manual (2007) shall also be reviewed and followed to ensure project consistency with the Multiple Species Habitat Conservation Plan requirements. ~~If one or more sensitive plant species has the potential to occur on the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, focused species surveys shall be conducted before construction to determine the presence and absence of these species to adequately evaluate potential direct or indirect impacts to these species.~~ ~~Sensitive plant species surveys shall be conducted by a qualified biologist retained by the City of Corona during the appropriate season to detect the species as part of the project design phase. Surveys shall be floristic in nature and include lists of the plants identified in the survey area. Surveys shall be conducted on foot, employing a level of effort sufficient to provide comprehensive coverage. The locations and prevalence (estimated total numbers and percent cover, as applicable) of sensitive plants shall be recorded. The sensitive plant species surveys shall be valid for 3 years.~~ ~~If site-specific surveys are not required because a survey was conducted within the last 3 years, impact assessment and minimization and mitigation requirements shall be based on the most recent available survey. These requirements shall also include an analysis of the potential for sensitive plant species to occur on site based on existing site conditions and shall be consistent with the most recent U.S. Fish and Wildlife Service and California Department of Fish and Wildlife survey protocols.~~ ~~If sensitive plant species are observed, they shall be avoided if possible. If species cannot be avoided, impacts shall be mitigated through conservation of habitat that supports the impacted species in accordance with Mitigation Measures BIO-2 and BIO-3.~~ ~~**BIO-2: Permanent Impacts to Non-Native Grassland.** Permanent impacts to sensitive non-native grassland shall be mitigated through the preservation of habitat, habitat creation, or enhancement, or combination thereof, in the City of Corona or off site through habitat acquisition and preservation or purchase of credits from an approved conservation bank. Mitigation for impacts to non-native grassland shall be in-kind using native grasses. Permanent impacts to sensitive non-native grassland shall be mitigated at a ratio of 0.5:1.~~ ~~For on-site mitigation, a detailed Mitigation Plan shall be prepared before the start of construction (not applicable to mitigation met through the purchase of credits from an approved wetland mitigation bank). The Mitigation Plan shall include at a minimum the proposed location of the mitigation areas, site preparation, a plant palette, installation procedures, success criteria, fencing and signage, monitoring requirements, and other details of the habitat restoration effort and shall be prepared by a qualified biologist.~~	

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	~~**BIO-3: Temporary Impacts to Non-Native Grassland.** Temporary impacts to non-native grassland shall be restored in place or elsewhere on the project site at a 1:1 replacement ratio using native grasses species.~~ ~~A Revegetation Plan shall be prepared. The Revegetation Plan shall include site preparation specifications, a plant palette, installation procedures, development of reasonable success criteria, appropriate monitoring and reporting protocols, implementation timelines, and contingency measures in the event of restoration failure. The City of Corona shall provide guidance for and oversight of the Revegetation Plan and implementation.~~ ~~In the event that non-native grassland vegetation cannot be restored in place or elsewhere on the project site after construction, these impacts would be considered permanent, and Mitigation Measure BIO-2 would be implemented.~~ ~~The 0.5:1 permanent impacts and 1:1 temporary impacts mitigation ratios for the project would follow the accepted ratios established by the Western Riverside County Multiple Species Habitat Conservation Plan to reduce potentially significant impacts to sensitive vegetation communities to less than significant.~~ **BIO-24: Invasive Plant Species Prevention.** During construction of the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects, the following measures shall be implemented to minimize the spread of invasive plant species: • Construction equipment shall be cleaned before coming to the project sites. • Weed-free straw wattles shall be used for erosion control. **BIO-35~~:~~ Flagging and Fencing**. If sensitive biological resources are identified on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, the construction limits shall be clearly identified on construction drawings and flagged on the project sites to ensure impacts to sensitive biological resources are avoided or minimized to the extent feasible. Before implementing construction activities, a qualified biologist shall verify that the flagging clearly delineates the construction limits and sensitive resources to be avoided. **BIO-46~~:~~ Contractor Training Program.** If sensitive biological resources are known to occur on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a project-specific contractor training program shall be developed and implemented to educate project contractors on the sensitive biological resources on and adjacent to the project sites and measures being implemented to avoid or minimize impacts to these species. A qualified biologist shall develop and implement the contractor training program.	

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	BIO-5~~7~~: Biological Monitor. If sensitive biological resources are present on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, and impacts may occur from implementation of construction activities, a qualified biological monitor may be required during all or a portion of the construction activities to ensure impacts to the sensitive biological resources are avoided or minimized to the extent feasible. The specific biological monitoring requirements shall be evaluated on a project-by-project basis. The qualified biological monitor shall be approved by the City of Corona based on applicable experience with the sensitive biological resources that may be impacted.	
Sensitive Animal Species	**BIO-15~~,~~ and BIO-3~~6, and~~ through BIO-5~~7~~.** ~~**BIO-8: Burrowing Owl Surveys.** A burrowing owl clearance survey shall be conducted before any ground-disturbing activities in accordance with the California Department of Fish and Wildlife 2012 Staff Report on Burrowing Owl Mitigation. Two preconstruction clearance surveys shall be conducted 14–30 days and 24 hours before ground-disturbing activities to document the continued absence of burrowing owl from the project sites. The burrowing owl surveys shall be valid for 1 year.~~ **BIO-6~~9~~: Preconstruction Nesting Bird Surveys**. To the extent feasible, grubbing, trimming, or clearing of vegetation from project sites shall not occur during the general bird nesting season (January 15 through September 15). If grubbing, trimming, or clearing of vegetation cannot feasibly occur outside of the general bird nesting season, a qualified biologist shall perform a preconstruction nesting bird survey at project sites with vegetation supporting nesting birds. Nesting bird surveys shall occur within ~~10~~7 days before the start of vegetation clearing or grubbing to determine if active bird nests are present. If no active bird nests are identified on the project sites or within a 300-foot buffer of the project sites, no further mitigation is necessary. If active nests of bird species covered by the Migratory Bird Treaty Act are detected on the project site during the ~~10~~7-day preconstruction survey, construction activities should stay outside of a 300-foot buffer around the active nest. For raptor species, this buffer is expanded to 500 feet. It is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged, and a qualified biologist has determined the nest is inactive, normal construction activities can occur. **BIO-7~~10~~: Night Lighting.** If temporary night lighting is necessary during construction adjacent to sensitive vegetation communities, construction contractors shall ensure lights are directed away from sensitive vegetation communities and shielded to minimize temporary	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	lighting of the surrounding habitat and should be of the lowest illumination necessary for human safety.	
Riparian Habitat or Other Sensitive Natural Community	**BIO-12 ~~and BIO-3~~.** **~~BIO-11: Biological Resources Survey/Habitat Assessment.~~** ~~For projects proposed in the 2018 Reclaimed Water Master Plan on undeveloped land, including the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline, a site-specific biological resources survey shall be conducted during the project design phase. The biological resources survey shall be conducted by a qualified biologist and shall include but not be limited to the following:~~ • ~~An analysis of available literature and biological databases, such as the California Natural Diversity Database, to determine sensitive biological resources that have been reported historically from the proposed project vicinity.~~ • ~~A review of current land use and land ownership within the project vicinity.~~ • ~~An assessment and mapping of vegetation communities present within the proposed project vicinity. If vegetation community mapping has not been conducted on the site in the previous 3 years, updated vegetation mapping shall be conducted by a qualified biologist as part of the project planning and environmental review process. Vegetation communities shall be mapped according to the Manual of California Vegetation at the alliance level, and a crosswalk table with Holland vegetation communities shall be provided.~~ • ~~A general assessment of the potential for aquatic resources, including wetlands and riparian habitats, to occur on site.~~ • ~~An evaluation of potential local and regional wildlife movement corridors.~~ • ~~If the project sites support vegetation communities that may provide habitat for plant or animal species, a focused habitat assessment conducted by a qualified biologist to determine the potential for sensitive plant or animal species to occur on or adjacent to the project sites.~~ ~~The results of the biological survey shall be presented in a biological survey letter report.~~	
Jurisdictional Aquatic Resources	**BIO-1.** **BIO-812~~2~~: Aquatic Resources Delineation**. If sensitive aquatic resources are identified on the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a qualified biologist shall conduct an aquatic resources delineation following the methods outlined in the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the U.S. Army	

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	Corps of Engineers Wetland Delineation Manual: Arid West Region to map the extent of wetlands and non-wetland waters, determine jurisdiction, and assess potential impacts. The results of the delineation shall be presented in an Aquatic Resources Delineation Report and shall be incorporated into the California Environmental Quality Act documents required for approval and permitting of the proposed project. The Aquatic Resources Delineation Report shall be included as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1). **BIO-~~9~~13: Aquatic Resources Permitting and Multiple Species Habitat Conservation Plan Consistency.** If the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would impact sensitive aquatic resources, permits and authorizations shall be obtained from the U.S. Army Corps Engineers, California Department of Fish and Wildlife, or Regional Water Quality Control Board. The regulatory agency authorizations would include impact avoidance and minimization measures and mitigation measures for unavoidable impacts. Specific avoidance, minimization, and mitigation measures for impacts to jurisdictional resources shall be determined through discussions with the regulatory agencies during the proposed project permitting process and may include monetary contributions to a mitigation bank or habitat creation, restoration, or enhancement. In addition, consistent with the Western Riverside Multiple Species Habitat Conservation Plan and as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1), a Determination of Biologically Equivalent or Superior Preservation Report shall be prepared to identify mitigation that demonstrates equivalent or superior function and value, including re-establishment, establishment, and/or permanent conservation of aquatic resources, as feasible. The Determination of Biologically Equivalent or Superior Preservation Report shall be included as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1).	
Cultural Resources		
Historic Resources	**CUL-1: Construction-Related Vibration.** Construction Plans for individual projects under the 2018 Reclaimed Water Master Plan shall include a requirement that no vibratory equipment be operated within 40 feet of a structure eligible or listed on the National Register of Historic Places, California Register of Historical Resources, or Corona Register. Instead, alternative construction equipment shall be used, such as smooth wheel rollers without a vibratory component. This requirement shall be included on individual project Construction Plans and be submitted to the City of Corona, Public Works Department, for review before approval of final design. For structures that have not been previously evaluated, the City Engineer shall consult with a qualified Architectural Historian, approved by the City of Corona, to conduct an evaluation of the structure. If the structure is determined eligible or already eligible or listed in the National Register of Historic Places, California Register of Historical	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	Resources, or Corona Register, structural evaluation shall be conducted by a Professional Structural Engineer to identify maximum allowable levels of vibration during construction. If a historic determination is required, the engineer shall provide recommendations on approaches to stabilization in conjunction with vibration monitoring. Permanent stabilization measures shall follow the Secretary of the Interior's guidelines for the treatment of historic properties. If the buildings are temporarily stabilized for the duration of construction activities, when removed, the buildings shall be restored to their preconstruction condition when the stabilization measures are removed.	
Archaeological Resources	**CUL-2: Project-Specific Archaeological Survey.** Projects identified in the 2018 Reclaimed Water Master Plan should be reviewed by the City of Corona to determine if a site-specific archaeological survey should be conducted. Site-specific archaeological surveys should be conducted for individual projects identified in the 2018 Reclaimed Water Master Plan that are in areas that have not been previously developed or would impact land with visible ground surface, or projects that may impact built environment resources that meet the age threshold for eligibility. A Native American monitor shall be on site during the site-specific archaeological surveys. If cultural resources are identified during the site-specific archaeological survey, then evaluation of the resources for the California Register of Historical Resources and the Corona Register should be conducted in conjunction with the Native American monitor to determine if the resource is significant under the California Environmental Quality Act and would be adversely impacted by the project. A Native American monitor from a culturally affiliated tribe should be present during any archaeological excavations involving prehistoric cultural resources. If no significant resources are found, and site conditions are such that there is no potential for further discoveries, then no further action is required. Resources found to be non-significant as a result of a survey and evaluation shall require no further work beyond documentation of the resources on the appropriate Department of Parks and Recreation site forms and inclusion of results in a technical report. If significant resources are present, consulting tribes or bands should be notified and consulted with on treatment. ~~then a~~ Avoidance, preservation in place, or a data recovery program is recommended. The data recovery program is subject to the provisions outlined in California Public Resources Code, Section 21083.2. The data recovery program should be conducted in accordance with the Office of Historic Preservation's Archaeological Resource Management Reports: Recommended Contents and Format and Guidelines for Archaeological Research Designs. The data recovery program must be reviewed and approved by the City. If no significant resources are found, but if there is a potential for unknown archaeological resources, or tribal cultural resources to be uncovered during construction activities, then implementation of Mitigation Measure CUL-3 is recommended.	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	CUL-3: Archaeological and Native American Monitoring Program. Because there is always a potential for encountering cultural and tribal cultural resources during excavation, the creation of an archaeological and Native American monitoring program is recommended for projects identified in the 2018 Reclaimed Water Master Plan that would conduct new ground disturbance in areas identified as moderate or high sensitivity for cultural resources, ~~and~~ for project components that are within 100 feet of previously recorded archaeological resources, and for those projects where tribal consultation has identified traditional cultural properties/tribal cultural landscapes. Prior to the commencement of ground-disturbing activities below the road base, the City of Corona, Public Works Department, shall enter into an agreement with the consulting tribes or bands for Native American monitors. The Native American monitor shall be approved by the Gabrieleño Band of Mission Indians – Kizh Nation, Soboba Band of Luiseño Indians, and Rincon Band of Luiseño Indians—the tribes that consulted on the project pursuant to Assembly Bill 52 (consulting tribes or bands). A copy of the executed contract shall be submitted to the City of Corona prior to the issuance of any permit necessary to start a ground-disturbing activity. The Native American monitor shall be on site during all initial ground-disturbing activities and excavation of each portion of the project site, including clearing, grubbing, tree removals, grading, and trenching. Monitoring will not take place within the imported fill soils in the road base and for potholing above known utility lines. In conjunction with the archaeological monitor, the Native American monitor shall have the authority to temporarily divert, redirect, or halt the ground-disturbing activities to allow identification, evaluation, and potential recovery of cultural resources. The on-site monitoring shall end when all ground-disturbing activities on the project site are completed or when the tribal representatives and Native American monitor have indicated that all upcoming ground-disturbing activities on the project site have little to no potential for impacting cultural or tribal cultural resources. Upon discovery of any tribal cultural resources, construction activities shall cease in the immediate vicinity of the find (not less than the surrounding 100 feet) until the find can be assessed. All tribal cultural resources unearthed by project activities shall be evaluated by the qualified archaeologist and Native American monitor approved by the consulting tribe or band. If the resources are Native American in origin, the consulting tribe or band shall retain it/them in the form and/or manner the consulting tribe or band deems appropriate for educational, cultural, and/or historic purposes. If a non-Native American resource is determined by the qualified archaeologist to constitute a "historical resource" or "unique archaeological resource," time allotment and funding sufficient to allow for implementation of avoidance measures or appropriate mitigation must be available. The treatment plan established for the resources shall be in accordance with the California Environmental Quality Act Guidelines, Section 15064.5(f), for historical resources and California Public Resources Code, Sections 21083.2(b), for unique archaeological resources.	

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the historic archaeological material, it shall be offered to a local school or historical society in the area for educational purposes. The City of Corona, Public Works Department, shall obtain a fully executed agreement(s) with the consulting tribes or bands to ensure compliance with this mitigation measure. This agreement shall not modify any condition of approval or mitigation measure. ~~The archaeological and Native American monitoring program shall consist of the full-time presence of a qualified archaeologist and traditionally and culturally affiliated Native American monitor during new ground-disturbing activities. New ground disturbance can include new trenching or expanding previously excavated trenches, grading, and vegetation removal. The archaeological and Native American monitoring program should include the following:~~ ~~1. Noting archaeological and Native American monitoring on applicable construction documents, including plans, shall be required.~~ ~~2. The archaeologist and Native American monitor should attend the preconstruction meeting with the contractor or the City of Corona.~~ ~~3. The archaeologist shall maintain ongoing collaborative consultation with the Native American monitor during ground-disturbing or altering activities as identified above.~~ The City of Corona, Public Works Department, and the consulting tribes or bands shall develop an Archaeological Monitoring Plan to address details, timing, and responsibilities of all archaeological activities that will occur on the project site when it is determined by either the City of Corona, Public Works Department, or the consulting tribes or bands to be necessary. The Archaeological Monitoring Plan shall include the following: 1. The development of a schedule in coordination with the City of Corona, Public Works Department, the project archaeologist, and the consulting tribes or bands for Native American and archaeological monitoring during ground-disturbing activities on the site, including the scheduling, safety requirements, duties, scope of work, and Native American monitor's authority to stop and redirect grading activities in coordination with all project archaeologists. 2. The protocols and stipulations that the City of Corona, Public Works Department, the consulting tribes or bands, and project archaeologist would follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resource evaluation. Such procedures include the following:	

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	a. The archaeologist or Native American monitor may halt ground-disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground-disturbing activities shall be directed away from these deposits for a short time to allow for identification, evaluation, and potential recovery of cultural resources ~~a determination of potential significance, the subject of which shall be determined~~ by the archaeologist and the Native American monitor. Ground-disturbing activities shall not resume until the archaeologist, in consultation with the Native American monitor and the City of Corona, deems the cultural resource or feature has been appropriately documented and protected. b. All discovered resources shall be temporarily curated in a secure location on site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with Native American monitor oversight of the process. c. The City of Corona, Public Works Department, shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains, as part of the required mitigation for impacts to cultural resources. The City of Corona, Public Works Department, shall relinquish the artifacts through one or more of the following methods and provide the consulting tribes or bands with evidence of the same: i. Accommodate the process for on-site reburial of the discovered items with the consulting tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloging and basic recordation have been completed. ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per Title 36, Part 79, of the Code of Federal Regulations and, therefore, would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility in Riverside County to be accompanied by payment of the fees necessary for permanent curation. iii. If more than one Native American tribe or band is involved with the project and cannot come to a consensus on the disposition of cultural materials, the cultural materials shall be curated at the Western Science Center. d. At the completion of grading, excavation, and ground-disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City of Corona, Public Works Department, documenting monitoring activities conducted by the project archaeologist and Native American monitor within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural	

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; and in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the consulting tribes or bands, Eastern Information Center, and interested tribes or bands. ~~4. Archaeological isolates and non-significant materials shall be minimally documented in the field, and ground disturbance shall be allowed to resume.~~ ~~5. The avoidance and protection of discovered unknown and significant cultural resources and/or unique archaeological resources is the preferable mitigation for the proposed project. If avoidance is not feasible, a Data Recovery Plan may be authorized by the City of Corona as the lead agency under the California Environmental Quality Act.~~ ~~6. Before the release of any bonds associated with the construction of the project components, a Monitoring Report or Evaluation Report that describes the results, analysis, and conclusions of the archaeological and Native American monitoring program (including but not limited to a data recovery program) shall be submitted by the archaeologist, along with the Native American monitor's notes and comments, to the City of Corona for approval.~~	
Human Remains	**CUL-2 and CUL-3.** **CUL-4: Identification and Treatment of Human Remains**. In the event that human remains, ~~or~~ possible human remains, and/or grave goods are encountered during any work associated with the projects identified in the 2018 Reclaimed Water Master Plan, ground disturbance within ~~25~~ 100 feet of the remains shall immediately halt. The project proponent shall then immediately inform the Riverside County Coroner and the City of Corona, Public Works Department, and the County Coroner shall be permitted to examine the remains as required by California Health and Safety Code, Section 7050.5(b). Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains until the County Coroner can determine whether the remains are those of a Native American. If human remains are determined to be of Native American origin, the applicant shall comply with the state relating to the disposition of Native American burials that fall within the jurisdiction of the California Native American Heritage Commission (California Public Resources Code, Section 5097). The County Coroner shall contact the California Native American Heritage Commission to determine the most likely descendant. The most likely descendant shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The disposition of the remains shall be overseen by the most likely descendant to determine the most appropriate means of treating the human remains and any associated grave artifacts. The specific locations of Native American burials and reburials will be proprietary and not disclosed to the general public. The County Coroner will notify the California Native	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	American Heritage Commission in accordance with California Public Resources Code, Section 5097.98. According to California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052) as determined in consultation between the project proponent and the most likely descendant. ~~and California Environmental Quality Act Guidelines, Section 15064.5(e); California Public Resource Code, Section 5097.98; and California Health and Safety Code, Section 7050.5, should be followed. If Native American remains are discovered, the remains shall be kept in situ (in place) or in a secure location approved by the Native American monitor until the repatriation process can be completed.~~	
Geology, Soils, and Paleontological Resources		
Seismic Hazards	**GEO-1: Site-Specific Soil and Geotechnical Study.** The City of Corona shall prepare a site-specific soil and geotechnical engineering study before final design of individual projects under the 2018 Reclaimed Water Master Plan that would involve ground disturbance, including grading and excavation. Each study shall be performed by a licensed professional, including but not limited to a geologist, certified soil scientist, certified agronomist, registered agricultural engineer, registered civil or structural engineer, and/or certified professional erosion and sediment control specialist with expertise in geotechnical engineering issues, who is registered and/or certified in the State of California, to determine site-specific impacts and to recommend site-specific mitigations. Feasible recommendations addressing potential seismic hazards and soil constraints shall be implemented.	Less than Significant
Geological Stability	**GEO-1.**	Less than Significant
Expansive Soils	**GEO-1.**	Less than Significant
Paleontological Resources	**GEO-2: Paleontological Monitoring.** Paleontological monitoring during excavation, grading or trenching shall be required for all projects identified in the 2018 Reclaimed Water Master Plan that would excavate to a depth of 10 feet or more in areas identified as having a high paleontological sensitivity. Before the approval of project-specific construction documents for each project, the City Engineer shall retain a qualified professional paleontologist to observe all earth-disturbing activities in areas greater than 10 feet in depth. Fossil materials recovered during paleontological monitoring shall be cleaned, identified, cataloged, and analyzed in accordance with standard professional practices. The results of the fieldwork and laboratory analysis shall be submitted in a technical report and the entire collection transferred to an approved facility. If no resources are found during the monitoring effort, a monitoring summary shall be submitted to the City Engineer within 4 weeks of completion of the monitoring effort.	Less than Significant
Hazards and Hazardous Materials		
Accidental Release of Hazardous Materials	**HAZ-1: Preparation of Phase 1 Environmental Site Assessment.** Before construction of the Rimpau California Pipeline, River Pipeline, Sampson Pipeline, Buena Vista Tenth Avenue Pipeline, and Klug Pipeline, the City of Corona shall conduct a Phase 1 Environmental	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	Site Assessment. The Phase 1 Environmental Site Assessment shall be prepared by a registered environmental assessor or equally qualified professional to assess the potential for contaminated soil or groundwater conditions at the project sites and along conveyance alignments. The Phase 1 Environmental Site Assessment shall include a review of appropriate federal and state hazardous materials databases and relevant local hazardous material site databases for hazardous waste in on-site and off-site locations within a one-quarter mile radius of the project sites and along conveyance alignments. The Phase 1 Environmental Site Assessment shall also include a review of existing or past land uses and aerial photographs, a summary of results of reconnaissance site visits, and a review of other relevant existing information that could identify the potential existence of contaminated soil or groundwater. If no contaminated soil or groundwater is identified, or if the Phase 1 Environmental Site Assessment does not recommend any further investigation, the City of Corona shall proceed with final project design and construction. If existing soil or groundwater contamination is identified, and if the Phase 1 Environmental Site Assessment recommends further review, the City of Corona shall retain a registered environmental assessor to conduct follow-up sampling to characterize the contamination and to identify any required remediation that shall be conducted consistent with applicable regulations before any earth-disturbing activities. The registered environmental assessor shall prepare a report that includes but is not limited to activities performed for the assessment, a summary of anticipated contaminants and contaminant concentrations at the proposed construction sites, and recommendations for appropriate handling of any contaminated materials during construction. **HAZ-2: Halt of Construction Work if Hazardous Materials Are Encountered.** Before construction, workers shall be trained on how to identify hazardous materials and procedures if undefined, suspected contaminated soil or groundwater is encountered. If unidentified or suspected contaminated soil or groundwater is encountered during construction activities of the projects identified in the 2018 Reclaimed Water Master Plan, the construction contractors shall immediately stop surface or subsurface activities in the event that potentially hazardous materials are encountered, an odor is identified, or considerably stained soil is visible. Contractors shall notify the City of Corona Public Works Department Project Manager immediately and follow the applicable local, state, and federal regulations regarding the discovery, response, disposal, and remediation of hazardous materials encountered during the construction process. This requirement shall be included in individual project Construction Plans and submitted to the City of Corona Public Works Department for review before approval of final design.	
Emergency Response Plan or Evacuation Plan	**HAZ-3: Prepare and Implement a Construction Traffic Control Plan.** The construction contractor shall prepare and implement a Construction Traffic Control Plan for roadways and intersections affected by the individual projects identified in the 2018 RWMP. This requirement shall be included on individual project Construction Plans	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	and be submitted to the City of Corona Public Works Department for review before approval of final design. The Construction Traffic Control Plan shall comply with local agency requirements with jurisdiction over project construction and shall include but not be limited to the following elements based on local site and roadway conditions: • Provide street layout showing location of construction activity and surrounding streets to be used as detour routes, including special signage. • Post a minimum 72-hour advance warning of construction activities in affected roadways to allow motorists to select alternative routes. • Restrict delivery of construction materials to non-peak travel periods (9:00 a.m.–3:00 p.m.) as appropriate. • Maintain the maximum travel lane capacity during non-construction periods and provide flagger control at construction sites to manage traffic control and flows • Maintain access for driveways and private roads, except for brief periods of construction, in which case property owners shall be notified. • Require temporary steel plate trench crossings as needed to maintain reasonable access to homes, businesses, and streets. When required by the applicable encroachment permit, maintain the existing lane configuration during nonworking hours by covering the trench or jack pit with steel plates or by using temporary backfill. • Require appropriate warning signage and safety lighting for construction zones. • Access for emergency vehicles shall be maintained at all times. Police, fire, and emergency services shall be notified of the timing, location, and duration of construction activities that could hinder or delay emergency access through the construction period. • Coordinate with regional transit agencies, including Corona Cruiser and Riverside Transit Agency, to plan as needed for the temporary relocation of bus stops or detour of transit routes on affected distribution pipeline alignments. • Identify detours where available for bicyclists and pedestrians in areas potentially affected by project construction. • Provide adequate off-street parking locations for worker vehicles and construction equipment where on-street parking availability is insufficient. • Repair or restore the roadway right-of-way to its original condition or better upon completion of work.	
Wildland Fire	**HAZ-4: Maintain Construction Area Clear of Combustible Materials.** During construction, the contractor shall ensure that staging areas, welding areas, or areas slated for construction using spark-producing equipment shall be cleared of combustible vegetation or other materials that could serve as fire fuel. Vegetation clearing shall	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	be coordinated with a qualified biologist before removal. The contractor shall keep these areas clear of combustible materials to maintain a firebreak. Any construction equipment that normally includes a spark arrester shall be in good working order. This includes but is not limited to vehicles, heavy equipment, and chainsaws. This requirement shall be included on individual project Construction Plans and be submitted to the City of Corona Public Works Department for review before approval of final design. **HAZ-5: Provide Accessible Fire Suppression Equipment.** Work crews shall be required to have sufficient fire suppression equipment readily available to ensure that any fire resulting from construction activities is immediately extinguished. Off-road equipment using internal combustion engines shall be equipped with spark arrestors. This requirement shall be included on individual project Construction Plans and be submitted to the City of Corona Public Works Department for review before approval of final design.	
Land Use and Planning		
Conflict with Land Use Plan, Policy, or Regulation	**AES-1, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9, ~~BIO-10, BIO-11, BIO-12, BIO-13,~~ CUL-1, CUL-2, CUL-3, CUL-4, GEO-1, HAZ-3, and NOI-1.**	Less than Significant
Noise		
Exceedance of Noise Standards	**NOI-1: Construction Noise Reduction Measures.** Individual projects under the 2018 Reclaimed Water Master Plan shall implement construction noise reduction measures to ensure compliance with the City of Corona's Noise Ordinance. The following measures shall be included on individual project Construction Plans and be submitted to the City of Corona, Public Works Department, for review before approval of final design: • Construction equipment shall be properly outfitted and maintained with manufacturer recommended noise reduction devices. • Diesel equipment shall be operated with closed engine doors and equipped with factory recommended mufflers. • Mobile or fixed "package" equipment (e.g., arc-welders and air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment. • Electrically powered equipment shall be used instead of pneumatic or internal-combustion powered equipment, where feasible. • Unnecessary idling of internal combustion engines (e.g., in excess of 5 minutes) shall be prohibited. • Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
	• The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be limited to safety warning purposes only. • No project-related public address or music system shall be audible at any adjacent sensitive receptor. • The City of Corona shall notify residences within 100 feet of the construction area in writing at least 2 weeks prior to any construction activity such as concrete sawing, asphalt removal, or heavy grading operations. The notification shall describe the activities anticipated, provide dates and hours, and provide contact information with a description of a complaint and response procedure. • In the event that a complaint is received, noise monitoring shall be conducted to determine whether hourly average noise levels during construction exceed ambient noise levels by more than 5 A-weighted decibels Equivalent Energy Level. A 1-hour noise measurements shall be taken during a normal weekday without construction activity, and a 1-hour measurement during typical construction. In the event that the above measures do not reduce noise levels to 5 A-weighted decibels or less above ambient conditions at the affected receptor, temporary sound barriers or sound blankets may be installed between construction operations and adjacent noise-sensitive receptors. Due to equipment exhaust pipes being approximately 7–8 feet above ground, a sound barrier at least 10 feet in height above grade would be required to mitigate noise to an acceptable level. • The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal process for the affected resident shall be established before construction begins to allow for resolution of noise problems that cannot be immediately solved by the site supervisor. • All construction activities, including deliveries and engine warm-up, shall be prohibited between the hours of 8:00 p.m. and 7:00 a.m., Monday through Saturday, and 6:00 p.m. to 10:00 a.m. on Sundays and federal holidays.	
Excessive Groundborne Vibration and Noise	**NOI-2: Vibratory Equipment Limitations.** Construction Plans for individual projects under the 2018 Reclaimed Water Master Plan shall include a requirement that no vibratory equipment be operated within 40 feet of a structure eligible or listed on the National Register of Historic Places, California Register of Historical Resources, or Corona Register. Instead, alternative construction equipment shall be used, such as smooth wheel rollers without a vibratory component. This requirement shall be included on individual project Construction Plans and be submitted to the City of Corona, Public Works Department, for review before approval of final design.	Less than Significant

Table ES-5. Summary of Impacts of the Proposed Project

Issue Area	Mitigation Measure(s)	Impact Determination After Mitigation
Transportation		
Conflict with Program, Plan, Ordinance, or Policy	**HAZ-3.**	Less than Significant
Inadequate Emergency Access	**HAZ-3.**	Less than Significant
Tribal Cultural Resources		
Tribal Cultural Resources	**CUL-2, CUL-3, and CUL-4.**	Less than Significant
Utilities and Service Systems		
Relocation or Construction of New Facilities	**AES-1, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9, ~~BIO-10, BIO-11, BIO-12, BIO-13,~~ CUL-1, CUL-2, CUL-3, CUL-4, GEO-1, GEO-2, HAZ-1, HAZ-2, HAZ-3, HAZ-4, HAZ-5, NOI-1, and NOI-2.**	Less than Significant
Wildfire		
Emergency Response or Evacuation Plan	**HAZ-3.**	Less than Significant
Uncontrolled Spread of Wildfire	**HAZ-4 and HAZ-5.**	Less than Significant
Requirement of Installation or Maintenance of Associated Infrastructure	**HAZ-4 and HAZ-5.**	Less than Significant

Chapter 2 Project Description

The 2018 Reclaimed Water Master Plan (project or 2018 RWMP) is an update to the City of Corona's (City's) adopted Reclaimed Water Master Plan (2001), which provides guidance to create infrastructure to efficiently use treated effluent from its existing and future wastewater reclamation facilities (WRFs) supplemented by non-potable groundwater from the Bedford Basin to reduce dependence on imported water and potable groundwater. The project identifies the extent and types of reclaimed water development needed to achieve the City's physical, economic, and environmental goals.

2.1 Project Location

Regional Location

The City is in the northwestern portion of the County of Riverside (County), near the convergence of the Counties of Los Angeles, Orange, and Riverside, 45 miles southeast of the City of Los Angeles, as shown on Figure 2-1, Regional Location, and Figure 2-2, Project Overview. The City is in the Temescal Valley, which is framed by mountains and the Prado Flood Control Basin. The City is bordered by the City of Norco to the north, the City of Riverside to the east, unincorporated Riverside County to the west and south, the Cleveland National Forest to the south/southwest, and the Prado Flood Control Basin to the northeast.

The City is defined in the County by its transportation infrastructure. Two major freeways and one railroad transect the City. Riverside Freeway (State Route 91) runs east–west directly connecting the economic center of the County of Orange to the Inland Empire, while Interstate 15 runs north–south. In addition, the Burlington Northern Santa Fe Railway transects the center of the City, running parallel to State Route 91.

Water Service Area

The City's water service area encompasses approximately 39 square miles and delineates the extent of the City's potable water, reclaimed water and wastewater services. The water service area boundary differs slightly from the City's jurisdictional boundary because it also includes the unincorporated communities of El Cerrito and Coronita and parts of Temescal Canyon, as shown on Figure 2-3, Water Service Area. The water service area is a jurisdictional boundary bordered by the neighboring water service areas for the Cities of Norco and Eastvale to the north, the City of Riverside to the northeast, the Home Gardens County Water District to the east, and the Temescal Valley Water District to the south. The southeastern portion of the water service area is generally bounded by unincorporated County lands. The southwestern portion of the water service area is bounded by the Cleveland National Forest and other County lands.

2.2 Project Purpose

The primary purpose of the 2018 RWMP is to assist the City with meeting its goals for reclaimed water use through implementation of appropriate projects, programs, and additional studies.

2.3 Project Objectives

The project objectives are as follows:

1. Expand and improve the City's recycled water program in accordance with Ordinance 2854 (Recycled Water Rules and Regulations)
2. Prioritize and implement system improvements pursuant to the 2018 Reclaimed Water Master Plan to maximize reclaimed water supply availability and reduce the use of potable water
3. Improve water supply system performance by facilitating supply management and maximizing water resources
4. Efficiently implement priority improvement projects to manage and distribute new sources of water supply as they become available

2.4 Projects Identified in the 2018 RWMP

This section describes the proposed infrastructure and improvements to the reclaimed water system identified in the 2018 RWMP. Future projects would be categorized as sources of supply, large distribution pipelines, medium distribution pipelines, small distribution pipelines, conversion of adjacent customers, data management, and additional studies. Table 2-1 provides a summary of the projects identified in the 2018 RWMP. Figures 2-4a through 2-4d show the locations of the project components in the water service area.

Table 2-1. Summary of Projects

Number	Project Component	Location	Description
Sources of Supply Projects			
1	WRCRWA Booster Pump Station	WRCRWA	The booster pumping stations would pump WRCRWA supply to the 833 Subzone.
2	WRCRWA Transmission Pipeline	Between WRCRWA and River FCS-833 Subzone	The transmission pipeline would connect the WRCRWA booster pumping station to the 833 Subzone.
3	WRCRWA Flow Control Improvements	Between Butterfield and WRF1 Tank	These control stations would direct WRCRWA supply to the Lincoln-Cota Ponds and the WRF1 Tank.

Table 2-1. Summary of Projects

Number	Project Component	Location	Description
4	Rimpau California Pipeline	Between Central Park and Chase Park	This transmission pipeline would provide the additional capacity needed to move WRCRWA supply to demands south of the water service area between City Park and Chase Park.
5	Chase Booster Pump Station	Chase Park	The booster pump station at Chase Park would an operational component of the Rimpau California Pipeline.
6	Chase Tank	Chase Park	The storage facility at Chase Park would be an operational component of the Rimpau California Pipeline.
Large Distribution Pipelines			
7	Buena Vista Tenth Pipeline	Railroad Street and Rimpau Avenue via Buena Vista Avenue and Tenth Street	This pipeline would reinforce the primary loop between WRF1 at the 1380 Zone following construction of the Rimpau California Pipeline.
8	Ontario Slipline	Compton Avenue and Lincoln Avenue	This sliplined pipeline would form a secondary loop along the length of the 1175 Subzone.
9	River Pipeline	River Road from Corydon Avenue through Main Street	This pipeline would expand the 833 Subzone north of Temescal Creek and west of Interstate 15.
10	Sampson Pipeline	Central Park and McKinley Street	This pipeline would form a secondary loop in the 1008.5 Zone to improve performance and eliminate the need for additional local storage.
Medium Distribution Pipelines			
11	Old Temescal Pipeline	Fullerton Avenue and Interstate 15	This pipeline would convert 15.1 gpm of potable water demand for irrigation to reclaimed water demand.
12	Lincoln Foothill Pipeline	Lincoln Avenue between Highgrove Street and Foothill Parkway	This pipeline would convert 12.5 gpm of potable water demand for irrigation to reclaimed water demand at one church and six existing LMD meters.
13	Avenida Del Vista Pipeline	Via Del Rio and MFR demands north of Via Santiago	This pipeline would convert 19.8 gpm of potable water demand for irrigation to reclaimed water demand at three MFR complexes.

Table 2-1. Summary of Projects

Number	Project Component	Location	Description
14	Border Pipeline	Brentwood Drive and MFR demands north of Tenth Street	This pipeline would convert 36.4 gpm of potable water demand for irrigation to reclaimed water demand at numerous MFR and CII complexes.
15	Promenade Pipeline	McKinley Avenue and Cresta Verde Park	This pipeline would convert 26.9 gpm of potable water demand for irrigation to reclaimed water demand at 2 MFR complexes and 15 existing landscaping irrigation meters.
16	Research Pipeline	CII demands west of Auto Center Drive	This pipeline would convert 9 gpm of potable water demand for irrigation to reclaimed water demand.
17	Smith Pipeline	Railroad Street and Pomona Road	This pipeline would convert 13.6 gpm of potable water demand for irrigation and car washing to reclaimed water demand.
18	Via Pacifica Pipeline	MFR and LMD demand north of Ontario Avenue	This pipeline would convert 21.3 gpm of potable water demand for irrigation to reclaimed water demand at two LMD meters and one MFR complex.
19	Tehachapi Pipeline	McKinley Avenue and Tehachapi Park	This pipeline would convert 6.2 gpm of potable water demand for irrigation to reclaimed water demand.
Small Distribution Pipelines			
20	Jenks Pipeline	North and south of Railroad Street	The pipeline would convert 5.8 gpm of potable water demand for irrigation to reclaimed water demand.
21	Airport Circle Pipeline	South of Railroad Street	The pipeline would convert 4.1 gpm of potable water demand for irrigation to reclaimed water demand.
22	Helicopter Pipeline	South of Railroad Street	This pipeline would convert 3.9 gpm of potable water demand for irrigation to reclaimed water demand.
23	Glider Pipeline	South of Railroad Street	The pipeline would convert 1.3 gpm of potable water demand for irrigation to reclaimed water demand.

Table 2-1. Summary of Projects

Number	Project Component	Location	Description
24	Citation Pipeline	South of Railroad Street	This pipeline would convert 1.2 gpm of potable water demand for irrigation to reclaimed water demand.
25	Klug Pipeline	North and south of Railroad Street	This pipeline would convert 3.9 gpm of potable water demand for irrigation to reclaimed water demand.
26	Monica Pipeline	North of Railroad Street	The pipeline would convert 3.2 gpm of potable water demand for irrigation to reclaimed water demand.
27	Chase Hudson Pipeline	LMD demands at Chase Drive and Hudson Avenue	This pipeline would convert 4.7 gpm at two LMD meters from potable water demand for irrigation to reclaimed water demand.
28	Cessna Pipeline	North of Railroad Street	This pipeline would convert 3 gpm of potable water demand for irrigation to reclaimed water demand.
29	Main Citrus Pipeline	Main Street at Citrus Avenue and four CII customers at Main Street and Magnolia Avenue	This pipeline would convert 21.4 gpm of potable water demand for irrigation to reclaimed water demand for CII customers.

Source: City of Corona 2018.

Notes: CII = commercial, industrial, and institutional; gpm = gallons per minute; LMD = landscape maintenance district; MFR = multi-family residential; WRCRWA = Western Riverside County Regional Wastewater Authority; WRF = water reclamation facility

2.4.1 Sources of Supply

The project includes the following six sources of supply projects that involve future supply from the Western Riverside County Regional Wastewater Authority (WRCRWA). The projects are necessary to accommodate the shift in supply from the existing WRF3 to WRCRWA and would assure adequate supply and transmission capacity related to reclaimed water from WRCRWA (see Figure 2-4a, Source of Supply Project). The projects focus on transmission and system performance.

2.4.1.1 WRCRWA Booster Pump Station

This source of supply project would replace the existing booster pump station that completes the transmission system loop between the existing WRCRWA Plant at 14634 River Road in the City of Eastvale and existing WRF1 Tank and would provide reclaimed water to the 833 Subzone. Final design would meet the requirements of the agreement between the WRCRWA and the City, which includes delivery of 2.4 million gallons per day of reclaimed water. This project was evaluated in

the 2010 Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project Environmental Impact Report.

2.4.1.2 WRCRWA Transmission Pipeline

This source of supply project would construct a 5,133-foot-long, 20-inch-wide transmission pipeline connecting WRCRWA Plant Booster Pump Station 833 Subzone to the River Flow Control Station (FCS)-833 Subzone. The pipeline would be in the River Road easement from the WRCRWA's facilities at 14634 River Road in the City of Eastvale to its intersection with Bluff Street in the City of Norco. This pipeline would provide the primary transmission from the WRCRWA plant to the City. This project is currently under design and was evaluated in the 2016 Initial Study and Mitigated Negative Declaration for the Proposition 1 – Reclaimed Water Distribution Facilities.

2.4.1.3 WRCRWA Flow Control Improvements

Three control valve stations are required to direct flow from the WRCRWA to the desired destinations in the existing system. This source of supply project would control flows from the WRCRWA plant to deliver reclaimed water to either the Lincoln-Cota Ponds or the existing WRF1 Tank. A pressure-reducing valve (PRV) would be installed to reduce pressure to avoid cavitation in the downstream flow control valves. A flow control valve and flow meters would be installed to manage the flow of reclaimed water to the ponds and to the WRF1 Tank, which would include installing a pressure-reducing and flow control station using a Bailey PRV. A Cla-Val flow control valve and flow meters would be installed at Butterfield Park to control flow from the WRCRWA plant to the Lincoln-Cota Ponds and the WRF1 Tank. In addition, a bypass assembly near the existing WRF1 Booster Pump Station Ponds would be constructed to deliver reclaimed water to the existing WRF1 Tank.

2.4.1.4 Rimpau California Pipeline

This source of supply project would provide the additional capacity needed to move the WRCRWA supply to an area of demand in southern portion of the water service area between City Park and Chase Park. It would convert 75.5 gpm (121.7 acre-feet per year [AFY]) of potable water demand for irrigation to reclaimed water demand.

The pipeline would connect to the terminus of the existing 12-inch transmission main in Quarry Street at City Park and install 19,700 feet of new 20-inch pipe in Rimpau Avenue (between Central Park and California Avenue) and California Avenue (between Rimpau Avenue and Chase Park). This project would include installation of 2,400 feet of 12-inch pipe in Rimpau Avenue and Olympic Drive, stub-outs for future pipelines at Circle City Drive and Sixth Street, 25 fire hydrants, and 56 new meters to serve commercial, industrial, and institutional (CII) and multi-family residential (MFR) irrigation demand. It would also convert one existing irrigation meter at Chase Park to a reclaimed water meter.

2.4.1.5 Chase Booster Pump Station

This source of supply project would complete the primary loop between the existing WRF1 and the 1380 Zone and would provide redundancy in conjunction with the existing Border Tank facility for serving large demands in areas south of the City. It would construct a booster pump station adjacent to the future Chase Tank, install 1,600 feet of new 12-inch pipe in Chase Park and California Avenue, and install two fire hydrants.

2.4.1.6 Chase Tank

This source of supply project would include the construction of a 2-million-gallon storage tank at Chase Park in the southeastern portion of the site. The storage tank would provide equalization in the 1008.5 Zone, provide a primary loop between the 1008.5 Zone and the 1380 Zone, and provide operational storage, equalization, and redundancy in the 1008.5 Zone in conjunction with the existing Border Tank facility.

2.4.2 Large Distribution Pipelines

Approximately 27 miles of distribution pipelines are proposed to supply irrigation demands at schools, parks, City landscaping, and the industrial, commercial, institutional (CII) and MFR sectors. The project proposes four large distribution pipelines to open previously unserved neighborhoods, commercial zones, and industrial zones to reclaimed water service as described below (see Figure 2-4b, Large Distribution Pipelines).

2.4.2.1 Buena Vista Tenth Pipeline

This large distribution pipeline would reinforce the primary loop between WRF1 and the 1380 Zone following the construction of the Rimpau California Pipeline. It would convert 126.9 gpm (204.6 AFY) of potable water demand for irrigation to reclaimed water demand, including the connection of an existing 18-inch transmission main on Railroad Street to Buena Vista Avenue, and to a future 20-inch transmission main in Rimpau Avenue at Circle City Drive. The Buena Vista Tenth Pipeline would also include the installation of 23,200 feet of new 12-inch pipeline, 45 fire hydrants, and 63 new meters and convert 20 existing irrigation meters.

2.4.2.2 Ontario Slipline

This large distribution pipeline would serve as a CII/MFR/park/school demand converter and would form a secondary loop along the length of the 1175 Subzone. It would use trenchless technology to minimize traffic and substructure congestion. The Ontario Slipline would convert 130.8 gpm (211 AFY) of potable water demand for irrigation to reclaimed water demand and facilitate the possibility of converting other CII demands (e.g., cooling water replenishment, industrial process water, industrial cleaning, dual plumbing). Other components include the connection to the terminus of the existing 8-inch main in Fullerton Avenue, connection to an

existing 8-inch line in Lincoln Avenue, and adjustment of Ontario PRV-1025 Subzone to serve the 1175 Zone. Additionally, the Ontario Slipline would include sliplining 16,200 feet of existing Elsinore Valley Municipal Water District agricultural pipeline, installation of 10,200 feet of 12-inch pipeline, installation of 50 fire hydrants, installation of 52 new meters to serve CII/MFR irrigation demand, and conversion of 24 existing irrigation meters.

2.4.2.3 River Pipeline

This large distribution pipeline would expand the 833 Subzone north of Temescal Creek and west of Interstate 15. It would convert 126.5 gpm (204 AFY) of potable water demand for irrigation to reclaimed water demand and would investigate the possibility of converting other CII demands. The River Pipeline would connect to an existing 20-inch transmission main at the intersection of Corydon Avenue and River Road; install 13,900 feet of new 12-inch pipe in River Road, Cota Street, and Parkridge Avenue; install 28 new fire hydrants and 20 new meters; and convert 21 existing irrigation meters.

2.4.2.4 Sampson Pipeline

This large distribution pipeline would include the conversion of transmission and distribution pipelines in the 1008.5 Zone and would form a secondary loop in the 1008.5 Zone to improve performance and eliminate the need for additional local storage. The Sampson Pipeline proposes to convert 137.8 gpm (222.2 AFY) of potable water demand for irrigation and car washing to reclaimed water demand, investigate the possibility of converting other CII demands, and examine the possibility of adding American Asphalt as a customer for dust control, aggregate cleaning, and equipment cleaning. This project component would include the connection to the existing 12-inch distribution main at the intersection of McKinley Street and Promenade Avenue and the future 20-inch transmission main in Rimpau Avenue at Sixth Street near Central Park, installation of 37,600 feet of new 12-inch pipeline, installation of 75 fire hydrants, installation of 141 new meters to serve CII irrigation demand, and conversion of 10 existing irrigation meters.

2.4.3 Medium Distribution Pipelines

The project proposes the following nine new medium distribution pipelines to target large demand opportunities with a single feed pipe (see Figure 2-4c, Medium Distribution Pipelines).

2.4.3.1 Old Temescal Pipeline

This medium distribution pipeline would convert 15.1 gpm (24.2 AFY) of potable water demand for irrigation to reclaimed water demand and investigate the possibility of converting other CII demands. The Old Temescal Pipeline would connect to the existing main in Fullerton Avenue, install 4,500 feet of new 8-inch pipe in Old Temescal Road, install 10 fire hydrants and 15 new meters, and convert 5 existing meters to serve CII irrigation demand. This project component was

evaluated in the 2016 Initial Study and Mitigated Negative Declaration for the Proposition 1 – Reclaimed Water Distribution Facilities.

2.4.3.2 Lincoln Foothill Pipeline

This medium distribution pipeline would convert 12.5 gpm (20.2 AFY) of potable water demand for irrigation to reclaimed water demand at one church and six existing landscape maintenance district (LMD) meters in the 1380 Zone. The Lincoln Foothill Pipeline would connect to the existing 20-inch transmission main at Highgrove Street and Lincoln Avenue, install 2,700 feet of new 12-inch pipe in Lincoln Avenue between Highgrove Street and Foothill Parkway, install three fire hydrants and one new meter to serve institutional irrigation demand, and reconnect six existing LMD meters.

2.4.3.3 Avenida Del Vista Pipeline

This medium distribution pipeline would convert 19.8 gpm (31.9 AFY) of potable water demand for irrigation to reclaimed water demand at three MFR complexes. It would provide a connection to an existing 20-inch transmission main at the intersection of Via Del Rio and Kirkwood Drive, install 3,700 feet of new 12-inch pipe in Via Del Rio and Avenida Del Vista, install seven fire hydrants and one new meter, and connect to three existing irrigation meters to serve the MFR irrigation demand.

2.4.3.4 Border Pipeline

This medium distribution pipeline would convert 36.4 gpm (58.7 AFY) of potable water demand for irrigation to reclaimed water demand at numerous MFR and CII complexes and would investigate the possibility of recreational impoundment replenishment and converting other CII demands. The Border Pipeline would connect to an existing 20-inch transmission main at the intersection of Border Avenue and Brentwood Drive; install 5,400 feet of new 12-inch pipe in Border Avenue, Sherman Avenue, and Eighth Street; and install 10 fire hydrants and 40 new meters to serve MFR and CII irrigation demand.

2.4.3.5 Promenade Pipeline

This medium distribution pipeline would convert 26.9 gpm (43.4 AFY) of potable water demand for irrigation to reclaimed water demand at 2 MFR complexes and 15 existing landscaping irrigation meters and investigate the possibility of additional irrigation conversion for greenways and portions of the Cresta Verde Golf Course. The Promenade Pipeline would connect to an existing 16-inch transmission main in McKinley Street at Promenade Avenue and optionally install an 8-inch PRV at the connection point. It would also install 7,600 feet of new 12-inch pipe in Promenade Avenue, 15 fire hydrants, and 2 new meters to serve MFR irrigation demand and connect 15 existing irrigation meters. Portions of this pipeline from McKinney Street to Cresta Verde Golf Course and Driving Range were included in the 2016 Initial Study and Mitigated Negative Declaration for the Proposition 1 – Reclaimed Water Distribution Facilities.

2.4.3.6 Research Pipeline

This medium distribution pipeline would assist in CII demand conversion by converting 9 gpm (14.6 AFY) of potable water demand for irrigation to reclaimed water demand and would investigate the possibility of converting other CII demands. It would provide a connection to an existing 24-inch transmission main in Auto Center Drive at Research Drive and install an 8-inch PRV at the connection, 2,600 feet of a new 12-inch pipeline in Research Drive and Wardlow Road, five fire hydrants, and seven new meters to serve CII irrigation demand.

2.4.3.7 Smith Pipeline

This medium distribution pipeline would convert 13.6 gpm (22 AFY) of potable water demand for irrigation and car washing to reclaimed water demand and investigate the possibility of converting other CII demands. The Smith Pipeline would connect to an existing 18-inch transmission main in Railroad Street at Smith Avenue and install an 8-inch PRV at connection, 2,800 feet of new 12-inch pipe in Smith Avenue between Railroad Street and Pomona Road, 5 fire hydrants, and 20 new meters to serve CII irrigation demand and 1 new meter to serve a car wash.

2.4.3.8 Via Pacifica Pipeline

This medium distribution pipeline would convert 21.3 gpm (34.4 AFY) of potable water demand for irrigation to reclaimed water demand at two LMD meters and one MFR complex in the 1380 Zone. The Via Pacifica Pipeline would connect to an existing 20-inch transmission main in Via Pacifica at Ontario Avenue and install an 8-inch PRV at the connection, 1,200 feet of new 12-inch pipeline in Via Pacifica between Ontario Avenue and Mahogany Street, two fire hydrants, and one new meter to serve MFR irrigation demand and connect to two existing LMD meters.

2.4.3.9 Tehachapi Pipeline

This medium distribution pipeline would convert 6.2 gpm (10 AFY) of potable water demand from irrigation to reclaimed water demand. The proposed Tehachapi Pipeline would connect to an existing 12-inch transmission main in McKinley Street at Mount Humphries Street and install 1,400 feet of new 12-inch pipe in Elizabeth Lane, Jenks Drive, and Jenks Circle and three fire hydrants and connect to one existing meter at Tehachapi Park.

2.4.4 Small Distribution Pipelines

The project proposes 10 small distribution pipelines to target demand opportunities near existing pipelines as described below (see Figure 2-4d, Small Distribution Pipelines).

2.4.4.1 Jenks Pipeline

This small distribution pipeline would convert 5.8 gpm (9.2 AFY) of potable water demand for irrigation to reclaimed water demand and investigate the possibility of converting other CII

demands. The Jenks Pipeline would connect to an existing 18-inch transmission main in Railroad Street at Elizabeth Lane and install 1,700 feet of new 12-inch pipe in Elizabeth Lane, Jenks Drive, and Jenks Circle; 3 fire hydrants; and 22 new meters to serve CII irrigation demand. This pipeline would also include the optional installation of an 8-inch PRV at the connection point.

2.4.4.2 Airport Circle Pipeline

This CII demand small distribution pipeline would include the conversion of 4.1 gpm (6.5 AFY) of potable water demand for irrigation to reclaimed water demand and would investigate the possibility of converting other CII demands. The Airport Circle Pipeline would connect to an existing 18-inch transmission main in Railroad Street at Airport Circle and install 400 feet of new 12-inch pipe in Airport Circle, one fire hydrant, and two new meters to serve CII irrigation demand.

2.4.4.3 Helicopter Pipeline

This small distribution pipeline in the 1008.5 Zone would convert 3.9 gpm (6.3 AFY) of potable water demand for irrigation to reclaimed water demand and investigate the possibility of converting other CII demands. The Helicopter Pipeline would connect to an existing 18-inch transmission main in Railroad Street at Helicopter Street and install 500 feet of new 12-inch pipe in Helicopter Circle, one fire hydrant, and four new meters to serve CII irrigation demand.

2.4.4.4 Glider Pipeline

This small distribution pipeline would convert 1.3 gpm (2.1 AFY) of potable water demand for irrigation to reclaimed water demand in the 1008.5 Zone and would investigate the possibility of converting other CII demands. The Glider Pipeline would connect to an existing 18-inch transmission main in Railroad Street at Elizabeth Lane and install 500 feet of new 12-inch pipe in Glider Circle, one new fire hydrant, and five new meters to serve the CII irrigation demand.

2.4.4.5 Citation Pipeline

This small distribution pipeline would convert 1.2 gpm (2 AFY) of potable water demand for irrigation to reclaimed water demand in the 1008.5 Zone and would investigate the possibility of converting other CII demands. The Citation Pipeline would connect to an existing 18-inch transmission main in Railroad Street at Citation Circle and install 500 feet of new 12-inch pipeline in Citation Circle, one fire hydrant, and five new meters to serve CII irrigation demand.

2.4.4.6 Klug Pipeline

This small distribution pipeline would convert 3.9 gpm (6.2 AFY) of potable water demand for irrigation to reclaimed water demand in the 1008.5 Zone. The Klug Pipeline would connect to an existing 18-inch transmission main in Railroad Street at Klug Circle and install 1,300 feet of new 12-inch pipe in Klug Circle, three new fire hydrants, and seven new meters to serve CII irrigation demand.

2.4.4.7 Monica Pipeline

This small distribution pipeline would convert 3.2 gpm (5.2 AFY) of potable water demand for irrigation to reclaimed water demand in the 1088.5 Zone. The Monica Pipeline would connect to an existing 18-inch transmission main in Railroad Street at Monica Circle and install 500 new feet of 12-inch pipe in Monica Circle, one fire hydrant, and one new meter and connect two existing meters to serve CII irrigation demand.

2.4.4.8 Chase Hudson Pipeline

This small distribution pipeline is an LMD demand conversion project in the 1380 Zone that would convert 4.7 gpm (7.6 AFY) at two LMD meters from potable water demand for irrigation to reclaimed water demand. It would connect to an existing 12-inch distribution main in Chase Drive at Fullerton Avenue on the upstream side (1380 Zone) of the Fullerton PRV-1175 Subzone and install 1,000 feet of new 12-inch pipe in Chase Drive and Hudson Avenue and two fire hydrants and reconnect two existing meters.

2.4.4.9 Cessna Pipeline

This small distribution pipeline would convert 3 gpm (4.9 AFY) of potable water demand for irrigation to reclaimed water demand in the 1088.5 Zone. It would connect to an existing 18-inch transmission main in Railroad Street at Cessna Circle and install 300 feet of 12-inch pipe in Cessna Circle, one new fire hydrant, and two new meters to serve CII irrigation demand.

2.4.4.10 Main Citrus Pipeline

This small distribution pipeline would convert 21.4 gpm (34.5 AFY) of potable water demand for irrigation to reclaimed water demand for CII customers in the 1380 Zone. It would connect to an existing 12-inch distribution main in Main Street at Citrus Way and install 900 feet of new 12-inch pipeline in the Main Street promenade, two new fire hydrants, and four meters to serve CII irrigation demand.

2.4.5 Conversion of Adjacent Customers

Customers adjacent to existing pipelines should be converted to reclaimed water when possible. The adjacent demands for the City include commercial, institutional, MFR, and single-family residential.

The conversion would convert 139.9 gpm (225.7 AFY) of potable water demand for irrigation to reclaimed water demand by adding small irrigated areas one at a time throughout the system and would investigate the possibility of converting other CII demands (e.g., cooling water replenishment, industrial process water, industrial cleaning, dual plumbing). It would require the addition of new laterals and meters as necessary to capture irrigation demand adjacent to existing distribution pipelines.

2.4.6 Data Management Projects

The City has an extensive automation system for its water facilities called Supervisory Control and Data Acquisition (SCADA). SCADA is used primarily for operational control and management of the City's water, wastewater, and reclaimed water assets. The following enhancements would expand the use of SCADA to resource management and demand management.

2.4.6.1 SCADA Upgrade for Supply Management

This data management program includes SCADA upgrades for supply management, SCADA interfaces and monitors protocols for supply allocation, instantaneous demand, and monthly reconciliation of supply and billing, which would help facilitate supply management and resource maximization. The upgrade would install eight SCADA flow monitors to fill gaps in comprehensive supply monitoring and connect to existing remote terminal units at WRF1, WRF2, and WRF3; program SCADA human-machine interfaces for (1) monitoring instantaneous reclaimed water system demand, (2) monitoring reclaimed water supply allocation, and (3) reconciling supply and billing to compute non-revenue reclaimed water; and produce regular reports that summarize and monetize supply allocation.

2.4.6.2 Irrigation Monitoring

The bulk of irrigation demand is controlled by the City and the Corona-Norco Unified School District. Supply is controlled by the City. There is an opportunity to improve system performance during high-demand periods by adjusting irrigation demand patterns through coordination between operations, engineering, and landscape maintenance. The irrigation monitoring system would facilitate the coordination effort and enhance system performance. It would include the installation of SCADA flow registers at large irrigation meters controlled by the City and the school district; develop methods for adjusting irrigation demand patterns; facilitate data collection, reduction, and transfer among operations, engineering, and landscaping maintenance; and implement irrigation demand pattern adjustments as needed during high-demand periods.

2.4.7 Additional Studies

The 2018 RWMP recommends two studies related to future uses of reclaimed water that would recognize opportunities for the City's expansion of the reclaimed water system. The studies would focus on the entire water service area and would assist the City in refining user demands for irrigation and groundwater recharge. The following additional studies are recommended related to future uses of reclaimed water. Preparation of the studies is statutorily exempt from the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines, Section 15262, and, therefore, is not evaluated in this Program Environmental Impact Report (PEIR). Implementation of any findings or recommendations developed as a result of the additional studies is not covered under this PEIR and would require independent CEQA review.

2.4.7.1 County Irrigation Ordinance Study

The City adopted County Ordinance 859.3 regarding water-efficient landscape requirements for new construction and retrofit and the establishment of water budgets. The study would review the ramifications and monitoring requirements for implementation of the ordinance and is anticipated to produce changes in irrigation behavior, demand, and parcel-level compliance calculations.

In addition, the study would review the implications of the ordinance in terms of data collection, methods to identify excessive irrigation use, options for developers, resources, and grants available to implement concepts, quantification of impacts on potable, and reclaimed water demand and revenue. To gather sufficient data, the City will prepare and refine a sample geographical information system (GIS) database to determine impacts and issues surrounding compliance, recommend application of the sample GIS database to the entire water service area, estimate cost of implementation, and prepare recommendations for updating the City's GIS database.

2.4.7.2 Injection Well Study

The Injection Well Study would evaluate the viability of adding injection wells for recharge of the Temescal Basin. These wells would be an alternative to diverting reclaimed water to the ponds. Anticipated benefits of using injection wells include longer detention time for recharged reclaimed water and a higher recovery rate for recharged reclaimed water. The Injection Well Study anticipates coordinating with Groundwater Management Planning efforts; identifying the regions of the aquifer conducive to injection; identifying possible well locations; estimating benefits in terms of detention time, recovery rate, and redundancy; estimating the cost of implementation; preparing the cost-benefit analysis; and preparing recommendations.

2.4.7.3 Prioritization and Cost Study for the Reclaimed Water Capital Improvement Program

The ultimate goal of a Capital Improvement Program is to provide the City with a long-range planning tool, orchestrate construction of reclaimed water infrastructure improvements in an orderly manner, and keep pace with the City's growth. To accomplish this goal, it is necessary to determine the estimated cost of the needed improvements and to prioritize the projects in a manner that will guarantee that reliable service is maintained in a fiscally responsible manner. Funding mechanisms to finance the improvements can then be identified to implement the program.

The viability of a reclaimed water project is based on the City's reclaimed water policy that includes (1) technical feasibility, (2) financial feasibility, and (3) economic feasibility. In addition, there are intangibles that may make a specific project more or less attractive. By using the Capital Improvement Program, the City is able to prioritize and implement the reclaimed water projects in a manner that is most beneficial for the City and its goals.

2.4.8 Construction Methods

Following certification of the PEIR, the City would determine the implementation schedule for the construction of the improvements contemplated under the project. Once selected for construction, the City would develop project-specific plans and specifications for each project, perform a project-level CEQA review, and file the appropriate documentation for the necessary permits and approvals in advance of awarding a construction contract. For the purposes of this PEIR, the City has applied a standard construction zone of impact for linear construction, in addition to approximating the area of direct impact for staging areas or other temporary use areas. Typical construction methods for project components are described below.

Pipeline construction would require piping, trenching, backfilling, asphalt restoration, and striping. Trench dimensions for pipeline projects would be approximately 4 feet wide and 5 feet deep. Material removed would be replaced with import (sand bedding, aggregate base backfill, and asphalt concrete), and the spoils would be transported to an appropriate disposal facility.

Pump station construction would require piping, trenching, backfilling, foundation and grading, building construction, SCADA controls, and site restoration as needed.

Storage tanks would require piping, trenching, backfilling, foundation and grading, tank construction, SCADA controls, and site restoration as needed.

Table 2-2 provides an estimated time frame for construction for each project included in the 2018 RWMP.

Table 2-2. Project Construction Duration

Number	Project Component	Duration in Years
	Sources of Supply	
1	WRCRWA Booster Pump Station (in progress)	2
2	WRCRWA Transmission Pipeline (In progress)	2
3	WRCRWA Flow Control Improvements	2
4	Rimpau California Pipeline	4
5	Chase Booster Pump Station	3
6	Chase Tank	3
	Large Distribution Pipelines	
7	Buena Vista Tenth Pipeline	4
8	Ontario Slipline	4
9	River Pipeline	3
10	Sampson Pipeline	4
	Medium Distribution Pipelines	
11	Old Temescal Pipeline (in progress)	2
12	Lincoln Foothill Pipeline	2
13	Avenida Del Vista Pipeline	2

Table 2-2. Project Construction Duration

Number	Project Component	Duration in Years
14	Border Pipeline	2
15	Promenade Pipeline	3
16	Research Pipeline	2
17	Smith Pipeline	2
18	Via Pacifica Pipeline	2
19	Tehachapi Pipeline	2
Small Distribution Pipelines		
20	Jenks Pipeline	2
21	Airport Circle Pipeline	1
22	Helicopter Pipeline	1
23	Glider Pipeline	1
24	Citation Pipeline	1
25	Klug Pipeline	2
26	Monica Pipeline	1
27	Chase Hudson Pipeline	2
28	Cessna Pipeline	1
29	Main Citrus Pipeline	

Source: City of Corona 2018.

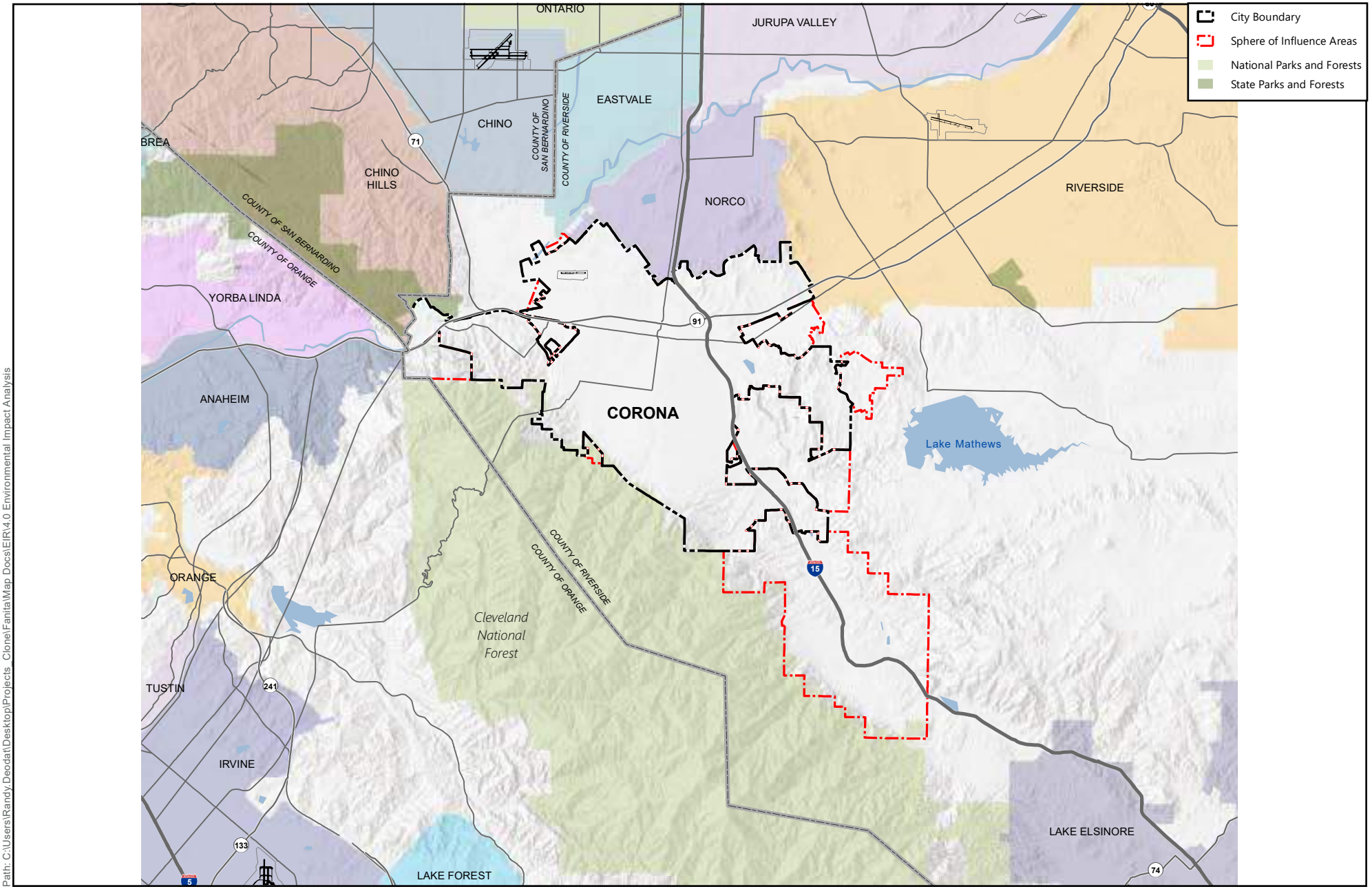
2.6 Discretionary Actions

The project is a "discretionary project," which is defined in Section 15357 of the CEQA Guidelines as "a project that requires the exercise of judgment or deliberation when the public agency or body decides to approve or disapprove a particular activity." The project would require approval of several discretionary actions by the City and other responsible agencies, which are listed in Table 2-3, Discretionary Actions.

Table 2-3. Discretionary Actions

Action	Approving Agency
Certification of the Environmental Impact Report and adoption of the Mitigation Monitoring and Reporting Program, Findings of Fact, and Statement of Overriding Considerations	City
Clean Water Act Section 401 Water Quality Certification and National Pollutant Discharge Elimination System Construction Permits	Santa Ana Regional Water Quality Control Board
Clean Water Act Section 404 Permit	U.S. Army Corps of Engineers
California Fish and Game Code Section 1602 Permit	California Department of Fish and Wildlife
Section 7 of the Endangered Species Act	U.S. Fish and Wildlife Service
Encroachment Permit	California Department of Transportation
Encroachment Permit	Riverside County Flood Control and Water Conservation District

Notes: City = City of Corona



Path: C:\Users\Randy.Deodat\Desktop\Projects_Clone\Fanita\Map Docs\EIR\4.0 Environmental Impact Analysis

Source: Placeworks 2017.

Harris & Associates

N

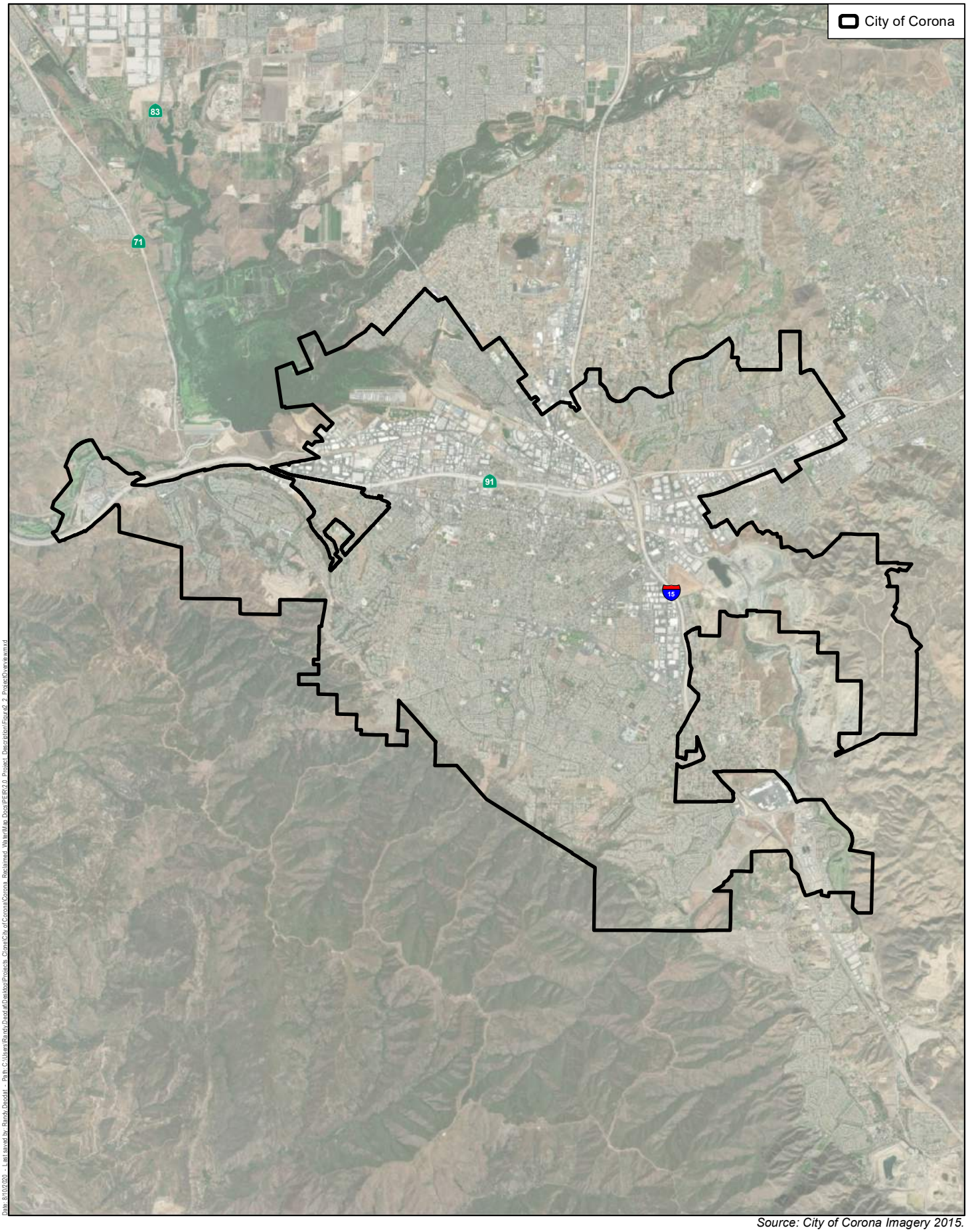
0 1.5 3
Miles

Figure 2-1

Regional Location

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: City of Corona Imagery 2015.

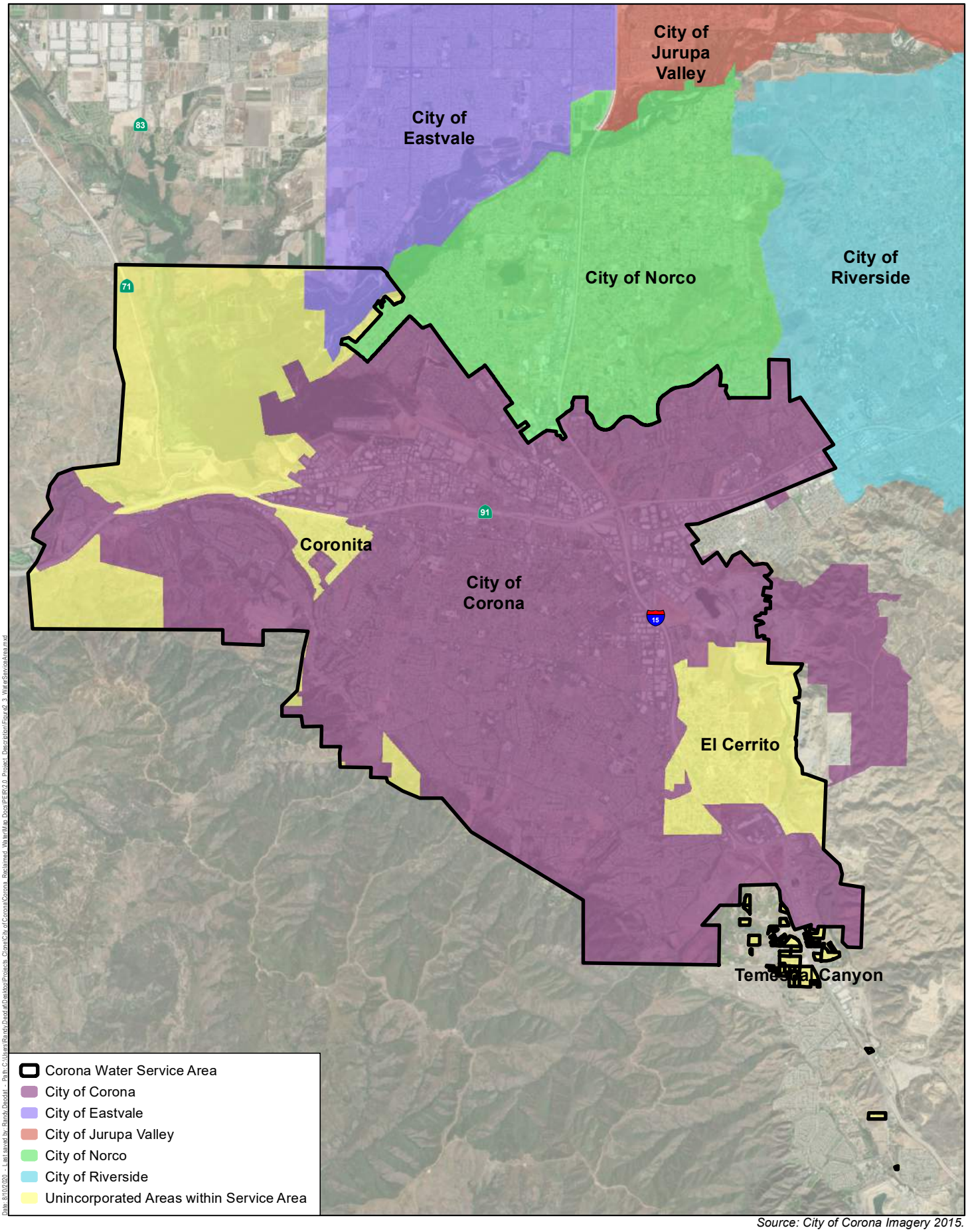
Harris & Associates

Figure 2-2

Project Overview

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: City of Corona Imagery 2015.

Harris & Associates

N

0 1 2

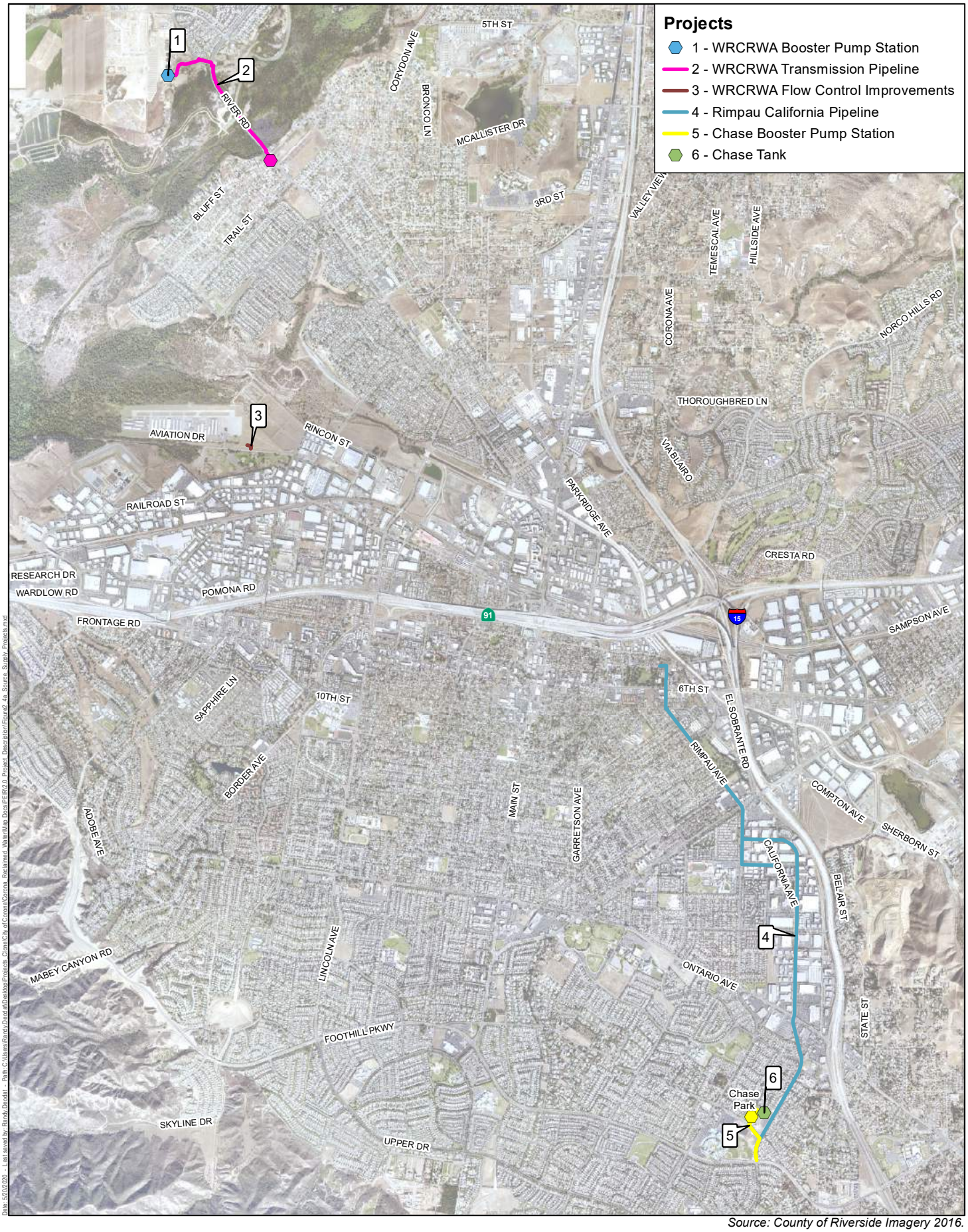
Miles

Figure 2-3

Water Service Area

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: County of Riverside Imagery 2016.

Harris & Associates

N

0 2,000 4,000

Feet

Figure 2-4a

Source of Supply Projects

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: County of Riverside Imagery 2016.

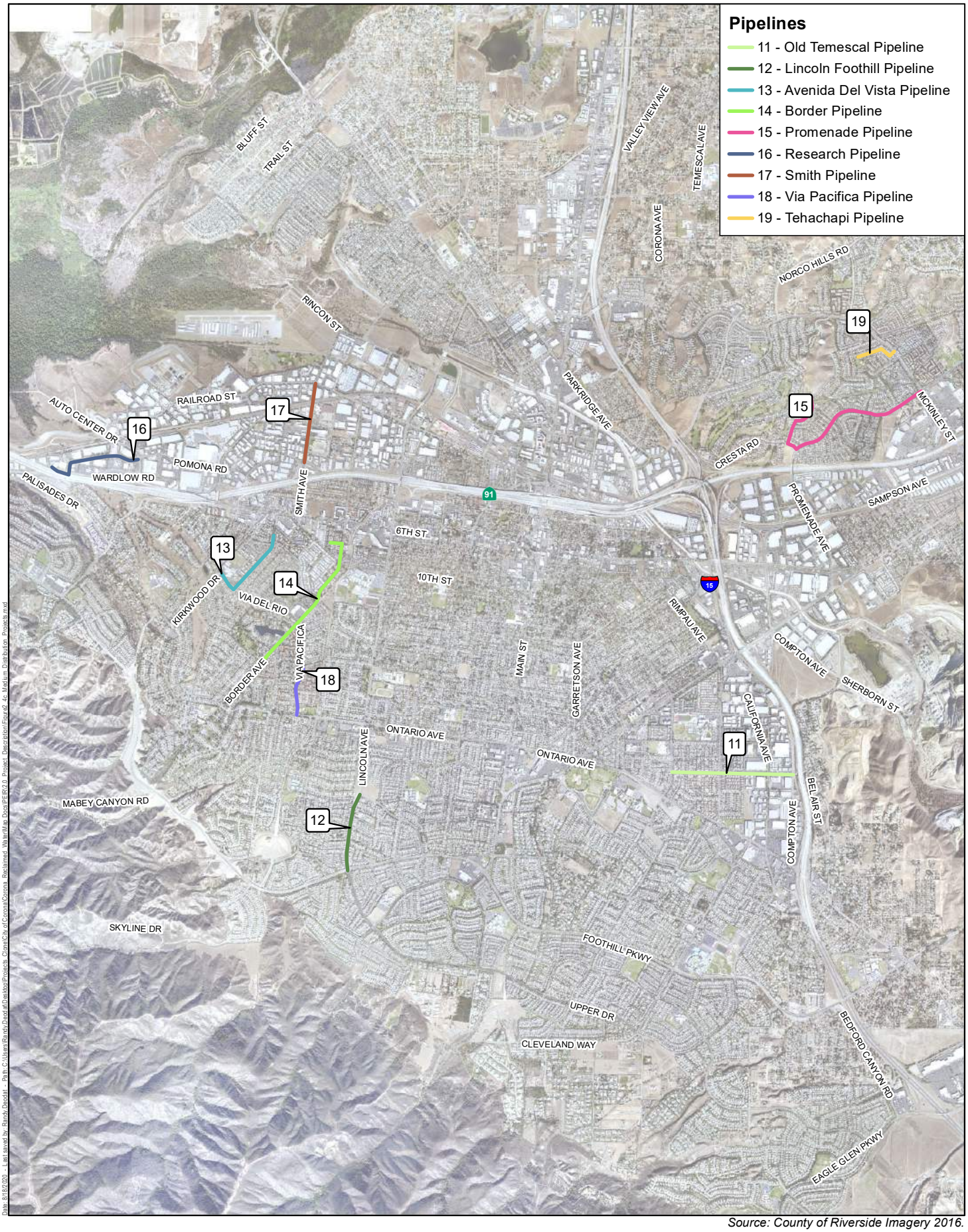
Harris & Associates

Figure 2-4b

Large Distribution Pipelines

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: County of Riverside Imagery 2016.

Harris & Associates

N

0 2,000 4,000

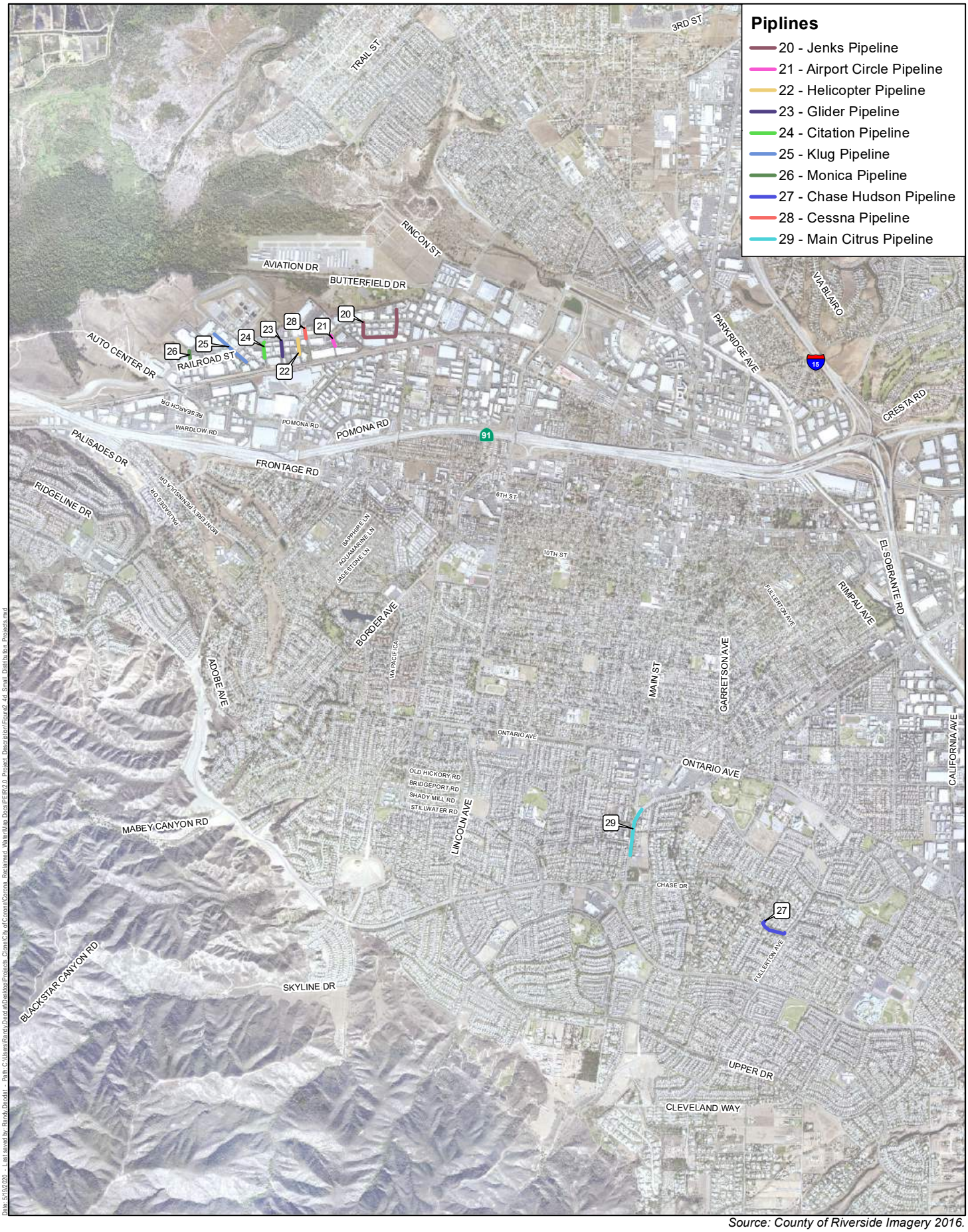
Feet

Figure 2-4c

Medium Distribution Pipelines

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: County of Riverside Imagery 2016.

Harris & Associates

N

0 1,000 2,000

Feet

Figure 2-4d

Small Distribution Pipelines

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.

3.4 Biological Resources

This section discusses the potential impacts to biological resources in the City of Corona's (City's) water service area that may result from the implementation of the 2018 Reclaimed Water Master Plan (2018 RWMP or project). The analysis in this section is based in part on the following information: Biological Resources Technical Report prepared by Harris & Associates (2020) for the project (Appendix C).

3.4.1 Environmental Setting

This section describes the environmental setting as it relates to biological resources for the water service area. The project proposes reclaimed water facilities in various locations throughout the water service area.

3.4.1.1 Background Research and Survey Method

Before conducting the site visit to assess biological resources, Harris & Associates biologists Melissa Tu and Katie Laybourn conducted a review of previous survey information. This included a review of aerial imagery and previous vegetation and sensitive resources mapping for the City including the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) (County of Riverside 2003), the City's General Plan Technical Update: Final Environmental Impact Report (FEIR) (City of Corona 2020a), and the 2016 Initial Study and Mitigated Negative Declaration for the Proposition 1 – Reclaimed Water Distribution Facilities (2016 Proposition 1 IS/MND) (City of Corona 2016).

Following the literature review, Harris & Associates biologists conducted a general biological reconnaissance survey on April 14, 2020, by visually inspecting a number of the projects included in the 2018 RWMP in the water service area to determine the potential for sensitive plants and animals to occur.

Animal species observed or otherwise detected during the survey were recorded and are provided in Appendix C. Animal identifications were made in the field directly by visual observation or indirectly by detection of calls, burrows, tracks, or scat. Binoculars were used to aid the identification of animal species. Nomenclature used for animals comes from CaliforniaHerps.com (2020) for amphibians and reptiles, American Ornithological Society (2019) and Cornell Lab of Ornithology (2020a) for birds, Checklist of Butterflies of San Diego County (San Diego Natural History Museum 2020a) for butterflies, San Diego Natural History Museum (2020b) for other insects, and Bradley et al. (2014) for mammals.

Vegetation community boundaries for the project were provided in geographic information system (GIS) format by the City. Vegetation community types include the Holland vegetation classification code as modified for the Western Riverside County MSHCP (Holland 1986; County

of Riverside 2003). Plant species nomenclature used in this PEIR generally comes from Baldwin et al. (2012) and the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2014).

3.4.1.2 Existing Biological Resources

This section includes a description of the biological resources that occur in the water service area.

Vegetation Communities and Land Use Types

The water service area consists of nine sensitive vegetation communities and two land use types, as described below (County of Riverside 2003; City of Corona 2018; Holland 1986). The sensitive vegetation communities were designated as sensitive because of the general scarcity of the community; because impacts to the habitat are often regulated by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), U.S. Army Corps of Engineers (USACE), or Regional Water Quality Control Board (RWQCB); or because of the species the vegetation community supports and the functions that it provides. Figure 3.4-1, Vegetation Communities – Overview, presents the vegetation community and land use type boundaries, and Figures 3.4-2a though 3.4-2d show the vegetation communities and land use types.

Chaparral

Chaparral is a shrub-dominated vegetation community composed largely of evergreen species that range from 3 to 12 feet in height. The most common and widespread species in chaparral is chamise (*Adenostoma fasciculatum*). Other common shrub species include manzanita (*Arctostaphylos* spp.), wild lilac (*Ceanothus* spp.), oak (*Quercus* spp.), redberry (*Rhamnus* spp.), laurel sumac (*Malosma laurina*), mountain mahogany (*Cercocarpus betuloides*), toyon (*Heteromeles arbutifolia*), and mission manzanita (*Xylococcus bicolor*). Soft-leaved subshrubs are less common in chaparral than in coastal sage scrub but occur in canopy gaps of mature stands (Holland 1986; Sawyer et al. 2009).

Chaparral occurs in the southwestern portion of the water service area at the eastern base of the Santa Ana Mountains (Figure 3.4-1).

Coastal Sage Scrub (Diegan and Riversidian)

Coastal sage scrub in the water service area consists of Diegan coastal sage scrub and Riversidian coastal sage scrub.

Diegan coastal sage scrub is dominated by a characteristic suite of low-statured, aromatic, drought deciduous shrubs and subshrub species. Composition varies substantially depending on physical circumstances and the successional status of the vegetation community; however, characteristic species include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*),

laurel sumac, California encelia (*Encelia californica*), and several species of sage (e.g., *Salvia mellifera*, white sage [*Salvia apiana*]) (Holland 1986; Sawyer et al. 2009). Diegan coastal sage scrub occurs in the western portion of the water service area south of the Santa Ana River.

Riversidian sage scrub is dominated by brittlebush (*Encelia farinosa*) with patches of California buckwheat and California sagebrush. Riversidian coastal sage scrub occurs in the southeastern portion of the water service area (Figure 3.4-1).

Freshwater Marsh (Coastal and Valley)

Freshwater marsh in the water service area consists of coastal and valley freshwater marsh. Coastal and valley freshwater marsh is dominated by freshwater emergent monocots often forming closed canopies. Dominant species include cattails (*Typha* spp.) and tules (*Schoenoplectus* spp.) (Holland 1986).

In the water service area, coastal and valley freshwater marsh occurs in small pockets along the Santa Ana River north of the Corona Municipal Airport (Figure 3.4-1).

Grassland (Non-Native)

Non-native grassland is a dense to sparse cover of annual grasses sometimes associated with numerous species of native annual forbs. This association occurs on gradual slopes with deep, fine-textured, usually clay soils. Characteristic species include oat (*Avena* sp.), red brome (*Bromus madritensis* ssp. *rubens*), ripgut brome (*Bromus diandrus*), barley (*Hordeum* sp.), and mustard (*Brassica* sp.). The majority of species and biomass in the non-native grassland community originated from the Mediterranean region, an area with a history of agriculture and a climate similar to California (Holland 1986).

Directly and indirectly, non-native grasslands provide foraging habitat for raptors and may be succeeded naturally by coastal sage scrub or other native habitats over time. For these reasons, non-native grassland is considered sensitive by the CDFW.

Plant species in the water service area that are documented in this vegetation community include ripgut brome, cheatgrass *(Bromus tectorum*), red brome, wild oat (*Avena fatua*), Mediterranean grass (*Schismus barbatus*), shortpod mustard (*Hirschfeldia incana*), Russian thistle (*Salsola tragus*), and common sunflower (*Helianthus annuus*).

Three projects (Western Riverside County Regional Wastewater Authority [WRCRWA] Flood Control Improvements, Promenade Pipeline, and Research Pipeline) are in or adjacent to undeveloped, non-native grassland (Figures 3.4-2a and 3.4-2c).

Oak Woodland

Oak woodland is dominated by Engelmann oak (*Quercus engelmannii*), coast live oak (*Quercus agrifolia*), canyon live oak (*Quercus chrysolepis*), interior live oak (*Quercus wislizenii*), and black oak (*Quercus kelloggii*) in the canopy, which may be continuous to intermittent or savannah-like.

Oak woodland in the water service area is dominated by coast live oak woodland and occurs in the southwestern portion of the water service area on the eastern side of the Santa Ana Mountains (Figure 3.4-1).

Open Water

Open water in the water service area consists of the Prado Flood Control Basin, Santa Ana River, and other drainages and includes non-vegetated channel and ponds (Holland 1986). Non-vegetated channel consists of predominantly unvegetated sandy, gravelly, or rocky channels. Variable water lines inhibit the growth of vegetation, although some weedy species of grass may grow along the outer edges of the channel. Vegetation may exist here but is usually less than 10 percent total cover.

The majority of open water occurs in the northern portion of the water service area (Figure 3.4-1).

Riversidian Alluvial Fan Sage Scrub

Riversidian alluvial fan sage scrub grows on well-drained, sandy, and rocky alluvial soils deposited by streams that experience periodic flooding along the base of the San Gabriel, San Bernardino, and San Jacinto Mountains. This community is typically dominated by scale-broom (*Lepidospartum squamatum*), which is considered an indicator species. Species in this community consist of a mix of riparian species including drought deciduous subshrubs and large, evergreen, woody shrubs that adapted to intense, periodic flooding events. Due to periodic flooding and erosion, pioneer, intermediate, and mature stages of alluvial fan sage scrub vegetation communities are often distinguished. These stages vary from sparse vegetation and low-diversity to dense subshrubs and evergreen woody shrubs. Species associated with this community include California buckwheat, coastal sagebrush, brittlebush (*Encelia farinosa*), white sage, California sycamore (*Platanus racemosa*), deerweed (*Acmispon glaber*), and mulefat (*Baccharis salicifolia*).

Riversidian alluvial fan sage scrub occurs in the northern and southwestern portions of the water service area at the edges of the Santa Ana River and Temescal Wash riparian corridors (Figures 3.4-1, 3.4-2a, and 3.4-2c).

Southern Riparian Forest

Southern riparian forest is a general vegetation description in the Holland vegetation classification code that includes three elements: southern coast live oak riparian forest, southern arroyo willow riparian forest, and southern cottonwood-willow riparian forest. Southern riparian forest occurs

along streams in canyons and valleys. Species that dominate each community vary but are typically coast live oak, willows, or a combination of cottonwoods and willows.

In the water service area, riparian forest consists primarily of native southern cottonwood-willow riparian forest with patches of giant reed (*Arundo donax*).

Southern cottonwood-willow riparian forest is a tall, open, broad-leaved, winter-deciduous riparian forest found along perennial wet streams. This community is dominated by Fremont cottonwood (*Populus fremontii*), black cottonwood (*Populus trichocarpa*), and several tree willow species (*Salix* spp.) and contains an understory of shrubby willows. This community is primarily found in subirrigated and frequently overflowed lands, which provide the moist, bare mineral soils required for the germination and establishment of the dominant species. Other plant species associated with this community include California mugwort (*Artemisia douglasiana*), mulefat, California sycamore, Goodding's black willow (*Salix gooddingii*), sandbar willow (*Salix exigua* var. *hindsiana*), Pacific willow (*Salix lasiandra*), arroyo willow (*Salix lasiolepis*), and stinging nettle (*Urtica dioica*).

Southern riparian forest occurs in the northern portion of the water service area in the Santa Ana River floodplain. As described in the 2016 Proposition 1 IS/MND prepared for the WRCRWA Transmission Pipeline, the source of supply project would be constructed in River Road and surrounded upstream and downstream by southern cottonwood-willow riparian forest along the Santa Ana River (Figure 3.4-2a) (City of Corona 2016). The source of supply project completed separate California Environmental Quality Act (CEQA) review and obtained site-specific permits and is not discussed further in this PEIR.

Southern Riparian Scrub

Southern riparian scrub is a dense riparian community found along major river systems where flood scour occurs and can also be found in smaller drainages influenced by urban and agricultural runoff. This community is characterized by small trees or shrubs, such as willows, but lacks taller riparian trees. Species typically associated with southern riparian scrub include arroyo willow and other willow species and desert broom (*Baccharis sarothroides*). The riparian scrub in the water service area consists of mulefat scrub and southern willow scrub.

This community requires repeated flooding events to prevent succession to southern riparian forest. Species associated with this community include sandbar willow, black willow, red willow (*Salix laevigata*), arroyo willow, and mulefat.

Southern riparian scrub is considered sensitive and declining by the USFWS and CDFW. Southern riparian scrub may be regulated by the CDFW pursuant to Sections 1600 et seq. of the California Fish and Game (CFG) Code, the RWQCB pursuant to Section 401 of the Clean Water Act (CWA)

or the Porter-Cologne Water Quality Control Act (Porter-Cologne Act), or the USACE pursuant to Section 404 of the CWA (33 USC 1344) if adjacent to waters of the state or United States.

In Southern California, southern riparian scrub has been impacted by filling, draining, clearing of vegetation, water diversion projects, impoundment projects, channelization, increased sediment loading, lowering of water tables, human recreational activities, gravel mining, proliferation of exotic species, grazing, and urban development (Bowler 1990).

Southern riparian scrub occurs along streams in the western and southeastern portions of the water service area (Figure 3.4-1).

Agricultural and Developed/Disturbed Land Uses

Agricultural Land

Agricultural land includes areas occupied by dairies and livestock feed yards or areas that have been tilled for use as croplands or groves and orchards. Agricultural land in the water service area occurs primarily in the southwestern portion of the City, and grazing land occurs east of Interstate 15 in the southeastern portion of the water service area.

Developed/Disturbed Land

Developed/disturbed land includes areas of existing residential, commercial, and industrial development (locations of existing manufactured structures), roadways, parking lots, pedestrian paths, horticultural open spaces, landscape buffers and courtyards, plazas, gardens, recreation fields, and areas dominated by non-native (exotic) vegetation. Developed/disturbed land occupies the majority of the water service area and is not considered sensitive. The majority of the projects included in the 2018 RWMP would be in developed/disturbed land (Figures 3.4-1 and 3.4-2a through 3.4-2c).

Jurisdictional Wetlands and Waters

Aquatic resources jurisdictional delineations were not conducted as part of the site visit. However, wetlands and waters potentially subject to the regulatory jurisdiction of the USACE pursuant to Section 404 of the CWA (33 USC 1344), RWQCB pursuant to Section 401 of the CWA or the Porter-Cologne Act, and the CDFW pursuant to Sections 1600 et seq. of the CFG Code occur in the water service area. Wetland vegetation communities (i.e., freshwater marsh, open water, southern riparian forest, and southern riparian scrub) occur in the water service area and may fall under the regulatory jurisdiction of the USACE, RWQCB, or CDFW (Figure 3.4-1).

Non-wetland waters including non-vegetated stream channels, erosional features, gullies, and concrete-lined channels occur in the water service area (Figure 3.4-1). These features may fall under the regulatory jurisdiction of the USACE, RWQCB, or CDFW.

As described in the 2016 Proposition 1 IS/MND prepared for the WRCRWA Transmission Pipeline, the project would be constructed in River Road but would be surrounded upstream and downstream by southern cottonwood-willow riparian forest and the Santa Ana River (Figure 3.4-2a) (City of Corona 2016). This project has completed separate CEQA review and obtained site-specific permits and is not discussed further in this PEIR.

Plant Species

The 25 projects included in the 2018 RWMP in developed/disturbed land are primarily surrounded by landscaping (non-native ornamental vegetation) and roadside vegetation dominated by non-native annual herbs and non-native grasses. The WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects are proposed in undeveloped, non-native grassland vegetation. Dominant non-native grass species in the water service area consist of ripgut brome and red brome. Landscaped areas and non-native roadside vegetation consist of tree, scrubs, and grasses that could support nesting bird species.

Animal Species

In total, 48 animals species were observed during the site visit (2 invertebrate/insect, 2 reptile, 40 bird, and 4 mammal). Appendix C presents the list of animal species observed. Common bird species including American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), house finch (*Haemorhous mexicanus*), and mourning dove (*Zenaida macroura*) were observed in the developed/disturbed land during the site visit. Raptor species observed include red-tailed hawk (*Buteo jamaicensis*) and American kestrel (*Falco sparverius*). Four common mammal species, California ground squirrel (*Spermophilus beecheyi*), coyote (*Canis latrans*), desert cottontail (*Sylvilagus audubonii*), and mule deer (*Odocoileus hemionus*), and two common reptile species, western fence lizard (*Sceloporus occidentalis*) and western side-blotched lizard (*Uta stansburiana elegans*), were observed.

Sensitive Plant and Animal Species

This section includes sensitive plant and animal species, including critical habitat and nesting birds, as defined by the CDFW, City, California Native Plant Society (CNPS), USFWS, and Western Riverside County MSHCP (Appendix C).

Sensitive Plant Species

Sensitive plant species are considered uncommon or limited in that they (1) are endemic to Western Riverside County, (2) are a local representative of a species or association of species not otherwise found in the region, or (3) are severely depleted within their ranges or in the region. High-interest plants include those that are listed as threatened or endangered by the USFWS or CDFW and those afforded a California Rare Plant Rank (CRPR) designation of 1 or 2 by the CNPS, although species with lower CRPR ranks (i.e., CRPR 3 and 4 species) were also identified. CRPR 4 species are

considered CDFW watch list (WL) species (CDFW 2020a, 2020b, 2020c; CNPS 2020) and are not afforded special status or recognition by the USFWS or CDFW but may be considered sensitive by local jurisdictions. Consistent with the CDFW, the City does not consider CRPR 3 or 4 species to be sensitive. Additional information on CNPS CRPR status codes is provided in Appendix C.

Sensitive Plant Species Documented in the Water Service Area

Table 3.4-1 presents the three sensitive plant species documented in the water service area.

Table 3.4-1. Sensitive Plant Species Documented in the Water Service Area

Scientific Name	Common Name	Status Regional/CRPR
Abronia villosa var. *aurita*[1]	Chaparral sand-verbena	MSHCP/1B.1
Calochortus weedii var. *intermedius*	Intermediate mariposa lily	MSHCP/1B.2
Dudleya multicaulis	Many-stemmed dudleya	MSHCP/1B.2

Sources: Calflora 2020; CDFW 2020a, 2020c; City of Corona 2018; CNPS 2020.

Notes: CRPR = California Rare Plant Rank; MSHCP = Multiple Species Habitat Conservation Plan

CRPR: 1B = rare, threatened, or endangered in California and elsewhere; .1 = seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat); .2 = moderately threatened in California (20–80 percent occurrences threatened/moderate degree and immediacy of threat)

[1] Last observed in the water service area in 1934 (occurs in the Santa Ana River floodplain east and west of the water service area).

These three sensitive plant species are discussed in more detail in Appendix C.

Sensitive Animal Species

Sensitive animal species include those that have been afforded special status or recognition by the USFWS, CDFW, or Western Riverside County MSHCP. In general, the principle reason an individual taxon (species or subspecies) is given such recognition is the documented or perceived decline or limitations of its population size or geographical extent or distribution resulting in most cases from habitat loss.

Sensitive Animal Species Documented in the Water Service Area

In total, 45 sensitive animal species (2 invertebrate, 1 amphibian, 6 reptile, 2 fish, 28 bird, and 6 mammal) have been documented in the water service area (Table 3.4-2). Four sensitive bird species, California horned lark (*Eremophila alpestris actia*), least Bell's vireo (*Vireo belli pusillus*), turkey vulture (*Cathartes aura*), and yellow-breasted chat (*Icteria virens*), were observed during the site visit. Coyote tracks were observed during the site visit.

Table 3.4-2. Sensitive Animal Species Documented in the Water Service Area

Species		Status[1]
Common Name	**Scientific Name**	**Regional/State/Federal**
Invertebrates		
Crotch bumble bee	*Bombus crotchii*	None/CCE/None
Monarch butterfly	*Danaus plexippus*	None/None/FC
Fish		
Arroyo chub	*Gila orcuttii*	MSHCP/SSC/None
Santa Ana sucker	*Catostomus santaanae*	MSHCP/SSC/FT
Amphibian		
Coast range newt	*Taricha torosa*	MSHCP/SSC/None
Reptiles		
American peregrine falcon	*Falco peregrinus anatum*	MSHCP/CFP/Delisted
Bald eagle	*Haliaeetus leucocephalus*	MSHCP/CFP/BGEPA
Belding's orange-throated whiptail	*Cnemidophorus hyperythrus beldingi*	MSHCP/WL/None
Bell's sage sparrow	*Artemisiospiza belli belli*	MSHCP/WL/None
Black-crowned night-heron	*Nycticorax*	MSHCP/None/None
Blainville's (coast) horned lizard	*Phrynosoma blainvillii*	MSHCP/SSC/None
Burrowing owl	*Athene cunicularia*	MSHCP/SSC/None
California horned lark	*Eremophila alpestris actia*	MSHCP/WL/None
California red-sided garter snake	*Thamnophis sirtalis infernalis*	MSHCP/SSC/None
Coastal California gnatcatcher	*Polioptila californica*	MSHCP/SSC/FT
Coastal western whiptail	*Aspidoscelis tigris stejnegeri*	MSHCP/SSC/None
Cooper's hawk	*Accipiter cooperii*	MSHCP/None/None
Double-crested cormorant	*Phalacrocorax auritus*	MSHCP/WL/None
Golden eagle	*Aquila chrysaetos*	MSHCP/SSC/BGEPA
Great blue heron	*Ardea herodias*	MSHCP/None/None
Least Bell's vireo	*Vireo belli pusillus*	MSHCP/CE/FE
Least bittern	*Ixobrychus exilis*	None/SSC/None
Loggerhead shrike	*Lanius ludovicianus*	MSHCP/SSC/None
Merlin	*Falco columbarius*	MSHCP/WL/None
Northern harrier	*Circus cyaneus*	MSHCP/SSC/None
Osprey	*Pandion haliaetus*	MSHCP/None/None
Red-diamond rattlesnake	*Crotalus ruber*	MSHCP/SSC/None
Sharp-shinned hawk	*Accipiter striatus*	MSHCP/None/None
Southwestern willow flycatcher	*Empidonax traillii extimus*	MSHCP/CE/FE
Swainson's hawk	*Buteo swainsoni*	MSHCP/CT/None
Tree swallow	*Tachycineta bicolor*	MSHCP/None/None
Tri-colored blackbird	*Agelaius tricolor*	MSHCP/CT/None
Turkey vulture	*Cathartes aura*	MSHCP/None/None

Table 3.4-2. Sensitive Animal Species Documented in the Water Service Area

Species		Status[1]
Common Name	**Scientific Name**	**Regional/State/Federal**
Western pond turtle	*Clemmys [marmorata] pallida*	MSHCP/SSC/None
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	MSHCP/CE/FT
White-faced ibis	*Plegadis chihi*	MSHCP/SSC/None
White-tailed kite	*Elanus leucurus*	MSHCP/SSC/None
Yellow warbler	*Setophaga petechia*	MSHCP/SSC/None
Yellow-breasted chat	*Icteria virens*	MSHCP/SSC/None
Mammals		
Bobcat	*Lynx rufus*	MSHCP/None/None
Coyote	*Canis latrans*	MSHCP/None/None
Northwestern San Diego pocket mouse	*Chaetodipus fallax*	MSHCP/SSC/None
Pocket free-tailed bat	*Nyctinomops femorosaccus*	None/SSC/None
Stephens' kangaroo rat	*Dipodomys stephensi*	MSHCP/CT/FE
Western yellow bat	*Lasiurus xanthinus*	None/SSC/None

Sources: CaliforniaHerps.com 2020; CDFW 2020a, 2020b; City of Corona 2018; Cornell Lab of Ornithology 2020a, 2020b; iNaturalist 2020.

Notes: BGEPA = Bald and Golden Eagle Protection Act; CCE = California candidate endangered; CE = California endangered; CFP= California fully protected; CT = California threatened; FC = federal candidate for listing; FE = federally endangered; FT= federally threatened; MSHCP = Western Riverside Multiple Species Habitat Conservation Plan; SSC = CDFW species of special concern; WL = CDFW watch list

The 45 sensitive animal species are discussed in more detail in Appendix C.

Critical Habitat

The USFWS designates critical habitat for listed endangered or threatened species of plants and animals. Critical habitat is defined in the federal Endangered Species Act (FESA) as habitat deemed essential to the survival of a federally listed species.

Four animal species designated as federally endangered (FE) or federally threatened (FT) have designated critical habitat mapped in the water service area (Figure 3.4-3, Critical Habitat) (USFWS 2020). The four species are listed below:

- Bird species
  - Coastal California gnatcatcher (*Polioptila californica californica*) (FT)
  - Least Bell's vireo (FE)
  - Southwestern willow flycatcher (*Empidonax traillii extimus*) (FE)
- Fish species
  - Santa Ana sucker (*Catostomus santaanae*) (FT)

Nesting Birds

The water service area contains nesting habitat for several bird species, including raptors, protected under the CFG Code and Migratory Bird Treaty Act (MBTA). The highest quality habitat for nesting birds in the water service area is the Santa Ana River riparian corridor in the northern portion of the area. The projects included in the 2018 RWMP proposed in developed/disturbed land and the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects proposed in undeveloped, non-native grassland vegetation are adjacent to trees and shrubs that provide potential nesting habitat.

Wildlife Corridors and Linkages

Wildlife corridors and linkages are defined by the CDFW as areas that connect suitable animal habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance (CDFW 2014). Natural features such as canyon drainages, ridgelines, or undeveloped areas with vegetation can provide corridors for animals. Wildlife corridors are important because they provide access to food, water, and mates; allow dispersal of individuals away from high population densities; and facilitate the exchange of genetic material between populations.

The Santa Ana River and surrounding riparian vegetation is an important wildlife corridor in the Counties of Orange and Riverside. The Santa Ana Mountains on the western side of the water service area are also an important wildlife corridor (County of Riverside 2003).

During the site visit, the biologists assessed areas identified in the Western Riverside County MSHCP in the water service area for potential wildlife corridor functions. Potential wildlife corridors can include streams, riparian areas, and culverts under roadways. Habitat characteristics considered included topography, habitat quality, and adjacent land uses. In addition to reviewing the water service area for presence of continuous corridors, biologists also reviewed the water service area where critical habitat has been identified for potential dispersal corridors for coastal California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher based on habitat type and quality, size of habitat patches, and distance separating habitat patches (Figure 3.4-3). The Santa Ana River and associated floodplain occupy the land in the northern portion of the water service area. The Santa Ana River functions to facilitate amphibian, bird, and large mammal movement in the local area. The river provides habitat for both common and sensitive species, including least Bell's vireo and southwestern willow flycatcher.

The northern portion of the water service area is likely to be used as a wildlife corridor because of its proximity to the Santa Ana River and associated riparian corridor and open hills and mountains to the southwest and the presence of native vegetation communities. Although the presence of dense urban development throughout the water service area is likely to impede animal movement outside of the Santa Ana River corridor, the northern portion of the water service area has been designated as an important habitat connectivity area along the Santa Ana River.

3.4.2 Regulatory Setting

Biological resources in the water service area are subject to regulatory administration by the federal government and State of California. The federal government administers nonmarine plant- and animal-related issues through the USFWS, while waters of the United States issues are administered by the USACE. California law relating to wetland, water-related, and animal issues is administered by the CDFW. Under CEQA, impacts associated with a proposed project or program are assessed with regard to significance criteria determined by the CEQA lead agency, which, for the project, is the City, pursuant to CEQA Guidelines. Biological resources-related laws and regulations that apply to the project include FESA, the MBTA, the CWA, CEQA, the California Endangered Species Act (CESA), and the CFG Code.

3.4.2.1 Federal

Federal Clean Water Act (U.S. Code, Title 33, Sections 1251 through 1376)

The CWA provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires a project operator to obtain a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the CWA. The RWQCB administers the certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by the USACE that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. The USACE implementing regulations are found at the Code of Federal Regulations, Title 33, Parts 320 and 330. Guidelines for implementation are referred to as the "Section 404(b)(1) Guidelines," which were developed by the U.S. Environmental Protection Agency in conjunction with the USACE (40 CFR 230). These guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Federal Endangered Species Act (U.S. Code, Title 16, Sections 1531 through 1543)

FESA and subsequent amendments provide guidance for the conservation of endangered and threatened species and the ecosystems on which they depend. In addition, FESA defines species as threatened or endangered and provides regulatory protection for listed species. FESA also provides a program for the conservation and recovery of threatened and endangered species and the conservation of designated critical habitat that the USFWS determines to be required for the survival and recovery of these listed species.

Section 7 of FESA requires federal agencies, in consultation with the Secretary of the Interior or the Secretary of Commerce, to ensure that actions the federal agencies authorize, fund, or carry

out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. The USFWS and National Marine Fisheries Service share responsibilities for administering FESA. Regulations governing interagency cooperation under Section 7 are found in California Code of Regulations, Title 50, Part 402. The opinion issued at the conclusion of consultation will include a statement authorizing "take" (e.g., to harass, harm, pursue, hunt, wound, kill) that may occur incidentally to an otherwise legal activity.

Section 9 lists those actions that are prohibited under FESA. Although take of a listed species is prohibited, it is allowed when it is incidental to an otherwise legal activity. Section 9 prohibits take of listed species of fish, animals, and plants without special exemption. The definition of "harm" includes significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns related to breeding, feeding, or shelter. "Harass" is defined as actions that create the likelihood of injury to listed species by significantly disrupting normal behavioral patterns related to breeding, feeding, and shelter.

Section 10 provides a means whereby a nonfederal action with the potential to result in take of a listed species can be allowed under an incidental take permit. Application procedures are found in the Code of Federal Regulations, Title 50, Parts 13 and 17, for species under the jurisdiction of the USFWS and the Code of Federal Regulations, Title 50, Parts 217, 220, and 222, for species under the jurisdiction of the National Marine Fisheries Service.

Migratory Bird Treaty Act (U.S. Code, Title 16, Sections 703 through 711)

The MBTA is the domestic law that affirms or implements a commitment by the United States to four international conventions (with Canada, Mexico, Japan, and Russia) for the protection of a shared migratory bird resource. The MBTA makes it unlawful at any time, by any means, or in any manner to pursue, hunt, take, capture, or kill migratory birds. The act also applies to the removal of nests occupied by migratory birds during the nesting season. The MBTA makes it unlawful to take, pursue, molest, or disturb these species, their nests, or their eggs anywhere in the United States.

Wetlands and Other Waters of the United States

Aquatic resources, including riparian areas, wetlands, and certain aquatic vegetation communities, are considered sensitive biological resources and can fall under the jurisdiction of several regulatory agencies. The USACE exerts jurisdiction over waters of the United States, including waters that are subject to the ebb and flow of the tide; wetlands and other waters such as lakes, rivers, streams (including intermittent or ephemeral streams), mudflats, sandflats, sloughs, prairie potholes, vernal pools, wet meadows, playa lakes, or natural ponds; and tributaries of the previously mentioned features. The extent of waters of the United States is generally defined as the portion that falls within the limits of the ordinary high water mark. Typically, the ordinary high

water mark corresponds to the 5- to 7-year flood event. Wetlands, including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas, are defined by the USACE as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3[b]; 40 CFR 230.3[t]). Indicators of three wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present for a site to be classified as a wetland by the USACE (USACE 1987).

3.4.2.2 State

California Endangered Species Act (California Fish and Game Code, Sections 2050 et seq.)

CESA establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under CESA. For projects that would affect a listed species under both CESA and FESA, compliance with FESA would satisfy CESA if the CDFW determines that the federal incidental take authorization is consistent with CESA under CFG Code, Section 2080.1. For projects that would result in take of a species only listed under CESA, the project operator would need to apply for a take permit under Section 2081(b).

California Environmental Quality Act Guidelines, Section 15380

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(b), provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and Sections 2050 through 2059.26 of the CFG Code regarding rare or endangered plants or animals. This section was included in CEQA primarily to manage situations in which a public agency is reviewing a project that may have a significant impact on, for example, a candidate species that has not been listed by either the USFWS or CDFW. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agencies have an opportunity to designate the species as protected, if warranted. CEQA also calls for the protection of other locally or regionally significant resources, including natural communities. Although natural communities do not currently have legal protection of any kind, CEQA calls for an assessment of whether any such resources would be affected and requires findings of significance if there would be substantial losses. Natural communities listed as sensitive by the California Natural Diversity Database are considered by the CDFW to be

significant resources and fall under the CEQA Guidelines to address impacts. Local planning documents, such as General Plans, often identify these resources as well.

California Fish and Game Code, Section 1602

Under this section of the CFG Code, the project operator is required to notify the CDFW before the start of any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the code, a "stream" is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel that has banks and supports fish or other aquatic life. Based on this definition, a watercourse with surface or subsurface flows that supports or has supported riparian vegetation is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses valuable to fish and animals are subject to CDFW jurisdiction. The CDFW also has jurisdiction over dry washes that carry water during storm events.

Preliminary notification and project review generally occur during the environmental process. When an existing fish or animal resource may be substantially adversely affected, the CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a streambed alteration agreement, which becomes part of the plans, specifications, and bid documents for the project.

California Fish and Game Code, Sections 2080 and 2081

Section 2080 of the CFG Code states that "no person shall import into this state [California], export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission [California Fish and Game Commission] determines to be an endangered species or threatened species, or attempt any of those acts, except as otherwise provided in this chapter, or the Native Plant Protection Act, or the California Desert Native Plants Act." Pursuant to Section 2081 of the code, the CDFW may authorize individuals or public agencies to import, export, take, or possess state-listed endangered, threatened, or candidate species. These otherwise prohibited acts may be authorized through permits or memoranda of understanding if the take is incidental to an otherwise lawful activity, impacts of the authorized take are minimized and fully mitigated, the permit is consistent with any regulations adopted pursuant to any recovery plan for the species, and the project operator ensures adequate funding to implement the measures required by the CDFW. The CDFW makes this determination based on available scientific information and considers the ability of the species to survive and reproduce.

California Fish and Game Code, Sections 3503, 3503.5, 3513, and 3800

Section 3503 of the CFG Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptor (i.e., species in the orders Falconiformes and Strigiformes), including nests or eggs. Typical violations of this code include destruction of active nests resulting from removal of

vegetation in which the nests are located. Violation of Section 3503.5 could also include failure of active raptor nests resulting from disturbance of nesting pairs by nearby project construction. This statute does not provide for the issuance of any type of incidental take permit.

Section 3513 of the CFG Code upholds the MBTA by prohibiting any take or possession of birds that are designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations promulgated pursuant to the MBTA.

Section 3800 of the CFG Code affords protection to nongame birds, which are birds occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds.

California Fish and Game Code, Sections 3511, 4700, 5050, and 5515

California fully protected species are described in Sections 3511, 4700, 5050, and 5515 of the CFG Code. These statutes prohibit take or possession of fully protected species. The CDFW is unable to authorize incidental take of fully protected species when activities are proposed in areas inhabited by these species.

California Wetland Definition

Unlike the federal government, California has adopted the Cowardin et al. (1992) definition of "wetlands." For this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes (at least 50 percent of the aerial vegetative cover); (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is non-soil and saturated with water or covered by shallow water at some time during the growing season of each year.

Under normal circumstances, the federal definition of wetlands requires all three wetland identification parameters to be met, whereas the Cowardin et al. (1992) definition requires the presence of at least one of these parameters. For this reason, identification of wetlands by state agencies consists of the union of all areas that are periodically inundated or saturated or in which at least seasonal dominance by hydrophytes may be documented or in which hydric soils are present.

Native Plant Protection Act (California Fish and Game Code, Sections 1900 through 1913)

California's Native Plant Protection Act requires state agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provisions of the act prohibit the take of listed plants from the wild and require notification to the CDFW at least 10 days in advance of any change in land use. This allows the CDFW to salvage listed plant species that would otherwise be destroyed. The project operator is required to conduct botanical inventories and consult with the CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

Natural Community Conservation Planning Act

The Natural Community Conservation Planning (NCCP) program is a cooperative effort to protect habitats and species. It began under the state's NCCP Act of 1991, legislation that is broader in its orientation and objectives than CESA or FESA. These laws are designed to identify and protect individual species that have already declined significantly in number. The act and the associated Southern California Coastal Sage Scrub NCCP Process Guidelines (1993), Southern California Coastal Sage Scrub NCCP Conservation Guidelines (1993), and NCCP General Process Guidelines (1998) have been superseded by the NCCP Act of 2003, which was subsequently amended in 2003, 2011, 2012, and 2016.

The primary objective of the NCCP program is to conserve natural communities at the ecosystem level while accommodating compatible land use. The program seeks to anticipate and prevent the controversies and gridlock caused by species' listings by focusing on the long-term stability of animal and vegetation communities and including key interests in the process.

This voluntary program allows the state to enter into planning agreements with landowners, local governments, and other stakeholders to prepare plans that identify the most important areas for a threatened or endangered species and the areas that may be less important. These NCCP plans may become the basis for a state permit to take threatened and endangered species in exchange for conserving their habitat. The CDFW and USFWS worked to combine the NCCP program with the federal Habitat Conservation Plan (HCP) process to provide take permits for state and federally listed species. Under the NCCP Act, local governments, such as the City, can take the lead in developing these NCCP Plans and become the recipients of state and federal take permits.

Porter-Cologne Water Quality Control Act

The State Water Resources Control Board works in coordination with the nine RWQCBs to preserve, protect, enhance, and restore water quality. Each RWQCB makes decisions related to water quality for its region and may approve, with or without conditions, or deny projects that could affect waters of the state. Their authority comes from the CWA and the state's Porter-Cologne Act. The Porter-Cologne Act broadly defines waters of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code, Section 13050[e]). Because the Porter-Cologne Act applies to any water, whereas the CWA applies only to certain waters, California's jurisdictional reach overlaps and may exceed the boundaries of waters of the United States. For example, Water Quality Order No. 2004-0004-DWQ states that "shallow" waters of the state include headwaters, wetlands, and riparian areas. Moreover, in practice, the RWQCBs claim jurisdiction over riparian areas. Where riparian habitat is not present, which may be the case in headwaters, jurisdiction is taken to the top of bank.

Under the Porter-Cologne Act, the State Water Resources Control Board and the nine RWQCBs also have the responsibility of granting CWA National Pollutant Discharge Elimination System permits

and waste discharge requirements for certain point-source and nonpoint-source discharges to waters. These regulations limit impacts on aquatic and riparian habitats from a variety of urban sources.

3.4.2.3 Local

City of Corona 2020–2040 General Plan

The following goals and policies in the City of Corona 2020–2040 General Plan (City of Corona 2020b) as they relate to biological resources.

Environmental Resources Element

Goal ER-4. Proper management of floodplain and riparian areas for their importance to wildlife habitat, unique and sensitive plant life, water recharge, and public health and safety.

Policy ER-4.1. Require urban uses to have a sufficient distance from a floodway boundary to ensure adequate protection of life, property, and habitat values.

Policy ER-4.2. Avoid altering floodways or channelization wherever possible; however, limit alterations to those that meet the following criteria:

- Alterations necessary for the protection of public health and safety only after all other options are exhausted
- Alterations essential to public service projects where no other feasible construction method or alternative project location exists
- Projects where the primary function is the improvement of fish and wildlife habitats

Policy ER-4.3. Design alterations and improvements to floodways so that they avoid adverse environmental effects to the maximum extent feasible, considering the following environmental factors:

- Stream scour
- Erosion protection and sedimentation
- Wildlife habitat and linkages
- Groundwater recharge capability
- Adjacent property
- Natural designs (e.g., soft riparian bottoms and gentle bank slopes, and landscaping with native plants)

Policy ER-4.4. Preserve and enhance existing native riparian habitat and prevent obstruction of natural watercourses to the extent feasible in new private and public developments or implement on-site replacement as mitigation.

Policy ER-4.5. Allow variances from city development standards on land area restricted from development due to its retention as a natural floodway, floodplain, or watercourse to encourage the preservation of natural watercourses without creating undue hardship on property owners.

Goal ER-5. Preservation and protection of natural and man-made wetlands from development impacts for their importance to wildlife habitat, unique and sensitive plant life, water recharge, and scenic value.

Policy ER-5.1. Prohibit encroachment of development into wetlands; provide buffer zones, setbacks, or other effective techniques in project siting and design to minimize direct and indirect effects to wetland habitats.

Policy ER-5.2. During the development review process, ensure compliance with the Clean Water Act's Section 404 in terms of wetlands mitigation policies and policies concerning fill material in jurisdictional wetlands.

Policy ER-5.3. Ensure compliance with habitat mitigation plans accepted by the applicable state and federal regulatory agencies that meet established ratios for wetland enhancement/restoration and on-/off-site compensation for the loss of wetland functions and values.

Policy ER-5.4. Consider wetlands for use as natural water treatment areas that will result in improvement of water quality.

Policy ER-5.5. Prohibit the planting of invasive, nonnative species in areas that would encroach and affect watercourses, their banks, and riparian areas.

Goal ER-6. Protection, enhancement, and sustaining of significant plant and wildlife species and habitat that exists in Corona and its Planning Area, for the long-term benefit of the natural environment and Corona residents and visitors.

Policy ER-6.1. Support the rehabilitation and enhancement the biological diversity and integrity of the City's natural resources through such means as vegetation restoration, control of alien plants and animals, landscape buffering, and natural watercourse channel restoration.

Policy ER-6.2. Preserve the wildlife and plant species and habitats listed in Tables 4-12 and 4-13 of the Technical Background Report for the General Plan and EIR [Environmental Impact Report] and those that may be considered by the City of Corona in the future.

Policy ER-6.3. Ensure that new developments and circulation improvements demonstrate compliance with state and federal regulations concerning the status, location, and condition of significant and sensitive biological species and habitats and riparian and riverine corridors. Biological surveys, as required and defined by the Western Riverside County Multiple Species

Habitat Conservation Plan, should identify potential impacts on biological resources and include mitigation measures to protect/replace resources in like kind.

Policy ER-6.4. Ensure that new developments through the development review process adhere to the Western Riverside County Multiple Species Habitat Conservation Plan, the Stephens' Kangaroo Rat Habitat Conservation Plan, and other habitat plans as appropriate to conserve biological diversity through protection of natural communities.

Policy ER-6.5. Preserve wildlife habitat of significant natural open space areas, including expanding habitat ranges, movement corridors, and nesting sites by adhering to and implementing the core biological linkages identified in the MSHCP for parts of the Temescal Canyon Area Plan in the City. Any proposed recreational use of those areas such as trails shall be designed to not interfere with the preservation efforts established in the MSHCP.

Goal ER-7. Adequate protection of biological resources and increased public awareness of their value to the community.

Policy ER-7.1. Require that public and private construction activities be conducted in a manner to minimize adverse impacts on natural resources and biological resources in proximity to MSHCP conservation areas and adhere to the MSHCP Guidelines pertaining to Urban/Wildlife Interface for drainage, toxics, lighting, noise, invasive barriers and grading [MSHCP Section 6.1.4].

Policy ER-7.2. Allow for publicly accessible sites that facilitate observation of natural resources in Corona and its sphere without compromising environmental quality.

Policy ER-7.3. Promote education programs and materials prepared by the Western Riverside County Regional Conservation Authority, Riverside-Corona Resource Conservation District, and other entities that promote awareness of biological resources conservation.

Goal ER-8. Protection of forest and vegetation resources in the City of Corona.

Policy ER-8.1. Cooperate with federal and state agencies to achieve the sustainable conservation of forest lands as a means of providing open space and protecting natural resources and MSHCP habitat.

Policy ER-8.2. Support conservation programs to reforest privately held forest lands.

Policy ER-8.3. Work with Riverside County to update the Vegetation Map for Corona and the SOI [sphere of influence] areas in cooperation with the California Department of Fish and Wildlife, the Natural Diversity Data Base, the United States Forest Service, and other knowledgeable agencies.

Policy ER-8.4. Maintain and conserve superior examples of native trees (including oak trees), natural vegetation, stands of established trees, and other features for aesthetic and water conservation purposes.

Policy ER-8.5. Conserve the oak tree resources in the City to the extent feasible.

Goal ER-9. Protection of regional washes and waterways and their use for recreational and open space purposes such as trails, habitat preservation, and groundwater recharge.

Policy ER-9.1. Protect sensitive biological resources in the Temescal Canyon Area Plan through adherence to policies in the Western Riverside County MSHCP.

Policy ER-9.2. Conserve existing wetlands and wetland functions and values in the Temescal Canyon Wash, Prado Basin, and the Santa Ana River with a focus on conservation of existing riparian, woodland, coastal sage scrub, alluvial fan scrub, and open water habitats.

Policy ER-9.3. Conserve existing known populations of least Bell's vireo and southwestern willow flycatcher within the Temescal Canyon Area Plan including locations at Prado Basin, Santa Ana River, and Temescal Wash. Maintain existing breeding habitat for these species at Prado Basin, Santa Ana River, and Temescal Wash where applicable to a particular project and location.

Policy ER-9.4. Conserve and manage suitable habitat for species known to exist in the Temescal Canyon Area Plan of Western Riverside County's Multiple Species Habitat Conservation Plan.

Policy ER-9.5. Conserve clay soils supporting sensitive plant species known to occur in the Temescal Canyon area, including Munz's onion, Palmer's grappling hook, small-flowered morning glory, long-spined spineflower, thread-leaved brodiaea, small-flowered microseris, and many-stemmed dudleya.

Policy ER-9.6. Conserve sandy soils co-occurring with chaparral supporting Palomar monkeyflower, known to occur in the Temescal Canyon area.

Policy ER-9.7. Conserve locations supporting California muhly, heart-lived pitcher sage, Hall's monardella, and other sensitive plant species that may occur in a wide variety of habitat types within the Temescal Canyon Area Plan.

Policy ER-9.8. Provide for and maintain connection(s) from the Cleveland National Forest to Prado Basin and the Santa Ana River within Temescal Canyon, providing opportunities for offsite connections to Chino Hills State Park.

Policy ER-9.9. Conserve upland habitat adjacent to Temescal Wash to augment existing upland habitat conservation in the Lake Matthews/Estelle Mountain Reserve areas and provide for contiguous connection of upland habitat blocks from the existing reserve to Temescal Wash. Habitat conservation should focus on blocks of existing upland habitat east of Temescal Wash connecting to Lake Matthews/Estelle Mountain Reserve.

Policy ER-9.10. Conserve floodplain areas supporting sensitive plant species known to occur in Temescal Canyon, including Parry's spineflower, peninsular spineflower, and smooth tarplant, and Coulter's matilija poppy.

Policy ER-9.11. Conserve rocky soils co-occurring with coastal sage scrub, peninsular jumper, or chaparral supporting Payson's jewelflower, known to occur in the Temescal Canyon area.

Policy ER-9.12. Provide for and maintain a continuous linkage along Temescal Wash from the southern boundary of the Temescal Canyon area to the Santa Ana River.

Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County MSHCP is a comprehensive, multi-jurisdictional plan that addresses biological and ecological diversity by conserving species and associated habitats while allowing approval of development in Western Riverside County (County of Riverside 2003). It is administered by the Western Riverside County Regional Conservation Authority.

The MSHCP functions as an HCP pursuant to Section 10(a)(1)(B) of FESA and as an NCCP pursuant to California's NCCP Act. The MSHCP provides a framework for the USFWS and CDFW to grant take authorization (i.e., incidental take permits) for species covered by the MSHCP that are FESA or CESA listed as threatened or endangered; take of these species without a permit would be unlawful.

The MSHCP covers 146 species, not all of which are FESA or CESA listed. However, mitigation for impacts to listed and non-listed species may be required pursuant to CEQA or other regulatory processes, and the MSHCP Conservation Area provides an avenue for this mitigation. Furthermore, should any of the non-listed covered species be subsequently FESA or CESA listed, take authorization may be granted through the MSHCP framework.

The MSHCP was approved and permits were issued by the USFWS and CDFW in 2004. The MSHCP Plan Area encompasses approximately 1.26 million acres (approximately 1,967 square miles) in Western Riverside County and addresses 146 sensitive plant and animal species and the vegetation communities on which they depend. In total, 14 animal species and 11 plant species are designated by the USFWS as federally listed under FESA. Several of these species also have federally designated critical habitat within the MSHCP jurisdiction (USFWS 2020). The MSHCP encompasses the City and many other city, county, and state entities. It should be noted that the listing status of plants and animals may change over time, with species added or removed from listing. The Biological Resources Technical Report prepared for the project describes the species used to define the original planning subunits (Appendix C).

The MSHCP originally set a target Conservation Area of 500,000 acres for Western Riverside County that included the following: (1) conservation of existing publicly owned lands; (2)

voluntary acquisition of privately held lands by the cities, the county, or other involved agencies; (3) voluntary acquisition of privately held lands by state or federal agencies; and (4) contribution from public and private development. The Implementing Agreement for the MSHCP between the City and other appropriate implementing agencies outlined a strategy for assembling the 500,000-acre MSHCP Conservation Area. Local implementing agencies would be responsible for contributing approximately 97,000 acres of Additional Reserve Lands through the development review process. If it is determined that all or a portion of a property is needed for inclusion as Additional Reserve Lands, various incentives may be available to the property owner in lieu of or in addition to monetary compensation in exchange for conveyance of property interest, such as development rights.

Within the Western Riverside County MSHCP Plan Area, the City is within the Eastvale Area Plan and the Temescal Canyon Area Plan.

The Western Riverside County MSHCP area plans are organized into the following components:

- **Criteria Areas:** Areas within Western Riverside County in which land can be acquired for the MSHCP.
- **Core Areas:** Large habitats within the reserve that have the resources to support the species covered under the MSHCP. Existing areas consist of conserved land, such as national forests, wildlife refuges, and wilderness area. Proposed Core Areas will be assembled from the land acquired within the Criteria Area. Noncontiguous Criteria Cells are connected by Linkages. Additional reserve lands will come from these areas.
- **Linkages:** Land bridges between two Core Areas are called Linkages. These narrower strips of land allow wildlife to travel between conserved habitat.
- **Criteria Cells:** Series of grids used to organize and track development and conservation within the Criteria Area.

In combination, these components are intended to result in a MSHCP Conservation Area configuration that provides significant blocks of habitat, minimizes internal fragmentation and edge effects, and maximizes the ratio of surface area to perimeter.

Approval of the MSHCP and execution of the Implementing Agreement by the USFWS and CDFW allows the agencies to issue take authorizations, including the City. Issue of take authorization to the City would allow implementation of land use decisions consistent with the MSHCP without project-by-project review and permitting by the USFWS and CDFW.

3.4.3 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a significant impact related to would occur if the project would (CEQA Guidelines, Section 15000 et seq.):

1. Have a substantial adverse effect, either directly or through habitat modifications, on any plant species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service
2. Have a substantial adverse effect, either directly or through habitat modifications, on any animal species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service
3. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
4. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
5. Interference substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites
6. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
7. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

3.4.4 Environmental Analysis

3.4.4.1 Threshold 1: Sensitive Plant Species

Would the project have a substantial adverse effect, either directly or through habitat modifications, on any plant species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Impact Analysis

Direct Impacts

Sensitive plant species have been documented in the water service area. Implementation of the projects included in the 2018 RWMP in developed/disturbed land would not impact sensitive plant species. Although the likelihood is low, implementation of some projects included in the 2018 RWMP in undeveloped areas have the potential to impact sensitive plant species. The WRCRWA Booster Pump Station, WRCRWA Transmission Pipeline, WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects are proposed on undeveloped

sites that may contain sensitive plant species. The WRCRWA Booster Pump Station and WRCRWA Transmission Pipeline projects were previously evaluated under CEQA in the 2010 Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project EIR (WRCRWA 2010) and the 2016 Proposition 1 IS/MND (City of Corona 2016), respectively. No further analysis of these projects is required or provided in this PEIR. The WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites contain non-native grassland habitat that could support sensitive plant species. Impacts to non-native grassland habitat that could support sensitive plant species on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites would be potentially significant.

Indirect Impacts

Indirect impacts may occur during the construction of the projects included in the 2018 RWMP and post-construction operations. Potential indirect impacts to sensitive plant species from implementation of the project include colonization of invasive plant species and fugitive dust. The majority (25 of 29) of the projects anticipated in the 2018 RWMP would be situated in currently developed (non-sensitive) areas of the water service area. However, the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects are planned on non-native grassland habitat that may support sensitive plant species. These three projects have the potential to result in indirect impacts on sensitive plants from invasive plant species and fugitive dust; such impacts are further discussed below.

Invasive Plant Species

Non-native plants may colonize sites disturbed by demolition and construction and may spread into adjacent native vegetation communities. Some non-native plants are highly invasive and can disrupt native habitats by reducing native and sensitive species diversity, potentially increase flammability and fire frequency, change ground and surface water levels, and potentially adversely affect native animals that are dependent on native plant species.

Colonization by non-native plant species in the vegetated areas that may support sensitive plant species on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites would be a potentially significant impact.

Fugitive Dust

Fugitive dust produced during construction may disperse onto sensitive vegetation adjacent to the project sites that could support sensitive plant species. The resulting dust cover may reduce native plant productivity, displacing native vegetation, reducing diversity, and affecting animals dependent on the vegetation.

Air quality impacts during construction, including fugitive dust, are analyzed in Section 3.3, Air Quality. The analysis concluded that no significant impacts would result from implementation of the projects included in the 2018 RWMP. The project would avoid indirect impacts to sensitive plants and animals from fugitive dust by implementing standard air quality control measures and National Pollutant Discharge Elimination System regulations required by construction specifications to effectively reduce fugitive dust during construction. The control measures may include but are not limited to the application of soil stabilizers (water) to disturbed areas, termination of soil disturbance during high wind events, and covering of material stockpiles. Applicable construction best management practices would also be implemented. Therefore, fugitive dust impacts would be less than significant, and no mitigation is required.

Level of Significance Before Mitigation

Implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would have potentially significant direct and indirect impacts on plant species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS (shown in Table 3.4-1).

Mitigation Measures

The mitigation measures in this section were clarified following consultation with the Western Riverside County Regional Conservation Authority and in response to public comments received during the 2018 RWMP PEIR public review period. Mitigation Measure BIO-1 was renamed and refined to more accurately describe the Western Riverside County MSHCP Consistency Analysis Report process and components. Mitigation Measure BIO-1, Multiple Species Habitat Conservation Plan Consistency Analysis Report, includes requirements for identifying the presence of sensitive plant and animal species, including burrowing owl (*Athene cunicularia*), and potential sensitive habitats. It was determined that Mitigation Measure BIO-1 would mitigate for potential impacts to sensitive plant species, sensitive habitats, and burrowing owl. Separate mitigation measures were previously included to address potential impacts to sensitive plant species (previous Mitigation Measure BIO-1), sensitive habitat (previous Mitigation Measures BIO-2 and BIO-3), and burrowing owl (previous Mitigation Measure BIO-8). Consistent with CEQA Guidelines, Section 15088.5(b), and following consultation with the Western Riverside County Regional Conservation Authority, these separate mitigation measures were determined not to be necessary because they are included in the requirements of Mitigation Measure BIO-1 and, therefore, have been removed. These mitigation refinements resulted in removing previous stand-alone Mitigation Measures BIO-2, BIO-3, BIO-8, and BIO-11; renaming and refining Mitigation Measure BIO-1; and renumbering the remaining mitigation measures. Additional language was added to clarify Mitigation Measures BIO-8 and BIO-9 (previously Mitigation Measures BIO-12 and BIO-13) by including the applicable requirements for jurisdictional aquatic resources identification under Mitigation Measure BIO-1, Multiple Species Habitat Conservation Plan

Consistency Analysis Report. The equivalent mitigation measures in the Biological Resources Technical Report (included as Appendix C) were revised to be consistent with the clarifications made in this PEIR section.

Survey Requirements

Implementation of Mitigation Measure BIO-1, Multiple Species Habitat Conservation Plan Consistency Analysis Report, would ~~require~~ include identification of sensitive plant species and potential surveys for projects including the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline ~~project sites~~. If sensitive plant species are identified on the project site during implementation of Mitigation Measure BIO-1, potential impacts shall be documented consistent with the MSHCP requirements, including conservation easements for avoidance areas and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures.

BIO-1: **Multiple Species Habitat Conservation Plan Consistency Analysis Report** ~~**Sensitive Plant Species Surveys**~~**.** For projects proposed in the City of Corona 2018 Reclaimed Water Master Plan on undeveloped land, including the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline, a Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis Report site-specific biological resources survey shall be completed during the project design phase. The Consistency Analysis Report shall be prepared for each project to demonstrate consistency with the Multiple Species Habitat Conservation Plan Implementation Structure and shall include project-level existing conditions documentation consisting of vegetation mapping and identification of sensitive habitats (non-native grassland, riparian and riverine areas, and vernal pools), plants, and animals (including burrowing owl [*Athene cunicularia*]) on the project site.

The Consistency Analysis Report shall be used as the basis for determining if a project is subject to a Joint Project Review and is required to complete a Joint Project Review Application. The Multiple Species Habitat Conservation Plan Consistency Analysis Report template and requirements can be accessed on the Western Riverside County Regional Conservation Authority Document Library: https://www.wrc-rca.org/document-library/. The Western Riverside County Multiple Species Habitat Conservation Plan Permittee Implementation Guidance Manual (2007) shall also be reviewed and followed to ensure project consistency with the Multiple Species Habitat Conservation Plan requirements.

~~If one or more sensitive plant species has the potential to occur on the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, focused species surveys shall~~

~~be conducted before construction to determine the presence and absence of these species to adequately evaluate potential direct or indirect impacts to these species.~~

~~Sensitive plant species surveys shall be conducted by a qualified biologist retained by the City of Corona during the appropriate season to detect the species as part of the project design phase. Surveys shall be floristic in nature and include lists of the plants identified in the survey area. Surveys shall be conducted on foot, employing a level of effort sufficient to provide comprehensive coverage. The locations and prevalence (estimated total numbers and percent cover, as applicable) of sensitive plants shall be recorded. The sensitive plant species surveys shall be valid for 3 years.~~

~~If site-specific surveys are not required because a survey was conducted within the last 3 years, impact assessment and minimization and mitigation requirements shall be based on the most recent available survey. These requirements shall also include an analysis of the potential for sensitive plant species to occur on site based on existing site conditions and shall be consistent with the most recent U.S. Fish and Wildlife Service and California Department of Fish and Wildlife survey protocols.~~

~~If sensitive plant species are observed, they shall be avoided if possible. If species cannot be avoided, impacts shall be mitigated through conservation of habitat that supports the impacted species in accordance with Mitigation Measures BIO-2 and BIO-3.~~

Habitat Mitigation Requirements

Permanent Impacts

If a project site is identified as occupied or potentially occupied habitat for sensitive plant or animal species during preparation of the MSHCP Consistency Analysis Report (Mitigation Measure BIO-1), potential impacts shall be documented consistent with the MSHCP requirements, including project-level vegetation mapping, adherence to narrow endemic plant species protection policies, conservation easements for avoidance areas, and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures. ~~Implementation of Mitigation Measure BIO-2 would reduce permanent impacts to non-native grassland that could support sensitive plant species on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites to less than significant.~~

~~**BIO-2: Permanent Impacts to Non-Native Grassland.** Permanent impacts to sensitive non-native grassland shall be mitigated through the preservation of habitat, habitat creation, or enhancement, or combination thereof, in the City of Corona or off-site through habitat acquisition and preservation or purchase of credits from an approved conservation bank. Mitigation for impacts to non-native grassland shall be in-kind using native grasses. Permanent impacts to sensitive non-native grassland shall be mitigated at a ratio of 0.5:1.~~

~~For on-site mitigation, a detailed Mitigation Plan shall be prepared before the start of construction (not applicable to mitigation met through the purchase of credits from an approved wetland mitigation bank). The Mitigation Plan shall include at a minimum the proposed location of the mitigation areas, site preparation, a plant palette, installation procedures, success criteria, fencing and signage, monitoring requirements, and other details of the habitat restoration effort and shall be prepared by a qualified biologist.~~

Temporary Impacts

If a project site is identified as occupied or potentially occupied habitat for sensitive plant or animal species during preparation of the Western Riverside County MSHCP Consistency Analysis Report (Mitigation Measure BIO-1), potential impacts shall be documented consistent with the MSHCP requirements, including project-level vegetation mapping, adherence to narrow endemic plant species protection policies, conservation easements for avoidance areas, and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures. ~~Implementation of Mitigation Measure BIO-3 would reduce temporary impacts to non-native grassland that could support sensitive plant species to less than significant.~~

~~**BIO-3: Temporary Impacts to Non-Native Grassland.** Temporary impacts to non-native grassland shall be restored in place or elsewhere on the project site at a 1:1 replacement ratio using native grass species.~~

~~A Revegetation Plan shall be prepared. The Revegetation Plan shall include site preparation specifications, a plant palette, installation procedures, development of reasonable success criteria, appropriate monitoring and reporting protocols, implementation timelines, and contingency measures in the event of restoration failure. The City of Corona shall provide guidance for and oversight of the Revegetation Plan and implementation.~~

~~In the event that non-native grassland vegetation cannot be restored in place or elsewhere on the project site after construction, these impacts would be considered permanent, and Mitigation Measure BIO-2 would be implemented.~~

~~The 0.5:1 permanent impacts and 1:1 temporary impacts mitigation ratios for the project would follow the accepted ratios established by the Western Riverside County Multiple Species Habitat Conservation Plan to reduce potentially significant impacts to sensitive vegetation communities to less than significant.~~

Construction

Implementation of Mitigation Measures BIO-2~~4~~, BIO-3~~5~~, BIO-4~~6~~, and BIO-5~~7~~ would minimize construction impacts to sensitive plant species, including the spread of invasive non-native plant species, during the implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects.

BIO-24: **Invasive Plant Species Prevention.** During construction of the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects, the following measures shall be implemented to minimize the spread of invasive plant species:

- Construction equipment shall be cleaned before coming to the project sites.
- Weed-free straw wattles shall be used for erosion control.

BIO-35: **Flagging and Fencing.** If sensitive biological resources are identified on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, the construction limits shall be clearly identified on construction drawings and flagged on the project sites to ensure impacts to sensitive biological resources are avoided or minimized to the extent feasible. Before implementing construction activities, a qualified biologist shall verify that the flagging clearly delineates the construction limits and sensitive resources to be avoided.

BIO-46: **Contractor Training Program.** If sensitive biological resources are known to occur on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a project-specific contractor training program shall be developed and implemented to educate project contractors on the sensitive biological resources on and adjacent to the project sites and measures being implemented to avoid or minimize impacts to these species. A qualified biologist shall develop and implement the contractor training program.

BIO-57: **Biological Monitor.** If sensitive biological resources are present on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, and impacts may occur from implementation of construction activities, a qualified biological

monitor may be required during all or a portion of the construction activities to ensure impacts to the sensitive biological resources are avoided or minimized to the extent feasible. The specific biological monitoring requirements shall be evaluated on a project-by-project basis. The qualified biological monitor shall be approved by the City of Corona based on applicable experience with the sensitive biological resources that may be impacted.

Level of Significance After Mitigation

With implementation of Mitigation Measures BIO-1 through BIO-5~~7~~, impacts to sensitive plant species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS from implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would be reduced to a less than significant level.

3.4.4.2 Threshold 2: Sensitive Animal Species

Would the project have a substantial adverse effect, either directly or through habitat modifications, on any animal species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Impact Analysis

Direct Impacts

In total, 45 sensitive animal species have been documented in the water service area. Sensitive animal species have been documented in undeveloped areas near the WRCRWA Transmission Pipeline, WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites. The undeveloped areas on these project sites may contain sensitive animal species. The majority of sensitive animal species, including least Bell's vireo and tri-colored blackbird (*Agelaius tricolor*), occur in the Santa Ana River floodplain adjacent to the WRCRWA Transmission Pipeline, which was previously evaluated under CEQA in the 2016 Proposition 1 IS/MND (City of Corona 2016). No further analysis of this project is required or provided in this PEIR. None of the other projects identified in the 2018 RWMP have the potential to impact least Bell's vireo or tri-colored blackbird. Therefore, impacts would not occur to these species as a result of project implementation.

Non-native grassland vegetation on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites has the potential to support sensitive animal species. A query requested in the Riverside County Integrated Project Conservation Summary Report Generator found that the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites contain potentially suitable habitat for burrowing owl. Based on habitat requirements

and the availability and quality of the habitats on site, it was determined that the burrowing owl is presumed to have a low likelihood of occurring due to the lack of suitable habitat and existing development and disturbance. The conservation goals of the Western Riverside County MSHCP require that burrowing owl remain absent from the project sites. If burrowing owl were found on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a potential impact would occur.

Nesting Birds

Federal- and state-protected nesting birds have the potential to occur on or adjacent to the projects included in the 2018 RWMP, including projects in developed/disturbed land. Implementation of the projects included in the 2018 RWMP would have the potential to impact nesting birds (including raptors) through direct removal of nesting habitat and through disturbance to nesting birds from substantial sources of noise generated at the start of new construction during the nesting season. Construction activities that begin during the raptor nesting season and general bird nesting season (January 15 through September 15) would have the potential to significantly impact nesting birds protected under the MBTA and CFG Code.

Critical Habitat

Critical habitat for least Bell's vireo, southwestern willow flycatcher, and Santa Ana sucker primarily occurs in the Santa Ana River floodplain adjacent to the WRCRWA Transmission Pipeline, which was previously evaluated under CEQA in the 2016 Proposition 1 IS/MND (City of Corona 2016) (Figure 3.4-3). No further analysis of this project is required or provided in this PEIR. No other projects identified in the 2018 RWMP have the potential to impact critical habitat for least Bell's vireo, southwestern willow flycatcher, or Santa Ana sucker. The majority of the critical habitat for coastal California gnatcatcher occurs outside of the water service area and would not be impacted by implementation of the projects included in the 2018 RWMP (Figure 3.4-3). Therefore, impacts would not occur to these species as a result of project implementation.

Indirect Impacts

Indirect impacts may occur during the construction of the projects included in the 2018 RWMP and post-construction operations. Potential indirect impacts from implementation of the project includes construction noise and nighttime lighting. The majority (25 of 29) of the projects anticipated in the 2018 RWMP would be situated in currently developed (non-sensitive) areas of the water service area. However, the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects are planned adjacent to and in sensitive non-native grassland habitat that may support sensitive animal species. These three projects have the potential to result in indirect impacts on sensitive animal species from noise and nighttime lighting, and such impacts are discussed further below.

Noise

Construction-related noise from clearing, grubbing, and grading may impact sensitive animals. Breeding birds and mammals may temporarily or permanently leave their territories to avoid direct impacts from construction activities, which may lead to reduced reproductive success and increased mortality. Indirect noise impacts would be considered significant for state- or federally listed species and for nesting raptors and birds protected by the CFG Code and MBTA. Nesting raptors may also be affected by noise from construction activity. Construction activity that commences during the nesting season within 500 feet of an active raptor nest would result in a significant impact to sensitive animal species and nesting birds. A Construction Noise Management Plan would be implemented in the projects included in the 2018 RWMP with Mitigation Measure NOI-1, detailed in Section 3.13, Noise. Implementation of Mitigation Measure NOI-1 would incorporate best management practices into project construction so that noise levels would not be an excessive nuisance to humans and animals. Therefore, indirect noise impacts to sensitive animal species would be less than significant.

Lighting

Nighttime lighting during construction has the potential to spill into native vegetation communities, exposing animal species to an unnatural light regime and potentially altering their behavior patterns, which can result in lower reproductive success, reducing species diversity. In addition, nighttime lighting may provide nocturnal predators with an unnatural advantage over their prey. This may cause an increased loss in native animals that may be significant, especially for sensitive species that may occur. Temporary construction lighting that spills into undeveloped areas would be potentially significant where these areas are not currently affected by lighting. Therefore, indirect impacts from nighttime lighting would have the potential to result in a significant impact to sensitive animal species.

Level of Significance Before Mitigation

Implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would result in potentially significant direct impacts on burrowing owl and nesting birds, which are identified as candidate, sensitive, or special-status species by the CDFW or USFWS (shown in Table 3.4-2). Implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would result in potentially significant indirect impacts from noise and nighttime lighting on burrowing owl and nesting birds, which are identified as candidate, sensitive, or special-status species by the CDFW or USFWS.

Mitigation Measures

Burrowing Owl

Implementation of Mitigation Measure BIO-1~~8~~, Multiple Species Habitat Conservation Plan Consistency Analysis Report, would require burrowing owl habitat analysis and potential focused ~~clearance~~ surveys on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites to reduce potential impacts to burrowing owl to less than significant. If burrowing owl is identified on the project site during implementation of Mitigation Measure BIO-1, potential impacts shall be documented consistent with the MSHCP requirements, including preparation of a Determination of Biological Equivalent or Superior Preservation Report to ensure that an appropriate mitigation strategy would be implemented, preparation of a Burrowing Owl Protection and Relocation Plan, and coordination with the Western Riverside County Regional Conservation Authority and CDFW prior to implementation of proposed mitigation measures.

~~**BIO-8: Burrowing Owl Surveys.** A burrowing owl clearance survey shall be conducted before any ground-disturbing activities in accordance with the California Department of Fish and Wildlife 2012 Staff Report on Burrowing Owl Mitigation. Two preconstruction clearance surveys shall be conducted 14-30 days and 24 hours before ground-disturbing activities to document the continued absence of burrowing owl from the project sites. The burrowing owl surveys shall be valid for 1 year.~~

Nesting Birds

Implementation of Mitigation Measure BIO-6~~9~~ would reduce potential impacts to nesting birds protected by the CFG Code and MBTA to less than significant.

BIO-6~~9~~: Preconstruction Nesting Bird Surveys. To the extent feasible, grubbing, trimming, or clearing of vegetation from project sites shall not occur during the general bird nesting season (January 15 through September 15). If grubbing, trimming, or clearing of vegetation cannot feasibly occur outside of the general bird nesting season, a qualified biologist shall perform a preconstruction nesting bird survey at project sites with vegetation supporting nesting birds. Nesting bird surveys shall occur within ~~10~~7 days before the start of vegetation clearing or grubbing to determine if active bird nests are present. If no active bird nests are identified on the project sites or within a 300-foot buffer of the project sites, no further mitigation is necessary. If active nests of bird species covered by the Migratory Bird Treaty Act are detected on the project site during the ~~10~~7-day preconstruction survey, construction activities should stay outside of a 300-foot buffer around the active nest. For raptor species, this buffer is expanded to 500 feet. It is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting

behavior is not adversely affected by the construction activity. Once the young have fledged, and a qualified biologist has determined the nest is inactive, normal construction activities can occur.

Construction Lighting

Construction is expected is occur primarily during the daylight hours. However, if night work is needed near sensitive biological resources, implementation of Mitigation Measure BIO-7~~10~~ shall be implemented at the project sites to reduce potential nighttime lighting impacts to sensitive animal species to less than significant.

BIO-7~~10~~: Night Lighting. If temporary night lighting is necessary during construction adjacent to sensitive vegetation communities, construction contractors shall ensure lights are directed away from sensitive vegetation communities and shielded to minimize temporary lighting of the surrounding habitat and should be of the lowest illumination necessary for human safety.

Level of Significance After Mitigation

With implementation of Mitigation Measures BIO-1 and BIO-3~~5~~ through BIO-7~~10~~, impacts to sensitive animal species identified as candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS would be reduced to a less than significant level.

3.4.4.3 Threshold 3: Riparian Habitat or Other Sensitive Natural Community

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Impact Analysis

Direct Impacts

The WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline are proposed in undeveloped, non-native grassland vegetation. The WRCRWA Transmission Pipeline is proposed adjacent to undeveloped land, riparian forest, and the Santa Ana River. The WRCRWA Transmission Pipeline was previously evaluated under CEQA in the 2016 Proposition 1 IS/MND (City of Corona 2016). No further analysis of this project is required or provided in this PEIR.

Potentially significant impacts to ~~one~~ sensitive vegetation communities~~y~~, including non-native grassland, could result during the implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline. As described in Mitigation Measure BIO-1~~2~~, a Consistency Analysis Report shall be prepared for each project to demonstrate consistency with

the MSHCP Implementation Structure and shall include project-level existing conditions documentation of vegetation mapping and identification of sensitive habitats (non-native grassland, riparian and riverine areas, and vernal pools), plants, and animals (including burrowing owl) on the project site ~~a mitigation ratio of 0.5:1 would be applied following the accepted ratios established by the Western Riverside County MSHCP~~ to reduce potentially significant impacts to sensitive vegetation communities to less than significant~~. Temporary impacts to non-native grassland would be restored in place or elsewhere on the project site at a mitigation ratio of 1:1, as described in Mitigation Measure BIO-3~~.

~~Impacts to non-native grassland totaling less than 0.10 acre per construction phase would not be considered significant and would not require mitigation under CEQA because the small size of the impact would not be considered a substantial adverse effect. Exceptions to the previously described thresholds would be for projects impacting habitat occupied by federally or state-listed endangered or threatened species, which would be considered significant regardless of the acreage impacted.~~

No other direct impacts to sensitive vegetation communities would result from implementation of the remaining projects included in the 2018 RWMP.

Indirect Impacts

Indirect impacts may occur during the construction of the projects included in the 2018 RWMP and post-construction operations. Potential indirect impacts to sensitive vegetation communities from implementation of the project includes decreased water quality (e.g., through sedimentation, contaminants, or fuel release). The majority (25 of 29) of the projects anticipated in the 2018 RWMP would be situated in currently developed (non-sensitive) areas of the water service area. However, the WRCRWA Booster Pump Station, WRCRWA Transmission Pipeline, WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects are planned in non-native grassland habitat. As previously discussed, the WRCRWA Booster Pump Station and WRCRWA Transmission Pipeline projects were previously evaluated under CEQA in the 2010 Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project EIR (WRCRWA 2010) and the 2016 Proposition 1 IS/MND (City of Corona 2016), respectively. No further analysis of these projects is required or provided in this PEIR.

In Section 3.10, Hydrology and Water Quality, this PEIR analyzes potential water quality impacts from implementation of projects included in the 2018 RWMP and concludes that impacts would be less than significant because they would comply with the applicable policies and regulations pertaining to water quality. Therefore, water quality impacts to sensitive vegetation communities would be less than significant.

Level of Significance Before Mitigation

Implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would have potentially significant direct impacts on a sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS.

Mitigation Measures

Implementation of Mitigation Measure BIO-1~~1~~ would minimize impacts to sensitive non-native grassland vegetation associated with the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects through the preparation of an MSHCP Consistency Analysis Report. If a project site is identified as occupied or potentially occupied habitat for sensitive plant or animal species during preparation of the MSHCP Consistency Analysis Report (Mitigation Measure BIO-1), potential impacts shall be documented consistent with the MSHCP requirements, including project-level vegetation mapping, adherence to narrow endemic plant species protection policies, conservation easements for avoidance areas, and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures. ~~Mitigation Measures BIO-2 and BIO-3 would reduce permanent and temporary impacts to non-native grassland to a less than significant level.~~

Temporary Impacts

Implementation of Mitigation Measure BIO-1~~1~~ would reduce temporary impacts to non-native grassland to less than significant through the preparation of an MSHCP Consistency Analysis Report.

~~**BIO-11: Biological Resources Survey/Habitat Assessment.** For projects proposed in the 2018 Reclaimed Water Master Plan on undeveloped land, including the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline, a site-specific biological resources survey shall be conducted during the project design phase. The biological resources survey shall be conducted by a qualified biologist and shall include but not be limited to the following:~~

- ~~An analysis of available literature and biological databases, such as the California Natural Diversity Database, to determine sensitive biological resources that have been reported historically from the proposed project vicinity.~~
- ~~A review of current land use and land ownership within the project vicinity.~~
- ~~An assessment and mapping of vegetation communities present within the proposed project vicinity. If vegetation community mapping has not been conducted on the site in the previous 3 years, updated vegetation mapping shall be conducted by a qualified biologist as part of the project planning and environmental review process. Vegetation communities shall be mapped according to the Manual of~~

~~California Vegetation at the alliance level, and a crosswalk table with Holland vegetation communities shall be provided.~~

- ~~A general assessment of the potential for aquatic resources, including wetlands and riparian habitats, to occur on site.~~
- ~~An evaluation of potential local and regional wildlife movement corridors.~~
- ~~If the project sites support vegetation communities that may provide habitat for plant or animal species, a focused habitat assessment conducted by a qualified biologist to determine the potential for sensitive plant or animal species to occur on or adjacent to the project sites.~~

~~The results of the biological survey shall be presented in a biological survey letter report.~~

Level of Significance After Mitigation

With implementation of Mitigation Measure~~s BIO-2, BIO-3, and~~ BIO-1~~1~~, impacts to sensitive natural communities would be reduced to a less than significant level.

3.4.4.4 Threshold 4: Jurisdictional Aquatic Resources

Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Impact Analysis

Implementation of the projects included in the 2018 RWMP is not expected to impact jurisdictional aquatic resources. The WRCRWA Transmission Pipeline is adjacent to the Santa Ana River and has been designed to avoid riparian habitat and jurisdictional aquatic resources (City of Corona 2016). The WRCRWA Transmission Pipeline was previously evaluated under CEQA in the 2016 Proposition 1 IS/MND (City of Corona 2016). No further analysis of this project is required or provided in this PEIR.

The WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline are proposed on undeveloped land that could support jurisdictional aquatic resources, although unlikely. During implementation of Mitigation Measure BIO-1~~1~~, if the potential for jurisdictional aquatic resources to occur on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites is identified, impacts to state or federally protected jurisdictional aquatic resources could occur through direct removal, filling, hydrological interruption, or other means. Impacts to jurisdictional aquatic resources could be considered significant under CEQA depending on the type of aquatic resource and the extent of the proposed impact.

Level of Significance Before Mitigation

In the event that state- or federally protected jurisdictional aquatic resources are identified on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, impacts would be potentially significant.

Mitigation Measures

In the event that jurisdictional aquatic resources are identified during implementation of Mitigation Measure BIO-1~~1~~, Mitigation Measures BIO-8~~12~~ and BIO-9~~13~~ shall be implemented.

BIO-8~~12~~: Aquatic Resources Delineation. If sensitive aquatic resources are identified on the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a qualified biologist shall conduct an aquatic resources delineation following the methods outlined in the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the U.S. Army Corps of Engineers Wetland Delineation Manual: Arid West Region to map the extent of wetlands and non-wetland waters, determine jurisdiction, and assess potential impacts. The results of the delineation shall be presented in an Aquatic Resources Delineation Report and shall be incorporated into the California Environmental Quality Act documents required for approval and permitting of the proposed project. The Aquatic Resources Delineation Report shall be included as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1).

BIO-9~~13~~: Aquatic Resources Permitting and Multiple Species Habitat Conservation Plan Consistency. If the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would impact sensitive aquatic resources, permits and authorizations shall be obtained from the U.S. Army Corps Engineers, California Department of Fish and Wildlife, or Regional Water Quality Control Board. The regulatory agency authorizations would include impact avoidance and minimization measures and mitigation measures for unavoidable impacts. Specific avoidance, minimization, and mitigation measures for impacts to jurisdictional resources shall be determined through discussions with the regulatory agencies during the proposed project permitting process and may include monetary contributions to a mitigation bank or habitat creation, restoration, or enhancement.

In addition, consistent with the Western Riverside Multiple Species Habitat Conservation Plan and as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1), a Determination of Biologically Equivalent or Superior Preservation Report shall be prepared to identify mitigation that demonstrates equivalent or superior function and value, including re-

establishment, establishment, and/or permanent conservation of aquatic resources, as feasible. The Determination of Biologically Equivalent or Superior Preservation Report shall be included as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1).

Level of Significance After Mitigation

With implementation of Mitigation Measures BIO-1, BIO-8~~12~~, and BIO-9~~13~~, impacts to state- or federally protected aquatic resources through direct removal, filling, hydrological interruption, or other means would be reduced to a less than significant level.

3.4.4.5 Threshold 5: Wildlife Corridors and Linkages

Would the project substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Impact Analysis

As discussed under Wildlife Corridors and Linkages in Section 3.4.1.2, important wildlife corridors occur in the northern and western portions of the water service area. The Santa Ana Mountains are an important north–south wildlife corridor; however, no projects identified in the 2018 RWMP are proposed in the Santa Ana Mountains. The Santa Ana River floodplain is an important east–west wildlife corridor. The WRCRWA Transmission Pipeline crosses the Santa Ana River, which is a regional wildlife movement corridor; however, the pipeline would be installed in the existing paved road right-of-way and would not impact the Santa Ana River. The WRCRWA Transmission Pipeline was previously evaluated under CEQA in the 2016 Proposition 1 IS/MND (City of Corona 2016). No further analysis of this project is required or provided in this PEIR. No other projects identified in the 2018 RWMP are proposed in the Santa Ana River floodplain.

Level of Significance Before Mitigation

Implementation of the projects included in the 2018 RWMP would have less than significant impacts to movement of any native resident or migratory fish or animal species or with established native resident or migratory wildlife corridors, or impede the use of native animal nursery sites.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Because no mitigation measures are required, impacts would remain less than significant.

3.4.4.6 Threshold 6: Local Policies and Ordinances

Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Impact Analysis

The project would comply with local policies and ordinances protecting biological resources in the City of Corona 2020–2040 General Plan (City of Corona 2020b). Section 3.4.2.3 outlines the City of Corona 2020–2040 General Plan goals and policies related to biological resources and implementation of the projects included in the 2018 RWMP.

As discussed in Section 3.4.4.4, the projects included in the 2018 RWMP would avoid, or if avoidance is not feasible, fully mitigate potential impacts to jurisdictional aquatic resources, thereby complying with the City of Corona 2020–2040 General Plan Goal ER-4, Policies ER-4.1 through ER-4.5, Goal ER-5, and Policies ER-5.1 through ER-5.5.

As discussed in Sections 3.4.4.1 through Sections 3.4.4.4, the projects' potential impacts to sensitive plants, animals, and vegetation communities would be less than significant with incorporation of Mitigation Measures BIO-1 through BIO-9~~11~~. Therefore, the projects included in the 2018 RWMP would comply with the City of Corona 2020–2040 General Plan Goal ER-6 and Policies ER-6.1 through ER-6.5 regarding protection of plant and animal species and sensitive vegetation communities in the City and its Planning Area.

The projects included in the 2018 RWMP would be consistent with the conservation goals outlined in the Western Riverside County MSHCP. The projects' compliance with the Western Riverside County MSHCP is discussed in detail in Section 3.4.4.7. The project would result in less than significant impacts to biological resources with mitigation incorporated and is therefore compliant with the Western Riverside County MSHCP conservation planning goals and the City of Corona 2020–2040 General Plan Goal 7 and Policies 7.1 through 7.3.

No oak trees were identified on the project sites that would be impacted by implementation of the projects. Therefore, the project is not in conflict with the City of Corona 2020–2040 General Plan Goal ER-8 and Policies ER-8.1 through ER-8.5 or the Riverside County Oak Tree Management Guidelines (City of Corona 2020b; County of Riverside 1993).

The projects included in the 2018 RWMP do not propose development in the Temescal Canyon Plan Area, in the Santa Ana River, or other regional washes. Therefore, the projects included in the 2018 RWMP would not conflict with City of Corona 2020–2040 General Plan Goal ER-9 and Policies ER-9.1 through ER-9.12.

Implementation of the project would not result in conflicts with any local policies or ordinances protecting biological resources.

Level of Significance Before Mitigation

Implementation of the project would have less than significant impacts from conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Because no mitigation measures are required, impacts would remain less than significant.

3.4.4.7 Threshold 7: Regional Conservation Planning

Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Impact Analysis

As discussed in Section 3.4.2.3, the Western Riverside County MSHCP functions as a comprehensive, multi-jurisdictional plan that addresses biological and ecological diversity by conserving species and associated habitats while allowing approval of development in the County. It is the City's policy to comply with the Western Riverside County MSHCP in its consideration and approval of development projects, including the projects identified in the 2018 RWMP. Further, the City of Corona 2020–2040 General Plan incorporates compliance with the Western Riverside County MSHCP in the goals and policies used to guide development in the City and its Planning Area (City of Corona 2020b). The projects' compliance with the City of Corona 2020–2040 General Plan natural resources goals and policies was previously discussed in Section 3.4.4.6.

The WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites are not within Western Riverside County MSHCP Criteria Areas, Core or Linkage Areas, Criteria Cells, or MSHCP-designated conserved lands (Figures 3-1 through 3-3, County of Riverside 2003). Therefore, implementation of these projects would be consistent with the Western Riverside County MSHCP and would not result in impacts to the Western Riverside County MSHCP conservation and preservation goals. These projects would be required to implement Mitigation Measure BIO-1 to prepare an MSHCP Consistency Analysis Report once project design is available. At this time, it is not anticipated that these projects would require submittal of a Regional Conservation Authority Joint Project Review Application due to their anticipated location outside of Western Riverside County MSHCP Criteria Areas, Core or Linkage Areas, Criteria Cells, or MSHCP-designated conserved lands.

~~The avoidance, minimization, and mitigation measures proposed in Sections 6.1.1 through 6.1.4 would reduce potentially significant impacts to sensitive plant and animal species, sensitive vegetation communities, and jurisdictional aquatic resources to a less than significant level. Because the projects would not contribute to the loss of sensitive vegetation or sensitive species, the project would comply with the Western Riverside County MSHCP. Therefore, before~~ Prior to the implementation of the avoidance, minimization, and mitigation measures proposed to reduce potentially significant impacts to sensitive plant and animal species, sensitive vegetation communities, and jurisdictional aquatic resources as detailed in Section 3.4.4.4, potentially significant impacts would occur from conflicts with Western Riverside County MSHCP and other regional conservation plans and mitigation would be required.

Level of Significance Before Mitigation

Before implementation of Mitigation Measures BIO-1 through BIO-9~~13~~, the projects' potentially significant impacts to biological resources would result in conflicts with the Western Riverside County MSHCP and other regional conservation plans and would be potentially significant.

Mitigation Measures

Mitigation Measures BIO-1 through BIO-9~~13~~ would reduce potentially significant impacts to biological resources to a less than significant level and avoid conflicts with the Western Riverside County MSHCP or other regional conservation plans.

Level of Significance After Mitigation

With implementation of Mitigation Measures BIO-1 through BIO-9~~13~~, impacts from conflicts with the Western Riverside County MSHCP or other regional conservation plans would be less than significant.

3.4.5 Cumulative Impacts and Mitigation

The cumulative impact analysis for biological resources considers RWMP 2018 project development in conjunction with other development projects in the water service area and projects covered by the Western Riverside County MSHCP.

3.4.5.1 Cumulative Threshold 1: Sensitive Plant Species

The geographic context for the analysis of cumulative impacts to sensitive plant species is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would result in a substantial adverse impact on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS. All projects, including the 2018 RWMP, approved in the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County

MSHCP and to provide mitigation for impacts to sensitive plant species as appropriate. As analyzed in Section 3.4.4.1, potentially significant project-level impacts to sensitive plant species would be reduced to a less than significant level with implementation of Mitigation Measures BIO-1 through BIO-5~~7~~. Since cumulative projects and the 2018 RWMP would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements, and project-specific mitigation measures would be implemented to reduce the project's impacts to sensitive plant species to below a level of significance, the project's contribution would not be cumulatively considerable.

3.4.5.2 Cumulative Threshold 2: Sensitive Animal Species

The geographic context for the analysis of cumulative impacts to sensitive animal species is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would result in a substantial adverse impact on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for impacts to sensitive animal species as appropriate. The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements. As analyzed in Section 3.4.4.2, potentially significant project-level impacts to burrowing owl and nesting birds would be reduced to a less than significant level with implementation of Mitigation Measures BIO-1~~5~~ through BIO-7~~10~~. Therefore, the project's contribution would not be cumulatively considerable.

3.4.5.3 Cumulative Threshold 3: Riparian Habitat or Other Sensitive Natural Community

The geographic context for the analysis of cumulative impacts to riparian habitat or other sensitive natural communities is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for impacts to riparian habitat and sensitive vegetation communities as appropriate. The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements. As analyzed in Section 3.4.4.3, potentially significant project-level impacts to non-native grassland habitat would be reduced to a less than significant level with implementation of Mitigation Measure~~s BIO-2, BIO-3, and~~ BIO-1~~1~~. Therefore, the project's contribution would not be cumulatively considerable.

3.4.5.4 Cumulative Threshold 4: Jurisdictional Aquatic Resources

The geographic context for the analysis of cumulative impacts to jurisdictional aquatic resources is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would have a substantial adverse impact on a state or federally protected wetland through direct removal, filling, hydrological interruption, or other means. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for impacts to jurisdictional aquatic resources as appropriate. The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements and implement project-specific mitigation measures to reduce significant impacts. As analyzed in Section 3.4.4.4, potentially significant project-level impacts to jurisdictional aquatic resources would be reduced to a less than significant level with implementation of Mitigation Measures BIO-1~~1~~, BIO-8~~12~~, and BIO-9~~13~~. Therefore, the project's contribution would not be cumulatively considerable.

3.4.5.5 Cumulative Threshold 5: Wildlife Corridors and Linkages

The geographic context for the analysis of cumulative impacts to wildlife corridors and linkages is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would interfere substantially with the movement of any native resident or migratory fish or animal species or with established native resident or migratory wildlife corridors, or impede the use of native animal nursery sites. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (2020b), the Western Riverside County MSHCP and to provide mitigation for impacts to wildlife corridors and linkages, as appropriate. The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements and implement project-specific mitigation measures to reduce significant impacts. As analyzed in Section 3.4.4.5, the project would have a less than significant impact to wildlife corridors and linkages, and no mitigation is required. Therefore, the project's contribution would not be cumulatively considerable.

3.4.5.6 Cumulative Threshold 6: Local Policies and Ordinances

The geographic context for the analysis of cumulative impacts to local policies and ordinances is the City. A significant cumulative impact would occur if, in combination, cumulative projects would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan

natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for conflicts with local policies and ordinances as appropriate. As analyzed in Section 3.4.4.6, with implementation of Mitigation Measures BIO-1 through BIO-9~~13~~, the 2018 RWMP would have a less than significant impact from conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. No project-specific mitigation would be required. Therefore, the project's contribution would not be cumulatively considerable.

3.4.5.7 Cumulative Threshold 7: Regional Conservation Planning

The geographic context for the analysis of cumulative impacts to regional conservation planning is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state HCP.

In 1991, the State of California passed the NCCP Act, providing for the long-term, regional conservation of natural vegetation and animal diversity. The biological conservation offered by the Western Riverside County MSHCP provides sufficient habitat area, diversity, and linkages to allow the participating local jurisdictions to directly impact or "take" up to 146 sensitive plant and animal species in the region. These "covered species" identified in the MSHCP consist of species listed as endangered or threatened by the federal or state Endangered Species Acts and other regional rare but currently unlisted sensitive species.

The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements and provide mitigation for significant impacts as appropriate. Consistency with regional conservation plans and mitigation measures, as appropriate, must be demonstrated in order for the project and other cumulative projects to be approved. Mitigation Measures BIO-1 through BIO-9~~13~~ would reduce project-level direct and indirect impacts on sensitive plants and animals, nesting birds, sensitive vegetation communities, and jurisdictional aquatic resources. Implementation of these mitigation measures would reduce project-level impacts and ensure the project would not contribute to cumulatively significant impacts from conflicts with regional conservation planning. The project would comply with the Western Riverside County MSHCP and would not contribute to loss of sensitive vegetation communities or sensitive species. Therefore, the project's contribution would not be cumulatively considerable.

3.4.6 Conclusion

Project implementation would result in potentially significant direct and indirect impacts to sensitive plant and animal species, nesting birds, sensitive vegetation communities, and jurisdictional aquatic resources.

Implementation of Mitigation Measures BIO-1 through BIO-5~~7~~ would reduce potentially significant direct and indirect impacts to sensitive plant species on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites. These mitigation measures would require preconstruction sensitive plant species surveys, mitigation ~~ratios~~ for permanent and temporary impacts to non-native grassland that could support sensitive plant species, and prevention of the spread of invasive plant species during construction. General construction mitigation measures, including flagging and fencing, a contractor training program, and a biological monitor, shall be implemented for the projects included in the 2018 RWMP to minimize potential impacts to sensitive plant species.

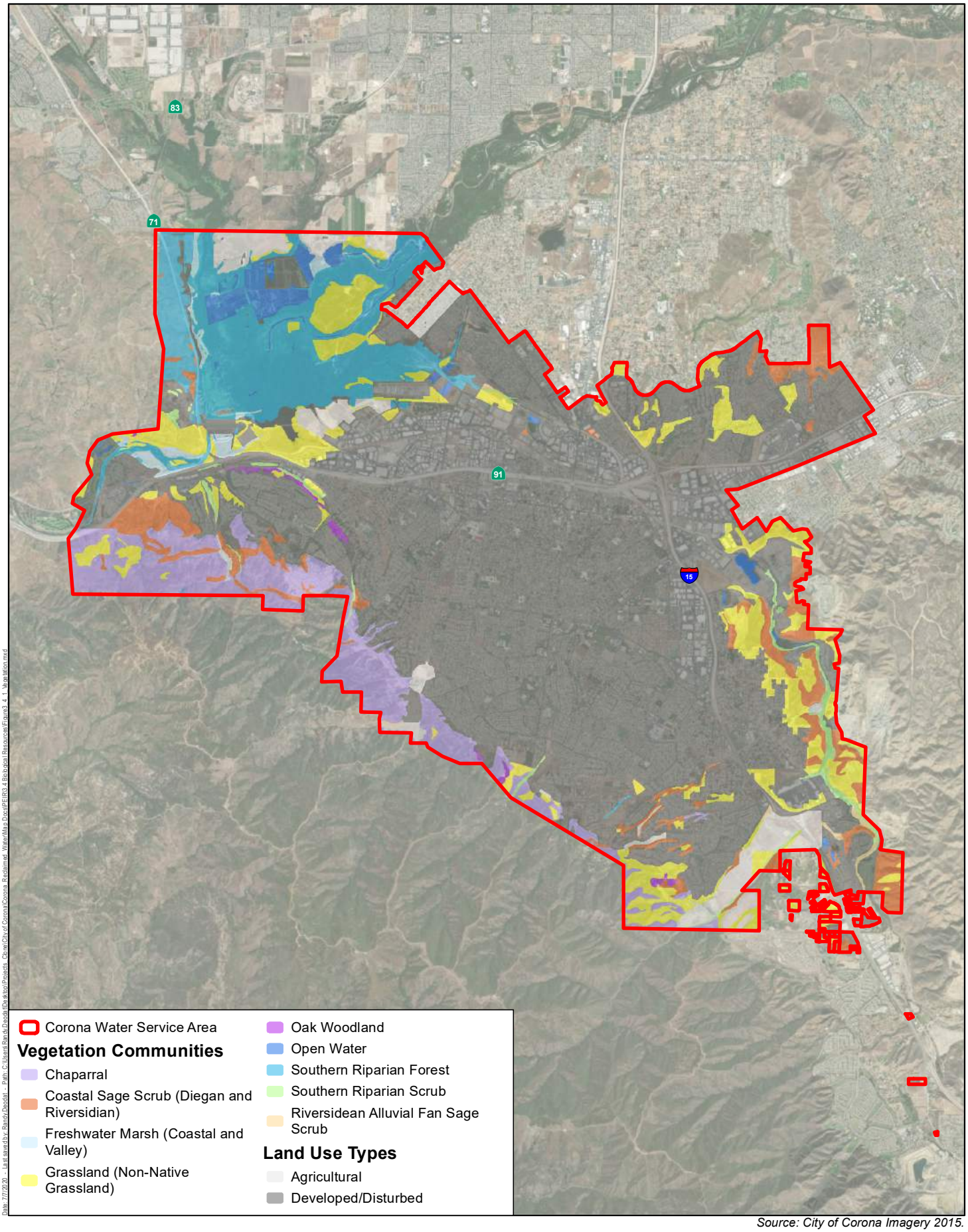
Implementation of Mitigation Measures BIO-1~~5~~ through BIO-7~~10~~ would reduce potentially significant impacts to sensitive animal species at the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites. General construction mitigation measures (Mitigation Measures BIO-3~~5~~ through BIO-5~~7~~), including flagging and fencing, a contractor training program, and a biological monitor, shall also be implemented for the projects included in the 2018 RWMP to minimize potential impacts to sensitive animal species. Potentially significant impacts to non-native grassland that could support burrowing owl would be mitigated by requiring burrowing owl habitat analysis and potential focused ~~clearance~~ surveys at the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites (Mitigation Measure BIO-1~~8~~). Implementation of Mitigation Measure BIO-6~~9~~ would reduce potentially significant impacts to nesting birds by conducting nesting bird surveys before construction of the projects included in the 2018 RWMP if construction activities occur during the general bird nesting season (January 15 through September 15). Potentially significant impacts to sensitive animal species from nighttime lighting during construction would be minimized with Mitigation Measure BIO-7~~10~~ on the project sites.

Implementation of Mitigation Measure~~s BIO-2, BIO-3,~~ and BIO-1~~1~~ would reduce potentially significant impacts to the non-native grassland sensitive vegetation community on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites. If a project site is identified as occupied or potentially occupied habitat for sensitive plant or animal species during preparation of the MSHCP Consistency Analysis Report (Mitigation Measure BIO-1), potential impacts shall be documented consistent with the MSHCP requirements, including project-level vegetation mapping, adherence to narrow endemic plant species protection policies, conservation easements for avoidance areas, and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures. ~~Mitigation Measures BIO-2 and BIO-3 would implement mitigation and replacement ratios for permanent and temporary impacts to non-native grassland.~~ Mitigation Measure BIO-1~~1~~ would require habitat assessments, including vegetation mapping, to be conducted before construction of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects.

Implementation of Mitigation Measures BIO-1, BIO-8~~12,~~ and BIO-9~~13~~ would reduce potentially significant impacts to jurisdictional aquatic resources if identified on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites during ~~preconstruction~~ habitat assessments as part of the MSHCP Consistency Analysis Report (Mitigation Measure BIO-1~~1~~). If jurisdictional aquatic resources are identified, aquatic resources delineations (Mitigation Measure BIO-8~~12~~) and permitting and MSHCP consistency analysis (Mitigation Measures BIO-1 and BIO-9~~13~~) would be conducted before construction of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline.

With implementation of Mitigation Measures BIO-1 through BIO-9, impacts from conflicts with the Western Riverside County MSHCP or other local and regional conservation plans would be less than significant.

With implementation of Mitigation Measures BIO-1 through BIO-9~~13~~, direct and indirect impacts to sensitive biological resources from implementation of the projects included in the 2018 RWMP would be reduced to a less than significant level.



Source: City of Corona Imagery 2015.

Harris & Associates

N

0 1 2

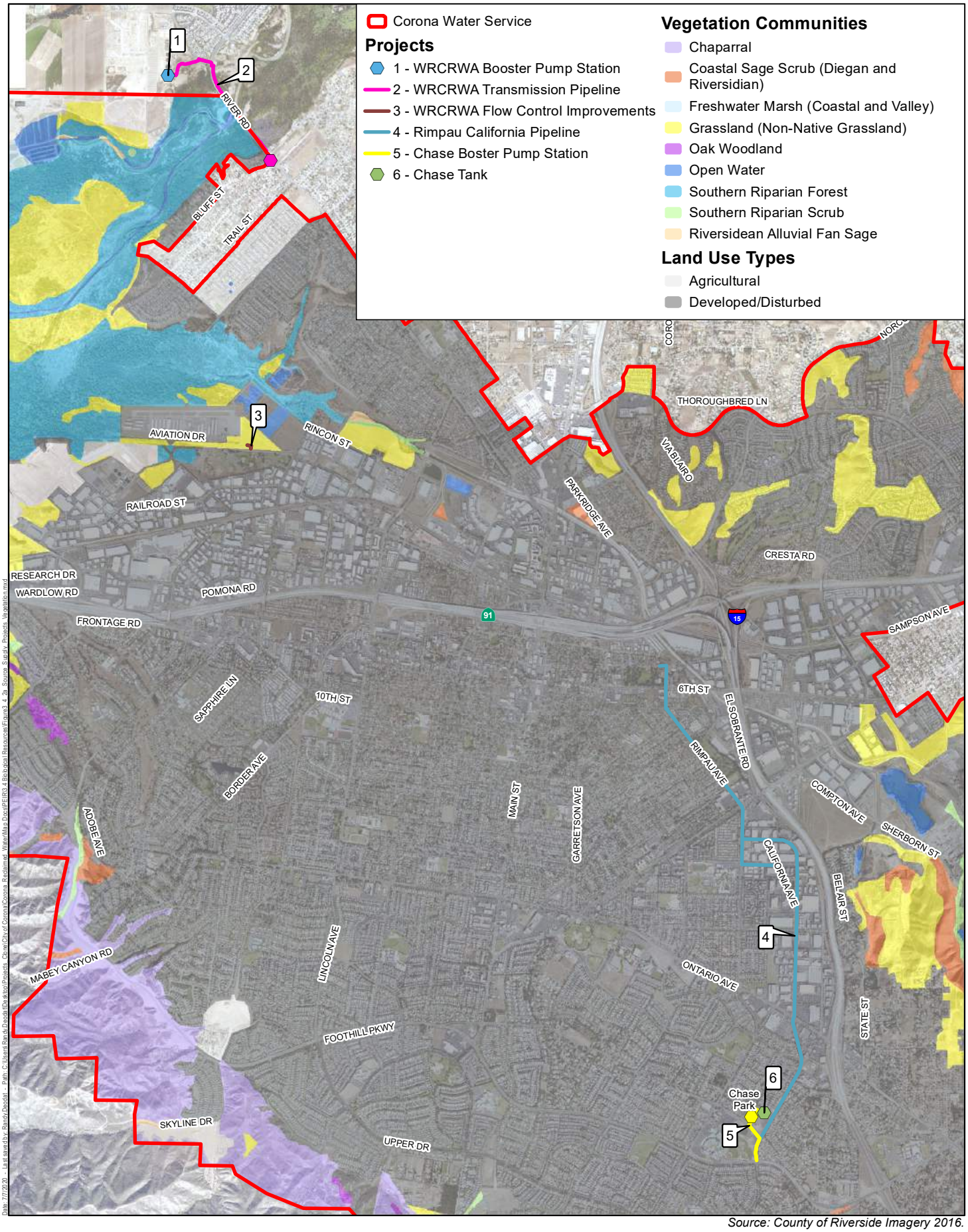
Miles

Figure 3.4-1

Vegetation Communities - Overview

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: County of Riverside Imagery 2016.

Harris & Associates

N

0 2,000 4,000

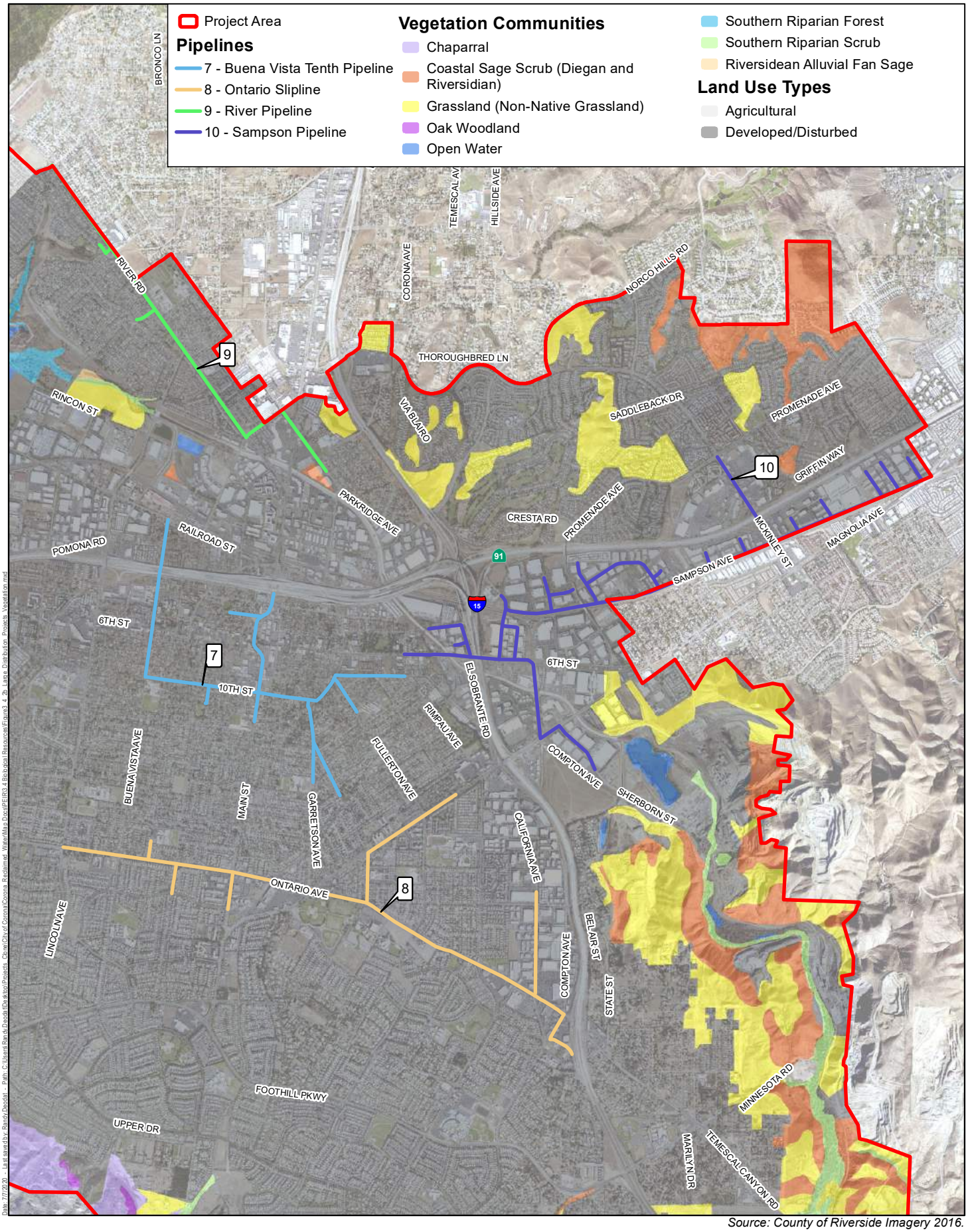
Feet

Figure 3.4-2a

Vegetation Communities, Source of Supply Projects

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: County of Riverside Imagery 2016.

N

0 2,000 4,000

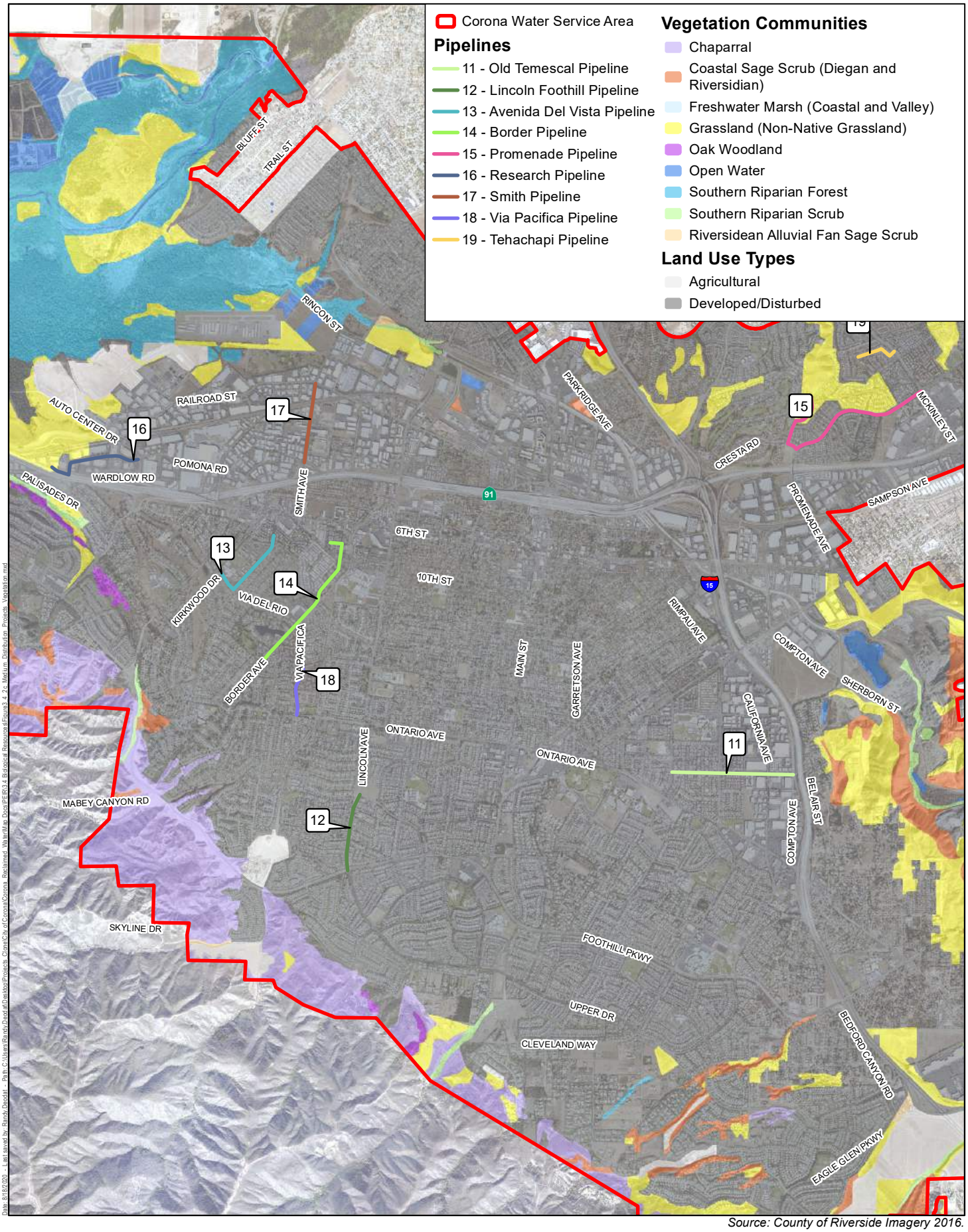
Feet

Figure 3.4-2b

Vegetation Communities, Large Distribution Pipelines

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: County of Riverside Imagery 2016.

Harris & Associates

N

0 2,000 4,000

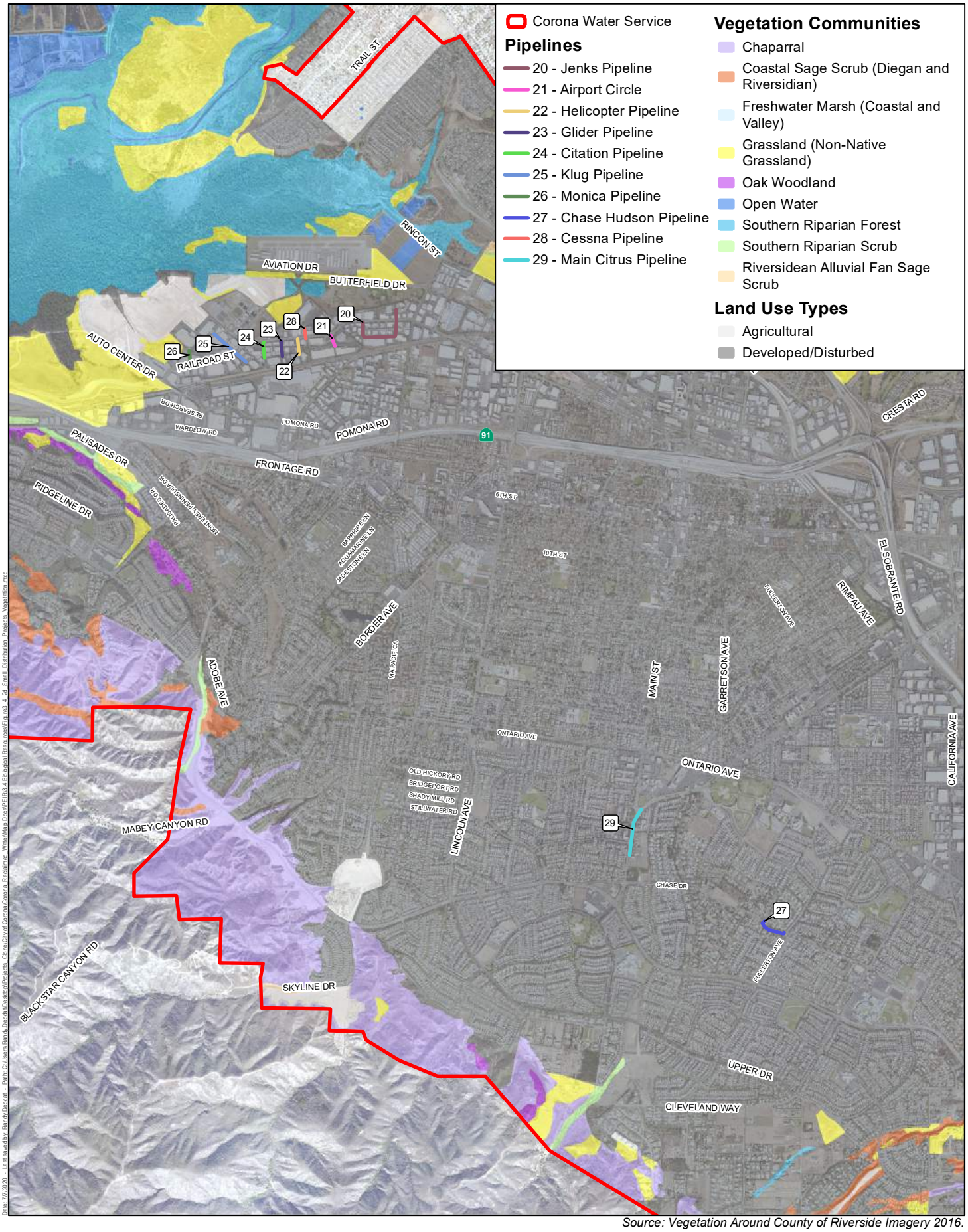
Feet

Figure 3.4-2c

Vegetation Communities, Medium Distribution Pipelines

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: Vegetation Around County of Riverside Imagery 2016.

Harris & Associates

N

0 2,000 4,000

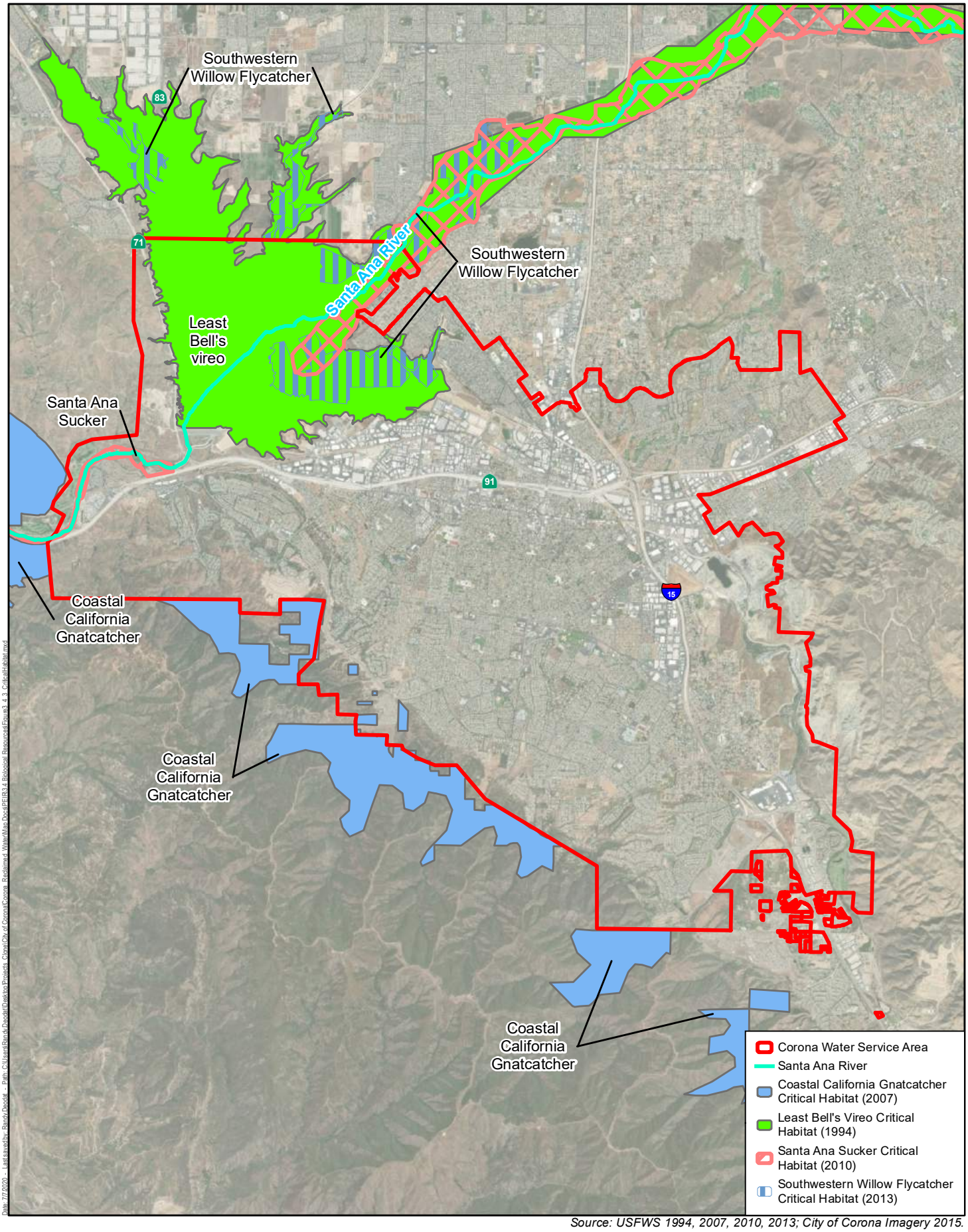
Feet

Figure 3.4-2d

Vegetation Communities, Small Distribution Pipelines

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: USFWS 1994, 2007, 2010, 2013; City of Corona Imagery 2015.

Harris & Associates

N

0 1 2

Miles

Figure 3.4-3

Critical Habitat

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.

3.5 Cultural Resources

This section discusses the potential impacts to potential cultural resources in the City of Corona's (City's) water service area that may result from implementation of the 2018 Reclaimed Water Master Plan (project or 2018 RWMP). The analysis in this section is based in part on the following information: Cultural and Tribal Cultural Resources Technical Report prepared by Red Tail Environmental (2020) for the project (Appendix D).

3.5.1 Environmental Setting

This section describes the environmental setting as it relates to cultural resources for the water service area. The project proposes reclaimed water facilities in various locations throughout the water service area.

3.5.1.1 Prehistoric Period

In the County of Riverside (County) and the surrounding area, there is no consensus on times or terms in which human occupation started. Overall, three general cultural periods are recognized: the Paleo-Indian Period, the Archaic Period, and the Late Prehistoric Period.

Paleo-Indian Period

As in most of North America, the Paleo-Indian Period is the earliest recognized period of California prehistory and coincides with the end of the late Pleistocene, circa 11,000 to 13,000 years before present. The environment was cool and moist, with deep pluvial lakes in the desert and basin lands. However, by the end of the late Pleistocene, the climate became warmer, causing glaciers to melt and sea levels to rise. Inland lakes began to recede and evaporate and there was a great deal of erosion in the coastal areas. The warmer climate also resulted in major vegetation changes and the extinction of Pleistocene megafauna (Appendix D).

Paleo-Indian sites have been identified across most of North America, often referred to as the "Clovis Complex." The Clovis Complex is defined by the use of large fluted projectile points and other large bifacial stone tools. In Southern California and the Colorado Desert, the Clovis Complex is referred to as the "Western Stemmed Point Tradition" and was characterized by leaf-shaped and large-stemmed projectile points, scrapers, and other stone tools. Overall, ground stone use was infrequent in San Dieguito archaeological remains, leading to the belief that the San Dieguito were highly mobile groups and their subsistence practices focused on the hunting of large game.

Several isolated fluted points have been recorded in Southern California, but none have been recorded near the water service area in associated with radiocarbon dates or in association with Pleistocene fauna (Appendix D).

No archaeological sites dating to the Paleo-Indian Period have been identified in the vicinity of the water service area. It is unknown if the lack of Paleo-Indian Period sites relates to a lack of archaeological data or is evidence that the vicinity of the water service area was a less sustainable area than the interior desert or the coastal regions. During this period, the desert interior may have been more suitable to prehistoric occupation than the interior valleys of Southern California, and it is more likely that Paleo-Indian populations in Southern California were centered on the coastal or interior desert regions or around the few large, reliable, drought-resistant water sources present in the inland valley areas (Appendix D).

Archaic Period

The Archaic Period in the vicinity of the water service area was defined by a lengthy time period with little change within the archaeological record. In contrast to the Paleo-Indian Period, the archaeological record in the Archaic Period consisted of a tool kit that focused on collection and processing of small plant seeds and hunting of a variety of medium and small game animals (Appendix D). Across Southern California, this period is often referred to as the "Millingstone Horizon" and is often divided into the Early, Middle, and Late Archaic Period.

There is a discrepancy on the start of the Millingstone Horizon, while Lightfoot and Parrish argues that early milling stone assemblages show that by 9,000 years ago milling tools were in use and that seeds and nuts must have been a dominant food source, other archaeologists argue that the Millingstone Horizon is generally attribute to the Middle to Late Holocene Period and has been identified across much of central and Southern California by ca. 8,000 to 7,000 years before present (Appendix D).

Interior archaeological sites from this period were thought to have been left by seasonally mobile groups with small settlements, based on the availability of food resources. There is little archaeological evidence for group size and type and use of habitation structures in the County for the Middle Holocene.

During this lengthy period, very little technological changes are identified in the archaeological record until approximately 5,000 years ago when there was an increase in sedimentation along the coast. This transformed the estuaries into shallow wetlands, closed several of the lagoons, transformed the coastal areas into sand and mudflats, and limited the kelp forests, causing the coastal region to have a lower level of subsistence resources than in the past. During this time, the deserts became more arid, and there was an increase in use of the inland valleys in the vicinity of the water service area (Appendix D).

Late Prehistoric Period

There are differing opinions between researchers as to whether the shift to the Late Prehistoric Period was caused by new technologies developed by people already living in the area, spurred by

changing environmental conditions, or if it was brought in by a migration of people into Southern California. Archaeological and anthropological evidence suggests that at approximately 1,500 to 1,350 years before present, Takic-speaking (speakers of Uto-Aztecan languages) groups from the Great Basin region moved into Riverside County, marking the transition to the Late Prehistoric Period. In all chronological schemes for Southern California, the Late Prehistoric Period lasted until significant European settlements were initiated in AD 1769.

The Late Prehistoric Period is defined by the introduction of the bow and arrow and ceramic vessels begin to appear at some sites. In addition, during this time, mortuary practices changed from inhumations to cremations. It is thought that this practice came from the north or east, and it is unknown if the transition from inhumations to cremations was adopted for religious or population reasons, or to control the spread of disease. Other hallmarks of the Late Prehistoric Period include an increase in the reliance on plant food sources, small projectile points, increase use of mortars and pestles, the use of obsidian from the Obsidian Butte source and overall an increase in the complexity and diversity of material cultural (Appendix D).

Many of the Late Prehistoric Period archaeological sites are inland and contain bedrock milling features, thought to relate to acorn or other seed processing. People lived in larger coastal and lower valley villages, that were located near permanent water sources. These villages acted as ceremonial and political centers, and may have been occupied, at least partially, year-round. Smaller villages and residential areas were inhabited seasonally and were located near subsistence resources or were used for specialized activities, especially in inland areas (Appendix D). This may have led to an increase in community size, longer stays at the major residences, and different societal organization.

3.5.1.2 Ethnohistory

During the Ethnohistoric period, the region that is currently known as the County of Riverside was a shared-use area and home to three closely related Takic-speaking groups: the Cahuilla, the Gabrielino, and the Luiseño/Juaneño. Settlement patterns for the three groups were very similar, with settlements typically in valley bottoms, along streams, or along coastal strands near mountain ranges. Villages were often in sheltered areas near good water supplies, in a defensive location, or on the side of warm thermal zone slopes. More information can be found in Section 3.18, Tribal Cultural Resources.

3.5.1.3 History

First called “South Riverside,” the City was founded in 1886 by the South Riverside Land and Water Company at the height of the Southern California citrus boom. In 1886, developer Robert Taylor and his partners, Adolph Rimpau, George L. Joy, A. S. Garretson, a Sioux City banker, and ex-governor of Iowa, Samuel Merrill, formed the South Riverside Land and Water Company. Together, they raised approximately $110,000 to purchase approximately 12,000 acres of

agricultural land that had formerly been part of the Rancho La Sierra, and Rancho Temescal land grants. Anaheim engineer H. C. Kellogg was hired, and the colony of South Riverside was laid out encircled by Grand Boulevard, a 100-foot-wide and 3-mile round that had plantings of shade trees along each side of the road. Another bonus was that the "colony" was located on the San Diego branch of the Santa Fe Railroad. To the north along the railroad tracks were the manufacturing plants and packing houses. The southern end of town was mostly occupied by the citrus industry. In 1889, the Temescal Water Company was incorporated to supply water for the new colony. This company purchased all the water-bearing lands in the Temescal valley and began drilling artesian wells. Taylor and his partners realized the importance of water for the soon to be developed community, and additional funds were used to ensure that sufficient water rights were obtained. They also secured the water rights to Temescal Creek, its tributaries and Lee Lake. Dams and pipelines were built to carry the water to the colony. After an initial flurry of expansion, water supplied from Temescal Canyon was not enough for the growing population and increasing agriculture. In 1899, the Corona Irrigation Company purchased 160 acres near Perris that had artesian waters. They constructed a 21-mile cement ditch to bring water to the area (Appendix D).

By 1893, the town boasted a large air-drying lumber yard, a clay and pipe works owned by the Pacific Clay Manufacturing Company, shipments of clay, gypsum, hay grain, and honey were being shipped out. Hundreds of acres of were planted in orange, lemon, and deciduous trees. There were three churches, Baptist, Methodist, and Congregational, and in addition, an Episcopalian group had purchased lots in town and were in the process of building their house of worship. There was a large two-story brick school, a bank, and a three-story hotel. In addition, there was a drug store, a newspaper, two bakeries, and a general merchandise store (Appendix D).

In addition to agricultural pursuits, mining also influence the early development of the City. A tin mine had been discovered in 1857 in the nearby San Jacinto Hills. However, mining in the area did not gain traction until 1888, as the City was the closest town to the mines and contained the most convenient rail depot, both supplies and workers arriving for the mines flowed through the City. While the actual tin mines only remained open for a short time, they brought additional development and residents to the City (Appendix D).

The City became known as the lemon capital of the world. Additional agricultural pursuits included other fruits and alfalfa. By the 1910s approximately a quarter of the residents were involved in the citrus industry. The lemon production spurred the creation of the Exchange By-Products Company, which processed lemons that were not used for food into citric acid, lemon oil, and other products. In addition to being known for its lemon production, the City began auto racing in 1913 at the Corona Road Races on Grand Boulevard. However, the auto race proved to be too dangerous and was stopped after several years. Agriculture remained the main economic activity for decades (Appendix D).

World War II prompted a change in the development of the City away from agriculture, as military bases within the region raised the population and created additional industries outside of agriculture. The Prado Dam, immediately west of the water service area, was completed in May 1941. The Prado Dam was constructed by the U.S. Army Corps of Engineers, Los Angeles District, along the lower Santa Ana River. The dam was constructed as a flood risk management measure, along with recreation and water conservation purposes (Appendix D).

Post-World War II housing needs increase development in the area, and by 1962, the Riverside Freeway (State Highway 91) was constructed through the City. Interstate 15 was constructed, to the east of the City in 1989. By the 1980s, Corona developed into a residential community and the population grew exponentially.

Historic development in the water service area began in the late 1800s in the vicinity of Grand Boulevard. Development in the water service area was focused around the Grand Boulevard circle through the 1920s. By the 1930s, additional development spread farther from Grand Boulevard and in El Cerrito. Through the 1940s, development continued to be focused along Grande Boulevard, south of 6th Street, and in El Cerrito and south of El Cerrito Road. The 1950s show a large increase of development in Coronita, in the City south of 6th Street and in the vicinity of El Cerrito. The 1960s shows the first large scale residential development of track homes in the water service area and this style development continued through the 1970s. The 1980s through the 2010s show a huge increase in development especially in the southern half of the City and along the northern boundary of the City (Appendix D).

3.5.1.4 Cultural Resources

Cultural resources are districts, buildings, sites, structures, areas of traditional use, or objects that represent the physical evidence of human activities. Cultural resources can be divided into two categories: archaeological resources (prehistoric and historic) and built environment resources (architectural). A record search of the California Historical Resources Information System held by the Eastern Information Center for the water service area and a one-quarter mile record search radius was requested on April 1, 2020. However, the Eastern Information Center is currently closed due to COVID-19, with no indication of when they may reopen, and it is unknown when the record search results may be available. Therefore, record search results from the City of Corona General Plan Update Cultural Resources Technical Report were summarized for this Program Environmental Impact Report. The record search area for the General Plan Update project included the entire City and the City's sphere of influence (SOI). The SOI is defined in the City of Corona 2020–2040 General Plan and represents the logical service area of the City for future consideration. Most of the City of Corona 2020–2040 General Plan area and the water service area overlap. Record search information was not available for the northwest corner of the water service area in the Prado Flood Control Basin. However, no projects identified in the 2018 RWMP are in this area.

As indicated from the records search prepared for the City of Corona 2020–2040 General Plan, 172 cultural resources studies were previously conducted within the City's boundaries and its SOI (Table 3.5-1). The studies date back to 1937, with the most recent from 2016. See Appendix D for a complete list of the studies including author, title, and location.

The records search indicated that 96 previously recorded cultural resources are in the water service area as the majority of the boundary overlap that of the City and SOI. The previously recorded resources include archaeological sites, historic addresses, and isolates. Eighty-three of the cultural resources are in the City, 10 cultural resources have been recorded in the SOI, and three cultural resources intersect both the City and the SOI. The 96 previously recorded resources consist of 28 prehistoric resources, 66 historic resources, and 2 multicomponent resources. A complete list of the previously recorded cultural resources can be found in Appendix D.

3.5.1.5 Built Environmental Resources

The City of Corona 2020–2040 General Plan records search also indicated that 30 historic addresses have been previously recorded in the water service area (Table 3.5-1).

Table 3.5-1. Built Environmental Resources within the City's Water Service Area

Primary Number	Trinomial	Address	Parcel Number	USGS Topographic Quadrangle	Recorder and Date	Location
P-33-014754	—	—	—	Corona North	Winn, R., and Winn, M. (2005)	City of Corona
P-33-017926	—	Corona City Park	—	Corona North, Corona South	Dice, M.H. (2009)	City of Corona
P-33-020200	—	—	107-020-012	Corona South	Yates, T. (2011)	City of Corona
P-33-020201	—	14282 E. 6th Street	107-030-003	Corona South	Yates, T. (2011) Smallwood, J. (2012)	City of Corona
P-33-020202	—	—	107-030-022	Corona South	Yates, T. (2011)	City of Corona
P-33-020204	—	—	107-040-006	Corona South	Yates, T. (2011)	City of Corona
P-33-020203	—	—	107-040-005	Corona South	Yates, T. (2011)	City of Corona and SOI
P-33-020205	—	—	107-060-003	Corona South	Yates, T. (2011)	City of Corona
P-33-020206	—	—	107-060-008 107-060-009	Corona South	Yates, T. (2011)	City of Corona
P-33-020207	CA-RIV-20207	—	115-090-003	Corona South	Yates, T. (2011)	City of Corona
P-33-020208	—	—	117-031-001	Corona North	Yates, T. (2011)	City of Corona

Table 3.5-1. Built Environmental Resources within the City's Water Service Area

Primary Number	Trinomial	Address	Parcel Number	USGS Topographic Quadrangle	Recorder and Date	Location
P-33-020209	—	—	117-031-002	Corona North	Yates, T. (2011)	City of Corona
P-33-020210	—	—	117-031-036	Corona North	Yates, T. (2011)	City of Corona
P-33-020211	—	—	119-041-013	Corona North	Yates, T. (2011)	City of Corona
P-33-020212	—	—	119-041-014	Corona North	Yates, T. (2011)	City of Corona
P-33-020213	—	—	119-041-015	Corona North	Yates, T. (2011)	City of Corona
P-33-020225	—	—	119-041-016	Corona North	Yates, T. (2011)	City of Corona
P-33-020226	—	—	119-041-017	Corona North	Yates, T. (2011)	City of Corona
P-33-020227	—	—	119-041-018	Corona North	Yates, T. (2011)	City of Corona
P-33-020229	—	—	119-041-020	Corona North	Yates, T. (2011)	City of Corona
P-33-020231	—	1108 Serene Drive	119-041-022	Corona North	Yates, T. (2011)	City of Corona
P-33-020232	—	1002 Peaceful Drive	119-041-024	Corona North	Yates, T. (2011)	City of Corona
P-33-020233	—	1090 Serene Drive	110-043-001	Corona North	Yates, T. (2011)	City of Corona
P-33-020234	—	1082 Serene Drive	119-043-002	Corona North	Yates, T. (2011)	City of Corona
P-33-020235	—	1070 Serene Drive	119-043-003	Corona North	Yates, T. (2011)	City of Corona
P-33-020236	—	1058 Serene Drive	119-043-004	Corona North	Yates, T. (2011)	City of Corona
P-33-020237	—	1050 Serene Drive	119-043-005	Corona North	Yates, T. (2011)	City of Corona
P-33-024119	CA-RIV-11860	Sidebotham (Phillips) Quarry	—	Corona South	Goodwin, R. (2014)	City of Corona
P-33-024207	—	—	—	Corona North	Yates, T. (2012)	City of Corona
P-33-024551	CA-RIV-12171	—	—	Prado Dam	Goodwin, R. (2015)	City of Corona

Source: Appendix D.

In the City, six historic properties are defined as listed or eligible for listing on the National Register of Historic Places (NRHP). The six properties listed on the NRHP are also automatically

eligible for listing to the California Register of Historical Resources (CRHR). These properties are described below.

Carnegie Library (1906): This neo-classical building was designed by Los Angeles architect Franklin Pierce Burnham with construction completed on July 2, 1906. The exterior was cream and red colored pressed brick, with stone and concrete trim. It was symmetrically designed with a central staircase flanked by sloping banisters, which held decorative iron lights. The entrance was topped by an overhanging triangular pediment with ornate plaster designs and supported by fluted Ionic columns on either side. This building served as the City's public library until July 3, 1971, when a much larger public library facility was constructed several blocks away. The building remained empty for the next 6 years. Despite efforts to have it restored, it fell into disrepair and was damaged by fires and vandalism; the building was demolished April 18, 1978.

Corona Heritage Park (1900): This 5-acre complex was the headquarters for the Corona Foothill Lemon Company, the largest citrus ranch in the area in the early 1900s. The various buildings within the complex were primarily constructed between 1913 and 1937, and are largely intact today. The Corona Heritage Foundation is restoring the complex as a historic park and museum facility.

Corona High School/Civic Center (1923): Originally constructed as the City's second high school, it became the Civic Center in 1961. The classic Spanish Revival architecture and expansive front lawns make it a recognizable feature in Corona's downtown area.

Grand Boulevard Historic District (1886): This unique circular roadway was a prominent design element in the original layout for the townsite. The City derives its longstanding moniker "The Circle City" from the boulevard. Internationally acclaimed road races were held on this street in 1913, 1914, and 1916, drawing more than 100,000 spectators, as well as racing legends. The boulevard displays wide parkways, large mature trees, and historic streetlights fronting grand homes and more modest bungalows along its route.

Women's Improvement Club Clubhouse (1913): Southern California architect Thomas Preston designed this one-story, multi-gabled, Craftsman-style bungalow clubhouse that was built in 1913. The club was formed in 1899 as a civic organization called the "Town Improvement Association;" it changed its name to the "Women's Improvement Club of Corona" in 1902. The building's architectural features include painted wood shingles on the exterior walls, a steep-gabled main roof with clipped gables over the side wings, an original oak front door with beveled glass, and wooden porch piers on a prominent brick base. It was added to the National Register on November 3, 1988, and is the only remaining structure within City limits with that status.

Corona Theater Landmark Building (1929): The Spanish Revival-style Corona Theater, also known as the "Landmark Building," was designed by Southern California architect Carl Boller and dedicated on August 29, 1929. Various celebrities, including Al Jolson, Laurel and Hardy, and Irving

Berlin, attended its grand opening ceremonies. Its L-shaped design features a two-story elevation in front and three stories in the rear, with separate segments of varying heights topped by individual gable roofs and interspersed with hipped roof towers. The building was constructed of brick, with stucco on its front elevation. Some remodeling has been done to the exterior, but significant details remain. Over the years, the building has had various uses, including commercial office space, a Masonic Lodge meeting hall, and a large theater. The building is the only pre-Depression Era theater remaining in the City and has been determined eligible for the National Register.

Nine other properties are eligible for the CRHR:

- Jefferson Elementary School (1927)
- Barber Home (1893) – Eastlake
- 1101 S. Ramona Avenue (1915) – Vernacular Wood Frame with Classical revival Elements
- Terpening House (1899) – Queen Anne
- Corona First Methodist Church (1914) – Tudor Revival
- 401 East 8th Street (1908) – Vernacular Wood Frame
- Camp Haan Barracks (1942) – Vernacular Wood Frame
- 517 E 8th Street (1896)
- El Gordo Caballo Ranch (1939)

Five state historic landmarks are in the water service area:

Butterfield Stage Station (No. 188): Site of Butterfield Stage Station where mail was delivered and horses changed. The first stage carrying overland mail left Tipton, Missouri, on September 15, 1858, and, passing through Temescal, arrived in Los Angeles on October 7, 1858.

Painted Rock (No. 190): In tribute to the earliest record of any people in this region, the Santa Fe Railway has preserved this rock with its ancient pictograph, and the Committee of the Corona Women's Improvement Club has placed a tablet.

Ruins of the Third Serrano Adobe (No. 224): Don Leandro Serrano set out orchards and vineyards and cultivated some of the fertile lands of the Temescal Valley. In the 1840s, he built his third adobe, which the Serrano family occupied until 1898, on the well-traveled road between San Diego and Los Angeles.

Old Temescal Road (No. 638): This route was used by Luiseño and Gabrielino Indians, whose villages were nearby. Leandro Serrano established a home here in 1820. Jackson and Warner traveled the road in 1831 and Frémont in 1848. It was the southern emigrant road for gold seekers from 1849 to 1851, the Overland Mail route from 1858 to 1861, and a military road between Los Angeles and San Diego from 1861 to 1865.

Corona Founders Monument (No. 738): R.B. Taylor, George L. Joy, Samuel Merrill, A.S. Garretson, and Adolph Rimpau, after purchasing lands of La Sierra Rancho and El Temescal grant, founded the citrus colony and Town of Corona on May 4, 1886.

The City also contains two state historic points of interest:

- Bandini-Cota Adobe Site
- Temescal Tin Mines CRHR – the location of the first tin mine in the area dating back to 1859

The City contains 57 historic landmarks as identified in Table 3.5-2.

Table 3.5-2. City of Corona Historic Landmarks

Historic District (HD)/ Historic Landmark (HL Number	Address	APN	Description	Date Approved by Corona City Council
HD-001	510 W. Foothill Avenue	114-350-046	Heritage Park District	May 16, 2001
HD-002	2750 S. Rimpau Avenue	120-121-028	Lemonia Grove District	May 16, 2001
HD-003	2837 S. Kellogg Avenue	120-072-008	Kammeyer Ranch District	May 16, 2001
HD-004	1125 S. Rimpau Avenue	111-290-024	Sunny Slope Cemetery District	May 16, 2001
HD-005	930 E Sixth Street	117-310-001	City Park District	May 16, 2001
HD-006	Grand Blvd Circle	Not Available	Grand Boulevard Streetscape District	May 16, 2001
HD-007	Chase Drive (Garretson to Foothill)	Not Available	Chase Drive Palm Trees District	May 16, 2001
HD-008	Rimpau Avenue (Old Temescal Road to Chase)	Not Available	Rimpau Avenue Palm Trees District	May 16, 2001
HD-009	Main Street (Olive to Chase)	Not Available	South Main Street Palm Trees District	May 16, 2001
HD-010	Palisades Drive (1 mile from Green River/Wardlow Wash Bridge)	Not Available	Palisades Drive Roadway District	June 3, 2015
HL-001	1101 S. Main Street	117-266-006	Woman's Improvement Club	May 16, 2001
HL-002	815 W. Sixth Street	118-270-049	Historic City Hall	May 16, 2001
HL-003	900 S. Victoria Avenue	117-236-001	Victoria Park/Old Lincoln Cemetery	May 16, 2001
HL-004	722/423 S. Joy Street/Eighth	117-206-009	Joy Street Market and Residence	Revoked On Nov 18, 2009
HL-005	1169 E. Grand Boulevard	Not Available	Not Available	May 16, 2001
HL-006	1156 E. Grand Boulevard	Not Available	Not Available	May 16, 2001
HL-007	1148 E. Grand Boulevard	Not Available	Not Available	May 16, 2001
HL-008	1136 E. Grand Boulevard	Not Available	Not Available	May 16, 2001

Table 3.5-2. City of Corona Historic Landmarks

Historic District (HD)/ Historic Landmark (HL Number	Address	APN	Description	Date Approved by Corona City Council
HL-009	1036 E. Grand Boulevard	Not Available	Not Available	May 16, 2001
HL-010	822 S. Joy Street	117-241-001	Not Available	September 17, 2001
HL-011	1314 S. Victoria Avenue	109-041-014	Not Available	July 17, 2001
HL-012	1147 E. Grand Boulevard	Not Available	Not Available	September 18, 2002
HL-013	123 W. Eleventh Street	117-254-012	Vernacular Wood Frame	July 16, 2003
HL-014	1214 S. Belle Avenue	110-192-018	Vernacular Wood Frame	July 16, 2003
HL-015	616 W. Eleventh Street	110-172-009	Provincial Revival	January 7, 2004
HL-016	1315 S. Main Street	109-041-002	Mediterranean/ Spanish Revival	October 20, 2004
HL-017	818 S. Howard Street	117-233-022	Queen Anne	October 20, 2004
HL-018	1128 E. Grand Boulevard	117-263-016	Vernacular Wood Frame	October 19, 2005
HL-019	1052 E. Grand Boulevard	117-264-005	Victorian (mixed style)	May 3, 2006, Dec. 19, 2007
HL-020	809 E. Grand Boulevard	111-022-011	Not Available	May 3, 2006
HL-021	1052 E. Grand Boulevard	Not Available	Not Available	July 5, 2006
HL-022	1170 E. Grand Boulevard	117-265-010	Mediterranean/ Spanish Revival	August 16, 2006
HL-023	1301 S. Main Street	109-041-004	Vernacular Wood Frame w/ Craftsman Bungalow Elements	October 4, 2006
HL-024	1124 Palm Avenue	109-033-005	Vernacular Wood Frame	October 18, 2006
HL-025	920 S. Victoria Avenue	117-237-002	Bungalow	October 18, 2006
HL-026	1107 W. Grand Boulevard	117-252-022	Vernacular Wood Frame	May 16, 2007
HL-027	1120 Palm Avenue	109-033-004	Vernacular Wood Frame	June 20, 2007
HL-028	824 S. Sheridan Street	117-221-001	Vernacular Wood Frame	June 20, 2007
HL-029	623 S. Merrill Street	117-173-016	Victorian (mixed style)/Queen Anne	July 18, 2007

Table 3.5-2. City of Corona Historic Landmarks

Historic District (HD)/ Historic Landmark (HL Number	Address	APN	Description	Date Approved by Corona City Council
HL-030	1047 E. Grand Boulevard	109-031-002	Not Available	September 5, 2007
HL-031	1101/1103 S. Victoria Avenue	117-263-014	Transitional Bungalow	October 17, 2007
HL-032	1133 E. Grand Boulevard	109-022-002	Not Available	August 6, 2007
HL-033	914 S. Victoria Avenue	117-237-012	Vernacular Wood Frame w/ Bungalow Elements	October 17, 2007
HL-034	1164 E. Grand Boulevard	117-265-009	Not Available	July 16, 2008
HL-035	1208 Palm Avenue	109-033-007	Bungalow	September 17, 2008
HL-036	122 E. Olive Street	109-041-006	Bungalow	September 17, 2008
HL-037	1222 S. Victoria Avenue	109-021-011	Vernacular Wood Frame	September 17, 2008
HL-038	934 E. Grand Boulevard	117-243-009	Not Available	September 17, 2008
HL-039	802 W. Grand Boulevard	110-112-007	Not Available	October 21, 2009
HL-040	805/809 S. Ramona Avenue	117-232-007	Gothic Revival	August 5, 2009
HL-041	1127 E. Grand Boulevard	109-022-003	Not Available	September 1, 2010
HL-041	1127 E. Grand Boulevard	109-022-003	Not Available	September 1, 2010
HL-042	353 E. Olive Street	109-033-012	Not Available	July 17, 2013
HL-043	1031 E. Grand Boulevard	109-031-004	Not Available	September 17, 2014
HL-044	1518 S. Main Street	109-072-008	Not Available	September 16, 2015
HL-045	119 E. Kendall Street	109-041-021	Vernacular Wood Frame	September 17, 2016
HL-046	502 W. Eleventh Street	110-172-020	Mission Revival	October 18, 2017

Source: Appendix D.

The City also contains 10 historic markers as shown in Table 3.5-3. The Corona High School and Civic Center is also eligible for listing on the NRHP, and the Jefferson Elementary School is also eligible for listing on the CRHP.

Table 3.5-3. City of Corona Historic Markers

Historic Marker Number	Description	Location	Date Built	Date Dedicated
HM-00	Corona Road Races	W. Grand Boulevard and Main Street	1913	1986
HM-01	Corona High School and Civic Center	W. Sixth Street and Buena Vista Avenue	1023	Date Not Available
HM-02	First Congregational Church	Ramona and Eighth Street	1887, 1911	Date Not Available
HM-03	First Corona Police Office Killed in Line of Duty Memorial	Sixth Street and Howard	1913	Date Not Available
HM-04	Jefferson Elementary	Tenth Street and Vicentia Street	1927	Date Not Available
HM-05	Site of Corona's First Fire Station	S. Main and Eighth Street	1898	1998
HM-06	Site of Lincoln Elementary School	Howard and Ninth Street	1889, 1914	1998
HM-07	Original Site of Victoria Hotel	E. Sixth Street and Victoria Avenue	1904	1999
HM-08	Site of First Corona Hospital	Eighth St and Belle Street	1933	1999
HM-09	Corona's First High School and Middle School	Main Street and Grand Boulevard	1937	2000

Source: Appendix D.

3.5.2 Regulatory Setting

This section describes the federal, state, and local regulatory framework adopted to protect cultural resources.

3.5.2.1 Federal

National Historic Preservation Act

The National Historic Preservation Act of 1966 established the NRHP as the official federal list of cultural resources that have been nominated by state offices for their historic significance at the local, state, or national level. Listing in the NRHP provides recognition that a property is significant to the nation, the state, or the community and assumes that federal agencies consider historic values in the planning for federal and federally assisted projects. Properties listed in the NRHP, or "determined eligible" for listing, must meet certain criteria for historic significance and possess integrity of form, location, and setting. Structures and features must usually be at least 50 years old to be considered for listing in the NRHP, barring exceptional circumstances. Criteria for listing in the NRHP, which are set forth in Title 36, Part 63, of the Code of Federal Regulations, are significance in American history, architecture, archaeology, engineering, and culture is present

in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association; and that are:

A. Associated with events that have made a significant contribution to the broad patterns of our history; or

B. Associated with the lives of persons significant in our past; or

C. Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values; represent a significant and distinguishable entity whose components may lack individual distinction; or

D. Have yielded, or may be likely to yield, information important in prehistory or history.

Eligible properties must meet at least one of the criteria and exhibit integrity, measured by the degree to which the resource retains its historic properties and conveys its historic character, the degree to which the original fabric has been retained, and the reversibility of changes to the property. The fourth criterion is typically reserved for archaeological and paleontological resources. These criteria have largely been incorporated into the California Environmental Quality Act (CEQA) Guidelines as well (see Section 3.5.4.1 in reference to CEQA Guidelines, Section 15064.5).

3.5.2.2 State

CEQA and California Register of Historical Resources

CEQA requires that all private and public activities not specifically exempted be evaluated against the potential for environmental damage, including effects to historic resources. Historic resources are recognized as part of the environment under CEQA. The act defines historic resources as "any object, building, structure, site, area, or place that is historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (California Public Resources Code, Section 5021.1[b]).

Lead agencies have a responsibility to evaluate historic resources against the CRHR criteria before making a finding as to a proposed project's impacts to historic resources. Mitigation of adverse impacts is required if the proposed project will cause substantial adverse change. Substantial adverse change includes demolition, destruction, relocation, or alteration such that the significance of a historic resource would be impaired. While demolition and destruction are fairly obvious significant impacts, it is more difficult to assess when change, alteration, or relocation crosses the threshold of substantial adverse change. The CEQA Guidelines provide that a project that demolishes or alters those physical characteristics of a historic resource that convey its historic significance (i.e., its character-defining features) is considered to materially impair the resource's significance. The CRHR is used in the consideration of historic resources relative to significance for purposes of CEQA. The CRHR includes resources listed in, or formally determined eligible for listing in, the NRHP and some California State Landmarks and Points of Historical Interest.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts), or that have been identified in a local historic resources inventory, may be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise.

Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the CRHR (California Public Resources Code, Section 5024.1; CEQA Guidelines, Section 4852), which consist of the following:

- **Criterion 1:** it is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
- **Criterion 2:** it is associated with the lives of persons important to local, California, or national history; or
- **Criterion 3:** it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
- **Criterion 4:** it has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

3.5.2.3 Local

Corona Historic Resources Ordinance

The Corona Historic Resources Ordinance is described within Chapter 17.63 of the Corona Municipal Code. The Corona Historic Resources Ordinance was established to promote the recognition, preservation, and continued viability of historic resources in the City in the interest of prosperity, social and cultural enrichment, and the general welfare of the people of the City. The Corona Historic Resources Ordinance is based on the following principles:

A. Encouraging knowledge and civic pride in the character of Corona's heritage and its many historic resources, in accordance with the declaration of intent and purpose in the City's General Plan;

B. Providing a process and register for the public identification and official recognition of Corona's many historic resources;

C. Establishing processes for the thoughtful review of plans for future projects and developments that could affect the management and preservation of Corona's historic resources;

D. Encouraging and assisting Corona's private property owners with the management and preservation of their own historic resources and properties;

E. Promoting the management and preservation of Corona's historic resources, including historic districts, that reflect the City's diverse cultural, social, artistic, economic, engineering, political and architectural heritage;

F. Enhancing Corona's cultural heritage as a general attraction to residents, tourists, businesses, industries and development enterprises, thereby strengthening Corona's general economy around its core heritage areas; and

G. Promoting the use of Corona's historic resources and districts for the education, enjoyment and welfare of the people of the City.

The Corona Historic Resources Ordinance also provided for the establishment of the Corona Register of Historical Resources and Corona Heritage Inventory. It also authorized the property preservation/tax reduction program, historic markers program, and historic design guidelines, which set the standards by which buildings are evaluated for the Corona Register of Historic Resources and Heritage Inventory.

Corona Register of Historic Resources (Corona Register)

As a Certified Local Government in the Federal Historic Preservation Program, the City pledged its commitment to historic preservation. The Corona Register of Historic Resources (Corona Register) includes landmarks, historic markers, and historic districts and the contributing historic resources within such historic districts. Sites, improvements and natural features within the City's boundaries that are listed on the California Register or National Register shall automatically be deemed listed on the Corona Register. The Corona Register has separate criteria for landmarks, historic districts and historic markers.

Landmarks are those physical elements of the City's historic development that provide the community with its own unique civic identity and character. A site, improvement or natural feature shall be eligible for listing on the Corona Register as a landmark if the City Council finds that all of the following criteria are satisfied:

1. It has been in existence for a period of at least 50 years, or if less than 50 years old, is of exceptional importance to the community;
2. It has significant historic, cultural or architectural value and its designation as a landmark is reasonable, appropriate and necessary to promote, preserve and further the purposes and intent of this chapter;
3. It exhibits one or more of the following characteristics:

a. It is associated with events that have made a significant contribution to the history of Corona, the region, the state or the nation;
b. It is associated with the lives of persons significant in Corona's past;
c. It embodies distinctive characteristics of a style, type, period or method of construction or a valuable example of the use of materials or craftsmanship;

d. It exemplifies or reflects special elements of the City's cultural, social, economic, political, aesthetic, engineering, architectural or natural history;
e. It is representative of the work of a notable builder, designer or architect;
f. It exemplifies one of the best remaining architectural styles or types in a neighborhood or contains outstanding elements of architectural design, detail, materials or craftsmanship of a particular historic period;
g. It is in a unique location or contains physical characteristics representing an established and familiar visual feature of a neighborhood;
h. It is a potential source of archaeological or paleontological interest;
i. It is or contains a natural setting or feature that strongly contributes to the well being of the people of the City;

4. It has integrity of location, design, setting, materials, workmanship, feeling and association:

    a. Integrity is the authenticity of an historic resource's physical identity, as evidenced by the survival of characteristics that existed during the historic resource's period of significance, to be recognizable and to convey the reasons for its significance;

b. A site, improvement or natural feature that has diminished historic character or appearance may still have sufficient integrity for the Corona Register if it retains the potential to yield significant scientific or historical information or specific data or retains sufficient character to convey the reasons for its significance. Thus, it is possible that a site, improvement or natural feature may not retain sufficient integrity to meet the criteria for listing on the California Register or National Register, but it may still be eligible for listing on the Corona Register;
c. Integrity shall be judged with reference to the particular criterion or criteria which provide its eligibility. An improvement removed from its original location shall be eligible if it is significant primarily for its architectural value or it is the surviving structure most importantly associated with an historic person or event.

A historic district is a geographically defined area possessing a concentration of contributing historic resources that relate to each other and are unified by physical development or historic context. A defined area shall be eligible for listing on the Corona Register as an historic district if the City Council finds that all the following criteria are satisfied:

1. The defined area is a unified geographical area with precisely defined boundaries;
2. The defined area contains a significant concentration of individually recognized contributing historic resources united in character by an historic plan, physical development, cultural heritage, past events, an historic period or prehistory era, aesthetics design or architectural traditions;

3. At least 75 percent of the contributing historic resources in the defined area are 50 years of age or older and retain their original architectural character;
4. The civic and historic value of the contributing historic resources is greater as a collective whole than as individual historic resources;
5. The defined area has significant historic, cultural or architectural value and its designation as an historic district promotes, preserves and furthers the purposes and intent of this chapter.

Upon the listing of an historic district on the Corona Register, all identified contributing historic resources in the historic district shall be individually listed on the Corona Register, along with notation of the historic district's noncontributing resources.

A Historic Marker is defined as a sign, plaque, monument, or other symbol that may be listed on the Corona Register by resolution of the City Council or placed by the City of Corona Historic Preservation Society for the purpose of recognizing one or more of the following:

1. Events that have made a significant contribution to the history of Corona, the region, the state or the nation;
2. Persons significant in Corona's past;
3. Examples of distinctive characteristics of a style, type, period or method of construction or a valuable example of the use of materials or craftsmanship;
4. Special elements of the City's cultural, social, economic, political, aesthetic, engineering, architectural or natural history;
5. The work of a notable builder, designer or architect;
6. Outstanding elements of architectural design, detail, materials or craftsmanship of a particular historic period;
7. A unique location or physical characteristic representing an established and familiar visual feature of a neighborhood;
8. An archaeological or paleontological site; or
9. A natural setting or feature that strongly contributes to the wellbeing of the people of the City. The actual site, improvement or natural feature that is designated by the historic marker may or may not be listed, or may or may not be eligible for listing, on the Corona Register or the Corona Heritage Inventory.

Corona Heritage Inventory

The Corona Heritage Inventory includes only heritage properties listed by the Planning Commission. Heritage properties listed on the Corona Heritage Inventory may or may not be eligible for listing on the Corona Register. To be listed on the Corona Heritage Inventory a site, improvement, or natural feature must satisfy all of the following criteria:

A. An official survey describing the features, merits and quality of the site, improvement or natural feature has been prepared;

B. The site, improvement or natural feature is identified as a potential resource to be conserved because of its age, and either its context in the neighborhood, its association with a historic event or period or its significance to the architectural, engineering, scientific, economic, agricultural, educational, cultural, social, artistic, political or military history of Corona.

3.5.3 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a significant impact related to cultural resources would occur if the project would (CEQA Guidelines, Section 15000 et seq.):

1. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5
3. Disturb any human remains, including those interred outside of formal cemeteries

3.5.4 Environmental Analysis

3.5.4.1 Threshold 1: Historic Resources

Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Impact Analysis

Based on the historic and archival research conducted for the project, historic resources pursuant to Section 15064.5 may be present in the water service area as described in Section 3.5.1.5.

Construction of the projects identified in the 2018 RWMP would largely occur in existing roadway rights-of-way and developed areas. The demolition or direct physical alteration of potential historic structures, historic districts, or other built environment resources would be unlikely based on the type of facilities included in the project.

Construction of the projects identified in the 2018 RWMP could result in temporary vibration-related effects in the immediate vicinity of the construction from the use of heavy equipment and machinery, as construction activities can produce varying degrees of ground vibration depending on the equipment and methods employed and localized soil conditions. As discussed in Section 3.13, Noise, construction activities would require the use of vibratory roller. Vibration from operation of a vibratory roller would have the potential to generate vibration levels of 0.12 peak particle velocity up to approximately 40 feet from equipment operation. However, because exact future project alignments and construction fleets are unknown, construction that would involve the

use of vibratory equipment within 40 feet of a historic structure where present and eligible for the NRHP, CRHR, or Corona Register would have the potential to result in damaging vibration levels that would result in a substantial adverse change in a historic resource.

Once constructed, future maintenance and operational activities would be restricted to the City's existing rights-of-way or existing site locations, and therefore, no encroachment into adjacent properties would occur. Based on these considerations, no substantial adverse change to historic resources would result from future maintenance and operational activities.

Level of Significance Before Mitigation

Implementation of the project would have the potential to cause a substantial adverse change in the significance of a historic resource pursuant to CEQA Guidelines, Section 15064.5, due to vibration from construction activities. Impacts would be potentially significant.

Mitigation Measures

Implementation of Mitigation Measure CUL-1 would reduce potential impacts to historic resources to below a level of significance.

CUL-1: **Construction-Related Vibration.** Construction plans for individual projects under the 2018 Reclaimed Water Master Plan shall include a requirement that no vibratory equipment be operated within 40 feet of a structure eligible or listed on the National Register of Historic Places, California Register of Historical Resources, or Corona Register. Instead, alternative construction equipment shall be used, such as smooth wheel rollers without a vibratory component. This requirement shall be included on individual project Construction Plans and be submitted to the City of Corona, Public Works Department, for review before approval of final design.

For structures that have not been previously evaluated, the City Engineer shall consult with a qualified Architectural Historian, approved by the City of Corona, to conduct an evaluation of the structure. If the structure is determined eligible or already eligible or listed in the National Register of Historic Places, California Register of Historical Resources, or Corona Register, structural evaluation shall be conducted by a Professional Structural Engineer to identify maximum allowable levels of vibration during construction. If a historic determination is required, the engineer shall provide recommendations on approaches to stabilization in conjunction with vibration monitoring. Permanent stabilization measures shall follow the Secretary of the Interior's guidelines for the treatment of historic properties. If the buildings are temporarily stabilized for the duration of construction activities, when removed, the buildings shall be restored to their preconstruction condition when the stabilization measures are removed.

Level of Significance After Mitigation

Implementation of Mitigation Measure CUL-1 would reduce impacts to a less than significant level.

3.5.4.2 Threshold 2: Archaeological Resources

Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Impact Analysis

Implementation of the projects identified in the 2018 RWMP would have the potential to impact archaeological resources pursuant to CEQA Guidelines, Section 15064.5, due to construction activities including clearing, trenching, and grading activities associated with the construction of pipelines, underground structures, or other related facilities, which may result in disturbing native soil outside of previously excavated trenches.

As shown on Figures 3.5-1a through 3.5-1d, much of the water service area has been identified as having a moderate to high sensitivity for cultural resources. Sensitivity is based on previously recorded archaeological findings and has not included ethno-historic or ethno-botanic research to further identify traditional cultural properties/tribal cultural landscapes. As described in Section 3.5.1.4, 96 previously recorded cultural resources are in the water service area. As shown in Table 3.5-4, 13 of the resources are within 100 feet of a project identified in the 2018 RWMP, and an additional 3 resources are intersected by a project identified in the 2018 RWMP.

Table 3.5-4. Cultural Sensitivity and Known Resource Locations for the 2018 RWMP Projects

Project Component Number	Project Component	Known Resources Intersected	Known Resources within 100 Feet	Cultural Resource Sensitivity of the Project Component
1	WRCRWA Booster Pump Station*	NA	NA	NA
2	WRCRWA Transmission Pipeline	None	None	High
3	WRCRWA Flow Control Improvements	None	None	High
4	Rimpau California Pipeline	None	P-33-017926	Moderate, High
5	Chase Booster Pump Station	None	None	Moderate
6	Chase Tank	None	None	Moderate
7	Buena Vista Tenth Pipeline	None	P-33-014754 P-33-024188	High
8	Ontario Slipline	None	P-33-024855	Moderate, High

Table 3.5-4. Cultural Sensitivity and Known Resource Locations for the 2018 RWMP Projects

Project Component Number	Project Component	Known Resources Intersected	Known Resources within 100 Feet	Cultural Resource Sensitivity of the Project Component
9	River Pipeline	None	P-33-020211 P-33-020212 P-33-020213 P-33-020225 P-33-020226 P-33-020233 P-33-020235 P-33-020237	Moderate, High
10	Sampson Pipeline	P-33-001438 P-33-003832	P-33-020207 P-33-020202	Moderate, High
11	Old Temescal Pipeline	None	None	Moderate, High
12	Lincoln Foothill Pipeline	None	None	Moderate
13	Avenida Del Vista Pipeline	None	None	High
14	Border Pipeline	None	None	Moderate, High
15	Promenade Pipeline	None	None	Moderate
16	Research Pipeline	None	None	Moderate, High
17	Smith Pipeline	None	None	Moderate, High
18	Via Pacifica Pipeline	None	None	Moderate
19	Tehachapi Pipeline	None	None	Moderate
20	Jenks Pipeline	None	None	Moderate
21	Airport Circle Pipeline	None	None	Moderate
22	Helicopter Pipeline	None	None	Moderate
23	Glider Pipeline	None	None	Moderate
24	Citation Pipeline	None	None	Moderate
25	Klug Pipeline	None	None	Moderate
26	Monica Pipeline	None	None	Moderate
27	Chase Hudson Pipeline	None	None	Moderate
28	Cessna Pipeline	None	None	Moderate
29	Main Citrus Pipeline	None	None	Moderate, High

Source: Appendix D.

Notes: 2018 RWMP = 2018 Reclaimed Water Master Plan; NA = not applicable; WRCRWA = Western Riverside County Regional Wastewater Authority

Therefore, construction activities associated with the implementation of the project would result in a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines, Section 15064.5.

Once constructed, the projects identified in the 2018 RWMP would not have the potential for additional impacts to archaeological resources. Typical operations and maintenance activities would not result in additional physical impacts.

Level of Significance Before Mitigation

Implementation of projects identified in the 2018 RWMP has the potential to damage or destroy unknown subsurface archaeological resources, which could result in a substantial adverse change in the significance of a unique archaeological resource. Therefore, impacts related to archaeological resources would be potentially significant.

Mitigation Measures

Implementation of Mitigation Measures CUL-2 and CUL-3 would reduce impacts to archaeological resources.

CUL-2: **Project-Specific Archaeological Survey.** Projects identified in the 2018 Reclaimed Water Master Plan should be reviewed by the City of Corona to determine if a site-specific archaeological survey should be conducted. Site-specific archaeological surveys should be conducted for individual projects identified in the 2018 Reclaimed Water Master Plan that are in areas that have not been previously developed or would impact land with visible ground surface, or projects that may impact built environment resources that meet the age threshold for eligibility. A Native American monitor shall be on site during site-specific archaeological surveys.

If cultural resources are identified during the site-specific archaeological survey, then evaluation of the resources for the California Register of Historical Resources and the Corona Register should be conducted in conjunction with the Native American monitor to determine if the resource is significant under the California Environmental Quality Act and would be adversely impacted by the project. A Native American monitor from a culturally affiliated tribe should be present during any archaeological excavations involving prehistoric cultural resources. If no significant resources are found, and site conditions are such that there is no potential for further discoveries, then no further action is required. Resources found to be non-significant as a result of a survey and evaluation shall require no further work beyond documentation of the resources on the appropriate Department of Parks and Recreation site forms and inclusion of results in a technical report.

If significant resources are present, consulting tribes or bands should be notified and consulted with on treatment. ~~then a~~ Avoidance, preservation in place, or a data recovery program is recommended. The data recovery program is subject to the provisions outlined in California Public Resources Code, Section 21083.2. The data recovery

program should be conducted in accordance with the Office of Historic Preservation's Archaeological Resource Management Reports: Recommended Contents and Format and Guidelines for Archaeological Research Designs. The data recovery program must be reviewed and approved by the City.

If no significant resources are found, but if there is a potential for unknown archaeological resources, or tribal cultural resources to be uncovered during construction activities, then implementation of Mitigation Measure CUL-3 is recommended.

CUL-3: **Archaeological and Native American Monitoring Program.** Because there is always a potential for encountering cultural and tribal cultural resources during excavation, the creation of an archaeological and Native American monitoring program is recommended for projects identified in the 2018 Reclaimed Water Master Plan that would conduct new ground disturbance in areas identified as moderate or high sensitivity for cultural resources, ~~and~~ for project components that are within 100 feet of previously recorded archaeological resources, and for those projects where tribal consultation has identified traditional cultural properties/tribal cultural landscapes. Prior to the commencement of ground-disturbing activities below the road base, the City of Corona, Public Works Department, shall enter into an agreement with the consulting tribes or bands for Native American monitors. The Native American monitor shall be approved by the Gabrieleño Band of Mission Indians – Kizh Nation, Soboba Band of Luiseño Indians, and Rincon Band of Luiseño Indians—the tribes that consulted on the project pursuant to Assembly Bill 52 (consulting tribes or bands). A copy of the executed contract shall be submitted to the City of Corona prior to the issuance of any permit necessary to start a ground-disturbing activity.

The Native American monitor shall be on site during all initial ground-disturbing activities and excavation of each portion of the project site, including clearing, grubbing, tree removals, grading, and trenching. Monitoring will not take place within the imported fill soils in the road base and for potholing above known utility lines. In conjunction with the archaeological monitor, the Native American monitor shall have the authority to temporarily divert, redirect, or halt the ground-disturbing activities to allow identification, evaluation, and potential recovery of cultural resources. The on-site monitoring shall end when all ground-disturbing activities on the project site are completed or when the tribal representatives and Native American monitor have indicated that all upcoming ground-disturbing activities on the project site have little to no potential for impacting cultural or tribal cultural resources. Upon discovery of any tribal cultural resources, construction activities shall cease in the immediate vicinity of the find (not less than the surrounding 100 feet) until the find can be

assessed. All tribal cultural resources unearthed by project activities shall be evaluated by the qualified archaeologist and Native American monitor approved by the consulting tribe or band. If the resources are Native American in origin, the consulting tribe or band shall retain it/them in the form and/or manner the consulting tribe or band deems appropriate for educational, cultural, and/or historic purposes.

If a non-Native American resource is determined by the qualified archaeologist to constitute a "historical resource" or "unique archaeological resource," time allotment and funding sufficient to allow for implementation of avoidance measures or appropriate mitigation must be available. The treatment plan established for the resources shall be in accordance with the California Environmental Quality Act Guidelines, Section 15064.5(f), for historical resources and California Public Resources Code, Sections 21083.2(b), for unique archaeological resources.

Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the historic archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.

The City of Corona, Public Works Department, shall obtain a fully executed agreement(s) with the consulting tribes or bands to ensure compliance with this mitigation measure. This agreement shall not modify any condition of approval or mitigation measure. ~~The archaeological and Native American monitoring program shall consist of the full-time presence of a qualified archaeologist and traditionally and culturally affiliated Native American monitor during new ground-disturbing activities. New ground disturbance can include new trenching or expanding previously excavated trenches, grading, and vegetation removal. The archaeological and Native American monitoring program should include the following:~~

1. ~~Noting archaeological and Native American monitoring on applicable construction documents, including plans, shall be required.~~
2. ~~The archaeologist and Native American monitor should attend the preconstruction meeting with the contractor or the City of Corona.~~
3. ~~The archaeologist shall maintain ongoing collaborative consultation with the Native American monitor during ground-disturbing or altering activities as identified above.~~

The City of Corona, Public Works Department, and the consulting tribes or bands shall develop an Archaeological Monitoring Plan to address details, timing, and responsibilities of all archaeological activities that will occur on the project site when it is determined by either the City of Corona, Public Works Department, or the consulting tribes or bands to be necessary. The Archaeological Monitoring Plan shall include the following:

1. The development of a schedule in coordination with the City of Corona, Public Works Department, the project archaeologist, and the consulting tribes or bands for Native American and archaeological monitoring during ground-disturbing activities on the site, including the scheduling, safety requirements, duties, scope of work, and Native American monitor's authority to stop and redirect grading activities in coordination with all project archaeologists.
2. The protocols and stipulations that the City of Corona, Public Works Department, the consulting tribes or bands, and project archaeologist would follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resource evaluation. Such procedures include the following:
    a. The archaeologist or Native American monitor may halt ground-disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground-disturbing activities shall be directed away from these deposits for a short time to allow for identification, evaluation, and potential recovery of cultural resources ~~a determination of potential significance, the subject of which shall be determined~~ by the archaeologist and the Native American monitor. Ground-disturbing activities shall not resume until the archaeologist, in consultation with the Native American monitor and the City of Corona, deems the cultural resource or feature has been appropriately documented and protected.
    b. All discovered resources shall be temporarily curated in a secure location on site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with Native American monitor oversight of the process.
    c. The City of Corona, Public Works Department, shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains, as part of the required mitigation for impacts to cultural resources. The City of Corona, Public Works Department, shall relinquish the artifacts through one or more of the following methods and provide the consulting tribes or bands with evidence of the same:

i. Accommodate the process for on-site reburial of the discovered items with the consulting tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloging and basic recordation have been completed.

ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per Title 36, Part 79, of the Code of Federal Regulations and, therefore, would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility in Riverside County to be accompanied by payment of the fees necessary for permanent curation.

iii. If more than one Native American tribe or band is involved with the project and cannot come to a consensus on the disposition of cultural materials, the cultural materials shall be curated at the Western Science Center.

d. At the completion of grading, excavation, and ground-disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City of Corona, Public Works Department, documenting monitoring activities conducted by the project archaeologist and Native American monitor within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; and in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the consulting tribes or bands, Eastern Information Center, and interested tribes or bands.

~~4. Archaeological isolates and non-significant materials shall be minimally documented in the field, and ground disturbance shall be allowed to resume.~~

~~5. The avoidance and protection of discovered unknown and significant cultural resources and/or unique archaeological resources is the preferable mitigation for the proposed project. If avoidance is not feasible, a Data Recovery Plan may be authorized by the City of Corona as the lead agency under the California Environmental Quality Act.~~

~~6. Before the release of any bonds associated with the construction of the project components, a Monitoring Report or Evaluation Report that describes the results, analysis, and conclusions of the archaeological and Native American monitoring program (including but not limited to a data recovery program) shall be submitted by the archaeologist, along with the Native American monitor's notes and comments, to the City of Corona for approval.~~

Level of Significance After Mitigation

Implementation of Mitigation Measures CUL-2 and CUL-3 would reduce impacts to a less than significant level.

3.5.4.3 Threshold 3: Human Remains

Would the project disturb any human remains, including those interred outside of formal cemeteries?

Impact Analysis

Cultural sensitivity varies across the water service area, and the majority of the water service area has been identified as moderate to high sensitivity. Unidentified human remains, whether as part of a prehistoric cemetery, an archaeological site, or an isolated occurrence, could be present below the ground surface in any location but most likely in native terrain. Construction activities associated with the implementation of the 2018 RWMP could disturb native terrain, including excavation, grading, and soil removal; therefore, the potential exists for previously undiscovered human remains to be discovered. If human remains are inadvertently discovered, the impact would be considered significant unless the appropriate procedures were implemented.

Level of Significance Before Mitigation

Implementation of the 2018 RWMP has the potential to disturb unknown human remains, which would result in a potentially significant impact.

Mitigation Measures

Implementation of Mitigation Measures CUL-2, CUL-3, and CUL-4 would reduce impacts to a less than significant level.

CUL-4: **Identification and Treatment of Human Remains**. In the event that human remains~~, or~~ possible human remains, and/or grave goods are encountered during any work associated with the projects identified in the 2018 Reclaimed Water Master Plan, ground disturbance within ~~25~~ 100 feet of the remains shall immediately halt. The project proponent shall then immediately inform the Riverside County Coroner and the City of Corona, Public Works Department, and the County Coroner shall be permitted to examine the remains as required by California Health and Safety Code, Section 7050.5(b). Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains until the County Coroner can determine whether the remains are those of a Native American. If human remains are determined to be of Native American origin, the applicant shall comply with the state relating to the disposition of Native American burials that fall within the jurisdiction of the California Native American Heritage Commission (California Public Resources Code, Section

5097). The County Coroner shall contact the California Native American Heritage Commission to determine the most likely descendant. The most likely descendant shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The disposition of the remains shall be overseen by the most likely descendant to determine the most appropriate means of treating the human remains and any associated grave artifacts. The specific locations of Native American burials and reburials will be proprietary and not disclosed to the general public. The County Coroner will notify the California Native American Heritage Commission in accordance with California Public Resources Code, Section 5097.98. According to California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052) as determined in consultation between the project proponent and the most likely descendant. ~~and California Environmental Quality Act Guidelines, Section 15064.5(e); California Public Resource Code, Section 5097.98; and California Health and Safety Code, Section 7050.5, should be followed. If Native American remains are discovered, the remains shall be kept in situ (in place) or in a secure location approved by the Native American monitor until the repatriation process can be completed.~~

Level of Significance After Mitigation

Compliance with California Health and Safety Code, Sections 7050.5 and 7052, and California Public Resources Code, Section 5097, would provide an opportunity to avoid or minimize the disturbance of human remains and to appropriately treat any remains that are discovered. Implementation of these measures would reduce the impacts of inadvertent discoveries of human remains to a less than significant level.

3.5.5 Cumulative Impacts and Mitigation

3.5.5.1 Cumulative Threshold 1: Historic Resources

The geographic context for the analysis of cumulative impacts to historic resources is defined as the water service area. Cumulative impacts to historic resources would involve projects affecting local resources with the same level or type of designation or evaluation, projects affecting other structures in the same historic district, or projects that involve resources that are significant in the same context as resources associated with the 2018 RWMP. Known or future historic sites or resources listed in the national, California, or local registers maintained by the City would be protected through local ordinances, General Plan policies, and state and federal regulations restricting alteration, relocation, and demolition of historic resources. However, it is possible that adherence to these policies may not adequately avoid or reduce incremental impacts, and such

projects would require additional measures to continue to occur over time, leading to a cumulatively significant impact.

Construction activities associated with the projects identified in the 2018 RWMP that would involve use of vibratory equipment within 40 feet of a historic structures where present and eligible for the NRHP, CRHR, or Corona Register would have the potential to result damaging vibration levels which would result in a substantial adverse change in a historic resource. Compliance with Mitigation Measures CUL-1 would reduce impacts to a less that significant level. Therefore, the project's contribution to a cumulative historic resource impact would not be cumulatively considerable.

3.5.5.2 Cumulative Threshold 2: Archaeological Resources

The geographic context for the analysis of cumulative impacts to archaeological resources is considered to be the County region. Evidence of human occupation in the water service area is represented by numerous archaeological sites throughout the City and overall region. These sites contain artifacts and features of value in reconstructing cultural patterns of prehistoric life. Due to the scarcity of archaeological resources and the potential for construction activities associated with future development projects in the County region to impact these resources, a significant cumulative impact to archaeological resources exists.

The Cultural and Tribal Cultural Resources Technical Report (Appendix D) prepared for the 2018 RWMP concluded that cultural sensitivity varies across the water service area, with the majority of the water service area identified as moderate to high sensitivity. Therefore, it is possible that archaeological resources could be impacted as a result of construction. Implementation of Mitigation Measures CUL-2 and CUL-3 would reduce impacts to known or unknown buried archaeological resources to less than significant. Therefore, the project's contribution to cumulative archaeological resources impacts would not be cumulatively considerable.

3.5.5.3 Cumulative Threshold 3: Human Remains

The geographic context for the analysis of cumulative impacts to human remains is the County region. The presence of numerous archaeological sites throughout the region indicates that prehistoric human occupation occurred throughout the region. Additionally, historic era occupation of the area increases the possibility that humans were interred outside of a formal cemetery. Cumulative development projects would have the potential to encounter unknown, interred human remains during construction activities, which would result in a significant cumulative impact.

The proposed project may inadvertently discover unrecorded human remains during construction activities. However, the implementation of Mitigation Measure CUL-4, which require archaeological and Native American monitors during construction and compliance with California Health and Safety Code, Section 7050.5, and California Public Resources Code, Section 5097.98,

would reduce impacts to less than significant. Therefore, the project's contribution would not be cumulatively considerable.

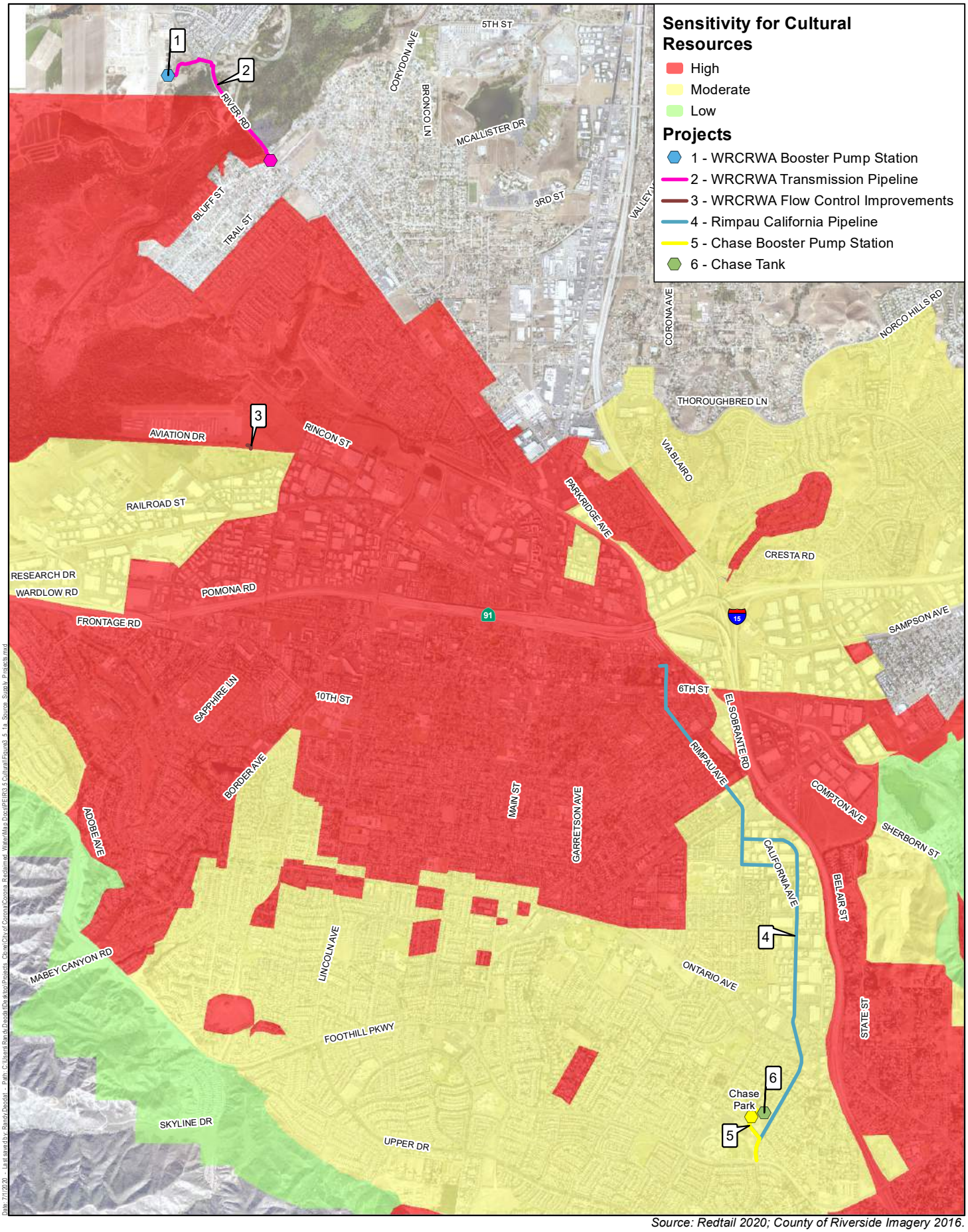
3.5.6 Conclusion

Construction of the projects identified in the 2018 RWMP would largely occur within existing roadway rights-of-way and developed areas. The demolition or direct physical alteration of potential historic structures, historic districts, or other built environment resources would be unlikely based on the type of facilities included in the 2018 RWMP. Construction of the projects identified in the 2018 RWMP could result in temporary vibration-related effects in the immediate vicinity of the construction from the use of heavy equipment and machinery, as construction activities can produce varying degrees of ground vibration depending on the equipment and methods employed and localized soil conditions. However, because exact future project alignments and construction fleets are unknown, construction that would involve use of vibratory equipment within 40 feet of a historic structures where present and eligible for the NRHP, CRHR, or Corona Register would have the potential to result damaging vibration levels, which would result in a substantial adverse change in a historic resource. Implementation of CUL-1 would mitigate impacts to a less than significant level. In addition, the proposed project would not contribute to cumulatively significant impacts to historic resources.

Implementation of the projects identified in the 2018 RWMP would have the potential to impact archaeological resources pursuant to CEQA Guidelines, Section 15064.5, due construction activities including clearing, trenching, and grading activities associated with the construction of pipelines, underground structures, or other related facilities, which may result in disturbing native soil outside of previously excavated trenches. Implementation of Mitigation Measures CUL-2 and CUL-3 would reduce impacts to less than significant levels. In addition, the project would not contribute to cumulatively significant impacts to archaeological resources.

Implementation of the 2018 RWMP has the potential to disturb unknown human remains, which would result in a potentially significant impact. Compliance with California Health and Safety Code, Sections 7050.5 and 7052, and California Public Resources Code, Section 5097, would provide an opportunity to avoid or minimize the disturbance of human remains and to appropriately treat any remains that are discovered as specified under Mitigation Measure CUL-4. Implementation of these measures would reduce the impacts to less than significant levels. In addition, the proposed project would not contribute to cumulatively significant impacts to human remains.

This page intentionally left blank.



Source: Redtail 2020; County of Riverside Imagery 2016.

N

0 2,000 4,000

Feet

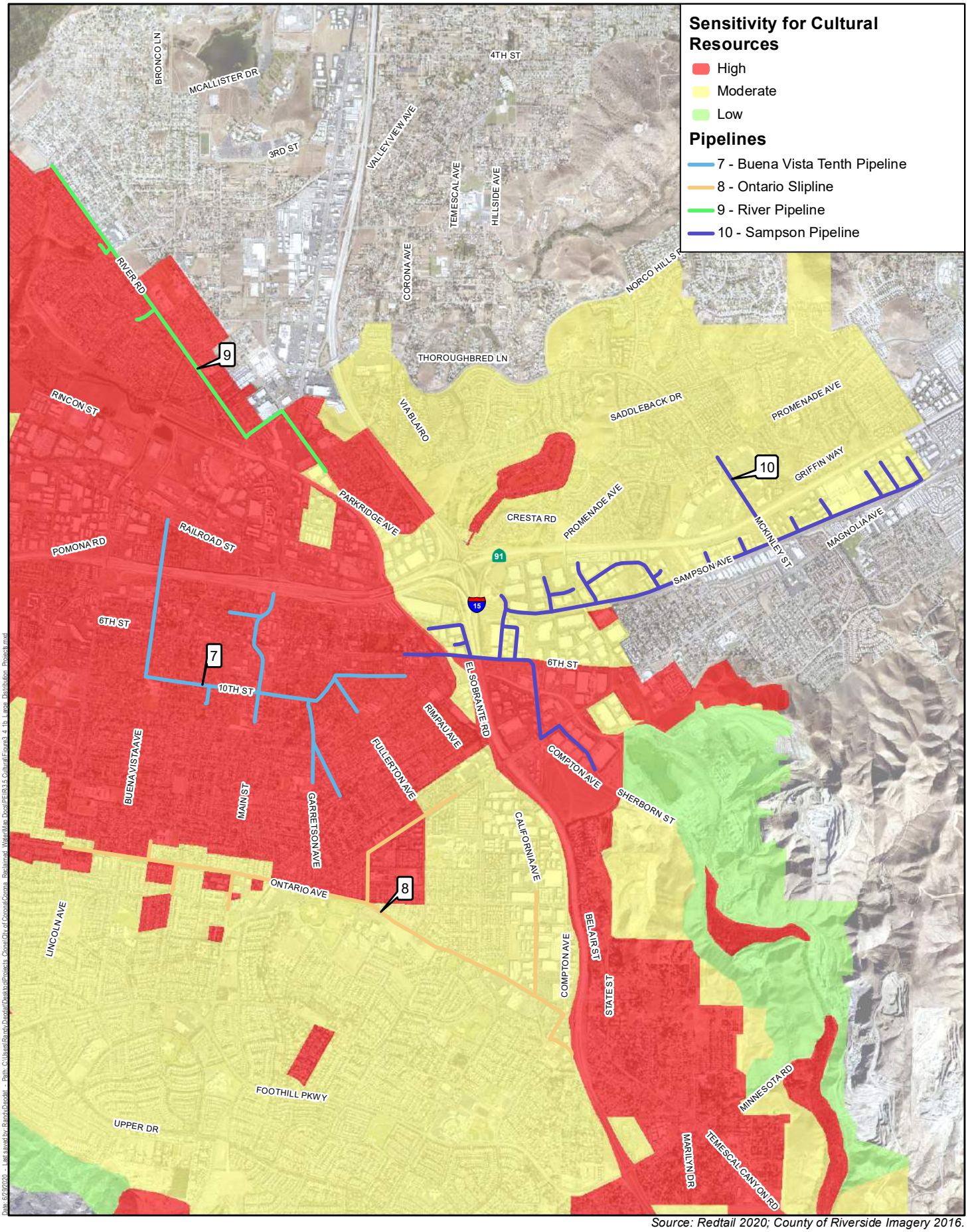
Harris & Associates

Figure 3.5-1a

Cultural Sensitivity, Source of Supply Projects

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: Redtail 2020; County of Riverside Imagery 2016.

Harris & Associates

N

0 2,000 4,000

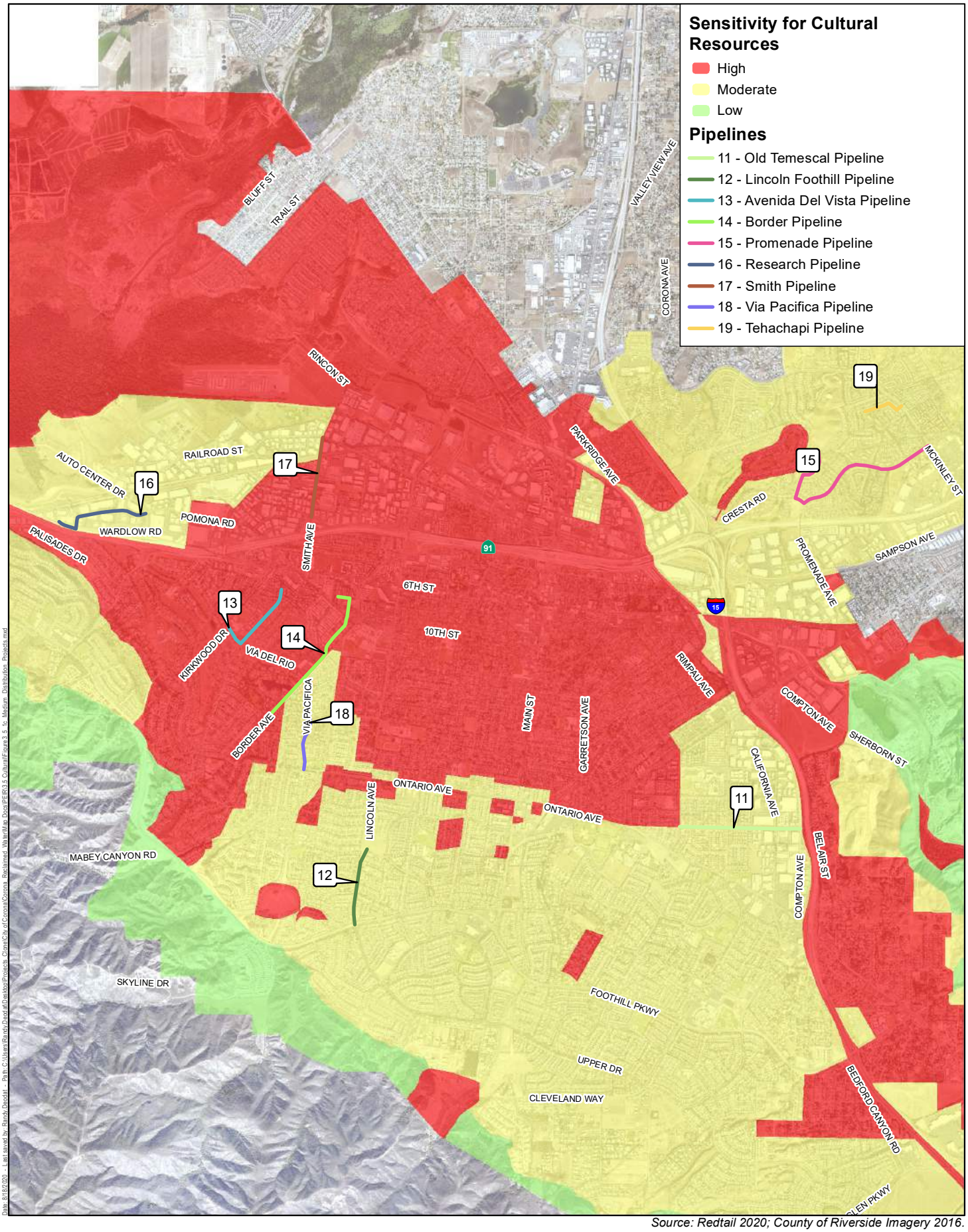
Feet

Figure 3.5-1b

Cultural Sensitivity, Large Distribution Pipelines

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: Redtail 2020; County of Riverside Imagery 2016.

Harris & Associates

N

0 2,000 4,000

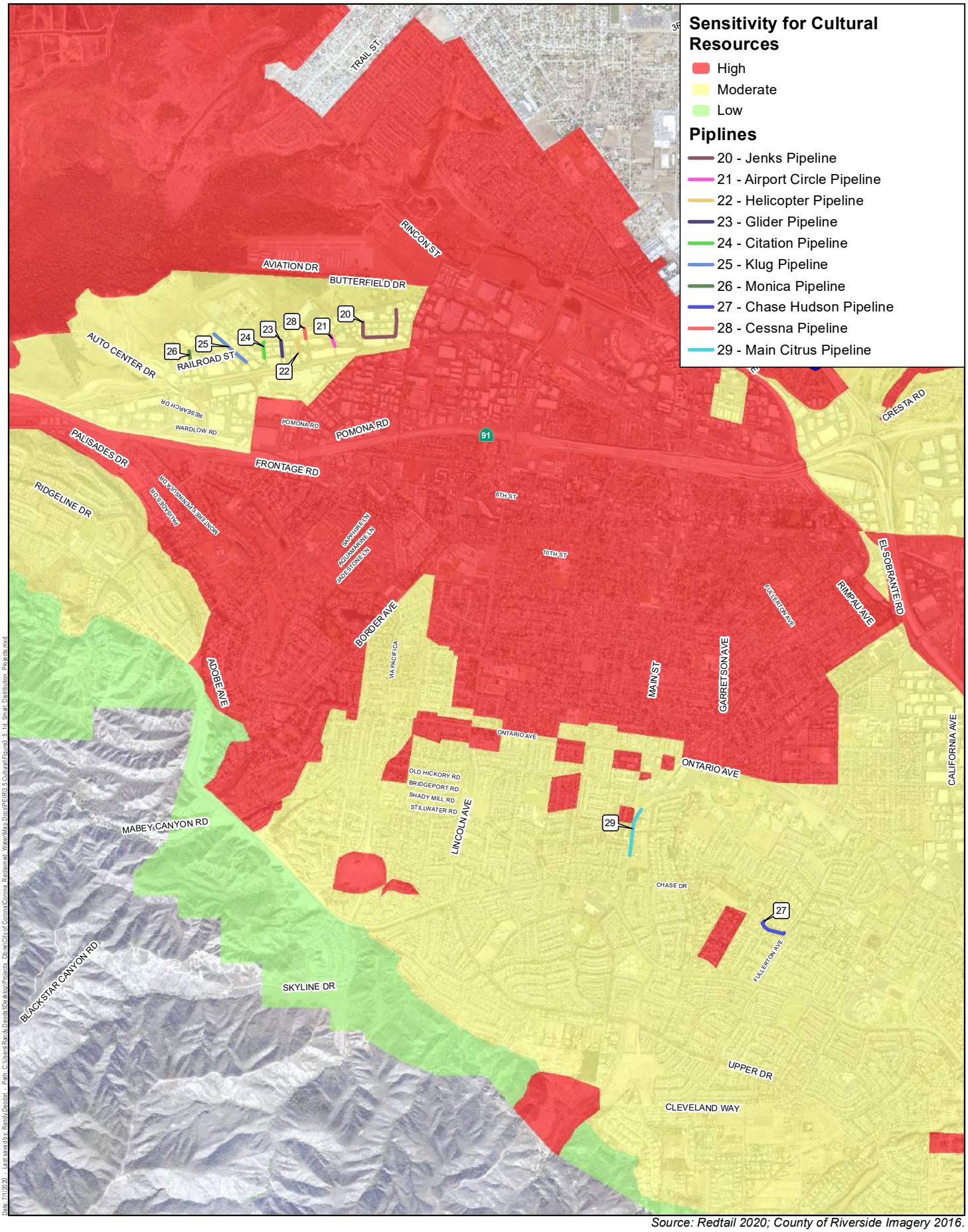
Feet

Figure 3.5-1c

Cultural Sensitivity, Medium Distribution Pipelines

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: Redtail 2020; County of Riverside Imagery 2016.

Harris & Associates

N

0 2,000 4,000

Feet

Figure 3.5-1d

Cultural Sensitivity, Small Distribution Pipelines

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.

3.11 Land Use and Planning

This section discusses the potential impacts to land use and planning in the City of Corona's (City's) water service area that may result from the implementation of the 2018 Reclaimed Water Master Plan (project or 2018 RWMP). The analysis in this section is based in part on the following information: City of Corona 2020–2040 General Plan (City of Corona 2020).

3.11.1 Environmental Setting

The water service area is in the western portion of the County of Riverside and includes the unincorporated communities of El Cerrito, Coronita, and parts of Temescal Canyon. The water service area encompasses approximately 39 square miles and is bounded by the neighboring Cities of Norco and Eastvale to the north and the City of Riverside to the northeast. The eastern portion of the water service area is generally bounded by unincorporated County of Riverside, including the unincorporated community of Home Gardens. The southern and western portions of the water service area are bounded by the Cleveland National Forest and other County of Riverside lands. The Prado Flood Control Basin is adjacent the City's northwestern corner.

Table 3.11-1 and Figure 3.11-1, Existing Land Uses, show a summary of the existing land uses in the water service area.

Table 3.11-1. Existing Land Use Summary

Description	Code	Number of Parcels	Acreage
Agriculture	AG	32	708
Commercial	C	851	1,090
Commercial – Office	CP	221	131
Flood Control	FC	218	1,462
Industrial General	GI	436	2,124
Institutional	I	169	723
Light Industrial	LI	581	927
Multiple-Family Residential	MFR	4,466	789
Multiple-Family Residential Mobile Home Park	MFR-MH	14	97
Passive Open Space	OS-P	946	1,736
Recreational Open Space	OS-R	120	984
Public/Quasi-Public	QP	56	127
Rural Residential	R/R	39	112
Right-of-Way	ROW	231	324
Single-Family Residential	SFR	32,731	7,154
Utility	U	4	4
Vacant Agriculture	VA	7	93
Vacant Commercial	VC	39	33

Table 3.11-1. Existing Land Use Summary

Description	Code	Number of Parcels	Acreage
Vacant Industrial	VI	76	378
Vacant Residential	VR	383	2,233
Unknown	—	211	75
	Total	**41,831**	**21,304**

Source: City of Corona 2018.

3.11.2 Regulatory Setting

This section describes the federal, state, regional, and local regulatory framework adopted to protect land use and planning.

3.11.2.1 Federal

There are no federal regulations related to land use and planning.

3.11.2.2 State

State Planning Law and California Complete Streets Act

State Planning Law (California Government Code, Section 65300) requires every city in California to adopt a comprehensive, long-term General Plan for physical development of the city and its sphere of influence. A General Plan should consist of an integrated and internally consistent set of goals and policies that are grouped by topic into a set of elements and are guided by a citywide vision. State law requires that a General Plan address eight required elements (Land Use, Circulation, Housing, Conservation, Open Space, Noise, Safety, and Environmental Justice), but allows some discretion on the arrangement and content. Additionally, each of the specific and applicable requirements in the State Planning Law should be examined to determine if there are environmental issues in the community that the General Plan should address, including but not limited to hazards and flooding.

Additionally, on September 30, 2008, Assembly Bill 1358, the California Complete Streets Act, was signed into law, becoming effective January 1, 2011. Assembly Bill 1358 places the planning, designing, and building of complete streets into the larger planning framework of the General Plan by requiring jurisdictions to amend their Circulation Elements to plan for multimodal transportation networks.

3.11.2.3 Regional

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a council of governments representing the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and

Ventura. SCAG is the federally recognized metropolitan planning organization for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the Southern California region's metropolitan planning organization, SCAG cooperates with the South Coast Air Quality Management District, California Department of Transportation, and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives. The plans most applicable to the project are discussed below.

High-Quality Transit Areas

With the adoption of the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016–2040 RTP/SCS), SCAG has designated high-quality transit areas. A high-quality transit area is generally a walkable transit village or corridor that is within one-half mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours. The overall land use pattern of the 2016–2040 RTP/SCS focuses on jobs and housing in the region's designated high-quality transit areas (SCAG 2016). The City is designated as a SCAG High-Quality Transit Area Eligible Jurisdiction.

Regional Transportation Plan/Sustainable Communities Strategy

On April 7, 2016, SCAG adopted the 2016–2040 RTP/SCS, which encompasses three principles that work as the key to the region's future: mobility, economy, and sustainability. The 2016–2040 RTP/SCS provides a blueprint for improving quality of life for residents by providing more choices for where they will live, work, and play and how they will move around (SCAG 2016).

Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), which is administered by the Western Riverside County Regional Conservation Authority, is a comprehensive, multi-jurisdictional plan that addresses biological and ecological diversity by conserving species and associated habitats while allowing approval of development in Western Riverside County (County of Riverside 2003).

The MSHCP functions as a Habitat Conservation Plan pursuant to Section 10(a)(1)(B) of the federal Endangered Species Act (FESA) and as a Natural Community Conservation Plan pursuant to California's Natural Community Conservation Planning Act. The MSHCP provides a framework for the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) to grant take authorization (i.e., incidental take permits) for species covered

by the MSHCP that are FESA or California Endangered Species Act listed as threatened or endangered; take of these species without a permit would be unlawful.

The MSHCP covers 146 species, not all of which are FESA or California Endangered Species Act listed. However, mitigation for impacts to listed and non-listed species may be required pursuant to the California Environmental Quality Act (CEQA) or other regulatory processes, and the MSHCP Conservation Area provides an avenue for this mitigation. Furthermore, should any of the non-listed covered species be subsequently FESA or California Endangered Species Act listed, take authorization may be granted through the MSHCP framework.

The MSHCP was approved and permits were issued by the USFWS and CDFW in 2004. The MSHCP Plan Area encompasses approximately 1.26 million acres (approximately 1,967 square miles) in Western Riverside County and addresses 146 sensitive plant and animal species and the vegetation communities on which they depend. In total, 14 animal species and 11 plant species are designated by the USFWS as federally listed under FESA. Several of these species also have federally designated critical habitat within the MSHCP jurisdiction (USFWS 2020). The MSHCP encompasses the City and many other city, county, and state entities. It should be noted that the listing status of plants and animals may change over time, with species added or removed from listing. The Biological Resources Technical Report prepared for the project describes the species used to define the original planning subunits (Appendix C).

The MSHCP originally set a target Conservation Area of 500,000 acres for Western Riverside County that included the following: (1) conservation of existing publicly owned lands; (2) voluntary acquisition of privately held lands by the cities, the county, or other involved agencies; (3) voluntary acquisition of privately held lands by state or federal agencies; and (4) contribution from public and private development. The Implementing Agreement for the MSHCP between the City and other appropriate implementing agencies outlined a strategy for assembling the 500,000-acre MSHCP Conservation Area. Local implementing agencies would be responsible for contributing approximately 97,000 acres of Additional Reserve Lands through the development review process. If it is determined that all or a portion of a property is needed for inclusion as Additional Reserve Lands, various incentives may be available to the property owner in lieu of or in addition to monetary compensation in exchange for conveyance of property interest, such as development rights.

Approval of the MSHCP and execution of the Implementing Agreement by the USFWS and CDFW allows the agencies, including the City, to issue take authorizations. Issue of take authorization to the City would allow implementation of land use decisions consistent with the MSHCP without project-by-project review and permitting by the USFWS and CDFW.

3.11.2.4 Local

City of Corona 2020–2040 General Plan and Zoning Ordinance

The City of Corona 2020–2040 General Plan was adopted in June 2020 and presents a vision for the City's future and a strategy to make that vision a reality. The City of Corona 2020–2040 General Plan contains the following elements: Land Use; Housing; Community Design; Historic Resources; Economic Development; Parks, Recreation, Cultural Arts, and Education; Circulation; Infrastructure and Utilities; Public Safety; Noise; Healthy Community; and Environmental Resources. The City of Corona 2020–2040 General Plan provides the basis for land use designations in the City. According to the City of Corona 2020–2040 General Plan, "the zoning map should be consistent with the General Plan Land Use Plan and the Zoning Code should be consistent with the land use classification system and density/intensity and design and development policies." The Zoning Ordinance, Title 17 of the Corona Municipal Code, is one of the primary means of implementing the City of Corona 2020–2040 General Plan (City of Corona 2020).

Corona Municipal Airport Land Use Plan

Corona Municipal Airport is in the northwestern portion of the City on a 100-acre site that is leased as part of a master recreational lease between the City and the U.S. Army Corps of Engineers. The northwestern part of the City and portions of the City are in the Airport Influence Area, which is defined as the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or require restrictions on those uses. The Airport Influence Area constitutes the area where certain land use actions are subject to Airport Land Use Commission review. The Riverside County Airport Land Use Commission has implemented specific compatibility criteria for land uses within the general vicinity of the airport.

3.11.3 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a significant impact related to land use and planning would occur if the project would (CEQA Guidelines, Section 15000 et seq.):

1. Physically divide an established community
2. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect

3.11.4 Environmental Analysis

3.11.4.1 Threshold 1: Physical Division of Established Community

Would the project physically divide an established community?

Impact Analysis

Construction and operation of the projects identified in the 2018 RWMP would occur in the water service area. Proposed distribution pipelines would be underground. Aboveground facilities, such as proposed water storage tanks, booster pump stations, and flow control improvements, would be in existing rights-of-way (ROWs) or adjacent to existing infrastructure. The facilities would be located and designed with minimal disturbance to existing and planned uses in the established community. Therefore, construction and operation of the project would not physically divide existing communities in the water service area.

Level of Significance Before Mitigation

Implementation of the project would not physically divide an established community. No impact would occur.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Because no mitigation measures are required, no impact would occur.

3.11.4.2 Threshold 2: Conflict with Land Use Plan, Policy, or Regulation

Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Impact Analysis

The following discussion addresses the project's consistency with applicable land use plans, policies, and regulations.

City of Corona 2020–2040 General Plan

The City of Corona 2020–2040 General Plan presents a vision for the City's future and provides a framework for the City's physical, economic, social, and environmental development, addressing all geographic areas in the City and those that may be served by the City in the future. Table 3.11-2 identifies the City of Corona 2020–2040 General Plan goals and policies that are relevant to the project and provides an evaluation of the project's consistency with them. Consistent with

Appendix G of the CEQA Guidelines, only the goals, objectives, and policies adopted for the purpose of avoiding or mitigating an environmental effect are discussed in Table 3.11-2.

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
Land Use Element	
Policy LU-4.5. Manage the timing of development and allow development to occur only when public infrastructure and services needed to support that development are available, will be provided concurrently, or are committed to be provided within a reasonable time frame.	**Consistent.** The project would expand and improve the City's reclaimed water program and implement system improvements to better serve existing and future City demands.
Policy LU-15.4. Ensure that the City's public buildings, sites, and infrastructure are designed to be compatible in scale, mass, character, and architecture with the district and neighborhood in which they are located and pertinent design and development characteristics specified by this plan.	**Consistent.** The project includes the operation of belowground pipelines and aboveground facilities, including the Chase Tank and Chase Booster Pump Station, WRCRWA Booster Pump Station, and WRCRWA Flow Control Improvements Projects. Upon completion of construction, pipelines would be buried underground, trenches would be backfilled with on-site material, and the surface elevation would be restored to match the original ground surface and pavement elevations. The Chase Booster Pump Station and the WRCRWA Booster Pump Station would include aboveground turbine pumps necessary to deliver reclaimed water from reclamation treatment plants to the reclaimed system, and lift water from lower zones to the higher zones. The WRCRWA Flow Control Improvements would include aboveground flow control valves and flow meters to manage the flow of reclaimed water. These facilities would be colored purple because the City uses purple pipes to distinguish reclaimed water facilities from potable water infrastructure. These facilities would have a low profile and would be relatively small in nature. In addition, the Chase Tank would be partially buried based on the elevations of the project location. Implementation of Mitigation Measure AES-1 would require the development of a Landscaping Plan, which would require visual screening of aboveground facilities from public views.
Policy LU-16.3. Protect viewsheds by prohibiting the placement of electrical transmission lines, substations, and other types of overhead or at grade heavy infrastructure into public open space or other sensitive areas.	**Consistent.** Project components include water storage tanks, pump stations, and distribution pipelines that are primarily in or adjacent to existing facilities or public ROWs and would not be constructed in public open space or other sensitive areas.
Policy LU-16.5. Require that improvements required to be placed in open space areas (e.g., reservoirs, lighting, and other infrastructure) be designed to minimize the impact on the landscape, avoid obstructing viewsheds, and be shielded to the extent feasible by landscaping, trees, and other natural forms.	**Consistent.** The projects identified in the 2018 RWMP would be confined to existing facilities or easements or in existing ROWs and would be designed to minimize the impact on the landscape and avoid obstructing viewsheds. Distribution pipelines would be buried underground, trenches would be backfilled with on-site material, and surface elevation would be restored to match the original ground surface and pavement elevations. The aboveground facilities would have a low profile and would be relatively small in nature. In addition, the Chase Tank would be partially buried based on

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
	the elevations of the project location. Furthermore, implementation of Mitigation Measure AES-1 would require the development of a Landscaping Plan, which would require visual shielding of aboveground facilities to the extent feasible.
Policy LU-23.4. Review proposed projects within the airport influence area of the Corona Municipal Airport for consistency with applicable airport land use compatibility plan policies adopted by the Riverside County Airport Land Use Commission and City of Corona.	**Consistent.** The following projects identified in the 2018 RWMP would be constructed in the Airport Influence Area of the Corona Municipal Airport: Monica, Klug, Citation, Glider, Helicopter, Cessna, Airport Circle, and Jenk small distribution pipelines and the WRCRWA Flow Control Improvements project. These projects would be outside the 60-decibel contour lines and would not be in the Airport Safety Zone.
Historic Resources Element	
Policy HR-1.1. Continue to implement and expand upon, as feasible, the following historic resources management strategies: • A local Corona Historic Register that includes significant "Landmark" properties, "Historic Districts," and "Historical Markers" as prescribed in the Corona Municipal Code. • A Corona Heritage Inventory that includes surveyed properties meeting all of the criteria as prescribed in the Corona Municipal Code to be considered a local historic resource. • Procedures and criteria for determining the eligibility for listing properties on the Corona Historic Register and the Corona Heritage Inventory. • Standards and regulations governing the identification, protection, restoration, maintenance, alteration, relocation, or removal of historic resources.	**Consistent.** As discussed in Section 3.5.4.1, construction that would involve use of vibratory equipment within 40 feet of a historic structure eligible for the NRHP, CRHR, or Corona Register would have the potential to result in damaging vibration levels, which would have the potential to result in a substantial adverse change in a historic resource. Implementation of Mitigation Measure CUL-1 requires that no vibratory equipment be operated within 40 feet of a structure eligible or listed on the NRHP, CRHR, or Corona Register. For structures that have not been previously evaluated, the City Engineer shall consult with a qualified Architectural Historian, approved by the City, to conduct an evaluation of the structure.
Policy HR-3.1. Require appropriate treatment/preservation of archaeological collections in a culturally appropriate manner, in accordance with state and federal standards, and in consultation with interested Native American tribes that have traditional cultural affiliation with the project area and/or the resources affected by the project. **Policy HR-3.2.** Require that development proposals incorporate specific measures to identify, protect, and preserve cultural resources in the planning, environmental review, and development process. **Policy HR-3.3.** Archaeological resources found prior to or during construction shall be evaluated by a qualified archaeologist and appropriate mitigation measures applied, pursuant to Section 21083.2 of CEQA, before the resumption of development activities. Any measures applied shall include the preparation of a report meeting professional standards, which shall be submitted to the appropriate CHRIS [California Historical Resources Information System] information center.	**Consistent.** As discussed in Section 3.5.4.2, the water service area has been identified as moderate to high for cultural resources and tribal cultural resources. Implementation of Mitigation Measure CUL-2 requires that a site-specific archaeological survey be conducted for the individual projects identified in the 2018 RWMP that are in areas that have not been previously developed, that would impact land with visible ground surface, or that may impact built environment resources that meet the age threshold for eligibility. Implementation of Mitigation Measure CUL-3 requires an archaeological and Native American monitoring program for the projects identified in the 2018 RWMP that would result in ground disturbance in areas identified as moderate or high sensitivity for cultural resources and that are within 100 feet of previously recorded archaeological resources. Finally, implementation of Mitigation Measure CUL-4 would provide for the identification and treatment of human remains if found during construction activities.

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
Policy HR-3.4. Any project that involves earth-disturbing activities in an area determined to be archaeologically or culturally sensitive shall require evaluation of the site by a qualified archaeologist. The applicant shall implement the recommendations of the archaeologist, subject to the approval of the City. Planning Department. **Policy HR-3.5.** Any project that involves earth-disturbing activities in an area determined to be archaeologically or culturally sensitive shall require consultation by the applicant with interested federally recognized American Indian Tribe(s) that have a traditional cultural affiliation with the project area and/or the resources affected by the project, for the purposes of determining resources impacts and appropriate mitigation to address such impacts. Applicant shall also arrange for monitoring of earth-disturbing activities by interested federally recognized American Indian Tribe(s) that have a traditional cultural affiliation with the project area and/or the resources affected by the project, if requested. **Policy HR-3.8.** In the event of the discovery of a burial, human bone, or suspected human bone, all excavation or grading in the vicinity of the find shall halt immediately and the area shall be protected and the project applicant immediately shall notify the Riverside County Coroner and comply with provisions of the Health and Safety Code § 7050.5, including PRC § 5097.98, if applicable. If the find is determined to be Native American human remains, the applicant shall consult with the Most Likely Descendent to determine appropriate treatment for such remains.	
Policy HR-3.6. Any project that involves earth-disturbing activities in soil or rock units known or reasonably suspected to be fossil-bearing shall require monitoring by a qualified paleontologist retained by the project applicant for the duration of excavation or trenching. **Policy HR-3.7.** Paleontological resources found prior to or during construction shall be evaluated by a qualified paleontologist, and appropriate mitigation measures applied, pursuant to § 21083.2 of CEQA, before the resumption of development activities. Any measures applied shall include the preparation of a report meeting professional standards, which shall be submitted to the Riverside County Museum of Natural History.	**Consistent.** The water service area contains rock formations with varying levels of paleontological sensitivity. Implementation of the project includes the construction of distribution pipelines, storage tanks, and pump stations that would result in ground disturbance, including excavation, grading, and backfilling, in known and unknown sensitive areas. Implementation of Mitigation Measure GEO-1, which requires paleontological monitoring during construction, would prevent the harm or destruction of potentially valuable paleontological resources and allow these resources to be properly documented and preserved.
Circulation Element	
Policy CE-1.4. Design and employ traffic control measures to ensure City streets and roads function with safety and efficiency.	**Consistent.** The project is anticipated to generate minimal construction traffic, which would be temporary and would not result in long-term degradation in operating conditions on area roadways or at area intersections. During construction, temporary full or partial lane closures may be necessary, especially for distribution pipeline projects. The full or partial lane closures could result in the redistribution of traffic along adjacent and surrounding roadways. During construction, the

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
	City would maintain, to the extent feasible, continuous, unobstructed, safe, and adequate pedestrian and vehicular access to and from public facilities (e.g., public utility stations and community centers). To mitigate this impact, the project would prepare and implement a Construction Traffic Control Plan consistent with Mitigation Measure HAZ-3. Following the installation of the individual projects identified in the 2018 RWMP, affected roadways and driveways would be restored to pre-project conditions. A temporary asphalt material may be installed to allow traffic to use the roadway immediately after construction, followed by a permanent overlay. Once operational, the individual projects would not result in any significant, long-term impacts to the local roadway network.
Policy CE-1.10. Require a traffic analysis to be prepared in accordance with the City's adopted Traffic Impact Study Guidelines and require projects to mitigate impacts on the City's circulation system that exceed the City's adopted service thresholds for near term and future conditions.	**Consistent.** Minimal construction-related traffic and maintenance trips would result from the reclaimed water infrastructure projects; therefore, the project would not result in the need to prepare a traffic analysis or to mitigate impacts to the City's circulation system.
Policy CE-1.12. Consider the effects on transportation systems of public utility improvements, including extensions of underground pipelines and overhead transmission lines and associated utility rights-of-way.	**Consistent.** During construction, temporary full or partial lane closures may be necessary, especially for distribution pipeline projects. The full or partial lane closures could result in the redistribution of traffic along adjacent and surrounding roadways. Depending on the roadways affected, the redistribution of traffic could result in additional delay at one or more roadway segments or intersections. Therefore, project construction-related activities could result in intermittent decrease to the level of service in the local or regional transportation system. The project would prepare and implement a Construction Traffic Control Plan pursuant to Mitigation Measure HAZ-3 to minimize the effect on transportation systems. Following the installation of the individual projects identified in the 2018 RWMP, affected roadways and driveways would be restored to pre-project conditions. Once operational, the individual projects identified in the 2018 RWMP would not result in effects to the transportation system.
Policy CE-1.13. Ensure that, to the extent possible, all pipelines and electrical transmission lines are placed underground.	**Consistent.** Pipeline projects identified in the 2018 RWMP would be buried underground. Trenches would be backfilled with on-site material, and the surface elevation would be restored to match the original ground surface and pavement surface elevations.
Infrastructure and Utilities Element	
Policy IU-5.8. During construction projects, ensure compliance with all terms and conditions outlined in the NPDES [National Pollutant Discharge Elimination System] permit, including the implementation of the latest best management practices and determination of need for any additional water quality management plans to reduce pollutants and urban runoff flows to the maximum extent practicable.	**Consistent.** Construction of the projects identified in the 2018 RWMP would involve the use of heavy-duty machinery for surface preparation, excavation, surface restoration, and construction of aboveground facilities. Pollutants associated with construction activities that could result in water quality impacts include soils, debris, other materials generated during clearing, fuels and other fluids associated with the equipment used for construction, other hazardous materials,

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
	and asphalt materials. The project would employ BMPs that address pollutant source reduction and provide measures and controls necessary to mitigate potential pollutant sources. Construction-related BMPs include but are not limited to the following: • Proper storage, use, and disposal of construction materials • Regular removal of sediment from surface runoff before it leaves the site by silt fences or other similar devices around the site perimeter, with particular attention to protecting impaired water bodies listed on the 303(d) list for sediment and protecting downstream environmentally sensitive habitats, such as wetlands • Protection of storm drain inlets on site or downstream of the construction site to eliminate entry of sediment • Stabilization of cleared or graded slopes • Diversion of runoff from uphill areas around disturbed areas of the site • Prevention of tracking soil off site through use of a gravel strip or wash facilities at exit areas • Protection or stabilization of stockpiled soils • Continual inspection and maintenance of the specified BMPs throughout the duration of construction, with special emphasis before and after rain events
Policy IU-5.2. Reduce pollutant loading through passive treatment systems such as vegetated filter strips, grass swales, and infiltration/ sedimentation areas in suitable open space areas, overland flow channels, and landscaping adjacent to parking lots and streets.	**Consistent.** The new facilities would be incorporated into the existing maintenance schedule, which consists of daily maintenance checks for the pump stations and weekly maintenance checks for the water storage tanks, and would not contribute to water quality contamination. The use of passive treatment systems would be implemented as necessary on a project-by-project basis.
Public Safety Element	
Policy PS-1.2. In areas subject to seismic and geologic hazards, require development proposals to include a geotechnical hazard analysis and specific mitigations to reduce risks to acceptable levels as a condition of approval.	**Consistent.** Projects identified in the 2018 RWMP would be designed to withstand seismic conditions anticipated to occur in the water service area. In addition, Mitigation Measure GEO-1 would require the completion of site-specific geotechnical engineering studies to identify potential constraints and recommend methods to construct, install, and design water storage tanks, booster pump stations, flow controls, and distribution pipelines to minimize risks from seismic and geological risks.
Policy PS-1.4. Require adherence to the latest California Building Codes and associated regulations in the City's Municipal Code; update local codes and development requirements periodically for the latest best practices.	**Consistent.** The project would comply with the California Building Code and the Corona Municipal Code.
Policy PS-2.4. Locate, when feasible, new essential public facilities outside of flood zones; for those that must remain or	**Consistent.** No projects identified in the 2018 RWMP would be in a flood zone.

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
are built in flood hazard zones, harden structures to maintain the structural and operational integrity of such public facilities in case of flooding.	
Policy PS-9.4. Maintain safe and accessible evacuation routes throughout the community; take precautions and ensure backup or mitigations for routes crossing high hazard areas (e.g., flood, seismic, high fire, etc.).	**Consistent.** During construction, temporary full or partial lane closures may be necessary, especially for distribution pipeline projects. The full or partial lane closures could result in the redistribution of traffic along adjacent and surrounding roadways. As construction progresses, access for emergency vehicles could be impaired as result of reduced roadway widths (or capacity) and increased volumes of construction-related traffic or redistributed traffic. As a result, construction could impair or physically interfere with adopted Emergency Response Plans or Emergency Evacuation Plans. To mitigate this impact, the project would prepare and implement a Construction Traffic Control Plan as described in Mitigation Measure HAZ-3. Following the installation of the individual project components, affected roadways and driveways would be restored to pre-project conditions. A temporary asphalt material may be installed to allow traffic to use the roadway immediately after construction, followed by a permanent overlay. Once operational, the individual projects identified in the 2018 RWMP would not result in any significant, long-term impacts to the local roadway network.
Policy PS-10.1. Locate, when feasible, new essential public facilities outside of high fire risk areas; if not feasible, require construction and other methods to harden and minimize damage for existing/planned facilities in such areas.	**Consistent.** The proposed distribution pipelines would be installed underground. For aboveground facilities that are situated in high-risk fire areas, these facilities would maintain adequate City-required brush clearance areas to protect facilities from damage.
Noise Element	
Policy N-1.4. Require municipal vehicles and noise-generating mechanical equipment purchased or used by the City to comply with noise performance standards consistent with the latest available noise reduction technology to the extent practicable and cost-effective.	**Consistent.** As described in Section 3.13.4.1, with the exception of two new pump stations, most of the projects identified in the 2018 RWMP would be passive, new, or upgraded pipelines and water storage facilities and would not result in any new sources of operational noise. The flow of water through underground pipes and water storage does not generate audible noise. The two new booster pump stations would be installed with an enclosure and would not exceed the daytime threshold of 55 A-weighted decibels beyond 55 feet from the pump stations.
Policy N-2.7. Require construction activities that occur in close proximity to existing "noise sensitive" uses, including schools, libraries, health care facilities, and residential uses, to limit the hours and days of operation in accordance with the City Noise Ordinance.	**Consistent.** Construction of the projects identified in the 2018 RWMP would result in a temporary increase in the ambient noise environment and would be noticeably audible to existing nose sensitive uses in the vicinity of the active project. Implementation of Mitigation Measure NOI-1 would require construction noise reduction measures that would ensure compliance with the City's Noise Ordinance.

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
Healthy Community Element	
Policy HC-2.5. Require the preparation of air quality, noise, and vibration technical studies to determine the impact of proposed new development on adjacent and surrounding land uses and to identify the appropriate measures required to mitigate such impacts.	**Consistent.** An Air Quality Impact Analysis (Appendix B) and Noise Impact Analysis (Appendix F) were prepared for the project.
Environmental Resources Element	
Policy ER-1.2. Require all public and private grading and construction activities to minimize adverse impacts on the City's water resources through the use of best management practices, as established and updated from time to time by the City of Corona.	**Consistent.** The project would implement construction-period BMPs, which include the implementation of erosion and sediment control BMPs to prevent contamination of hydrologic resources and minimize impacts on water resources.
Policy ER-1.4. Prohibit the discharge of toxins, debris, refuse, and other contaminants into watercourses, other drainages, water bodies, and groundwater basins. Work with appropriate entities to ensure the cleanup of contamination of existing water resources.	**Consistent.** Operations and maintenance activities would include the continuation of the existing condition assessment program of pump stations and water storage tanks. No ground disturbing activities are expected. In addition, there would be no use of generators or portable pumps in the reclaimed system. Operation and maintenance activities would not contribute to water quality contamination.
Policy ER-4.2. Avoid altering floodways or channelization wherever possible; however, limit alterations to those that meet the following criteria: • Alterations necessary for the protection of public health and safety only after all other options are exhausted • Alterations essential to public service projects where no other feasible construction method or alternative project location exists • Projects where the primary function is the improvement of fish and wildlife habitats	**Consistent.** The installation of pipelines, pump stations, water storage tanks, and flow control improvements would be adjacent to existing infrastructure or in existing public ROWs and would not alter floodways or channelize waterways.
Policy ER-5.1. Prohibit encroachment of development into wetlands; provide buffer zones, setbacks, or other effective techniques in project siting and design to minimize direct and indirect effects to wetland habitats.	**Consistent.** Implementation of the project is not expected to impact jurisdictional aquatic resources and would not encroach into wetlands. However, the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline are proposed on undeveloped land that could support jurisdictional aquatic resources, although it is unlikely. Implementation of Mitigation Measures BIO-8~~12~~ and BIO-9~~13~~ would minimize direct and indirect effects to wetland habitats.
Policy ER-6.2. Preserve the wildlife and plant species and habitats listed in Tables 4-12 and 4-13 of the Technical Background Report for the General Plan and EIR [Environmental Impact Report] (City of Corona 2020) and those that may be considered by the City of Corona in the future.	**Consistent.** The WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites would contain non-native grassland habitat that could support sensitive plant species listed in Tables 4-12 and 4-13 of the City of Corona 2020–2040 General Plan. In addition, potential indirect impacts to sensitive plant species from implementation of the project include colonization of invasive plant species and fugitive dust. Implementation of Mitigation

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
	Measures BIO-1 through BIO-5~~7~~ would reduce impacts to less than significant. Non-native grassland vegetation on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites has the potential to support sensitive animal species, and implementation would result in potentially significant indirect impacts from noise and nighttime lighting on burrowing owl (*Athene cunicularia*) and nesting birds. Implementation of Mitigation Measures BIO-1~~8~~, BIO-6~~9~~, and BIO-7~~10~~ would reduce impacts to less than significant.
Policy ER-6.3. Ensure that new developments and circulation improvement demonstrate compliance with state and federal regulations concerning the status, location, and condition of significant and sensitive biological species and habitats and riparian and riverine corridors. Biological surveys, as required and defined by the Western Riverside County Multiple Species Habitat Conservation Plan, should identify potential impacts on biological resources and include mitigation measures to protect/replace resources in like kind.	**Consistent.** Mitigation Measure BIO-1~~1~~ requires the preparation of site-specific Multiple Species Habitat Conservation Plan Consistency Analysis Report for the projects identified in the 2018 RWMP that would be located on undeveloped land, including the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline, during the project design phase. The surveys would identify potential impacts on biological resources and include site-specific mitigation measures.
Policy ER-6.4. Ensure that new developments through the development review process adhere to the Western Riverside County Multiple Species Habitat Conservation Plan, the Stephens' Kangaroo Rat Habitat Conservation Plan, and other habitat plans as appropriate to conserve biological diversity through protection of natural communities.	**Consistent.** The project would be consistent with the conservation goals outlined in the Western Riverside County MSHCP. The project's compliance with the Western Riverside County MSHCP is discussed in detail in Section 3.4.4.7.
Policy ER-6.5. Preserve wildlife habitat of significant natural open space areas, including expanding habitat ranges, movement corridors, and nesting sites by adhering to and implementing the core biological linkages identified in the MSHCP for parts of the Any proposed recreational use of those areas such as trails shall be designed to not interfere with the preservation efforts established in the MSHCP.	**Consistent.** Projects identified in the 2018 RWMP would be confined to existing facilities or easements or in existing ROWs. However, potentially significant impacts to one sensitive vegetation community, non-native grassland, could result during the implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline. Implementation of Mitigation Measure~~s~~ BIO-1~~2 and BIO-3~~ would reduce potentially significant impacts to sensitive vegetation communities to less than significant. Federally and state-protected nesting birds have the potential to occur on or adjacent to the projects included in the 2018 RWMP, including projects in developed/disturbed land. Implementation of the projects included in the 2018 RWMP would have the potential to impact nesting birds (including raptors) through direct removal of nesting habitat and disturbance to nesting birds from substantial sources of noise generated at the start of new construction during the nesting season. Implementation of Mitigation Measures BIO-1~~8~~ and BIO-6~~9~~ would reduce impacts to less than significant. No significant impacts to natural open spaces, including movement corridors, is anticipated. In addition, no recreational use is proposed as part of the project.

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
Policy ER-7.1. Require that public and private construction activities be conducted in a manner to minimize adverse impacts on natural resources and biological resources in proximity to MSHCP conservation areas and adhere to the MSHCP Guidelines pertaining to Urban/Wildlife Interface for drainage, toxics, lighting, noise, invasive barriers, and grading [MSHCP Section 6.4.1].	**Consistent.** The project would be consistent with the conservation goals outlined in the Western Riverside County MSHCP. The projects' compliance with the Western Riverside County MSHCP is discussed in detail in Section 3.4.4.7.
Policy ER-8.5. Conserve the oak tree resources in the City to the extent feasible.	**Consistent.** No oak trees were identified to be impacted by implementation of the project.
Policy ER-9.2. Conserve existing wetlands and wetland functions and values in the Temescal Canyon Wash, Prado Basin, and the Santa Ana River with a focus on conservation of existing riparian, woodland, coastal sage scrub, alluvial fan scrub, and open water habitats.	**Consistent.** The project does not propose development in the Temescal Canyon Plan Area, Santa Ana River, or other regional washes.
Policy ER-9.3. Conserve existing known populations of least Bell's vireo and southwestern willow flycatcher in the Temescal Canyon Area Plan, including at Prado Basin, Santa Ana River, and Temescal Canyon Wash. Maintain existing breeding habitat for these species at Prado Basin, Santa Ana River, and Temescal Wash where applicable to a particular project and location. **Policy ER-9.4.** Conserve and manage suitable habitat for species known to exist in the Temescal Canyon Area Plan of Western Riverside County's Multiple Species Habitat Conservation Plan. **Policy ER-9.5.** Conserve clay soils supporting sensitive plant species known to occur in the Temescal Canyon area, including Munz's onion, Palmer's grappling hook, small-flowered morning glory, long-spined spineflower, thread-leaved brodiaea, small-flowered microseris, and many-stemmed dudleya. **Policy ER-9.6.** Conserve sandy soils co-occurring with chaparral supporting Palomar monkeyflower, known to occur in the Temescal Canyon area. **Policy ER-9.7.** Conserve locations supporting California muhly, heart-leaved pitcher sage, Hall's monardella, and other sensitive plant species that may occur in a wide variety of habitat types within the Temescal Canyon Area Plan. **Policy ER-9.8.** Provide for and maintain connection(s) from the Cleveland National Forest to Prado Basin and the Santa Ana River within Temescal Canyon, providing opportunities for offsite connections to Chino Hills State Park. **Policy ER-9.9.** Conserve upland habitat adjacent to the Temescal Canyon Wash to augment existing upland habitat conservation in the Lake Matthews/Estelle Mountain Reserve areas and provide for contiguous connection of upland habitat blocks from the existing reserve to Temescal Wash. Habitat conservation should focus on blocks of existing	**Consistent.** The project does not propose development in the Temescal Canyon Plan Area, Santa Ana River, or other regional washes.

Table 3.11-2. Project Consistency with Relevant City of Corona 2020–2040 General Plan Policies

City of Corona 2020–2040 General Plan Goal/Objective/Policy	Project Consistency Evaluation
upland habitat east of Temescal Canyon Wash connecting to Lake Matthews/Estelle Mountain Reserve. **Policy ER-9.10.** Conserve floodplain areas supporting sensitive plant species known to occur in Temescal Canyon, including Parry's spineflower, peninsular spineflower, smooth tarplant, and Coulter's matilija poppy. **Policy ER-9.11.** Conserve rocky soils co-occurring with coastal sage scrub, peninsular jumper, or chaparral supporting Payson's jewelflower, known to occur in the Temescal Canyon area. **Policy ER-9.12.** Provide for and maintain a continuous linkage along the Temescal Canyon Wash from the southern boundary of the Temescal Canyon to the Santa Ana River.	
Policy ER-10.1. Maintain the use of the city's Mineral Resource Overlay Zone in the City's Zoning Ordinance to ensure lands having a state classification of MRZ-2 through the Department of Conservation have the opportunity to be made available for mineral materials.	**Consistent.** Utility improvements, such as those identified in the 2018 RWMP, are considered compatible with land uses. In addition, the majority of the projects identified in the 2018 RWMP would be in existing facilities and public ROWs and would not result in substantial land disturbance that would impact existing or future mining operations.
Policy ER-12.3. Establish and strictly enforce controls on land use activities that contain operations or materials that individually or cumulatively add significantly to the degradation of air quality in Corona.	**Consistent.** Project construction and operational emissions of criteria pollutants would not exceed applicable thresholds established to assist maintaining or achieving regional attainment in the South Coast Air Basin. Additional detail is provided in Section 3.3, Air Quality.

Source: City of Corona 2020.

Notes: BMP = best management practice; City = City of Corona; CRHR = California Register of Historic Resources; MSHCP = Multiple Species Habitat Conservation Plan; NRHP = National Register of Historic Properties; ROW = right-of-way; WRCRWA = Western Riverside County Regional Wastewater Authority

SCAG Regional Transportation Plan/Sustainable Communities Strategy

The 2016–2040 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with goals for the environment, regional economy, social equity and environmental justice, and public health. Ultimately, the 2016–2040 RTP/SCS is intended to help guide transportation and land use decisions and public investments. One of its goals is to protect the environment and health of residents by improving air quality and encouraging active transportation (e.g., bicycling and walking). The 2016–2040 RTP/SCS includes programs, policies, and measures to address air emissions. Measures that help mitigate air emissions are composed of strategies that reduce congestion, increase access to public transportation, improve air quality, and enhance coordination between land use and transportation decisions.

As discussed in Section 3.3.4.2, the project would not result in a significant impact related to criteria pollutant emissions during construction. Because emissions of criteria pollutants under the project would be below the applicable thresholds, which are established to assist with maintaining or achieving regional attainment in the South Coast Air Basin, construction would not result in a

cumulatively considerable contribution to regional acute and long-term health impacts related to nonattainment of the ambient air quality standards. In addition, most of the projects associated with the 2018 RWMP would be passive, new, or upgraded pipelines and storage facilities, which would not result in new sources of operational air pollution. Therefore, the project would be consistent with the 2016–2040 RTP/SCS.

Level of Significance Before Mitigation

As detailed in Table 3.11-2, implementation of the project would conflict with an applicable land use plan, policy, or regulation. Therefore, impacts would be potentially significant.

Mitigation Measures

The project would have potentially significant impact related to the conflict with an applicable land use plan, policy, or regulation. However, the mitigation measures identified in other Program Environmental Impact Report sections, including Mitigation Measures AES-1 (Section 3.1, Aesthetics); BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, and BIO-9~~, BIO-10, BIO-11, BIO-12, and BIO-13~~ (Section 3.4, Biological Resources); CUL-1, CUL-2, CUL-3, and CUL-4 (Section 3.5, Cultural Resources); GEO-1 (Section 3.7, Geology, Soils, and Paleontological Resources); HAZ-3 (3.9, Hazards and Hazardous Materials); and NOI-1 (Section 3.13, Noise), would reduce impacts to less than significant.

Level of Significance After Mitigation

With implementation of Mitigation Measures AES-1, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9~~, BIO-10, BIO-11, BIO-12, BIO-13~~, CUL-1, CUL-2, CUL-3, CUL-4, GEO-1, HAZ-3, and NOI-1, the project would be consistent with the City of Corona 2020–2040 General Plan and would not conflict with an applicable land use plan, policy, or regulation. Impacts would be less than significant.

3.11.5 Cumulative Impacts and Mitigation

3.11.5.1 Cumulative Threshold 1: Physically Divide Established Community

The geographic context for the analysis of cumulative land use impacts is the water service area. Cumulative projects would include the construction of new or widened roadways, airports, railroad tracks, open space areas, or other features that would individually have the potential to physically divide an established community. In addition to these larger projects, smaller cumulative projects could have the effect of forming an access barrier that would physically divide a community. Such impacts would generally be limited to an individual community and would not be cumulative in nature. Multiple projects in the same community could combine to result in a cumulative effect to the division of that community. However, all cumulative projects would be required to comply with the City of Corona 2020–2040 General Plan and undergo development review before

approval. This would ensure that a significant cumulative impact related to the physical division of an established community would not occur. Further, the project does not propose any new land uses that would divide established communities. Therefore, the project, along with the identified cumulative projects, would not result in a cumulative land use impact. The project's contribution would not be cumulatively considerable.

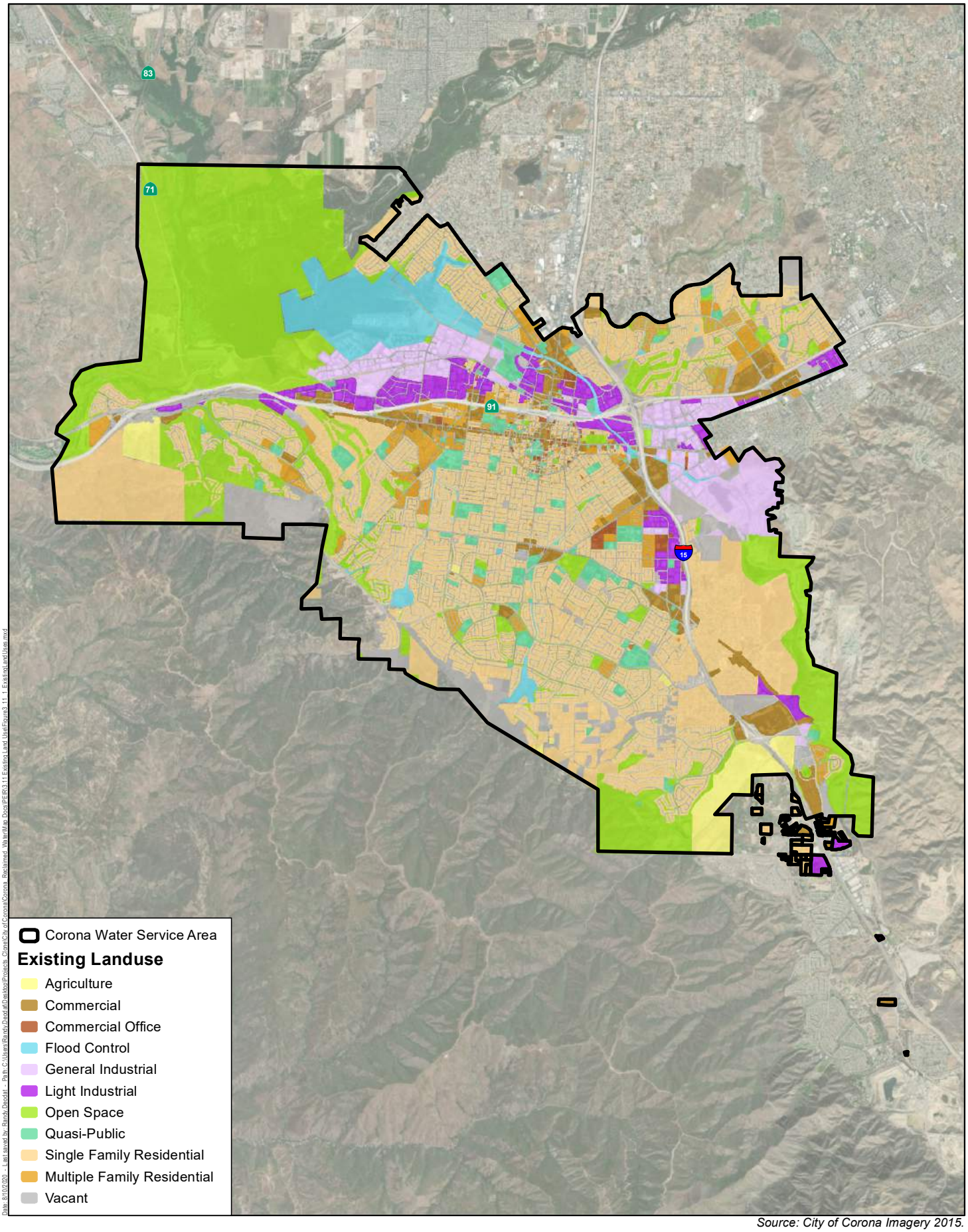
3.11.5.2 Cumulative Threshold 2: Conflict with Land Use Plan, Policy or Regulation

The geographic context for the analysis of cumulative land use impacts is the water service area. A significant cumulative land use impact would occur if future projects would combine to be inconsistent with applicable land use plans or policies adopted to protect the environment. Similar to the project, cumulative projects would be consistent with the existing adopted plans or require mitigation measures to ensure consistency for project approvals to occur. With mitigation, the project would be consistent with the City of Corona 2020–2040 General Plan and 2016–2040 RTP/SCS. Land use factors associated with development of the project would not affect or be affected by approvals of reasonably expected future development elsewhere in the water service area. Therefore, the project, along with the identified cumulative projects, would not result in a cumulative land use impact. The project's contribution would not be cumulatively considerable.

3.11.6 Conclusion

Implementation of the project would not physically divide an established community. Therefore, no direct or cumulative impacts would occur.

Implementation of the project would potentially conflict with the relevant City of Corona 2020–2040 General Plan policies that were adopted to avoid or mitigate an environmental effect as detailed in Table 3.11-1. With the implementation of Mitigation Measures AES-1, BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9~~, BIO-10, BIO-11, BIO-12, BIO-13~~, CUL-1, CUL-2, CUL-3, CUL-4, GEO-1, HAZ-3, and NOI-1, the project would be consistent with the City of Corona 2020–2040 General Plan. Therefore, direct and cumulative impacts would be less than significant.



Source: City of Corona Imagery 2015.

Harris & Associates

Figure 3.11-1

Existing Landuses

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.

3.18 Tribal Cultural Resources

This section discusses the potential impacts to tribal cultural resources (TCRs) in the City of Corona's (City's) water service area that may result from the implementation of the 2018 Reclaimed Water Master Plan (project or 2018 RWMP). The analysis in this section is based in part on the following information: Cultural and Tribal Cultural Resources Technical Report prepared by Red Tail Environmental (2020) for the project (Appendix D).

3.18.1 Environmental Setting

This section describes the environmental setting as it relates to TCRs for the water service area. The project proposes reclaimed water facilities in various locations throughout the water service area.

3.18.1.1 Ethnohistory

During the Ethnohistoric period, the region that is currently known as the County of Riverside (County) was a shared-use area and home to three closely related Takic-speaking groups: the Cahuilla, the Gabrielino, and the Luiseño/Juaneño. Settlement patterns for the three groups were very similar, with settlements typically in valley bottoms, along streams, or along coastal strands near mountain ranges. Villages were often in sheltered areas near good water supplies, in a defensive location, or on the side of warm thermal zone slopes.

Cahuilla

The Cahuilla traditional use area included the San Bernardino Mountains, Orocopia Mountains, and Chocolate Mountains to the east, the Salton Sea and Borrego Springs to the south, the eastern slopes of Palomar Mountain and Lake Mathews to the west, and the Santa Ana River to the north (Appendix D). The Cahuilla traditionally inhabited areas from the desert and valley floors to the mountain areas, which included drastically different environmental areas and resources. The water service area is along the western boundary of what would have been the Cahuilla traditional use area. Living inland, the Cahuilla had minimal contact with the Spaniards and were not as influenced to the extent that the coastal groups were, although the Asistencia at San Bernardino in 1819 did have several Cahuilla on their register.

Gabrielino

The largest, most powerful group in Southern California was the Gabrielino. Their traditional use area was centered in what is now the Los Angeles Basin and encompassed the Los Angeles, San Gabriel, and Santa Ana watersheds. Their range extended as far east as present day San Bernardino, west to the Santa Monica Mountains, south to Aliso Creek, and as far north as the San Fernando Valley. This group also occupied several Channel Islands, including Santa Barbara Island, Santa Catalina Island, San Nicholas Island, and San Clemente Island. The Gabrielino had access to

important resources, including a steatite source from Santa Catalina Island, and controlled the trade of materials and resources as far north as the San Joaquin Valley, east to the Colorado River, and as far south as Baja California. The Gabrielino came under the influence of two Spanish missions, Mission San Gabriel and Mission San Fernando, and most of the natives from the coastal areas and inland valleys were removed to these missions. According to the archaeological record, the Gabrielino were not the first inhabitants of the Los Angeles Basin but arrived in the area around 500 BC as part of the "Shoshonean (Takic) wedge" (Appendix D).

The water service area is in the southeastern boundary of the Gabrielino territory (Appendix D). The name "Gabrielino," which can also be spelled "Gabrieleno" or "Gabrieleño," describes the people who were governed by the Spanish from the Mission San Gabriel. In the post-contact period, Mission San Gabriel included natives of the greater Los Angeles area and members of surrounding groups such as Kitanemuk, Serrano, and Cahuilla.

Luiseño/Juaneño

The traditional use area of the Luiseño encompassed approximately 1,500 square miles and extended in a north-northeasterly direction from Agua Hedondia Lagoon to Aliso Creek and to the east, including what are currently known as Oceanside, Vista, San Marcos, Escondido, Palomar Mountain, and the Gujieto, a portion of Valle de San José, and north to Soboba and Temescal (Appendix D). The Luiseño was designated based on their association with the Mission San Luis Rey, while the Juaneño are associated with the Mission San Juan Capistrano, however Bean and Shipek (1978, as cited in Appendix D) state that the Luiseño and Juaneño are ethnologically and linguistically similar and that the distinction is based on the influence of the mission system. The water service area is adjacent to the northern boundary of the Luiseño/Juaneño traditional territory.

3.18.1.2 Tribal Cultural Resources

TCRs are defined as "sites, features, places, cultural landscapes, sacred places, and objects" that are of cultural value to a California Native American tribe and that are either on or determined eligible for inclusion on the California Register of Historical Resources or a local register of historic resources. In addition, a resource determined by a lead agency, at its discretion and supported by substantial evidence, to be significant under the criteria set forth in subdivision (c) of the California Public Resource Code, Section 5024.1, is a TCR under the California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21074).

A sacred lands file search conducted by the Native American Heritage Commission (NAHC) was requested on March 30, 2020. The NAHC responded on April 2, 2020, that the results were positive and provided a list of 37 tribal organizations and individuals to contact for additional information. Red Tail Environmental sent information request letters to the 37 tribal organizations and individuals on April 6, 2020.

To date, three responses have been received. On April 14, 2020, Jill McCormick, Historic Preservation Officer for the Fort Yuma Quechan Tribe, responded that the tribe has no comments on the project. Cheryl Madrigal, Tribal Historic Preservation Officer and Cultural Resources Manager for the Rincon Band of Luiseño Indians, responded that the project is within the territory of the Luiseño people and within the band's specific area of historic interest. They have identified Luiseño place names but no known TCRs or traditional cultural properties in the water service area. They recommend that an archaeological/cultural resources study be conducted and a final copy of the study be provided to the band for their review and comment and inclusion of appropriate provisions for inadvertent discoveries. On June 9, 2020, Patricia Garcia Plotkin, Director of Historic Preservation for the Agua Caliente Band of Cahuilla Indians, responded that the project is not within the tribe's traditional use area and that they defer to other tribes in the area. This information was provided to the City.

Government-to-government consultation pursuant to AB 52 was initiated on September 14, 2020, a letter was sent to each tribal contact by the City with a summary and maps of the project, and a request for consultation. The letter provided contact information for the City of Corona, Public Works Department, and a request that the tribe contact the City within 30 days if they would like to begin formal consultation.

3.18.2 Regulatory Setting

This section describes the federal, state, and local regulatory framework adopted to protect TCRs.

3.18.2.1 Federal

Archaeological Resources Protection Act

The Archaeological Resources Protection Act of 1979 regulates the protection of archaeological resources and sites which are on federal lands and Native American lands.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act is a federal law passed in 1990 that provides a process for museums and federal agencies to return certain Native American cultural items, such as human remains, funerary objects, sacred objects, or objects of cultural patrimony, to lineal descendants and culturally affiliated Native American tribes.

3.18.2.2 State

Assembly Bill 52

Assembly Bill 52 took effect July 1, 2015, and requires inclusion of a new section in CEQA documents titled "Tribal Cultural Resources," which includes heritage sites. Under Assembly Bill 52, a TCR is defined in a similar way to tribal cultural places under Senate Bill (SB) 18—sites, features, places,

cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register of Historical Resources or included in a local register of historic resources. Alternatively, the lead agency, supported by substantial evidence, may choose at its discretion to treat the resource as a TCR.

Assembly Bill 52 requires consultation with tribes at an early stage to determine whether the project would have an adverse impact on the TCR and mitigation to protect them. Per Assembly Bill 52, within 14 days of deciding to undertake a project or determining that a project application is complete, the lead agency must provide formal written notification to all tribes who have requested it. The tribe then has 30 days of receiving the notification to respond if it wishes to engage in consultation. The lead agency must initiate consultation within 30 days of receiving the request from the tribe. Consultation concludes when both parties have agreed on measures to mitigate or avoid a significant effect to a tribal cultural resource, or a party, after a reasonable effort tin good faith, decides that mutual agreement cannot be reached. Regardless of the outcome of consultation, the CEQA document must disclose significant impacts on TCRs and discuss feasible alternatives or mitigation that avoid or lessen the impact.

California Health and Safety Code

The discovery of human remains is regulated by California Health and Safety Code, Section 7050.5, which states that:

> In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation . . . until the coroner . . . has determined . . . that the remains are not subject to . . . provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible . . . .
>
> The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains. If the coroner determines that the remains are not subject to his or her authority and…has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

California Public Resources Code

Archaeological resources are protected pursuant to a wide variety of state policies and regulations enumerated under the California Public Resources Code. In addition, cultural resources are recognized as a nonrenewable resource and, therefore, receive protection under the California Public Resources Code and CEQA. California Public Resources Code, Sections 5097.9–5097.991, provides protection to Native American historic and cultural resources and sacred sites and

identifies the powers and duties of the NAHC. It also requires notification of discoveries of Native American human remains and descendants and provides for treatment and disposition of human remains and associated grave goods.

California Senate Bill 18

Existing law provides limited protection for Native American prehistoric, archaeological, cultural, spiritual, and ceremonial places. These places may include sanctified cemeteries, religious, ceremonial sites, shrines, burial grounds, prehistoric ruins, archaeological or historic sites, Native American rock art inscriptions, or features of Native American historic, cultural, and sacred sites. SB 18 was signed into law in September 2004 and went into effect on March 1, 2005. It places new requirements upon local governments for developments within or near "traditional tribal cultural places" (TTCP). Per SB 18, the law requires local jurisdictions to provide opportunities for involvement of California Native Americans tribes in the land planning process for the purpose of preserving TTCP. The Final Tribal Guidelines recommends that the NAHC provide written information as soon as possible but no later than 30 days to inform the lead agency if the proposed project is determined to be in proximity to a TTCP and another 90 days for tribes to respond to a local government if they want to consult to determine whether the project would have an adverse impact on the TTCP. There is no statutory limit on the consultation duration. Forty-five days before the action is publicly considered by the local government council, the local government refers action to agencies following the CEQA public review time frame. The CEQA public distribution list may or may not include tribes listed by the NAHC who have requested consultation. If the NAHC, the tribe, and interested parties agree on the mitigation measures necessary for the proposed project, the mitigation measures would be included in the project's Environmental Impact Report. For the project, if both the City and the tribe agree that adequate mitigation or preservation measures cannot be taken, neither party is obligated to take action.

Per SB 18, a city or county is required to consult with the NAHC and any appropriate Native American tribe before the adoption, revision, amendment, or update of a city's or county's general plan. Although SB 18 does not specifically mention consultation or notice requirements for adoption or amendment of specific plans, the Final Tribal Guidelines advises that SB 18 requirements extend to specific plans as well, because state planning law requires local governments to use the same process for amendment or adoption of specific plans as general plans (defined in California Government Code, Section 65453). In addition, SB 18 provides a new definition of TTCP requiring a traditional association of the site with Native American traditional beliefs, cultural practices, or ceremonies or the site must be shown to actually have been used for activities related to traditional beliefs, cultural practices, or ceremonies. (Previously, the site was defined to require only an association with traditional beliefs, practices, lifeways, and ceremonial activities.) In addition, SB 18 law also amended Civil Code, Section 815.3, and adds California

Native American tribes to the list of entities that can acquire and hold conservation easements for protecting their cultural places.

3.18.2.3 Local

There are no applicable local regulations that apply to TCRs.

3.18.3 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a significant impact related to TCRs would occur if the project would (CEQA Guidelines, Section 15000 et seq.):

1. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
    a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).
    b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

3.18.4 Environmental Analysis

3.18.4.1 Threshold 1: Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

> ***a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).***
>
> ***b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.***

Impact Analysis

The significance of a cultural resource is impaired when a project demolishes or materially alters those physical characteristics that convey significance. Impacts to TCRs, archaeological resources, or human remains most often occur as the result of trenching and grading. These resources may also be subject to indirect impacts as the result of project-related activities that increase erosion, compression, or accessibility. Under CEQA, an effect on nonphysical values (such as tribal values or other spiritual or religious values) is not considered an environmental effect; however, when a project would result in a physical effect, these values may be considered in determining whether the physical effect is significant.

A ~~scared~~ sacred lands file search ~~conducted by the NAHC~~ was requested of the NAHC on March 30, 2020. The NAHC responded on April 2, 2020, that the results were positive and provided a list of 37 tribal organizations and individuals to contact for additional information. Red Tail Environmental sent information request letters to the 37 tribal organizations and individuals on April 6, 2020. To date, three responses have been received. Jill McCormick, Historic Preservation Officer for the Fort Yuma Quechan Tribe, responded on April 14, 2020, that the tribe has no comments on the project. Cheryl Madrigal, Tribal Historic Preservation Officer and Cultural Resources Manager for the Rincon Band of Luiseño Indians, responded that the project is within the territory of the Luiseño people and within the band's specific area of historic interest. They have identified Luiseño place names but no known TCRs or traditional cultural properties in the water service area. They recommend that an archaeological/cultural resources study be conducted and a final copy of the study be provided to the band for their review and comment and inclusion of appropriate provisions for inadvertent discoveries. On June 9, 2020, Patricia Garcia Plotkin, Director of Historic Preservation for the Agua Caliente Band of Cahuilla Indians, responded that the project is not located within the tribe's traditional use area and they defer to other tribes in the area.

A review of the Sacred Lands File held by the Native American Heritage Commission was requested on March 30, 2020. On April 2, 2020, the NAHC responded that the review of the Sacred Lands File was positive. The NAHC provided contact information for 37 Native American tribes that are traditionally and culturally affiliated with the geographic area of the project. On April 6, 2020, letters were forwarded to the tribes requesting additional information on the project area of any concerns they may have related to the project. Three responses have been received. Jill McCormick, Historic Preservation Officer for the Fort Yuma Quechan Tribe, responded on April 14, 2020, that the tribe has no comments on the project. Cheryl Madrigal, Tribal Historic Preservation Officer and Cultural Resources Manager for the Rincon Band of Luiseño Indians, responded that the project is within the territory of the Luiseño people and within the Band's specific area of historic interest. They have identified Luiseño place names within the project area but no known tribal cultural resources or traditional cultural properties, and they recommend an archaeological/cultural resources study be conducted and a final copy of the study be provided to

the Band for their review and comment, as well the inclusion of appropriate provisions for inadvertent discoveries. On June 9, 2020, Patricia Garcia Plotkin, Director of Historic Preservation, Agua Caliente Band of Cahuilla Indians, responded that the project is not located within the tribe's traditional use area, they defer to other tribes in the area, and this concludes their consultation efforts. This information was provided to the City.

Government-to-government consultation pursuant to AB 52 was initiated on September 14, 2020, and a letter was sent to each tribal contact by the City with a summary and maps of the project and a request for consultation. The letter provided contact information for the City of Corona, Public Works Department, and a request that the tribe contact the City within 30 days if they would like to begin formal consultation. The Gabrieleño Band of Mission Indians – Kizh Nation, Soboba Band of Luiseño Indians, and Rincon Band of Luiseño Indians requested consultation with the City. On November 5, 2020, a meeting with held with the City and the Soboba Band of Luiseño Indians to discuss the project and its relationship to the tribe's traditional use area. On November 18, 2020, a meeting was held with the City and the Rincon Band of Luiseño to discuss tribal concerns. Finally, on December 16, 2020, a meeting was held with the City and the Gabrieleño Band of Mission Indians – Kizh Nation where the tribe advised that the project site was highly sensitive and highly used during ceremonies and contains villages and transportation routes.

Based on the historic and archival research conducted for the project, historic resources as defined in California Public Resources Code, Section 5020.1(k), may be present in the water service area as described in Section 3.5.1.5 in Section 3.5, Cultural Resources. Construction of the projects identified in the 2018 RWMP would largely occur in existing roadway rights-of-way and developed areas. The demolition or direct physical alteration of potential historic structures, historic districts, or other built environment resources would be unlikely based on the type of facilities included in the project. However, construction activities could adversely impact buried known or previously unrecorded cultural resources that may be eligible to the California Register of Historical Resources or Corona Register.

As discussed in Section 3.5.4.2 in Section 3.5, much of the water service area has been identified as having a moderate to high sensitivity for cultural resources. Trenching, grading, and other construction activities would involve ground-disturbing construction activities that would occur within 100 feet of potentially significant known or unknown archaeological resources and could potentially cause disturbance to TCRs. Table 3.5-4, Cultural Sensitivity and Known Resource Locations for the 2018 RWMP Projects, in Section 3.5 identifies the projects that are within 100 feet of a known archaeological resource. Therefore, ground disturbance associated with the projects identified in the 2018 RWMP would potentially unearth previously unknown or unrecorded TCRs.

Once constructed, the projects identified in the 2018 RWMP would not have the potential to cause additional impacts to TCRs. Typical operation and maintenance activities would not result in additional physical impacts.

Level of Significance Before Mitigation

Implementation of the project has the potential to damage or destroy unknown subsurface TCRs, which could result in a substantial adverse change in the significance of a TCR as defined in California Public Resources Code, Section 21074. Therefore, impacts related to TCRs would be potentially significant.

Mitigation Measures

Mitigation Measures CUL-2, CUL-3, and CUL-4 in Sections 3.5.4.2 and 3.5.4.3 in Section 3.5 would be implemented to reduce impacts to TCRs. Mitigation Measure CUL-2 would require site-specific archaeological surveys to be conducted for individual projects identified in the 2018 RWMP, which would be located in areas that have not been previously developed and that would impact land with visible ground surface, or projects that may impact built environment resources that meet the age threshold for eligibility. If any resource are identified, they should be evaluated for significance. Mitigation Measure CUL-3 requires an archaeological and Native American monitoring program for projects identified in the 2018 RWMP, which would result in new ground disturbance in areas identified as moderate or high sensitivity for cultural resources, ~~and~~ for projects identified in the 2018 RWMP that are within 100 feet of previously recorded archaeological resources, and for those projects where tribal consultation has identified traditional cultural properties/tribal cultural landscapes. The identification of TCRs during construction activities would occur through implementation of Mitigation Measure CUL-34. Mitigation Measure CUL-4 requires that, in the event that human remains, possible human remains, and/or grave goods are encountered during any work associated with the project, ground disturbance within ~~25~~ 100 feet of the remains shall halt, and California Environmental Quality Act Guidelines, Section 15064.5(e); California Public Resource Code, Section 5097.98; and California Health and Safety Code, Section 7050.5, shall be followed. See Sections 3.5.4.2 and 3.5.4.3 in Section 3.5 for a complete description of these mitigation measures.

Level of Significance After Mitigation

Implementation of Mitigation Measures CUL-2, CUL-3, and CUL-4 would reduce impacts to TCRs to a less than significant level.

3.18.5 Cumulative Impacts and Mitigation

3.18.5.1 Cumulative Threshold 1: Tribal Cultural Resources

Cumulative projects in the County region have the potential to result in a cumulative impact associated with the loss of TCRs through development activities that could cause a substantial adverse change in the significance of a TCR. These sites may contain artifacts and resources associated with tribal cultural values and religious beliefs. Any cumulative projects that involve ground-disturbing activities have the potential to result in significant impacts on TCRs. Therefore, the cumulative destruction of TCRs from planned construction and development projects in the County region would be cumulatively significant.

There is the potential for construction of the projects identified in the 2018 RWMP to result in significant impacts to unknown subsurface TCRs. This potentially significant impact would be mitigated to a less than significant level with the implementation of Mitigation Measures CUL-2, CUL-3, and CUL-4, which require the evaluation of any feasible means of reducing disturbance to TCRs, monitoring during construction, and repatriation of materials associated with TCRs. Therefore, by applying mitigation, the project's contribution would not be cumulatively considerable.

3.18.6 Conclusion

Implementation of the project has the potential to damage or destroy unknown subsurface TCRs, which could result in a substantial adverse change in the significance of a TCR as defined in California Public Resources Code, Section 21074(e). Therefore, impacts related to TCRs would be significant. Mitigation Measures CUL-2, CUL-3, and CUL-4 would be implemented to reduce direct and cumulative impacts to a less than significant level.

Chapter 5 Alternatives to the Proposed Project

5.1 Introduction

In accordance with the California Environmental Quality Act (CEQA) Guidelines, Section 15126.6(c), this chapter describes a range of reasonable alternatives that could feasibly attain the majority of the project objectives while avoiding or substantially reducing one or more of the 2018 Reclaimed Water Master Plan's (project or 2018 RWMP) significant impacts. The primary purpose of this chapter is to inform decision makers and the general public of potential alternatives to the 2018 RWMP and to analyze these alternatives to determine the environmentally superior alternative.

Two alternatives to the project are analyzed in this chapter:

- **Alternative 1:** No Project/Existing 2001 RWMP Alternative
- **Alternative 2:** Reduced Project Alternative

5.2 Requirements for Alternatives Analysis

The CEQA Guidelines require an Environmental Impact Report (EIR) to analyze potential alternatives to the project or alternative locations for the project that could feasibly accomplish most of the basic project objectives and could avoid or substantially lessen one or more significant effects. The alternatives must include a No Project Alternative, along with a range of alternatives governed by a "rule of reason," meaning only those alternatives necessary to permit a reasoned choice. Following an analysis of alternatives, an EIR must identify the environmentally superior alternative, which cannot be the No Project Alternative (CEQA Guidelines, Section 15126.6).

5.3 Selection of Alternatives

The CEQA Guidelines do not require an EIR to consider every plausible alternative to a project. An EIR must examine in detail only a reasonable range of alternatives that the lead agency determines could feasibly attain most of the basic project objectives while also reducing impacts. An EIR does not need to consider alternatives with effects that cannot be reasonably ascertained and that implementation of is remote and speculative. Feasibility factors include site suitability, economic viability, availability of infrastructure, General Plan consistency, other plans or regulatory limitations, and jurisdictional boundaries and whether the proponent can reasonably acquire, control, or otherwise have access to an alternative site. The CEQA Guidelines define the term "feasible" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" (CEQA Guidelines, Section 15364). Also, as stated in CEQA Guidelines, Section 15126.6(f)(1), "among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or

regulatory limitations, jurisdictional boundaries... and whether the proponent can reasonably acquire control or otherwise have access to the alternative site."

Alternatives to the project were developed based on the requirements of CEQA Guidelines, Section 15126.6. Therefore, the alternatives were developed based on the project objectives, which are described in Chapter 2, Project Description. The project objectives include the following:

1. Expand and improve the City of Corona's (City's) recycled water program in accordance with Ordinance 2854 (Recycled Water Rules and Regulations)
2. Prioritize and implement system improvements pursuant to the 2018 Reclaimed Water Master Plan to maximize reclaimed water supply availability and reduce the use of potable water
3. Improve water supply system performance by facilitating supply management and maximizing water resources
4. Efficiently implement priority improvement projects to manage and distribute new sources of water supply as they become available

Additionally, only alternatives that would avoid or substantially lessen one or more significant environmental impacts of the project were carried forward for analysis. Table 5-1 provides a summary of the project's significant impacts identified in Chapter 3, Environmental Analysis, to focus the evaluation of the alternatives in Section 5.5, Alternatives Comparison. Refer to each individual issue area for a description of the mitigation measures identified to reduce potentially significant impacts to less than significant levels.

Table 5-1. Summary of Impacts of the Proposed Project

Issue Area	Proposed Project	
	Without Mitigation	With Mitigation
Section 3.1, Aesthetics		
Scenic Vistas	LS	LS
State Scenic Highway	LS	LS
Substantial Degradation of the Existing Visual Character or Conflict with Applicable Regulations	PS	LS
Nighttime Light and Glare	LS	LS
Section 3.2, Agriculture and Forestry Resources		
Conversion of Farmland	NI	NI
Conflict with Agricultural Zone or Williamson Act Contract	NI	NI
Conflict with Zoning for Forest Land or Timberland	NI	NI
Loss or Conversion of Forest Land	NI	NI
Other Changes to the Existing Environment	NI	NI

Table 5-1. Summary of Impacts of the Proposed Project

Issue Area	Proposed Project	
	Without Mitigation	With Mitigation
Section 3.3, Air Quality		
Consistency with Applicable Air Quality Plan	LS	LS
No Net Increase of Any Criteria Pollutants	LS	LS
Sensitive Receptors	LS	LS
Odors	LS	LS
Section 3.4, Biological Resources		
Sensitive Plant Species	PS	LS
Sensitive Animal Species	PS	LS
Riparian Habitat and Other Sensitive Natural Communities	PS	LS
Jurisdictional Aquatic Resources	PS	LS
Wildlife Corridors and Linkages	LS	LS
Local Policies and Ordinances	LS	LS
Regional Conservation Planning	PS	LS
Section 3.5, Cultural Resources		
Historic Resources	PS	LS
Archaeological Resources	PS	LS
Human Remains	PS	LS
Section 3.6, Energy		
Wasteful or Inefficient Energy Use	LS	LS
Conflict with Renewable or Energy Efficiency Plan	LS	LS
Section 3.7, Geology, Soils, and Paleontological Resources		
Seismic Hazards	PS	LS
Soil Erosion or Loss of Topsoil	LS	LS
Geologic Stability	PS	LS
Expansive Soils	PS	LS
Septic Tanks	NI	NI
Paleontological Resources	PS	LS
Section 3.8, Greenhouse Gas Emissions		
Greenhouse Gas Emissions	LS	LS
Consistency with Adopted Greenhouse Gas Reduction Plan	LS	LS
Section 3.9, Hazards and Hazardous Materials		
Routine Transport, Use, or Disposal of Hazardous Materials	LS	LS
Accidental Release of Hazardous Materials	PS	LS
Hazardous Emissions within 0.25 Mile of a School	LS	LS
Hazardous Materials Sites	LS	LS
Aircraft Safety Hazards	LS	LS

Table 5-1. Summary of Impacts of the Proposed Project

Issue Area	Proposed Project	
	Without Mitigation	With Mitigation
Emergency Response Plan or Evacuation Plan	PS	LS
Wildland Fires	PS	LS
Section 3.10, Hydrology and Water Quality		
Water Quality Standards	LS	LS
Groundwater Supplies	LS	LS
Alteration of Existing Drainage Patterns	LS	LS
Flood Hazards, Tsunami, or Seiche	LS	LS
Conflict with Water Quality Basin Plan	LS	LS
Section 3.11, Land Use and Planning		
Physical Division of Established Community	NI	NI
Conflict with Land Use Plan, Policy, or Regulation	PS	LS
Section 3.12, Mineral Resources		
Loss of Availability of Known Mineral Resources	LS	LS
Loss of Availability of Locally Important Mineral Resource Recovery Sites	LS	LS
Section 3.13, Noise		
Exceedance of Noise Standards	PS	LS
Excessive Groundborne Vibration or Noise	PS	LS
Aircraft Noise	LS	LS
Section 3.14, Population and Housing		
Induction of Substantial Population Growth	LS	LS
Displacement of Housing and People	NI	NI
Section 3.15, Public Services		
Fire Protection Services	NI	NI
Police Protection Services	NI	NI
Public School Facilities	NI	NI
Libraries	NI	NI
Section 3.16, Recreation		
Deterioration of Parks and Recreational Facilities	NI	NI
Construction or Expansion of Recreational Facilities	NI	NI
Section 3.17, Transportation		
Conflict with Program, Plan, Ordinance, or Policy	PS	LS
Vehicle Miles Traveled	LS	LS
Increase in Hazards	NI	NI
Inadequate Emergency Access	PS	LS
Section 3.18, Tribal Cultural Resources		
Tribal Cultural Resources	PS	LS

Table 5-1. Summary of Impacts of the Proposed Project

Issue Area	Proposed Project	
	Without Mitigation	With Mitigation
Section 3.19, Utilities and Service Systems		
Relocation or Construction of New Facilities	PS	LS
Sufficient Water Supplies	LS	LS
Adequate Wastewater Capacity	NI	NI
Solid Waste Generation	LS	LS
Compliance With Solid Waste Reduction Statutes and Regulations	LS	LS
Section 3.20, Wildfire		
Emergency Response or Evacuation Plan	PS	LS
Uncontrolled Spread of Wildfire	PS	LS
Requirement of Installation or Maintenance of Associated Infrastructure	PS	LS
Exposure of People or Structures to Flooding or Landslides	LS	LS

Notes: NI= No Impact; LS = Less than Significant; PS = Potentially Significant

5.4 Alternatives Considered

Four alternatives were initially considered for evaluation in this EIR. Based on criteria described in Section 5.3, Selection of Alternatives, two alternatives, the No Project/Existing 2001 RWMP Alternative and Reduced Project Alternative, were carried forward. These alternatives are described in Section 5.4.2, Alternatives Selected for Further Analysis. Section 5.4.1, Alternatives Considered But Rejected, describes the alternatives that were considered but rejected and provides reasoning for not carrying these alternatives forward for evaluation in this EIR.

5.4.1 Alternatives Considered But Rejected

Section 15126.6(c) of the CEQA Guidelines states that an EIR should identify alternatives that were considered by the lead agency but rejected as infeasible during the scoping process. An EIR should also describe the reasons for the lead agency's decision to eliminate alternatives from detailed consideration, which may include the following:

- Failure to meet most of the basic project objectives
- Inability to avoid significant environmental impacts
- Infeasibility

5.4.1.1 Rimpau Pipeline Realignment Alternative

The Rimpau Pipeline would provide the additional capacity needed to move Western Riverside County Regional Wastewater Authority (WRCRWA) supply to demands south of the water service area between City Park and Chase Park. The Rimpau Pipeline Realignment Alternative would realign the transmission pipeline to reduce the amount of pipeline required and increase reclaimed

water capacity with a more direct pipeline route. Under this alternative, the Rimpau Pipeline would connect to the existing 12-inch transmission main in Quarry Street at City Park and would install a new 20-inch pipeline in Buena Vista Avenue and Ontario Avenue. The Rimpau Pipeline could also be realigned in McKinley Street, Magnolia Avenue, Temescal Canyon Road, and Foothill Parkway.

While less pipeline would be required to be installed under the Rimpau Pipeline Realignment Alternative, this alternative would not meet Project Objective 1 because it would provide a reduced opportunity to add new commercial, industrial, and institutional and multi-family residential irrigation reclaimed water customers. Moreover, this alternative would not avoid or reduce an environmental impact identified in Chapters 3 and 4 of the Program Environmental Impact Report (PEIR). During construction, there would be excessive disturbance to highly congested streets that would result in increased transportation impacts. In addition, this alternative would result in increased impacts to biological resources due to the required construction of stream/flood control crossing and increased impacts to mineral resources due to the required crossing of an active surface mining operation. Finally, this alternative would require additional property acquisitions or easements due to the lack of existing right-of-way in the alternative alignment; therefore, this alternative is infeasible to implement and was rejected from further analysis.

5.4.1.2 WRCRWA Flow Control Improvements Relocation Alternative

The WRCRWA flow control improvements component of the 2018 RWMP was designed to control the flow from WRCRWA to deliver reclaimed water to either the Lincoln-Cota Ponds or to the Water Reclamation Facility 1 Tank. The WRCRWA Flow Control Improvements Relocation Alternative would relocate a flow control and pressure-reducing station to be installed inside Water Reclamation Facility 1 Tank as opposed to its current proposed location across from Butterfield Park. Unlike the project, this alternative would require the installation of 5,000 feet of parallel 20-inch pipe. While this alternative would meet the project objectives, it would not avoid or reduce an environmental impact identified in Chapters 3 and 4 of the PEIR. In fact, this alternative would result in additional biological resources impacts due to the requirement to install 5,000 feet of additional pipelines. Therefore, this alternative was rejected from further analysis.

5.4.2 Alternatives Selected for Further Analysis

A description of the two alternatives carried forward for analysis is provided in the following subsections.

5.4.2.1 Alternative 1: No Project/Existing 2001 Reclaimed Water Master Plan Alternative

Under the No Project/Existing 2001 RWMP Alternative, the 2018 RWMP would not be adopted and the City would continue with implementation of the adopted 2001 RWMP. Under this alternative, the existing reclaimed water system facilities and substructures would continue to operate. No new proposed reclaimed water projects (i.e., sources of supply, large distribution

pipelines, medium distribution pipelines, or small distribution pipelines) would be constructed or operated. In addition, this alternative would exclude the conversion of adjacent customers, data management projects, and the proposed additional studies.

5.4.2.2 Alternative 2: Reduced Project Alternative

The Reduced Project Alternative proposes to eliminate the components of the 2018 RWMP, which would be constructed in undeveloped areas. Under the Reduced Project Alternative, the 2018 RWMP would not include the WRCRWA Flow Control Improvements Project, the Promenade Pipeline, or the Research Pipeline. All other source of supply projects; small, medium, and large distribution pipelines; conversion of agricultural customers; data management projects; and additional studies would be included. This alternative would reduce the biological resources impacts associated with the implementation of the 2018 RWMP.

5.5 Alternatives Comparison

The following subsections present the analysis of each alternative compared to the project by issue area.

5.5.1 Analysis of Alternative 1: No Project/Existing 2001 Reclaimed Water Master Plan Alternative

5.5.1.1 Aesthetics

Compared to the proposed project, the No Project/Existing 2001 RWMP Alternative would result in reduced impacts to scenic vistas and would not conflict with zoning and regulations governing scenic quality because no construction of new aboveground water tanks, pump stations, or flow control improvements would occur. Existing facilities would continue to have nighttime security lighting as needed. Therefore, compared to the proposed project the No Project/Existing 2001 RWMP Alternative would have reduced aesthetic impacts compared to the proposed project.

5.5.1.2 Air Quality

Compared to the proposed project, the No Project/Existing 2001 RWMP Alternative would result in reduced impacts because construction activities that would result in additional air pollutant emissions would not occur. Operational maintenance activities would continue and air pollutant emissions would be similar to those in the 2018 RWMP. Therefore, the No Project/Existing 2001 RWMP Alternative would have reduced air quality impacts compared to the proposed project.

5.5.1.3 Biological Resources

Compared to the proposed project, the No Project/Existing 2001 RWMP Alternative would result in reduced impacts because no additional reclaimed water facilities would be constructed. Operational maintenance activities would continue and would not result in impacts. Therefore, the

No Project/Existing 2001 RWMP Alternative would have reduced biological resource impacts compared to the proposed project.

5.5.1.4 Cultural Resources

Compared to the proposed project, the No Project/Existing 2001 RWMP Alternative would avoid the project's less than significant impacts to historic resources, archaeological resources, and human remains because it would not result in ground-disturbing activities associated with the construction of reclaimed water facilities. Therefore, the No Project/Existing 2001 RWMP Alternative would have reduced cultural resources impacts compared to the proposed project.

5.5.1.5 Energy

Compared to the proposed project, the No Project/Existing 2001 RWMP Alternative would not result in an increase in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment because no construction activities would occur. Maintenance trips associated with the existing facilities would continue and would be similar to those for the proposed project. Therefore, the No Project/Existing 2001 RWMP Alternative would have reduced energy impacts compared to the proposed project.

5.5.1.6 Geology, Soils, and Paleontological Resources

Compared to the proposed project, the No Project/Existing 2001 RWMP would avoid the project's less than significant impact associated with geological hazards, unstable geology, expansive soils, and paleontological resources because no ground-disturbing activities would occur. Therefore, the No Project/Existing 2001 RWMP Alternative would have reduced geology, soils, and paleontological resources impacts compared to the proposed project.

5.5.1.7 Greenhouse Gas Emissions

Under the No Project/Existing 2001 RWMP, air pollutant and greenhouse gas (GHG) emissions associated with construction equipment, construction vehicles (e.g., haul trucks and vendor/delivery trucks), and worker vehicles would be avoided compared to the proposed project. Operational activities would continue and air pollutant emissions would be similar to those for the proposed project. Therefore, the No Project/Existing 2001 RWMP Alternative would have reduced GHG emissions impacts compared to the proposed project.

5.5.1.8 Hazards and Hazardous Materials

Under the No Project/Existing 2001 RWMP Alternative, the project's less than significant impacts would be reduced because less heavy equipment would be in operation that could result in the use and transport of hazardous materials. The existing reclaimed operations and maintenance of reclaimed water facilities would continue to implement existing health and safety practices and comply with federal, state, and local regulations related to the use, transport, and disposal of

hazardous materials. Under the No Project/Existing 2001 RWMP Alternative, impacts related to hazardous materials sites and limited full or partial closures that could interfere with an Emergency Response and Evacuation Plan would not occur compared to the proposed project because no construction activities would occur. In addition, the No Project/Existing 2001 Alternative would avoid the impacts related to wildland fire because no construction activities would occur. Therefore, the No Project/Existing 2001 RWMP Alternative would have reduced hazards and hazardous materials impacts compared to the proposed project.

5.5.1.9 Hydrology and Water Quality

Compared to the proposed project, the No Project/Existing 2001 RWMP Alternative would have no construction activities that could violate water quality standards or waste discharge requirements, provide additional sources of polluted runoff, or alter existing drainage patterns. Existing maintenance activities would still occur, and impacts would be similar to the proposed project. Therefore, the No Project/Existing 2001 RWMP Alternative would have reduced hydrology and water quality impacts compared to the proposed project.

5.5.1.10 Land Use and Planning

Under the No Project/Existing 2001 RWMP Alternative, the existing reclaimed water system facilities and substructures would continue to operate in accordance with the adopted 2001 RWMP. Therefore, compared to the proposed project, the No Project/Existing 2001 RWMP would result in similar less than significant environmental impacts due to conflict with any land use plan, policy, or regulation adopted to avoid or mitigate an environmental effect.

5.5.1.11 Mineral Resources

Compared to the proposed project, the No Project/Existing 2001 RWMP Alternative would not result in less than significant impacts related to land disturbance that would impact existing or future mining operations. Therefore, the No Project/Existing 2001 RWMP would have reduced mineral resource impacts compared to the proposed project.

5.5.1.12 Noise

Compared to the proposed project, the No Project/Existing 2001 RWMP Alternative would result in less than significant impacts related to excessive noise or vibration generated from construction activities. Operation of existing facilities would continue and would be similar to the proposed project. Therefore, the No Project/Existing 2001 RWMP would have reduced noise impacts compared to the proposed project.

5.5.1.13 Transportation

Compared to the proposed project, the No Project/Existing 2001 Existing RWMP Alternative would avoid the need for full or partial lane closures because construction activities would not

occur. The No Project/Existing 2001 Existing RWMP Alternative would not result in temporary impacts to local roadway segments or intersections or impaired access for emergency vehicles. In addition, under the No Project/Existing 2001 Existing RWMP Alternative, operational maintenance vehicle trips would continue and impacts would be similar to the proposed project. Therefore, the No Project/Existing 2001 RWMP Alternative would have reduced transportation impacts compared to the proposed project.

5.5.1.14 Tribal Cultural Resources

Compared to the proposed project, the No Project/Existing 2001 RWMP Alternative would avoid the project's less than significant impacts to tribal cultural resources because it would not result in ground-disturbing activities associated with the construction of reclaimed water facilities. Therefore, the No Project/Existing 2001 RWMP Alternative would have reduced tribal cultural resource impacts compared to the proposed project.

5.5.1.15 Utilities and Service Systems

The No Project/Existing 2001 Existing RWMP Alternative would not expand the existing reclaimed water system that would require new infrastructure be constructed compared to the proposed project. In addition, construction activities that would generate debris would not occur compared to the proposed project. Therefore, the No Project/Existing 2001 RWMP Alternative would have reduced utilities and service systems impacts compared to the proposed project.

5.5.1.16 Wildfire

Under the No Project/Existing 2001 RWMP Alternative, impacts related to limited full or partial closures that could interfere with an Emergency Response and Evacuation Plan would not occur compared to the proposed project because no construction activities would occur. In addition, the No Project/Existing 2001 RWMP Alternative would avoid the impacts related to uncontrolled spread of wildlife and installation of infrastructure because no construction activities would occur. Maintenance of existing reclaimed water infrastructure would occur and would be similar to the proposed project. Therefore, the No Project/Existing 2001 RWMP Alternative would have reduced wildfire impacts compared to the proposed project.

5.5.1.17 Relationship to the Project Objectives

The No Project/Existing 2001 RWMP would not meet the proposed project objectives. It would not expand or improve the City's recycled water program in accordance with Ordinance 2854 (Recycled Water Rules and Regulations) and would not maximize reclaimed water supply availability and would not reduce the use of potable water in the City. The No Project/Existing 2001 RWMP would not include supply management projects' conversion of adjacent customers or data management projects that would improve the reclaimed water supply performance. In addition, the alternative would not distribute new sources of reclaimed water supply and would

not efficiently implement priority improvement projects to manage and distribute new sources of water supply as they become available.

5.5.2 Analysis of Alternative 2: Reduced Project Alternative

5.5.2.1 Aesthetics

Compared to the proposed project, the Reduced Project Alternative would result in similar but less intensive impacts related to aesthetics because it would eliminate the aboveground WRCRWA Flow Control Improvements Project from the 2018 RWMP. However, mitigation would still be required for the operation of the remaining aboveground facilities that could present a significant permanent change to the visual character of the surrounding area. Mitigation Measure AES-1 would be implemented to reduce potentially significant impacts to visual character. Compared to the proposed project, the Reduced Project Alternative would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the 2018 RWMP. Therefore, compared to the proposed project, the Reduced Project Alternative would result in similar but less intensive less than significant impacts with mitigation.

5.5.2.2 Air Quality

Compared to the proposed project, the Reduced Project Alternative would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the 2018 RWMP. Similar to the proposed project, the Reduced Project Alternative would result in a similar less than significant impact related to a conflict with or obstruction of implementation of the applicable air quality plan. Compared to the proposed project, the Reduced Project Alternative would result in a similar less than significant construction impact related to the net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard since the alternative would construct three fewer projects. Compared to the proposed project, the Reduced Project Alternative would result in a similar less than significant impact related to sensitive receptors and other emissions (such as those leading to odors). Therefore, the Reduced Project Alternative would have similar less than significant air quality impacts compared to the proposed project.

5.5.2.3 Biological Resources

Compared to the proposed project, the Reduced Project Alternative would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the 2018 RWMP. Projects identified in the Reduced Project Alternative would be on developed/disturbed land and would avoid the project's less than significant impact with mitigation to sensitive plant and animal species, sensitive natural communities, or jurisdictional aquatic resources. Mitigation Measures BIO-1 through BIO-4~~8~~ and BIO-7~~11~~ through BIO-9~~13~~ would not be required. Similar to the proposed project, the Reduced Project Alternative could

result in impacts to nesting birds (including raptors) through direct removal of nesting habitat and through disturbance to nesting birds from substantial sources of noise generated at the start of new construction during the nesting season. Implementation of Mitigation Measure BIO-6~~9~~ would reduce impacts to less than significant. In addition, similar to the proposed project, the Reduced Project Alternative would result in less than significant impacts to wildlife corridors and linkages, local policies and ordinances, and regional conservation planning. Therefore, the Reduced Project Alternative would have reduced biological resources impacts compared to the proposed project.

5.5.2.4 Cultural Resources

Compared to the proposed project, the Reduced Project Alternative would result in similar but less intensive impacts related to cultural resources because it would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the 2018 RWMP. However, mitigation would still be required due to similar cultural resources sensitivities in the reduced project footprint. Mitigation Measures CUL-1, CUL-2, CUL-3, and CUL-4 would be implemented to reduce potentially significant impacts to historic resources, unknown archaeological resources, and human remains during project construction to a less than significant level. Therefore, the Reduced Project Alternative would result in similar but less intensive less than significant impacts with mitigation compared to the proposed project.

5.5.2.5 Energy

Compared to the proposed project, the Reduced Project Alternative would result in less intensive impacts related to energy because it would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the 2018 RWMP. The Reduced Project Alternative would still require maintenance trips and the operation of two booster pump stations. Compared to the proposed project, the Reduced Project Alternative would result in similar less than significant impacts related to (1) the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation, and (2) conflict with or obstruction of a state or local plan for renewable energy or energy efficiency. Therefore, the Reduced Project Alternative would result in similar energy impacts compared to the proposed project.

5.5.2.6 Geology, Soils, Paleontological Resources

Compared to the proposed project, the Reduced Project Alternative would result in less intensive impacts related to geology and soils because it would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the 2018 RWMP. However, mitigation would still be required due to similar geological impacts from the rest of the water service area. Also, compared to the proposed project, the Reduced Project Alternative would result in similar less than significant impacts regarding paleontological resources since project grading and excavation would impact underlying formations with a moderate to high potential to contain paleontological resources, requiring mitigation. Therefore, the Reduced Project

Alternative would result in similar but less intensive less than significant impacts with mitigation compared to the proposed project.

5.5.2.7 Greenhouse Gas Emissions

Compared to the proposed project, the Reduced Project Alternative would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the 2018 RWMP and would result in less intensive impacts related to GHG emissions due to construction. Therefore, the Reduced Project Alternative would result in similar but less intensive less than significant GHG emission impacts compared to the proposed project.

5.5.2.8 Hazards and Hazardous Materials

Compared to the proposed project, the Reduced Project Alternative would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the 2018 RWMP. However, the Reduced Project Alternative would include the five projects—Rimpau California Pipeline, River Pipeline, Sampson Pipeline, Buena Vista Tenth Avenue Pipeline, and Klug Pipeline—identified in the 2018 RWMP that would be in the vicinity of known hazardous waste sites. Implementation of Mitigation Measures HAZ-1 and HAZ-2 would reduce impacts to less than significant. Similar to the proposed project, construction of projects identified in the Reduced Project Alternative would require temporary full or partial lane closures requiring implementation of Mitigation Measure HAZ-3. The Reduced Project Alternative would include projects in the Very High Fire Hazard Severity Zone mapped by California Department of Forestry and Fire Protection and would include the Chase Tank, Chase Booster Pump Station, and WRCRWA Booster Pump Station. Similar to the proposed project, these projects would be on undeveloped sites that could contain potentially flammable materials requiring implementation of Mitigation Measures HAZ-4 and HAZ-5. The Reduced Project Alternative would result in similar less than significant impacts related to hazardous materials sites and aircraft safety. Therefore, the Reduced Project Alternative would result in similar less than significant hazards and hazardous materials impacts with mitigation compared to the proposed project.

5.5.2.9 Hydrology and Water Quality

Compared to the proposed project, the Reduced Project Alternative would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the 2018 RWMP. Compared to the proposed project, the Reduced Project Alternative would result in less intensive impacts related to hydrology and water quality because it would involve less reclaimed water projects. As a result, the Reduced Project Alternative would require less cut and fill and pollutants associated with overall construction activities that could result in water quality impacts. Thus, compared to the proposed project, the Reduced Project Alternative would result in less intensive less than significant impacts related to water quality; alteration of existing site drainage or hydrology; groundwater supplies; flooding, seiche, and tsunami; and

conflict with or obstruct the implementation of a Water Quality Control Plan or Sustainable Groundwater Management Plan. Therefore, the Reduced Project Alternative would result in similar but less intensive less than significant hydrology and water quality impacts compared to the proposed project.

5.5.2.10 Land Use and Planning

Compared to the proposed project, the Reduced Project Alternative would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the 2018 RWMP. Similar to the proposed project, the Reduced Project Alternative would not physically divide an established community. Implementation would conflict with an applicable land use plan, policy, or regulation and would be reduced to less than significant with Mitigation Measures AES-1, BIO-6~~9~~, BIO-7~~10~~, CUL-1, CUL-2, CUL-3, CUL-4, GEO-1, HAZ-3, and NOI-1. Therefore, the Reduced Project Alternative would result in similar land use and planning impacts compared to the proposed project.

5.5.2.11 Mineral Resources

Compared to the proposed project, the Reduced Project Alternative would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the 2018 RWMP. Similar to the proposed project, the Reduced Project Alternative would be in existing facilities or rights-of-way and would not result in substantial land disturbance that would impact existing or future mining operations. Therefore, the Reduced Project Alternative would result in similar mineral resource impacts compared to the proposed project.

5.5.2.12 Noise

Compared to the proposed project, the Reduced Project Alternative would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the 2018 RWMP. Similar to the proposed project, the Reduced Project Alternative would result in project-related construction activities that could be considered a significant nuisance under the City's Noise Ordinance criteria and would result in the exposure of people to, or generation of, excessive groundborne vibration or groundborne noise levels. Implementation of Mitigation Measures NOI-1 and NOI-2 would reduce these impacts to less than significant. Similar to the proposed project, the Reduced Project Alternative would result in less than significant impacts related to aircraft noise. Therefore, the Reduced Project Alternative would result in similar less than significant noise impacts with mitigation compared to the proposed project.

5.5.2.13 Transportation

Compared to the proposed project, the Reduced Project Alternative would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the 2018 RWMP. Similar to the proposed project, the Reduced Project Alternative

would result in project-related construction activities that would require full or partial lane closures that would result in temporary impacts to local roadway segments or intersections or impaired access for emergency vehicles. Implementation of Mitigation Measure HAZ-3 would reduce these impacts to less than significant. Similar to the proposed project, the Reduced Project Alternative would result in less than significant impacts related to vehicle miles traveled. Therefore, the Reduced Project Alternative would result in similar but less intensive less than significant transportation impacts with mitigation compared to the proposed project.

5.5.2.14 Tribal Cultural Resources

Compared to the proposed project, the Reduced Project Alternative would result in similar but less intensive impacts related to tribal cultural resources because it would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the 2018 RWMP. However, mitigation would still be required due to similar tribal cultural resources sensitivities in the reduced project footprint. Mitigation Measures CUL-2, CUL-3, and CUL-4 would be implemented to reduce potentially significant impacts to tribal cultural resources during project construction to a less than significant level. Therefore, the Reduced Project Alternative would result in similar but less intensive less than significant tribal cultural impacts with mitigation compared to the proposed project.

5.5.2.15 Utilities and Service Systems

Compared to the proposed project, the Reduced Project Alternative would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the 2018 RWMP. Although construction of reclaimed water utilities would be reduced, potentially significant impacts would be associated with the construction of new utility infrastructure under this alternative similar to the proposed project. Mitigation measures identified in Sections 3.1, Aesthetics; 3.4, Biological Resources; 3.5, Cultural Resources; 3.7, Geology, Soils, and Paleontological Resources; 3.9, Hazards and Hazardous Materials; 3.13, Noise; 3.17, Transportation; 3.18, Tribal Cultural Resources; and 3.20, Wildfire, of this PEIR would be implemented to reduce impacts, similar to the proposed project. Thus, compared to the proposed project, the Reduced Project Alternative would result in similar but less intensive less than significant impacts with mitigation regarding new utilities facilities. Similar to the proposed project, the Reduced Project Alternative would have no impact on water supply availability or wastewater treatment capacity and less than significant impacts related to solid waste generation and compliance with solid waste regulations. Therefore, the Reduced Project Alternative would result in similar utilities and service systems impacts compared to the proposed project.

5.5.2.16 Wildfire

Compared to the proposed project, the Reduced Project Alternative would eliminate the WRCRWA Flow Control Improvements, the Promenade Pipeline, and the Research Pipeline projects from the

2018 RWMP. The Reduced Project Alternative would include projects in the Very High Fire Hazard Severity Zone mapped by CAL FIRE. Thus, compared to the proposed project, the Reduced Project Alternative would result in similar less than significant with mitigation impacts in regard to substantially impairing an adopted emergency response plan or emergency evacuation plan, pollutant concentrations, and the installation or maintenance of associated infrastructure. Also, similar to the proposed project, the Reduced Project Alternative would result in less than significant impacts related to flooding or landslides. Therefore, the Reduced Project Alternative would result in similar wildfire impacts compared to the proposed project.

5.5.2.17 Relationship to the Project Objectives

The Reduced Project Alternative proposes to reduce the number of projects proposed in the 2018 RWMP. Under the Reduced Project Alternative, the 2018 RWMP would not include the WRCRWA Flow Control Improvement Project, the Promenade Pipeline, and the Research Pipeline projects. The Reduced Project Alternative would not meet Project Objective 1 because it would reduce the City's ability to expand the recycled water program with the addition of new commercial, industrial, and institutional and multi-family residential irrigation reclaimed water customers in the 1008.5 zone. In addition, the alternative would not meet Project Objective 2 because it would not maximize reclaimed water supply availability and would not convert current use of potable water to reclaimed water use. Without the WRCRWA Flow Control Improvement Project, the City would not be able to distribute the availability of its reclaimed water to its customers. The Reduced Alternative would meet Project Objectives 3 and 4 because it would include the Supervisory Control and Data Acquisition upgrades for supply management and the irrigation monitoring system to facilitate the coordination effort and enhance system performance. It would also include the proposed Capital Improvement Program to provide the City with a long-range planning tool to efficiently implement reclaimed water infrastructure improvement projects to distribute new sources of reclaimed water as they become available.

5.6 Environmentally Superior Alternative

An EIR is required to identify the environmentally superior alternative, the alternative with the potential for fewest environmental impacts, from among the range of reasonable alternatives evaluated. Table 5-2 provides a summary comparison of the alternatives with the proposed project with the purpose of highlighting whether each alternative would result in a similar, greater, or lesser impact than the proposed project with regard to potentially significant impacts. In addition, Table 5-3 provides a summary comparison of the alternatives to the proposed project to determine whether each alternative would meet the project objectives.

Table 5-2. Comparison of Alternatives with Proposed Project

Issue Areas	Proposed Project		Alternatives	
	Without Mitigation	With Mitigation	No Project/ Existing 2001 RWMP	Reduced Project Alternative
Section 3.1, Aesthetics				
Scenic Vistas	LS	LS	Reduced	Similar
State Scenic Highway	LS	LS	Reduced	Similar
Substantial Degradation of the Existing Visual Character or Conflict with Applicable Regulations	PS	LS	Reduced	Similar
Nighttime Light and Glare	LS	LS	Similar	Similar
Section 3.3, Air Quality				
Consistency with Applicable Air Quality Plan	LS	LS	Reduced	Similar
No Net Increase of Any Criteria Pollutants	LS	LS	Reduced	Similar
Sensitive Receptors	LS	LS	Reduced	Similar
Odors	LS	LS	Reduced	Similar
Section 3.4, Biological Resources				
Sensitive Plant Species	PS	LS	Reduced	Reduced
Sensitive Animal Species	PS	LS	Reduced	Reduced
Riparian Habitat and Other Sensitive Natural Communities	PS	LS	Reduced	Reduced
Jurisdictional Aquatic Resources	PS	LS	Reduced	Reduced
Wildlife Corridors and Linkages	LS	LS	Reduced	Similar
Local Policies and Ordinances	LS	LS	Reduced	Similar
Regional Conservation Planning	PS	LS	Reduced	Similar
Section 3.5, Cultural Resources				
Historic Resources	PS	LS	Reduced	Similar
Archaeological Resources	PS	LS	Reduced	Similar
Human Remains	PS	LS	Reduced	Similar
Section 3.6, Energy				
Wasteful or Inefficient Energy Use	LS	LS	Reduced	Similar
Conflict with Renewable or Energy Efficiency Plan	LS	LS	Reduced	Similar
Section 3.7, Geology, Soils, and Paleontological Resources				
Seismic Hazards	PS	LS	Reduced	Similar
Soil Erosion or Loss of Topsoil	LS	LS	Reduced	Similar
Geologic Stability	PS	LS	Reduced	Similar
Expansive Soils	PS	LS	Reduced	Similar
Septic Tanks	NI	NI	Reduced	Similar
Paleontological Resources	PS	LS	Reduced	Similar

Table 5-2. Comparison of Alternatives with Proposed Project

Issue Areas	Proposed Project		Alternatives	
	Without Mitigation	With Mitigation	No Project/ Existing 2001 RWMP	Reduced Project Alternative
Section 3.8, Greenhouse Gas Emissions				
Greenhouse Gas Emissions	LS	LS	Reduced	Similar
Consistency with Adopted Greenhouse Gas Reduction Plan	LS	LS	Reduced	Similar
Section 3.9, Hazards and Hazardous Materials				
Routine Transport, Use, or Disposal of Hazardous Materials	LS	LS	Reduced (Construction) Similar (Operation)	Similar
Accidental Release of Hazardous Materials	PS	LS	Reduced	Similar
Hazardous Emissions within 0.25 Mile of a School	LS	LS	Reduced	Similar
Hazardous Materials Sites	LS	LS	Reduced	Similar
Aircraft Safety Hazards	LS	LS	Reduced	Similar
Emergency Response Plan or Evacuation Plan	PS	LS	Reduced	Similar
Wildland Fires	PS	LS	Reduced	Similar
Section 3.10, Hydrology and Water Quality				
Water Quality Standards	LS	LS	Reduced	Reduced
Groundwater Supplies	LS	LS	Reduced	Similar
Alteration of Existing Drainage Patterns	LS	LS	Reduced	Similar
Flood Hazards, Tsunami, or Seiche	LS	LS	Reduced	Similar
Conflict with Water Quality Basin Plan	LS	LS	Reduced	Similar
Section 3.11, Land Use and Planning				
Physical Division of Established Community	NI	NI	Similar	Similar
Conflict with Land Use Plan, Policy, or Regulation	PS	LS	Similar	Similar
Section 3.12, Mineral Resources				
Loss of Availability of Known Mineral Resources	LS	LS	Reduced	Similar
Loss of Availability of Locally Important Mineral Resource Recovery Sites	LS	LS	Reduced	Similar
Section 3.13, Noise				
Exceedance of Noise Standards	PS	LS	Reduced	Similar
Excessive Groundborne Vibration or Noise	PS	LS	Reduced	Similar
Aircraft Noise	LS	LS	Reduced	Similar

Table 5-2. Comparison of Alternatives with Proposed Project

Issue Areas	Proposed Project		Alternatives	
	Without Mitigation	With Mitigation	No Project/ Existing 2001 RWMP	Reduced Project Alternative
Section 3.17, Transportation				
Conflict with Program, Plan, Ordinance, or Policy	PS	LS	Reduced	Similar
Vehicle Miles Traveled	LS	LS	Reduced	Similar
Increase in Hazards	NI	NI	Reduced	Similar
Inadequate Emergency Access	PS	LS	Reduced	Similar
Section 3.18, Tribal Cultural Resources				
Tribal Cultural Resources	PS	LS	Reduced	Similar
Section 3.19, Utilities and Service Systems				
Relocation or Construction of New Facilities	PS	LS	Reduced	Similar
Sufficient Water Supplies	LS	LS	Reduced	Similar
Adequate Wastewater Capacity	NI	NI	Similar	Similar
Solid Waste Generation	LS	LS	Reduced	Similar
Compliance With Solid Waste Reduction Statutes and Regulations	LS	LS	Reduced	Similar
Section 3.20, Wildfire				
Emergency Response or Evacuation Plan	PS	LS	Reduced	Similar
Uncontrolled Spread of Wildfire	PS	LS	Reduced	Similar
Requirement of Installation or Maintenance of Associated Infrastructure	PS	LS	Reduced	Similar
Exposure of People or Structures to Flooding or Landslides	LS	LS	Reduced	Similar

Notes: LS = Less than Significant; PS = Potentially Significant; NI = No Impact

Table 5-3. Ability of Project Alternative to Meet Proposed Project Objectives

Proposed Project Objectives	Ability of Alternatives to Meet the Proposed Project Objectives	
	No Project/ Existing 2001 RWMP	Reduced Project Alternative
1. Expand and improve the City's recycled water program in accordance with Ordinance 2854 (Recycled Water Rules and Regulations)	No	No
2. Prioritize and implement system improvements pursuant to the 2018 Reclaimed Water Master Plan to maximize reclaimed water supply availability and reduce the use of potable water	No	No
3. Improve water supply system performance by facilitating supply management and maximizing water resources	No	Yes
4. Efficiently implement priority improvement projects to manage and distribute new sources of water supply as they become available	No	Yes

As shown in Table 5-2, the level of environmental impacts associated with the No Project/Existing 2001 RWMP Alternative is less than the proposed project. This alternative would reduce all project-related impacts; therefore, the No Project/Existing 2001 RWMP Alternative would be considered the environmentally superior alternative. However, the No Project/Existing 2001 RWMP Alternative would not meet any of the project objectives. According to Section 15126.6 of the CEQA Guidelines, if the No Project Alternative (No Project/Existing 2001 RWMP Alternative) is selected as the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives.

The Reduced Project Alternative would result in reduced impacts to biological resources and hydrology and water quality. All other impacts would remain similar to the proposed project. Therefore, the Reduced Project Alternative would result in the greatest reduction in environmental impacts compared to the proposed project and would be considered the environmentally superior alternative.

Chapter 7 References

Executive Summary

City of Corona. 2018. City of Corona 2018 Reclaimed Water Master Plan.

Chapter 1, Introduction

California Public Resources Code, Section 21067. In Division 13, Environmental Quality; Chapter 2.5, Definitions.

City of Corona. 2018. City of Corona 2018 Reclaimed Water Master Plan.

Chapter 2, Project Description

City of Corona. 2018. City of Corona 2018 Reclaimed Water Master Plan.

Chapter 3, Environmental Analysis

CEQA Guidelines, Section 15065(a)(3). Mandatory Findings of Significance.

CEQA Guidelines, Section 15130. Discussion of Cumulative Impacts.

CEQA Guidelines, Section 15355. Cumulative Impacts.

CEQA Guidelines, Section 15364. Feasible.

CEQA Guidelines, Section 15382. Significant Effect on the Environment.

Section 3.1, Aesthetics

Caltrans (California Department of Transportation). 2008. Caltrans' Guidelines for Official Designation of Scenic Highways.

Caltrans. 2011. California Scenic Highway Mapping System. September 7. Accessed September 2020. http://www.dot.ca.gov/hq/LandArch/scenic_highways/.

City of Corona. 2020. City of Corona 2020–2040 General Plan. Adopted June 4.

City of Corona. 2015. Urban Water Management Plan.

Section 3.2, Agriculture and Forestry Resources

City of Corona. 2020. City of Corona 2020–2040 General Plan. Adopted June 4.

County of Riverside. 2019. Agricultural Preserve Information. County Clerk-Recorder.

Section 3.3, Air Quality

ATSDR (Agency for Toxic Substances and Disease Registry). 2015. Environmental Odors – Frequently Asked Questions. October 23, 2015. Accessed September 2020. https://www.atsdr.cdc.gov/odors/faqs.html.

Caltrans (California Department of Transportation). 2010. Transportation Project-Level Carbon Monoxide Protocol, Revised December 1997. UCD-ITS-RR-97-21. December 1997. Converted to searchable PDF on October 13.

CARB (California Air Resources Board). 2005. Air Quality and Land Use Handbook: A Community Health Prospective. April. Accessed September 2020. https://ww3.arb.ca.gov/ch/handbook.pdf.

CARB 2020a. "Inhalable Particulate Matter and Health (PM2.5 and PM10)." Accessed September 2020. https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health.

CARB 2020b. "Top 4 Summary." iADAM database. Accessed September 2020. https://www.arb.ca.gov/adam/topfour/topfour1.php.

City of Corona. 2001. Draft Program Environmental Impact Report for the City of Corona Recycled Master Plan Project (SCH No. 99031097). Prepared by Parson Engineering Science, Inc. February.

City of Corona. 2019. General Plan Update Technical Background Report.

OSHA (Occupational Safety and Health Administration). 2013. Hazard Alert – Diesel Exhaust/Diesel Particulate Matter. January.

SCAQMD (South Coast Air Quality Management District). 2003. Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis. August.

SCAQMD. 2008. Localized Significance Threshold Methodology. Accessed September 2020. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2

SCAQMD. 2009. Appendix C: Mass Rate LST Look-Up Tables. Revised October 21. Accessed September 2020. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2.

SCAQMD. 2012. Rule 1470: Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines. Adopted April 2, 2004. Amended March 4, 2005; November 3, 2006; June 1, 2007; May 4. Accessed September 2020. http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1470.pdf.

SCAQMD. 2017a. "Chapter 3: Base Year and Future Emissions." In 2016 Air Quality Management Plan. Final. March. Accessed September 2020. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf.

SCAQMD. 2017b. "Chapter 2: Air Quality and Health Effects." In 2016 Air Quality Management Plan. Final. March. Accessed September 2020. https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/chapter2.pdf?sfvrsn=4.

SCAQMD. 2019. "South Coast AQMD Air Quality Significance Thresholds." Accessed September 2020. https://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2.

USEPA (U.S. Environmental Protection Agency). 2016. "Basic Information about Carbon Monoxide (CO) Outdoor Pollution." Last updated September 8. Accessed September 2020. https://www.epa.gov/co-pollution/basic-information-about-carbon-monoxide-co-outdoor-air-pollution#What%20is%20CO.

USEPA. 2018. "Ground-level Ozone Basics." Last updated October 31. Accessed September 2020. https://www.epa.gov/ground-level-ozone-pollution/ground-level-ozone-basics#formation.

USEPA. 2019a. "Nitrogen Dioxide (NO2) Pollution." Last updated June 13. Accessed September 2020. https://www.epa.gov/no2-pollution.

USEPA. 2019b. "Sulfur Dioxide Basics." Last updated April 2, 2019. Accessed September 2020. https://www.epa.gov/so2-pollution/sulfur-dioxide-basics#what%20is%20so2.

Section 3.4, Biological Resources

33 CFR 328.3(b). "Definitions." In Title 33, Navigation and Navigable Waters; Chapter II, Corps of Engineers, Department of the Army, Department of Defense; Part 328, Definition of Waters of the United States.

40 CFR 230.3(t). "Definitions." In Title 40, Protection of Environment; Chapter I, Environmental Protection Agency; Subchapter H, Ocean Dumping; Part 230, Section 404(B)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material; Subpart A, General.

American Ornithological Society. 2019. Sixtieth Supplement to the American Ornithological Society's Check-List of North American Birds. The Auk 136 (3):1–23. July 1. Accessed September 2020. https://doi.org/10.1093/auk/ukz042.

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, eds. 2012. The Jepson Manual: Vascular Plants of California. 2nd ed. Berkeley, California: University of California Press. January.

Bowler, P.A. 1990. "Riparian Woodland: An Endangered Habitat in Southern California." In Endangered Plant Communities of Southern California, edited by A.A. Schoenherr. Southern California Botanists Special Publication No. 3: 80–97.

Bradley, R.D., L.K. Ammerman, R.J. Baker, L.C. Bradley, J.A. Cook, R.D. Dowler, C. Jones, D.J. Schmidly, F.B. Stangi, R.A.Van De Bussche, and B. Wursig. 2014. Revised Checklist of North American Mammals North of Mexico. Texas Tech University Natural Science Research Laboratory. October.

Calflora. 2020. "Information on Wild California Plants." Accessed September 2020. http://www.calflora.org/.

California Fish and Game Code, Section 2080. In Division 3, Fish and Game Generally; Chapter 1.5, Endangered Species; Article 3, Taking, Importation, Exportation, or Sale.

California Water Code, Section 13050(e). In Division 7, Water Quality; Chapter 2, Definitions.

CaliforniaHerps.com. 2020. California Herps: A Guide to the Amphibians and Reptiles of California. Accessed September 2020. https://CaliforniaHerps.com.

CDFW (California Department of Fish and Wildlife). 2014. Guidance Document for Fine-Scale Wildlife Connectivity Analysis. Prepared by Crystal Krause and Melanie Gogol-Prokurat. California Department of Fish and Wildlife, Biogeographic Data Branch, Conservation Analysis Unit. December.

CDFW (California Department of Fish and Wildlife). 2020a. Database Query for the City of Corona, California. California Natural Diversity Database (CNDDB). Commercial Version dated March 1. Wildlife and Habitat Data Analysis Branch.

CDFW. 2020b. Special Animals Including California Species of Special Concern. Resource Management and Planning Division, Biogeographic Data Branch. September 2020.

CDFW. 2020c. Special Vascular Plants, Bryophytes, and Lichens List. California Natural Diversity Database (CNDDB). January.

City of Corona. 2016. Proposition 1 – Reclaimed Water Distribution System Initial Study/Mitigated Negative Declaration. Department of Power and Water.

City of Corona. 2018. City of Corona General Plan Biological Resources Report.

City of Corona. 2020a. General Plan Technical Update: Final Environmental Impact Report.

City of Corona. 2020. City of Corona 2020–2040 General Plan. Adopted June 4.

CNPS (California Native Plant Society). 2020. Inventory of Rare and Endangered Plants of California. Online edition, v8-03 0.39. Accessed September 2020. http:www.rareplants.cnps.org/.

Cornell Lab of Ornithology. 2020a. All About Birds. Accessed September 2020. https://www.birds.cornell.edu/home/.

Cornell Lab of Ornithology. 2020b. eBird database. Accessed September 2020. https://ebird.org/home.

County of Riverside. 1993. Riverside County Oak Tree Management Guidelines. Approved March 2. Accessed September 2020. https://planning.rctlma.org/Portals/14/devproc/guidelines/oak_trees/oak_trees.html.

County of Riverside. 2003. Western Riverside County Multiple Species Habitat Conservation Plan. Transportation and Land Management Agency. Accessed September 2020. http://www.wrc-rca.org/about-rca/multiple-species-habitat-conservation-plan/.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1992. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior – Fish and Wildlife Service. December 1979. Reprinted 1992.

Holland, Robert F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Game. October.

iNaturalist. 2020. iNaturalist database. California Academy of Science and National Geographic Society. Accessed September 2020. https://www.inaturalist.org/.

Jepson Flora Project. 2014. "The Jepson Online Interchange for California Floristics." Updated July 1. Accessed September 2020. http://ucjeps.berkeley.edu/interchange/.

San Diego Natural History Museum. 2020a. Checklist of Butterflies of San Diego County. Accessed September 2020. https://www.sdnhm.org/science/entomology/projects/checklist-of-butterflies-of-san-diego-county/.

San Diego Natural History Museum. 2020b. Entomology Resources. Accessed September 2020. https://www.sdnhm.org/science/entomology/resources/.

Sawyer, J.O., T. Keeler-Wolf, and J. Evens. 2009. A Manual of California Vegetation. 2nd edition. Sacramento, California: California Native Plant Society.

USACE (U.S. Army Corps of Engineers). 1987. Corps of Engineers Wetlands Delineation Manual. Final. Wetlands Research Program Technical Report Y-87-1. Online edition. Prepared by Environmental Laboratory, U.S. Army Corps of Engineers, Waterways Experiment Station. Wetlands Research Program. January. Accessed September 2020. http://www.cpe.rutgers.edu/Wetlands/1987-Army-Corps-Wetlands-Delineation-Manual.pdf.

USFWS. 2020. "USFWS Threatened & Endangered Species Active Critical Habitat Report." Environmental Conservation Online System (ECOS). Accessed September 2020. https://ecos.fws.gov/ecp/report/table/critical-habitat.html.

WRCRWA (Western Riverside County Regional Wastewater Authority). 2010. Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project Environmental Impact Report. August.

Section 3.5, Cultural Resources

See Appendix D, Cultural and Tribal Cultural Resources Technical Report.

Section 3.6, Energy

Caltrans (California Department of Transportation). 2020. Corporate Average Fuel Economy (CAFE) Standards. Accessed September 2020. https://www.transportation.gov/mission/sustainability/corporate-average-fuel-economycafe-standards.

CARB (California Air Resources Board). 2017. EMFAC 2017.

CEC (California Energy Commission). 2007. State Alternative Fuels Plan. December. Accessed September 2020. https://ww2.energy.ca.gov/2007publications/CEC-600-2007-011/CEC-600-2007-011CMF.PDF.

CEC. 2015a. California Energy Utility Service Areas. Accessed September 2020. http://www.energy.ca.gov/maps/serviceareas/Electric_Service_Areas_Detail.pdf.

CEC. 2015b. California Natural Gas Detailed Utility Service Areas. Accessed September 2020. http://www.energy.ca.gov/maps/serviceareas/natural_gas_detailed_service_areas.pdf.

CEC. 2019. Electricity Consumption by Planning Area. Accessed September 2020. http://www.ecdms.energy.ca.gov/elecbyplan.aspx.

CGEU (California Gas and Electric Utilities). 2018. 2018 California Gas Report. July. Accessed September 2020. https://www.socalgas.com/regulatory/documents/cgr/2018_California_Gas_Report.pdf.

City of Corona. 2001. Draft Program Environmental Impact Report for the City of Corona Recycled Master Plan Project (SCH No. 99031097). Prepared by Parson Engineering Science, Inc. February.

City of Corona. 2019. City of Corona Climate Action Plan Update. Prepared by LSA Associates, Inc. March.

City of Corona. 2020. City of Corona 2020–2040 General Plan. Adopted June 4.

City of Ontario. 2020. "Section 5.5: Energy." In Environmental Impact Report for the Ontario Ranch Business Park Specific Plan. Draft. SCH No. 2019050018. January. Prepared by Placeworks. Accessed September 2020. https://files.ceqanet.opr.ca.gov/251693-3/attachment/hR7bxWvl7xQbE2Gybz0AW3TrKGDhMruu2xPP_vvVetLG4UlKVTvefAItpaBzyQ_W_GUJQpbW9lJjLOlX0.

CPUC (California Public Utilities Commission). 2020. Reports and Data: Renewables Portfolio Standard April 2020 Report. Accessed September 2020. https://www.cpuc.ca.gov/RPS_Reports_Data/.

SCE (Southern California Edison). 2018. 2017 Power Content Label. Accessed September 2020. https://www.sce.com/sites/default/files/inline-files/2018SCEPCL.pdf.

USEPA (United States Environmental Protection Agency). 2018a. "Greenhouse Gas Equivalencies Calculator." Last updated October 15. Accessed September 2020. https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator.

USEPA (United States Environmental Protection Agency). 2018b. "Emission Factors for Greenhouse Gas Inventories." Last updated March 9. Accessed September 2020. https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf.

USEPA. 2019a. Summary of the Energy Independence and Security Act Public Law 110140 (2007). Updated May 6. Accessed September 2020. https://www.epa.gov/laws-regulations/summary-energy independence-and-security-act.

USEPA. 2019b. Learn about SmartWay. Accessed September 2020. https://www.epa.gov/smartway/learn-about-smartway.

USEPA. 2019c. Verified Technologies for SmartWay and Clean Diesel. Accessed September 2020. https://www.epa.gov/verified-diesel-tech.

Section 3.7, Geology, Soils, and Paleontological Resources

Allen, C.R., P. Saint Amand, C.F. Richter, and J.M. Nordquist. 1965. "Relationship between Seismicity and Geologic Structure in the Southern California Region." Bulletin of the Seismological Society of America 55(4): 753–797.

Bilodeau, W.L., S.W. Bilodeau, E.M. Gath, M. Oborne, and R.J. Proctor. 2007. "Geology of Los Angeles, California, United States of America." Environmental & Engineering Geoscience XIII(2): 98–160.

CDWR (California Department of Water Resources). 1967. Progress Report on Ground Water Geology of the Coastal Plain of Orange County. July.

City of Corona. 2020. City of Corona 2020–2040 General Plan. Adopted June 4.

Gray, C.H., Jr., Douglas M. Morton, and F.H. Weber, Jr. 2002a. Geologic Map of the Corona North 7.5' Quadrangle, Riverside and Orange Counties, California: U.S. Geological Survey Open File Report 02-022.

Gray, C.H., Jr., Douglas M. Morton, and F.H. Weber, Jr. 2002b. Geologic Map of the Corona South 7.5' Quadrangle, Riverside and Orange Counties, California: U.S. Geological Survey Open File Report 02-021.

Lin II, R.G. 2017. "Signs of Past California 'Mega-Quakes' Show Danger of the Big One on San Andreas Fault." Los Angeles Times. June 13. Accessed September 2020. https://www.latimes.com/local/lanow/la-me-ln-tour-san-andreas-fault-lucy-jones-20170613-htmlstory.html.

Norris, Robert M., and Robert W. Webb. 1990. Geology of California. 2nd edition.

Rockwell, T.K., R.S. McElwain, D.E. Millman, and D.L. Lamar. 1986. "Recurrent Late Holocene Faulting on the Glen Ivy North Strand of the Elsinore Fault at Glen Ivy Marsh." In Ehlig, P. L. (compiler). Neotectonics and Faulting in Southern California. Guidebook and volume of the 82nd Annual Meeting of the Geological Society of America, Cordilleran Section, 129–140.

SWCA Environmental Consultants. 2018. City of Corona General Plan Update: Paleontological Resources Technical Report. February.

USDA (U.S. Department of Agriculture). 1971. Soil Survey, Western Riverside Area, California

USDI (U.S. Department of the Interior). 2000. Assessment of Fossil Management on Federal and Indian Lands. May.

Section 3.8, Greenhouse Gas Emissions

CARB (California Air Resources Board). 2014. First Update to the Climate Change Scoping Plan: Building on the Framework Pursuant to AB 32, the California Global Warming Solutions Act of 2006. May. Accessed September 2020. https://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf.

CAPCOA (California Air Pollution Control Officers Association). 2017. "Appendix A: Calculation Details for CalEEMod." In California Emissions Estimator Model Users Guide. Version 2016.3.2. November.

City of Corona. 2001. Draft Program Environmental Impact Report for the City of Corona Recycled Master Plan Project (SCH No. 99031097). Prepared by Parson Engineering Science, Inc. February.

City of Corona. 2019. City of Corona Climate Action Plan Update. Prepared by LSA Associates, Inc. March.

City of Corona. 2020. Reclaimed Water Master Plan Greenhouse Gas Technical Memorandum.

SCAQMD (South Coast Air Quality Management District). 2008. "Interim CEQA Greenhouse Gas (GHG) Significance Threshold." Draft. October. Accessed September 2020. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf.

USEPA (U.S. Environmental Protection Agency). 2020. "Phaseout of Ozone-Depleting Substances (ODS)." Last updated March 19. https://www.epa.gov/ods-phaseout.

Section 3.9, Hazards and Hazardous Materials

Aries (Aries Consultants). 1993. Corona Municipal Airport Comprehensive Land Use Plan. Accessed September 2020. http://www.rcaluc.org/Portals/13/PDFGeneral/plan/oldplan/Corona%20Municipal%20Airport.PDF.

CALFIRE (California Department of Fire). 2019. Very High Fire Hazard Severity Zones in LRA. Accessed September 2020. https://osfm.fire.ca.gov/media/5911/corona.pdf.

City of Corona. 2020a. City of Corona 2020–2040 General Plan. Adopted June 4.

City of Corona. 2020b. General Plan Technical Update: Final Environmental Impact Report.

County of Riverside. 2014. Transporters and Facilities Accepting Universal Waste. Department of Environmental Health. February 5. Accessed September 2020. http://www.rivcoeh.org/Portals/0/documents/guidance/hazmat/list_waste_uwastetranspoer.pdf.

County of Riverside. 2015. Registered Hazardous Waste Transporters Serving Riverside County. Department of Environmental Health. May 15. Accessed September 2020. http://www.rivcoeh.org/Portals/0/documents/guidance/hazmat/list_waste_transporters.pdf.

Section 3.10, Hydrology and Water Quality

City of Corona 2016. 2015 Urban Water Management Plan. July. Accessed September 2020. https://www.coronaca.gov/home/showdocument?id=4318.

City of Corona. 2020a. City of Corona 2020–2040 General Plan. Adopted June 4.

City of Corona. 2020b. "Chapter 13.27: Stormwater Management and Discharge Controls." In Corona Municipal Code.

City of Corona. 2020c. "Title 18: Floodplain Management." In Corona Municipal Code.

RWQCB (Regional Water Quality Control Board). 2019. Water Quality Control Plan for the Santa Ana River Basin. Updated June. Accessed September 2020. https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/index.html.

Section 3.11, Land Use and Planning

City of Corona. 2018. City of Corona 2018 Reclaimed Water Master Plan.

City of Corona. 2020. City of Corona 2020–2040 General Plan. Adopted June 4.

County of Riverside. 2003. Western Riverside County Multiple Species Habitat Conservation Plan. Transportation and Land Management Agency. Accessed September 2020. http://www.wrc-rca.org/about-rca/multiple-species-habitat-conservation-plan/.

SCAG (Southern California Association of Governments). 2016. 2016–2040 Regional Transportation Plan/Sustainable Communities. Final. April 7. Accessed September 2020. http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx.

USFWS (U.S. Fish and Wildlife Service). 2020. "USFWS Threatened & Endangered Species Active Critical Habitat Report." Environmental Conservation Online System (ECOS). Accessed September 2020. https://ecos.fws.gov/ecp/report/table/critical-habitat.html.

Section 3.12, Mineral Resources

DOC (California Department of Conservation). 1991. Mineral Land Classifications of the Temescal Valley Area, Riverside County, California: Special Report 165. Division of Mines and Geology.

CGS (California Geological Survey). 2014. Update of Mineral Land Classifications for Portland Cement Concrete Grade Aggregate in Temescal Valley Production Area, Riverside County, Special; Report 231.

City of Corona. 2020a. City of Corona 2020–2040 General Plan. Adopted June 4.

City of Corona. 2020b. General Plan Technical Update: Final Environmental Impact Report.

Section 3.13, Noise

Aries (Aries Consultants). 1993. Corona Municipal Airport Comprehensive Land Use Plan. Accessed September 2020. http://www.rcaluc.org/Portals/13/PDFGeneral/plan/oldplan/Corona%20Municipal%20Airport.PDF.

Caltrans (California Department of Transportation). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. September.

City of Corona. 2001. Draft Program Environmental Impact Report for the City of Corona Recycled Master Plan Project (SCH No. 99031097). Prepared by Parson Engineering Science, Inc. February.

City of Corona. 2020a. Environmental Impact Report for Corona General Plan Technical Update. Final. Prepared by PlaceWorks. Santa Ana, California. December.

City of Corona. 2020b. City of Corona 2020–2040 General Plan. Adopted June 4.

City of Corona. 2020c. "Section 17.84.040(C)(2): Stationary Noise Source." In Corona Municipal Code.

FHWA (Federal Highway Administration). 2008. Roadway Construction Noise Model. Version 1.1.

FTA (Federal Transit Administration). 2018. Transit Noise and Vibration Impact Assessment Manual. FTA Report No. 0123. Prepared by John A. Volpe National Transportation Systems Center. September 2018. Accessed September 2020. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.

USEPA (U.S. Environmental Protection Agency). 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.

USEPA. 2019. Laws and Regulations – Summary of the Noise Control Act. Page last updated November 6. Accessed September 2020. https://www.epa.gov/laws-regulations/summary-noise-control-act.

Section 3.14, Population and Housing

City of Corona. 2013. City of Corona Housing Element 2013–2021.

City of Corona. 2018. City of Corona 2018 Reclaimed Water Master Plan.

City of Corona. 2020. City of Corona 2020–2040 General Plan. Adopted June 4.

Section 3.15, Public Services

City of Corona. 2018. City of Corona 2018 Reclaimed Water Master Plan.

City of Corona. 2020a. City of Corona 2020–2040 General Plan. Adopted June 4.

City of Corona. 2020b. "About Our Fire Department." Accessed September 2020. https://www.coronaca.gov/government/departments-divisions/fire-department/about-our-fire-department.

City of Corona. 2020c. "Corona Public Library." Accessed September 2020. https://www.coronaca.gov/government/departments/library.

Section 3.16, Recreation

City of Corona. 2020. City of Corona 2020–2040 General Plan. Adopted June 4.

Section 3.17, Transportation

City of Corona. 2015. Urban Water Master Plan.

City of Corona. 2020. City of Corona 2020–2040 General Plan. Adopted June 4.

SCAG (Southern California Association of Governments). 2016. 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): A Plan for Mobility, Accessibility, Sustainability, and a High Quality of Life. Final. April 7. Accessed September 2020. http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx.

Section 3.18, Tribal Cultural Resources

See Appendix D, Cultural and Tribal Cultural Resources Technical Report.

Section 3.19, Utilities and Service Systems

CalRecycle (California Department of Resources Recycling and Recovery). 2019a. Jurisdiction Disposal and Alternative Daily Cover (ADC) by Facility. June 19. Accessed September 2020. https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility.

CalRecycle. 2019b. Facility/Site Summary Details: El Sobrante Landfill (33-AA-0217). June 19. Accessed September 2020. https://www2.calrecycle.ca.gov/swfacilities/Directory/33-AA-0217/.

CalRecycle. 2019c. Facility/Site Summary Details: Olinda Alpha Landfill (30-AB-0035). June 19. Accessed September 2020. https://www2.calrecycle.ca.gov/swfacilities/Directory/30-AB-0035.

CalRecycle. 2019d. Jurisdiction Waste Diversion Program Summary – Corona 2017. June 19. Accessed September 2020. https://www2.calrecycle.ca.gov/LGCentral/%20Diversion Program/JurisdictionDiversionDetail/105/Year/2017.

City of Corona. 2005a. City of Corona Water Master Plan.

City of Corona. 2005b. City of Corona Sewer Master Plan.

City of Corona. 2016. 2015 Urban Water Management Plan. Volume 1. Accessed September 2020. https://www.coronaca.gov/home/showdocument?id=4318.

City of Corona. 2018. City of Corona 2018 Reclaimed Water Master Plan.

City of Corona. 2020a. City of Corona 2020–2040 General Plan. Adopted June 4.

City of Corona 2020b. Corona Municipal Code.

Fuscoe (Fuscoe Engineering, Inc.). 2018. City of Corona General Plan Update Infrastructure Report for Hydrology, Sewer, Water and Water Quality. August 24.

RCDWR (Riverside County Department of Waste Resources). 2020. "Landfills – El Sobrante." Accessed September 2020. http://www.rcwaste.org/landfill/elsobrante.

WRCRWA (Western Riverside County Regional Wastewater Authority). 2019. Notice and Agenda for a Special Meeting of the Executive Committee of the WRCRWA. February 14. Accessed September 2020. https://www.wrcrwa.org/AgendaCenter/ViewFile/Agenda/_02142019-105.

Section 3.20, Wildfire

City of Corona. 2020. City of Corona 2020–2040 General Plan. Adopted June 4.

County of Riverside. 2015. Riverside County General Plan. Revised December 8.

Chapter 4, Other CEQA Considerations

None.

Chapter 5, Alternatives to the Proposed Project

None.

Chapter 6, Preparers and Persons Contacted

None.

Biological Resources Technical Report

City of Corona 2018 Reclaimed Water Master Plan

~~**September 2020**~~ **March 2021**

Prepared for:

City of Corona
400 S. Vicentia Avenue, Suite 220
Corona, California 92882
Contact: Mohammed Ibrahim, PE, Senior Engineer

Prepared by:

Harris & Associates
600 B Street, Suite 2000
San Diego, California 92101
Contact: Melissa Tu, Senior Biologist

Melissa Tu, Senior Biologist

This document is printed on recycled paper with 30 percent post-consumer content.

Table of Contents

Acronyms and Abbreviations ..... **v**

Executive Summary **ES-1**

Section 1 Introduction **1**

1.1 Project Description 1

1.1.1 Project Location 1

1.1.2 2018 Reclaimed Water Master Plan Projects 2

1.1.3 Construction Methods 17

1.2 Purpose 19

1.3 Environmental Setting 19

1.3.1 Climate 19

1.3.2 Surrounding Land Uses 20

1.3.3 Topography and Soils 20

1.3.4 Hydrology 21

Section 2 Methods **27**

2.1 Background Information 27

2.2 Biological Survey 27

2.3 Vegetation Mapping 28

Section 3 Results **29**

3.1 Vegetation Communities and Land Use Types 29

3.1.1 Chaparral 29

3.1.2 Coastal Sage Scrub (Diegan and Riversidian) 29

3.1.3 Freshwater Marsh (Coastal and Valley) 30

3.1.4 Grassland (Non-Native) 30

3.1.5 Oak Woodland 41

3.1.6 Open Water 41

3.1.7 Riversidian Alluvial Fan Sage Scrub 41

3.1.8 Southern Riparian Forest 42

3.1.9 Southern Riparian Scrub 42

3.1.10 Agricultural and Developed/Disturbed Land Uses 43

3.2 Jurisdictional Wetlands and Waters 45

3.3 Plant Species 45

3.4 Animal Species 45

3.5 Sensitive Plant and Animal Species 46

3.5.1 Sensitive Plant Species 46

3.5.2 Sensitive Animal Species 48

3.5.3 Critical Habitat 60

3.5.4 Nesting Birds 60
3.6 Wildlife Corridors and Linkages 60

Section 4 Regional Context and Applicable Regulations 65

4.1 Federal Regulations 65
4.1.1 **Federal Clean Water Act (U.S. Code, Title 33, Sections 1251 through 1376)** 65
4.1.2 Federal Endangered Species Act (U.S. Code, Title 16, Sections 1531 through 1543) 65
4.1.3 Migratory Bird Treaty Act (U.S. Code, Title 16, Sections 703 through 711) 66
4.1.4 Wetlands and Other Waters of the United States 66
4.2 State of California Regulations 67
4.2.1 California Endangered Species Act (California Fish and Game Code, Sections 2050 et seq.) 67
4.2.2 California Environmental Quality Act Guidelines, Section 15380 67
4.2.3 California Fish and Game Code, Section 1602 68
4.2.4 California Fish and Game Code, Sections 2080 and 2081 68
4.2.5 California Fish and Game Code, Sections 3503, 3503.5, 3513, and 3800 68
4.2.6 California Fish and Game Code, Sections 3511, 4700, 5050, and 5515 69
4.2.7 California Wetland Definition 69
4.2.8 Native Plant Protection Act (California Fish and Game Code, Sections 1900 through 1913) 69
4.2.9 Natural Community Conservation Planning Act 70
4.2.10 Porter-Cologne Water Quality Control Act 70
4.3 Local Regulations 71
4.3.1 City of Corona 2020–2040 General Plan 71
4.3.2 Western Riverside County Multiple Species Habitat Conservation Plan 75

Section 5 Thresholds of Significance 77

Section 6 Impacts 79

6.1 Direct Impacts 79
6.1.1 Riparian Habitat or Other Sensitive Vegetation Community 79
6.1.2 Sensitive Plant Species 80
6.1.3 Sensitive Animal Species 80
6.1.4 Jurisdictional Resources 81
6.1.5 Wildlife Corridors and Linkages 82
6.1.6 Local Policies and Ordinances 82
6.1.7 Regional Conservation Planning 83
6.2 Indirect Impacts 84

6.2.1 Water Quality 84
6.2.2 Fugitive Dust 85
6.2.3 Invasive Plant Species 85
6.2.4 Noise 85
6.2.5 Lighting 86
6.3 Mitigation Measures 86
6.3.1 Sensitive Vegetation Communities 87
6.3.2 Sensitive Plant Species 90
6.3.3 Sensitive Animal Species 92
6.3.4 Jurisdictional Aquatic Resources 93
6.4 Level of Significance After Mitigation 94

Section 7 Cumulative Impacts and Mitigation 97

7.1 Riparian Habitat or Other Sensitive Natural Community 97
7.2 Sensitive Plant Species 97
7.3 Sensitive Animal Species 98
7.4 Jurisdictional Aquatic Resources 98
7.5 Wildlife Corridors and Linkages 98
7.6 Local Policies and Ordinances 99
7.7 Regional Conservation Planning 99

Section 8 References 101

Figures

Figure 1. Regional Location 5
Figure 2. Water Service Area 7
Figure 3a. Source of Supply Projects 9
Figure 3b. Large Distribution Pipelines 11
Figure 3c. Medium Distribution Pipelines 13
Figure 3d. Small Distribution Pipelines 15
Figure 4. USGS Topographic Map 23
Figure 5. Hydrology 25
Figure 6. Vegetation Communities – Overview 31
Figure 7a. Vegetation Communities, Source of Supply Projects 33
Figure 7b. Vegetation Communities, Large Distribution Pipelines 35
Figure 7c. Vegetation Communities, Medium Distribution Pipelines 37
Figure 7d. Vegetation Communities, Small Distribution Pipelines 39
Figure 8. Critical Habitat 63

Tables

Table 1. Summary of 2018 Reclaimed Water Master Plan Projects 2
Table 2. 2018 Reclaimed Water Master Plan Project Construction Duration 18
Table 3. 2018 Reclaimed Water Master Plan Project Vegetation Communities and Land Use Types 44
Table 4. Sensitive Plant Species Documented in the Water Service Area 47
Table 5. Sensitive Animal Species Documented in the Water Service Area 48
Table 6. Biological Resources Mitigation Measure Equivalency Table for the 2018 Reclaimed Water Master Plan Project 87

Appendices

Appendix A. Animal Species Observed

°F	degrees Fahrenheit
2016 Proposition 1 IS/MND	2016 Proposition 1 – Reclaimed Water Distribution System Initial Study/Mitigated Negative Declaration
BGEPA	Bald and Golden Eagle Protection Act
CCE	California candidate endangered species
CDFW	California Department of Fish and Wildlife
CE	California endangered
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFG	California Fish and Game
CFP	California fully protected
CII	commercial, industrial, and institutional
City	City of Corona
CNPS	California Native Plant Society
County	County of Riverside
CRPR	California Rare Plant Rank
CT	California threatened
CWA	Clean Water Act
EIR	Environmental Impact Report
FC	federal candidate for listing
FE	federally endangered
FESA	federal Endangered Species Act
FT	federally threatened
GIS	geographic information system
gpm	gallons per minute
Harris	Harris & Associates
HCP	Habitat Conservation Plan
IPaC	Information for Planning and Consultation
LMD	landscape maintenance district
MBTA	Migratory Bird Treaty Act
MFR	multi-family residential
MSHCP	Multiple Species Habitat Conservation Plan
NCCP	Natural Community Conservation Planning
NPDES	National Pollutant Discharge Elimination System
NWP	Nationwide Permit
PEIR	Program Environmental Impact Report
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
project	City of Corona 2018 Reclaimed Water Master Plan
RWMP	Reclaimed Water Master Plan
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Control and Data Acquisition
SSC	species of special concern
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service

WL	California Department of Fish and Wildlife watch list
WRCRWA	Western Riverside County Regional Wastewater Authority
WRF	wastewater reclamation facility

Executive Summary

At the request of the City of Corona (City), Harris & Associates (Harris) has prepared this Biological Resources Technical Report for the City of Corona 2018 Reclaimed Water Master Plan Program Environmental Impact Report (2018 RWMP PEIR).

The 2018 Reclaimed Water Master Plan (2018 RWMP or project) is an update to the City's adopted Reclaimed Water Master Plan (2001), which provides guidance to create infrastructure to efficiently use treated effluent from its existing and future wastewater reclamation facilities (WRFs) supplemented by non-potable groundwater from the Bedford Basin to reduce dependence on imported water and potable groundwater. The project identifies the extent and types of reclaimed water development needed to achieve the City's physical, economic, and environmental goals.

This report provides an update of the biological resources baseline found in the water service area and presents a project-level analysis of impacts to sensitive biological resources from the 29 projects in the water service area that are to be implemented as part of the 2018 RWMP.

The analysis was prepared in accordance with the California Environmental Quality Act (CEQA) of 1970, the CEQA Guidelines (as amended). This report is a technical study in support of the 2018 RWMP PEIR.

A site visit and general habitat assessment occurred on April 14, 2020. Vegetation mapping is based on City geographic information system data updated with site data from April 2020.

Nine vegetation communities and two land use types were mapped within the water service area. The vegetation communities included four wetland vegetation communities and five upland vegetation communities. The wetland vegetation communities included freshwater marsh, open water, riparian scrub, and riparian forest. The five upland vegetation communities included chaparral, coastal sage scrub, non-native grassland, oak woodland, and Riversidian alluvial fan sage scrub. The two land use types include agriculture and disturbed/developed.

Five sensitive plant species and 45 sensitive animal species have been documented in the water service area. Critical habitat for four federally listed species occurs in the water service area.

Project implementation would result in potentially significant direct and indirect impacts to sensitive vegetation communities, sensitive plant and animal species, nesting birds, and jurisdictional aquatic resources.

Implementation of Mitigation Measure~~s~~ BIO-1~~, BIO-2, and BIO-3~~ would reduce potentially significant impacts to the non-native grassland sensitive vegetation community on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites. If a project site is identified as occupied or potentially occupied habitat for sensitive plant or animal species

during preparation of the MSHCP Consistency Analysis Report (Mitigation Measure BIO-1), potential impacts shall be documented consistent with the MSHCP requirements, including project-level vegetation mapping, adherence to narrow endemic plant species protection policies, conservation easements for avoidance areas, and preparation of a Determination of Biological Equivalent or Superior Preservation report for proposed mitigation measures. ~~Mitigation Measure BIO-1 would require habitat assessments, including vegetation mapping, to be conducted before construction of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects. Mitigation Measures BIO-2 and BIO-3 would implement mitigation and replacement ratios for permanent and temporary impacts to non-native grassland.~~

Implementation of Mitigation Measures BIO-1~~2~~ through BIO-5~~8~~ would reduce potentially significant direct and indirect impacts to sensitive plant species on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites. These mitigation measures would require preconstruction sensitive plant species surveys, mitigation ~~ratios~~ for permanent and temporary impacts to non-native grassland that could support sensitive plant species, and prevention of the spread of invasive plant species during construction. General construction mitigation measures, including flagging and fencing, a contractor training program, and a biological monitor, shall be implemented for the projects to minimize potential impacts to sensitive plant species.

Implementation of Mitigation Measures BIO-1~~9~~ through BIO-7~~11~~ would reduce potentially significant impacts to sensitive animal species at the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites. General construction mitigation measures (Mitigation Measures BIO-3~~6~~ through BIO-5~~8~~), including flagging and fencing, a contractor training program, and a biological monitor, shall also be implemented for the projects to minimize potential impacts to sensitive animal species. Potentially significant impacts to non-native grassland that could support burrowing owl (*Athene cunicularia*) would be mitigated by requiring burrowing owl habitat analysis and potential focused ~~clearance~~ surveys at the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites (Mitigation Measures BIO-1~~9~~). Implementation of Mitigation Measure BIO-6~~10~~ would reduce potentially significant impacts to nesting birds by conducting nesting bird surveys before construction of the projects if construction activities occur during the general bird nesting season (January 15 through September 15). Potentially significant impacts to sensitive animal species from nighttime lighting during construction would be minimized with Mitigation Measure BIO-7~~11~~ on the project sites.

Implementation of Mitigation Measures BIO-1, BIO-8~~12~~, and BIO-9~~13~~ would reduce potentially significant impacts to jurisdictional aquatic resources, if identified on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites during ~~preconstruction~~ habitat assessments as part of the MSHCP Consistency Analysis Report (Mitigation Measure BIO-1). If jurisdictional aquatic resources are identified, aquatic resources delineations (Mitigation

Measure BIO-8~~12~~) and permitting and MSHCP consistency analysis (Mitigation Measures BIO-1 and BIO-9~~13~~) would be conducted before construction of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects.

This page intentionally left blank.

Section 1 Introduction

This Biological Resources Technical Report for the City of Corona 2018 Reclaimed Water Master Plan (2018 RWMP or project) addresses the potential biological resources impacts associated with the construction, operation, and maintenance of the approved 2018 RWMP for the City of Corona (City).

1.1 Project Description

The 2018 RWMP is an update to the City's 2001 adopted RWMP, which provides guidance to create infrastructure to efficiently use treated effluent from its existing and future wastewater reclamation facilities (WRFs) supplemented by non-potable groundwater from the Bedford Basin to reduce dependence on imported water and potable groundwater. The project identifies the extent and types of reclaimed water development needed to achieve the City's physical, economic, and environmental goals.

1.1.1 Project Location

The City is in the northwestern portion of the County of Riverside (County), near the convergence of the Counties of Los Angeles, Orange, and Riverside, 45 miles southeast of the City of Los Angeles, as shown on Figure 1, Regional Location. The City is in the Temescal Valley, which is framed by mountains and the Prado Flood Control Basin. The City is bordered by the City of Norco to the north, the City of Riverside to the east, unincorporated Riverside County to the west and south, the Cleveland National Forest to the south/southwest, and the Prado Flood Control Basin to the northeast.

The City is defined in the County by its transportation infrastructure. Two major freeways and one railroad transect the City. Riverside Freeway (State Route 91) runs east–west, connecting the economic center of the County of Orange to the Inland Empire, while Interstate 15 runs north–south. In addition, the Burlington Northern Santa Fe Railway transects the center of the City, running parallel to State Route 91.

The water service area boundary differs from the City's jurisdictional boundary. The water service area includes the unincorporated communities of El Cerrito and Coronita and parts of Temescal Canyon, as shown on Figure 2, Water Service Area. The City's water service area encompasses approximately 39 square miles and delineates the extent of the City's potable water and reclaimed water and wastewater services. The water service area includes the unincorporated communities of El Cerrito and Coronita and parts of Temescal Canyon, as shown on Figure 2.

The water service area is a jurisdictional boundary bordered by the neighboring water service areas for the Cities of Norco and Eastvale to the north, the City of Riverside to the northeast, the Home Gardens County Water District to the east, and the Temescal Valley Water District to the south. The southeastern portion of the water service area is generally bounded by unincorporated County

lands. The southwestern portion of the water service area is bounded by the Cleveland National Forest and other County lands (Figure 2).

1.1.2 2018 Reclaimed Water Master Plan Projects

This section describes the proposed infrastructure and improvements to the reclaimed water system identified in the 2018 RWMP. Future projects would be categorized as sources of supply, large distribution pipelines, medium distribution pipelines, small distribution pipelines, conversion of adjacent customers, data management, and additional studies. Table 1 provides a summary of the projects identified in the 2018 RWMP. Figures 3a through 3d show the locations of the projects identified in the 2018 RWMP in the water service area.

Table 1. Summary of 2018 Reclaimed Water Master Plan Projects

Number	Project	Location	Description
Source of Supply Projects			
1	WRCRWA Booster Pump Station[1]	WRCRWA	The booster pumping stations would pump WRCRWA supply to the 833 Subzone.
2	WRCRWA Transmission Pipeline[1]	Between WRCRWA and River FCS-833 Subzone	The transmission pipeline would connect the WRCRWA booster pumping station to the 833 Subzone.
3	WRCRWA Flow Control Improvements	Between Butterfield and WRF1 Tank	These control stations would direct WRCRWA supply to the Lincoln-Cota Ponds and the WRF1 Tank.
4	Rimpau California Pipeline	Between Central Park and Chase Park	This transmission pipeline would provide the additional capacity needed to move WRCRWA supply to demands south of the water service area between City Park and Chase Park.
5	Chase Booster Pump Station	Chase Park	The booster pump station at Chase Park would an operational component of the Rimpau California Pipeline.
6	Chase Tank	Chase Park	The storage facility at Chase Park would be an operational component of the Rimpau California Pipeline.
Large Distribution Pipelines			
7	Buena Vista Tenth Pipeline	Railroad Street and Rimpau Avenue via Buena Vista Avenue and Tenth Street	This pipeline would reinforce the primary loop between WRF1 at the 1380 Zone following construction of the Rimpau California Pipeline.
8	Ontario Slipline	Compton Avenue and Lincoln Avenue	This slipline would form a secondary loop along the length of the 1175 Subzone.
9	River Pipeline	River Road from Corydon Avenue through Main Street	This pipeline would expand the 833 Subzone north of Temescal Creek and west of Interstate 15.
10	Sampson Pipeline	Central Park and McKinley Street	This pipeline would form a secondary loop in the 1008.5 Zone to improve performance and eliminate the need for additional local storage.

Table 1. Summary of 2018 Reclaimed Water Master Plan Projects

Number	Project	Location	Description
Medium Distribution Pipelines			
11	Old Temescal Pipeline[1]	Fullerton Avenue and Interstate 15	This pipeline would convert 15.1 gpm of potable water demand for irrigation to reclaimed water demand.
12	Lincoln Foothill Pipeline	Lincoln Avenue between Highgrove Street and Foothill Parkway	This pipeline would convert 12.5 gpm of potable water demand for irrigation to reclaimed water demand at one church and six existing LMD meters.
13	Avenida Del Vista Pipeline	Via Del Rio and MFR demands north of Via Santiago	This pipeline would convert 19.8 gpm of potable water demand for irrigation to reclaimed water demand at three MFR complexes.
14	Border Pipeline	Brentwood Drive and MFR demands north of Tenth Street	This pipeline would convert 36.4 gpm of potable water demand for irrigation to reclaimed water demand at numerous MFR and CII complexes.
15	Promenade Pipeline	McKinley Avenue and Cresta Verde Park	This pipeline would convert 26.9 gpm of potable water demand for irrigation to reclaimed water demand at 2 MFR complexes and 15 existing landscaping irrigation meters.
16	Research Pipeline	CII demands west of Auto Center Drive	This pipeline would convert 9 gpm of potable water demand for irrigation to reclaimed water demand.
17	Smith Pipeline	Railroad Street and Pomona Road	This pipeline would convert 13.6 gpm of potable water demand for irrigation and car washing to reclaimed water demand.
18	Via Pacifica Pipeline	MFR and LMD demand north of Ontario Avenue	This pipeline would convert 21.3 gpm of potable water demand for irrigation to reclaimed water demand at two LMD meters and one MFR complex.
19	Tehachapi Pipeline	McKinley Avenue and Tehachapi Park	This pipeline would convert 6.2 gpm of potable water demand for irrigation to reclaimed water demand.
Small Distribution Pipelines			
20	Jenks Pipeline	North and south of Railroad Street	The pipeline would convert 5.8 gpm of potable water demand for irrigation to reclaimed water demand.
21	Airport Circle Pipeline	South of Railroad Street	The pipeline would convert 4.1 gpm of potable water demand for irrigation to reclaimed water demand.
22	Helicopter Pipeline	South of Railroad Street	This pipeline would convert 3.9 gpm of potable water demand for irrigation to reclaimed water demand.
23	Glider Pipeline	South of Railroad Street	The pipeline would convert 1.3 gpm of potable water demand for irrigation to reclaimed water demand.
24	Citation Pipeline	South of Railroad Street	This pipeline would convert 1.2 gpm of potable water demand for irrigation to reclaimed water demand.
25	Klug Pipeline	North and south of Railroad Street	This pipeline would convert 3.9 gpm of potable water demand for irrigation to reclaimed water demand.
26	Monica Pipeline	North of Railroad Street	The pipeline would convert 3.2 gpm of potable water demand for irrigation to reclaimed water demand.
27	Chase Hudson Pipeline	LMD demands at Chase Drive and Hudson Avenue	This pipeline would convert 4.7 gpm at two LMD meters from potable water demand for irrigation to reclaimed water demand.

Table 1. Summary of 2018 Reclaimed Water Master Plan Projects

Number	Project	Location	Description
28	Cessna Pipeline	North of Railroad Street	This pipeline would convert 3 gpm of potable water demand for irrigation to reclaimed water demand.
29	Main Citrus Pipeline	Main Street at Citrus Avenue and four CII customers at Main Street and Magnolia Avenue	This pipeline would convert 21.4 gpm of potable water demand for irrigation to reclaimed water demand for CII customers.

Sources: City of Corona 2016, 2018.

Notes: CII = commercial, industrial, and institutional; gpm = gallons per minute; LMD = landscape maintenance district; MFR = multi-family residential; WRCRWA = Western Riverside County Regional Wastewater Authority; WRF = water reclamation facility

[1] Project is in process and is covered by the 2016 Proposition 1 – Reclaimed Water Distribution System Initial Study/Mitigated Negative Declaration

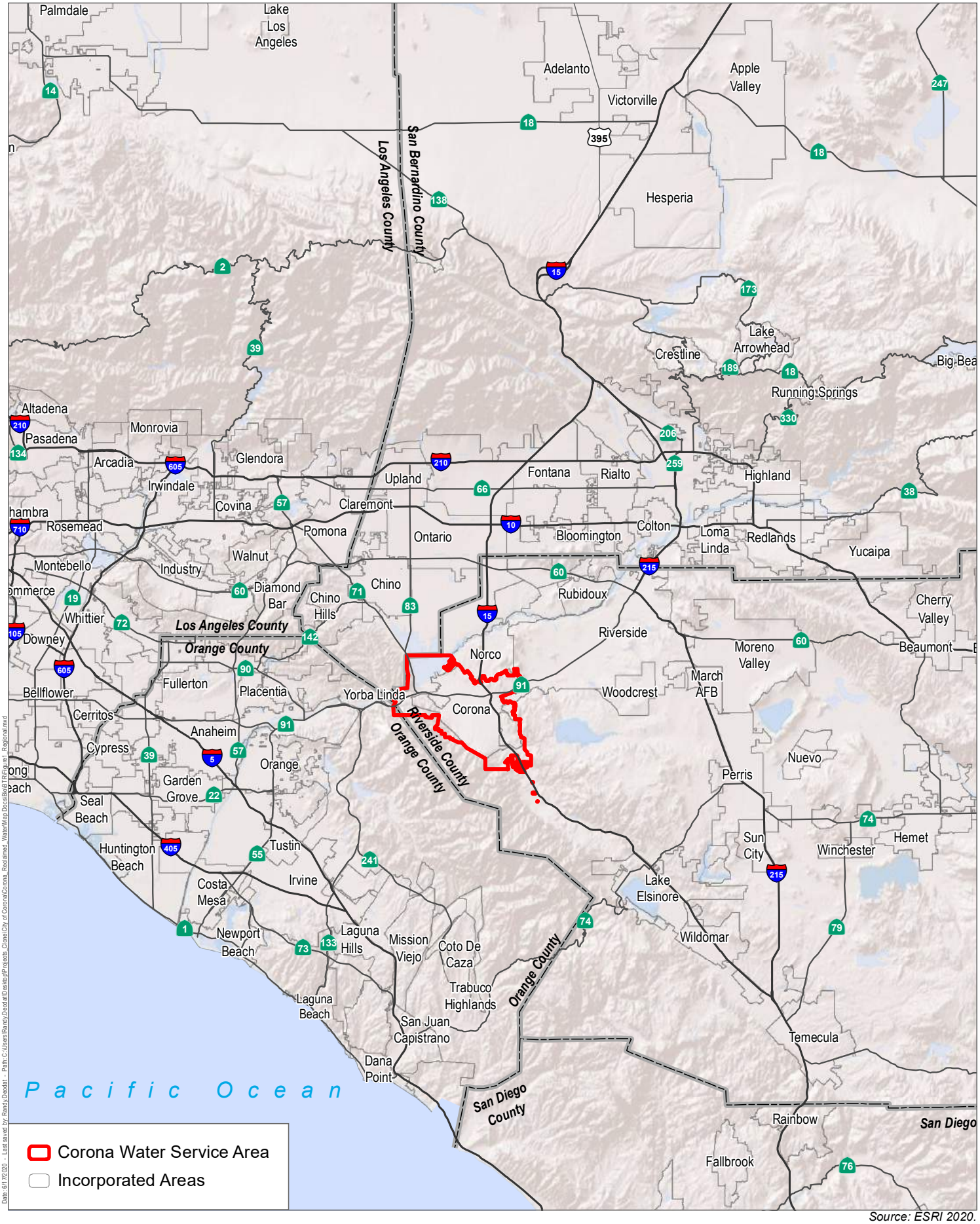
1.1.2.1 Sources of Supply

The 2018 RWMP includes the following six sources of supply projects that involve future supply from the Western Riverside County Regional Wastewater Authority (WRCRWA). The projects are necessary to accommodate the shift in supply from the existing WRF3 to WRCRWA and would assure adequate supply and transmission capacity related to reclaimed water from WRCRWA (see Figure 3a). The projects focus on transmission and system performance.

1.1.2.2 Distribution Pipelines

Approximately 27 miles of distribution pipelines is proposed to supply irrigation demands at schools, parks, City landscaping, and the industrial, commercial, and multi-family residential (MFR) sectors. The project proposes four large distribution pipelines to open previously unserved neighborhoods, commercial zones, and industrial zones to reclaimed water service as described below (Figure 3b). The project proposes nine new medium distribution pipelines to target large demand opportunities with a single feed pipe (Figure 3c). The project proposes 10 small distribution pipelines to target demand opportunities near existing pipelines as described below (Figure 3d).

For additional detail on individual projects, refer to Chapter 2, Project Description, of the 2018 RWMP PEIR.



Source: ESRI 2020.

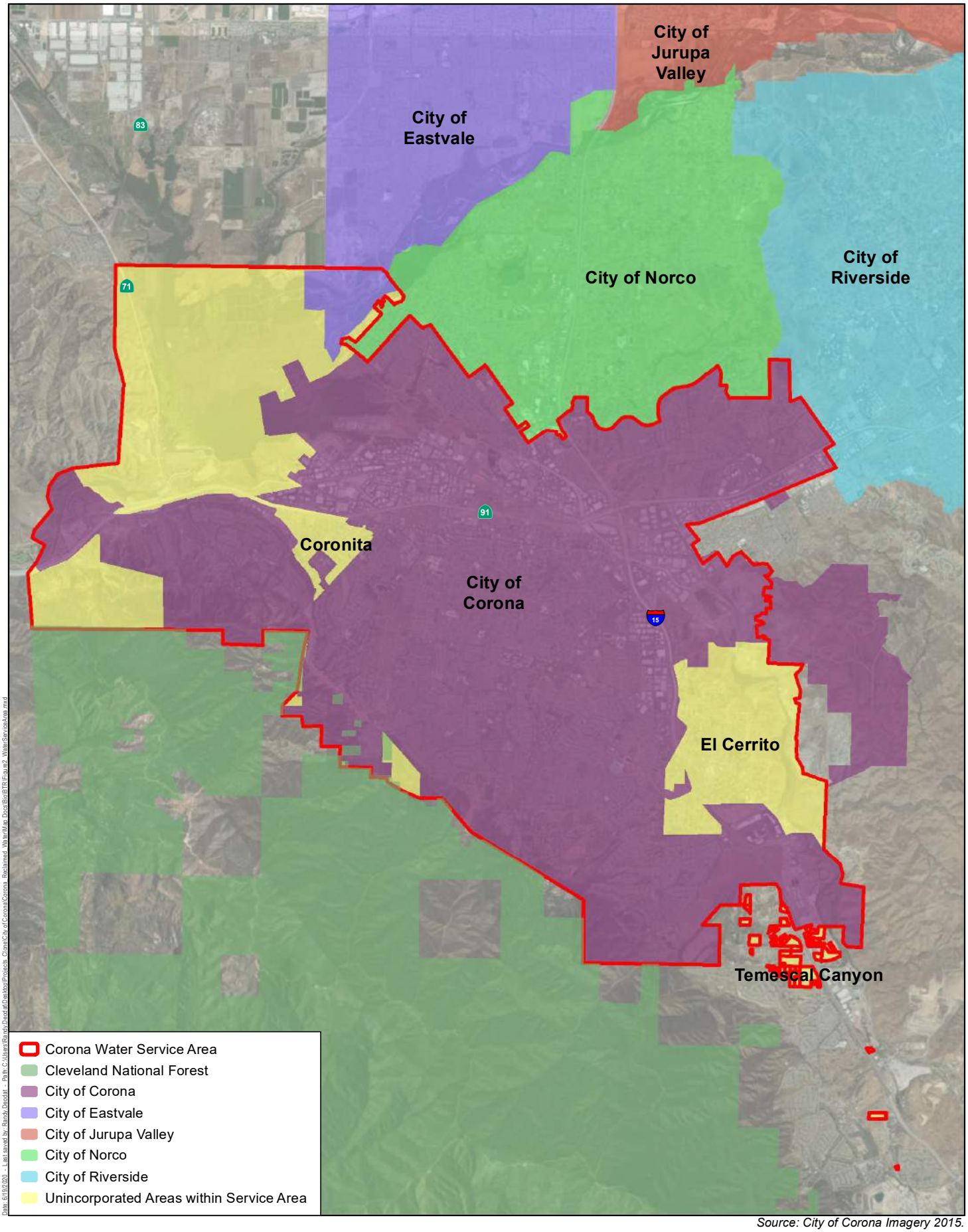
Harris & Associates

Figure 1

Regional Location

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: City of Corona Imagery 2015.

Harris & Associates

N

0 1 2

Miles

Figure 2

Water Service Area

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: County of Riverside Imagery 2016.

Harris & Associates

N

0 2,000 4,000

Feet

Figure 3a

Source of Supply Projects

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: County of Riverside Imagery 2016.

Harris & Associates

N

0 2,000 4,000

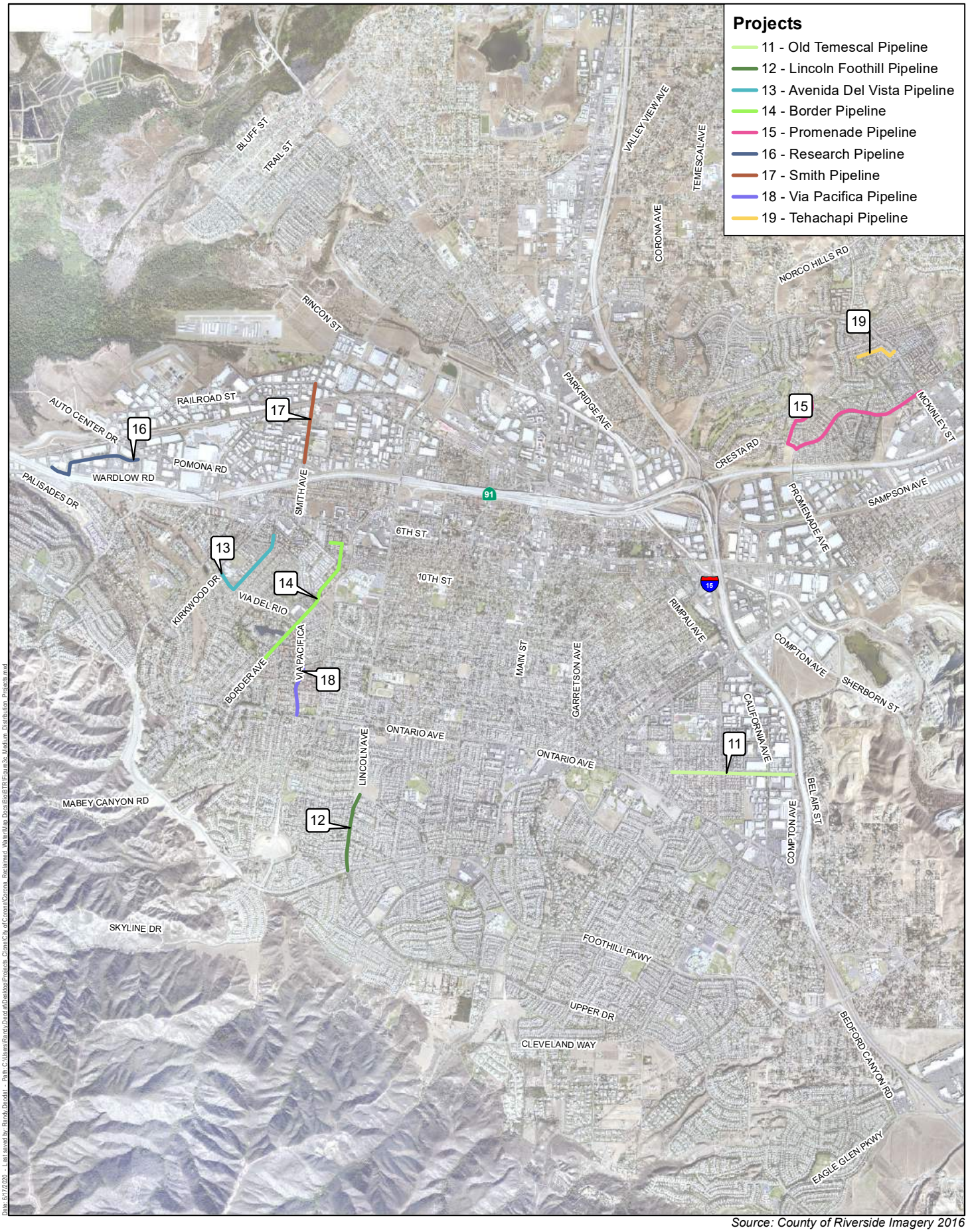
Feet

Figure 3b

Large Distribution Pipelines

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: County of Riverside Imagery 2016

Harris & Associates

N

0 2,000 4,000

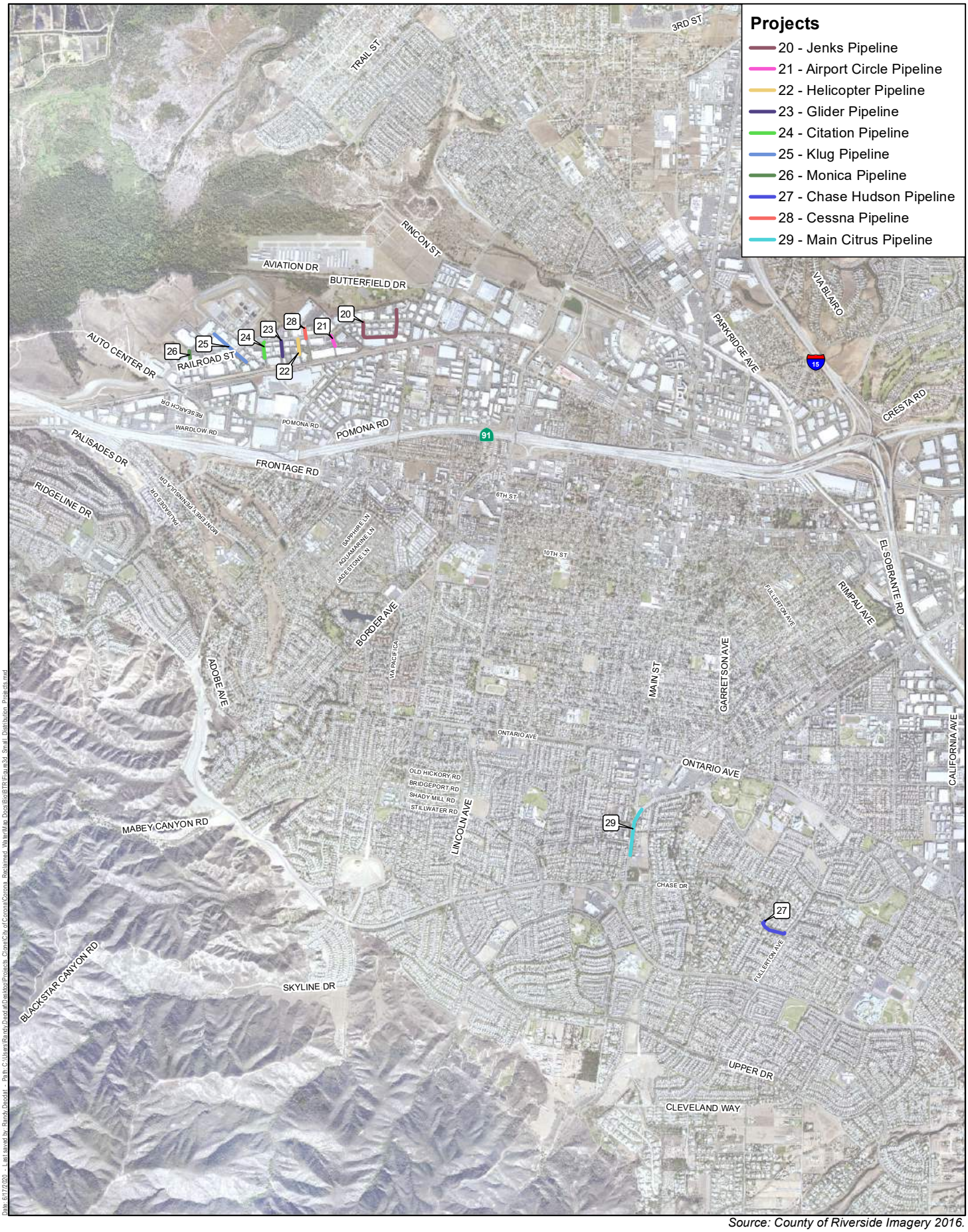
Feet

Figure 3c

Medium Distribution Pipelines

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: County of Riverside Imagery 2016.

Harris & Associates

N

0 1,000 2,000

Feet

Figure 3d

Small Distribution Pipelines

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.

1.1.2.3 Conversion of Adjacent Customers

Customers adjacent to existing pipelines should be converted to reclaimed water when possible. The adjacent demands for the City include commercial, institutional, MFR, and single-family residential.

The conversion would convert 139.9 gpm (225.7 AFY) of potable water demand for irrigation to reclaimed water demand by adding small irrigated areas one at a time throughout the system and would investigate the possibility of converting other CII demands (e.g., cooling water replenishment, industrial process water, industrial cleaning, dual plumbing). It would require the addition of new laterals and meters as necessary to capture irrigation demand adjacent to existing distribution pipelines.

1.1.2.4 Data Management Projects

The City has an extensive automation system for its water facilities called Supervisory Control and Data Acquisition (SCADA). SCADA is used primarily for operational control and management of the City's water, wastewater, and reclaimed water assets. The following enhancements would expand the use of SCADA to resource management and demand management.

1.1.3 Construction Methods

Following certification of the 2018 RWMP PEIR, the City would determine the implementation schedule for the construction of the improvements contemplated under the project. Once a project is selected for construction, the City would develop project-specific plans and specifications for each project, perform a project-level CEQA review, and file the appropriate documentation for the necessary permits and approvals in advance of awarding a construction contract. For the purposes of the 2018 RWMP PEIR, the City has applied a standard construction zone of impact for linear construction in addition to approximating the area of direct impact for staging areas or other temporary use areas. Typical construction methods for project components are described below.

Pipeline construction would require piping, trenching, backfilling, asphalt restoration, and striping. Trench dimensions for pipeline projects would be approximately 4 feet wide and 5 feet deep. Material removed would be replaced with import (sand bedding, aggregate base backfill, and asphalt concrete), and the spoils would be transported to an appropriate disposal facility.

Pump station construction would require piping, trenching, backfilling, foundation and grading, building construction, SCADA controls, and site restoration as needed.

Storage tanks would require piping, trenching, backfilling, foundation and grading, tank construction, SCADA controls, and site restoration as needed.

Table 2 provides an estimated time frame for construction for each project included in the 2018 RWMP.

Table 2. 2018 Reclaimed Water Master Plan Project Construction Duration

Number	Project	Duration in Years
	Source of Supply Projects	
1	WRCRWA Booster Pump Station (in progress)	2
2	WRCRWA Transmission Pipeline (In progress)	2
3	WRCRWA Flow Control Improvements	2
4	Rimpau California Pipeline	4
5	Chase Booster Pump Station	3
6	Chase Tank	3
	Large Distribution Pipelines	
7	Buena Vista Tenth Pipeline	4
8	Ontario Slipline	4
9	River Pipeline	3
10	Sampson Pipeline	4
	Medium Distribution Pipelines	
11	Old Temescal Pipeline (in progress)	2
12	Lincoln Foothill Pipeline	2
13	Avenida Del Vista Pipeline	2
14	Border Pipeline	2
15	Promenade Pipeline	3
16	Research Pipeline	2
17	Smith Pipeline	2
18	Via Pacifica Pipeline	2
19	Tehachapi Pipeline	2
	Small Distribution Pipelines	
20	Jenks Pipeline	2
21	Airport Circle Pipeline	1
22	Helicopter Pipeline	1
23	Glider Pipeline	1
24	Citation Pipeline	1
25	Klug Pipeline	2
26	Monica Pipeline	1
27	Chase Hudson Pipeline	2
28	Cessna Pipeline	1
29	Main Citrus Pipeline	1

Source: City of Corona 2018.

1.2 Purpose

At the request of the City, Harris has prepared this Biological Resources Technical Report for the project.

The project objectives are as follows:

- Expand and improve the City's recycled water program in accordance with Ordinance 2854 (Recycled Water Rules and Regulations)
- Prioritize and implement system improvements pursuant to the City's 2018 RWMP to maximize reclaimed water supply availability and reduce the use of potable water
- Improve water supply system performance by facilitating supply management and maximizing water resources
- Efficiently implement priority improvement projects to manage and distribute new sources of water supply as they become available

The term "biological resources" refers to plant species, animal species, and vegetation communities in the water service area. For the purposes of this Biological Resources Technical Report, sensitive biological resources are those defined as follows: (1) species designated as endangered, threatened, rare, protected, sensitive, or species of special concern according to the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), California Native Plant Society (CNPS), or applicable regional plans, policies, or regulations needs due to limited distribution, limited numbers, or significant population declines associated with natural or human-made causes; (2) species and habitat types recognized by local and regional resource agencies as special status; (3) habitats or vegetation communities that are unique, of relatively limited distribution, or of particular value to wildlife; (4) wildlife corridors and habitat linkages; or (5) biological resources that may or may not be considered special status but are regulated under local, state, or federal laws.

1.3 Environmental Setting

This section includes a description of the climate, surrounding land uses, topography and soils, and hydrology present in the water service area.

1.3.1 Climate

The County features a somewhat cooler version of a Mediterranean climate, or semi-arid climate, with warm, sunny, dry summers and cool, rainy, mild winters. Relative to other areas in Southern California, winters are colder, with frost and chilly to cold morning temperatures. Climatological data obtained from nearby weather stations indicate the annual precipitation averages 12 inches per year. Almost all precipitation in the form of rain occurs between October and April, with hardly any occurring between May and September. The wettest month is February, with a monthly average total precipitation of 2.54 inches. The average maximum and minimum temperatures for

the region are 80.6 and 47.2 degrees Fahrenheit (°F), respectively, with July and August (monthly average 98.1°F) being the hottest months and January (monthly average 36.4°F) being the coldest month. The temperature during the site visit was in the low-80s.

1.3.2 Surrounding Land Uses

The water service area consists of a mosaic of land uses including industrial, commercial, residential, educational, and public works developments; flood control facilities; and vacant, undeveloped land. These land uses have heavily disturbed, if not completely eliminated, the majority of the natural vegetation within the City boundaries. However, the western boundary of the City borders the Santa Ana Mountains (Cleveland National Forest), and the northern portion of the City borders the Santa Ana River and Prado Basin.

1.3.3 Topography and Soils

The water service area is bordered to the south and west by the Santa Ana Mountains, to the east by Temescal Creek and Bedford Canyon Wash, and to the north by the Santa Ana River Basin and Prado Dam. The water service area is in the Corona North, Corona South, Black Star Canyon, Lake Matthews, and Prado Dam USGS quadrangles. The relief in the water service area ranges from 420 feet above mean sea level in the Santa Ana River Basin to 4,400 feet above mean sea level on the peaks of the Santa Ana Mountains (Figure 4, USGS Topographic Map). The 2018 RWMP projects covered in the 2018 RWMP PEIR range in elevation from 520 to 1,520 feet above mean sea level.

The topography in the water service area ranges from gently sloping areas in the central portion of the City to steeper topography in the adjacent mountain areas, with over 50 percent of the water service area on a slope of 10 percent or less (Figure 4). The Santa Ana Mountains occur west of the water service area; therefore, the areas surrounding the western and southwestern edges of the water service area are characterized with slopes of 25 percent or greater (City of Corona 2020a).

The soil types present in the water service area include Garretson gravelly very fine sandy loam, Arbuckle gravelly loam, Perkins loam, Perkins gravelly loam, and Cortina gravelly coarse sandy loam; other small areas of clay and loam soils occur in the area (USDA 2020). The five soil types are described in detail below (USDA 1971):

Garretson gravelly very fine sandy loam: 2 to 8 percent slopes, consists of well-drained, very fine sandy loams that formed in alluvium derived from metasedimentary rock.

Arbuckle gravelly loam: 2 to 9 percent slopes, well-drained, gently to moderately sloping soils. They occur on alluvial fans derived from igneous, metamorphic, and sedimentary rock.

Perkins loam: 2 to 5 percent slopes, well-drained soils on alluvial fans and terraces. These soils developed in alluvium that was derived mainly from metasedimentary, fine-grained sandstone.

Perkins gravelly loam: 2 to 5 percent slopes, includes small areas of Arbuckle gravelly loam and Garretson gravelly very fine sandy loam. These soils have slow runoff and low erosion potential.

Cortina gravelly coarse sandy loam: 2 to 8 percent slopes, includes gently to moderately sloping soils, and is excessively drained soil on alluvial fans and in valley fills. These soils formed in alluvium from metasedimentary rock.

1.3.4 Hydrology

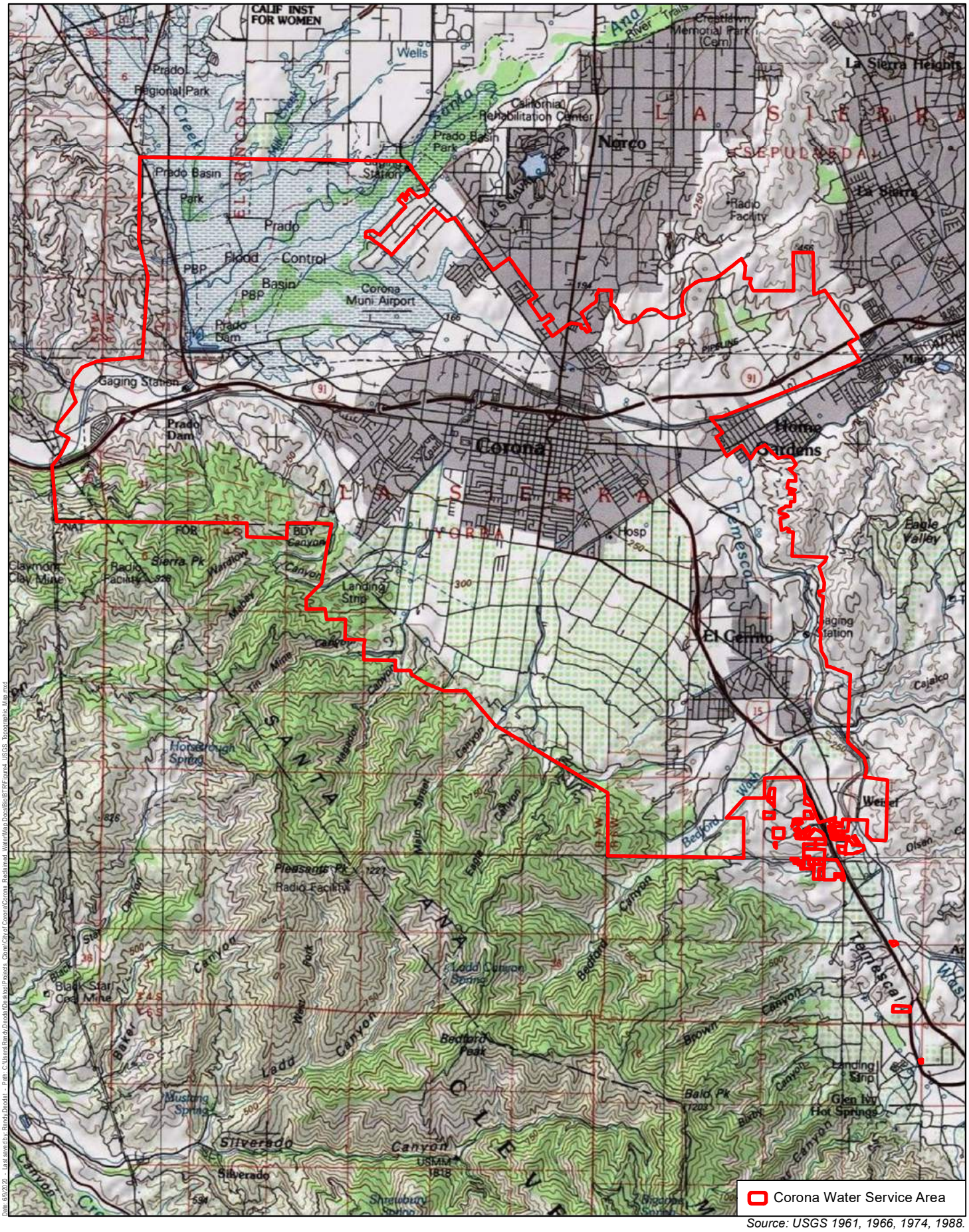
The water service area is in the Santa Ana River watershed, a flood control zone monitored by the Santa Ana Regional Water Quality Control Board (RWQCB) that covers portions of the Counties of Riverside, Orange, and San Bernardino. In the County of Riverside, the Santa Ana River watershed is subdivided into the Santa Ana subwatershed (which the water service area is in) and the San Jacinto River subwatershed. The Santa Ana subwatershed consists of the Santa Ana River and its tributaries, and the San Jacinto River subwatershed includes the San Jacinto River and its tributaries that overflow into the Santa Ana River only in high-volume storm events.

The Santa Ana subwatershed is also subdivided into smaller subwatersheds based on major tributary channels that feed into the Santa Ana River. The water service area is in two of these smaller subwatersheds: the Middle Santa Ana River subwatershed and the Temescal Wash subwatershed. The Middle Santa Ana River subwatershed is in the northwestern corner of the County and covers a total tributary area of 170 square miles that generally drains west toward the Santa Ana River. Tributaries to this subwatershed include Temescal Creek, Tequesquite Arroyo (Sycamore Creek), Day Creek, and San Sevaine Creek. The Temescal Wash subwatershed covers 250 square miles and is defined as the tributary area draining into the Temescal Wash, also known as Temescal Creek, that connects Lake Elsinore with the Santa Ana River.

Tributaries to the Temescal Wash include Wasson Canyon Wash, Arroyo Del Toro, Stovepipe Canyon Wash, Rice Canyon Wash, and Lee Lake. The majority of the City lies in this subwatershed, and the drainage channels that run through the City and tie into Temescal Wash include Arlington Channel, Main Street Channel, Oak Street Drain, Joseph Canyon Wash, and Bedford Wash.

The channels flow into the Santa Ana River, which continues downstream through the County of Orange and then empties into the Pacific Ocean. Figure 5, Hydrology, identifies the major water features in the water service area.

This page intentionally left blank.



Source: USGS 1961, 1966, 1974, 1988.

Harris & Associates

N

0 1 2

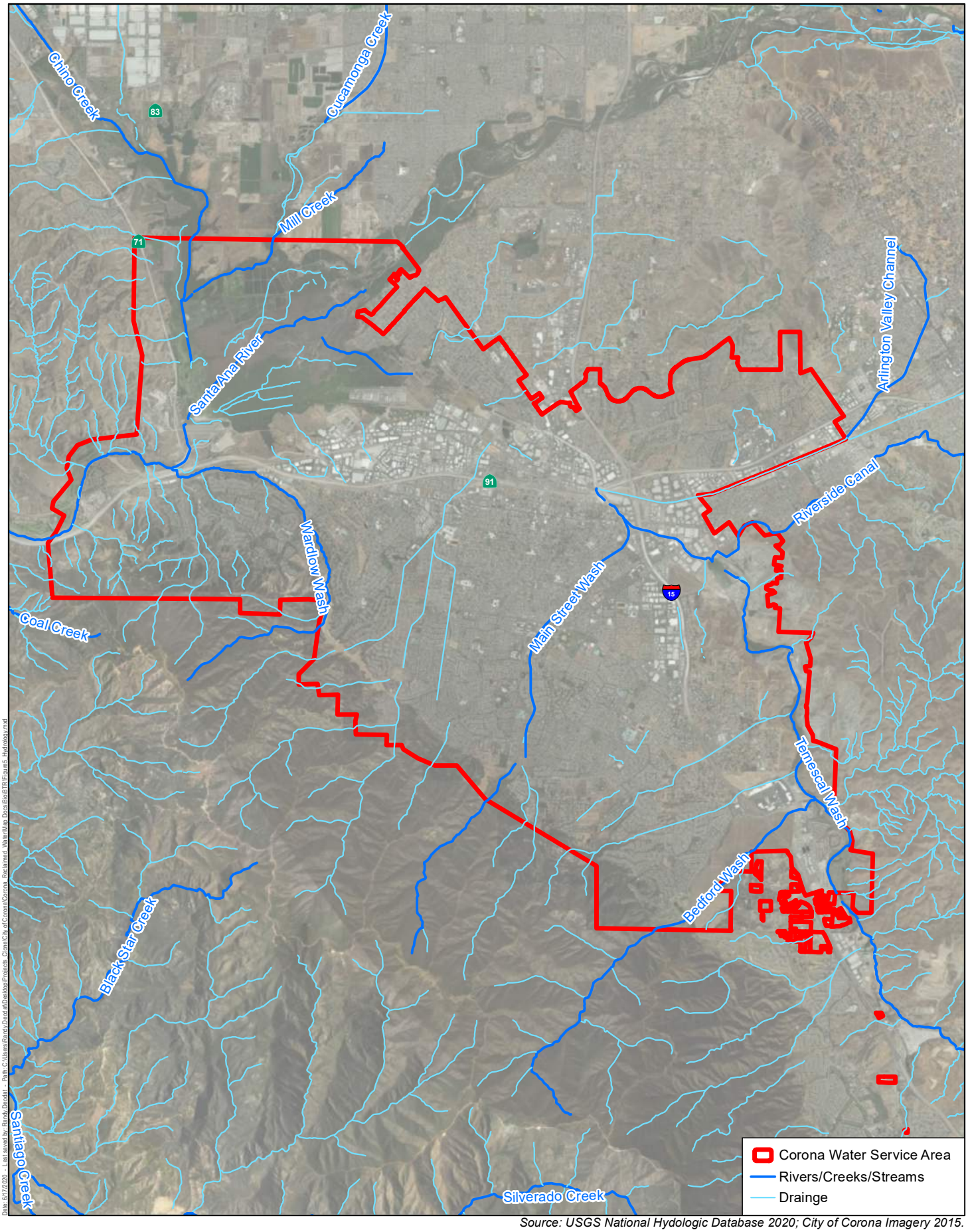
Miles

Figure 4

USGS Topographic Map

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: USGS National Hydrologic Database 2020; City of Corona Imagery 2015.

Harris & Associates

N

0 1 2

Miles

Figure 5

Hydrology

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.

Section 2 Methods

The methods used to document biological resources present in the water service area included a review of pertinent background data and one biological resources site visit.

2.1 Background Information

Before conducting the site visit to assess biological resources, Harris conducted a review of previous survey information. This included a review of aerial imagery and previous vegetation and sensitive resources mapping for the City including the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) (County of Riverside 2003), the City's General Plan Technical Update Final Environmental Impact Report (City of Corona 2020a), and the 2016 Proposition 1 IS/MND Environmental Assessment (City of Corona 2016). In addition, Harris conducted a search of online databases for information regarding sensitive species documented in the water service area. Online databases included the USFWS Information for Planning and Consultation (IPaC) species records (USFWS 2020a); the CDFW California Natural Diversity Database (CDFW 2020a); Calflora online plant species database (Calflora 2020); CNPS Rare and Endangered Plant Electronic Inventory (CNPS 2020); eBird, an online bird species database, (Cornell Lab of Ornithology 2020a); and iNaturalist, an online plant and animal species database (iNaturalist 2020). Plant and animals species sensitivity statuses are from the CNPS (2020), CDFW (2020b, 2020c), USFWS (2020a), and Western Riverside County MSHCP (County of Riverside 2003).

The USFWS IPaC report was created by drawing a perimeter around the water service area to create a list of potential endangered and threatened species known to be present near the water service area. The IPaC report also indicates whether critical habitat is present or not. The USFWS National Wetlands Inventory was also reviewed, and the data were downloaded to view the locations of potential aquatic resources in and downstream of the water service area (USFWS 2020b).

In addition to database review, topographic maps, soils maps (USDA 2020; Bowman 1973), and other maps of the water service area and its vicinity were acquired and reviewed to obtain updated information on the area's natural environment. A summary of the results of the database and document review is detailed in Section 3, Results.

2.2 Biological Survey

During the site visit on April 14, 2020, Harris biologists conducted a general biological reconnaissance survey by visually inspecting a number of projects in the water service area to determine the potential for sensitive plants and animals to occur.

Animal species observed or otherwise detected during the survey were recorded and are provided in Appendix A, Species Observed. Animal identifications were made in the field directly by visual

observation or indirectly by detection of calls, burrows, tracks, or scat. Binoculars were used to aid the identification of animal species. Nomenclature used for animals comes from CaliforniaHerps.com (2020) for amphibians and reptiles, American Ornithological Society (2019) and Cornell Lab of Ornithology (2020a) for birds, Checklist of Butterflies of San Diego County (San Diego Natural History Museum 2020a) for butterflies, San Diego Natural History Museum (2020b) for other insects, and Bradley et al. (2014) for mammals.

2.3 Vegetation Mapping

Vegetation community boundaries for the project were provided in geographic information system (GIS) format by the City. Vegetation community types include the Holland vegetation classification code as modified for the Western Riverside County MSHCP (Holland 1986; County of Riverside 2003). Plant species nomenclature used in this report generally comes from Baldwin et al. (2012) and the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2014).

Section 3 Results

The following results provide information from City biological resources technical reports, online database searches, City GIS data, the Western Riverside County MSHCP (County of Riverside 2003), and the biological resources survey conducted in the water service area.

3.1 Vegetation Communities and Land Use Types

The water service area consists of nine sensitive vegetation communities and two land use types, as described below (County of Riverside 2003; City of Corona 2018; Holland 1986).

The following subsections describe the identified in the water service area. The sensitive vegetation communities were designated as sensitive because of the general scarcity of the community; because impacts to the habitat are often regulated by the USFWS, CDFW, U.S. Army Corps of Engineers (USACE), or Regional Water Quality Control Board (RWQCB); or because of the species the vegetation community supports and the functions that it provides. Figure 6, Vegetation Communities – Overview, presents the vegetation community and land use type boundaries, and Figures 7a though 7d show the vegetation communities and land use types.

3.1.1 Chaparral

Chaparral is a shrub-dominated vegetation community composed largely of evergreen species that range from 3 to 12 feet in height. The most common and widespread species in chaparral is chamise (*Adenostoma fasciculatum*). Other common shrub species include manzanita (*Arctostaphylos* spp.), wild lilac (*Ceanothus* spp.), oak (*Quercus* spp.), redberry (*Rhamnus* spp.), laurel sumac (*Malosma laurina*), mountain mahogany (*Cercocarpus betuloides*), toyon (*Heteromeles arbutifolia*), and mission manzanita (*Xylococcus bicolor*). Soft-leaved subshrubs are less common in chaparral than in coastal sage scrub but occur in canopy gaps of mature stands (Holland 1986; Sawyer et al. 2009).

Chaparral occurs in the southwestern portion of the water service area at the eastern base of the Santa Ana Mountains (Figure 6).

3.1.2 Coastal Sage Scrub (Diegan and Riversidian)

Coastal sage scrub in the water service area consists of Diegan coastal sage scrub and Riversidian coastal sage scrub.

Diegan coastal sage scrub is dominated by a characteristic suite of low-statured, aromatic, drought deciduous shrubs and subshrub species. Composition varies substantially depending on physical circumstances and the successional status of the vegetation community; however, characteristic species include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac, California encelia (*Encelia californica*), and several species of sage (e.g., *Salvia*

mellifera, Salvia apiana) (Holland 1986; Sawyer et al. 2009). Diegan coastal sage scrub occurs in the western portion of the water service area south of the Santa Ana River.

Riversidian sage scrub is dominated by brittlebush (*Encelia farinosa*) with patches of California buckwheat and California sagebrush. Riversidian coastal sage scrub occurs in the southeastern portion of the water service area (Figure 6).

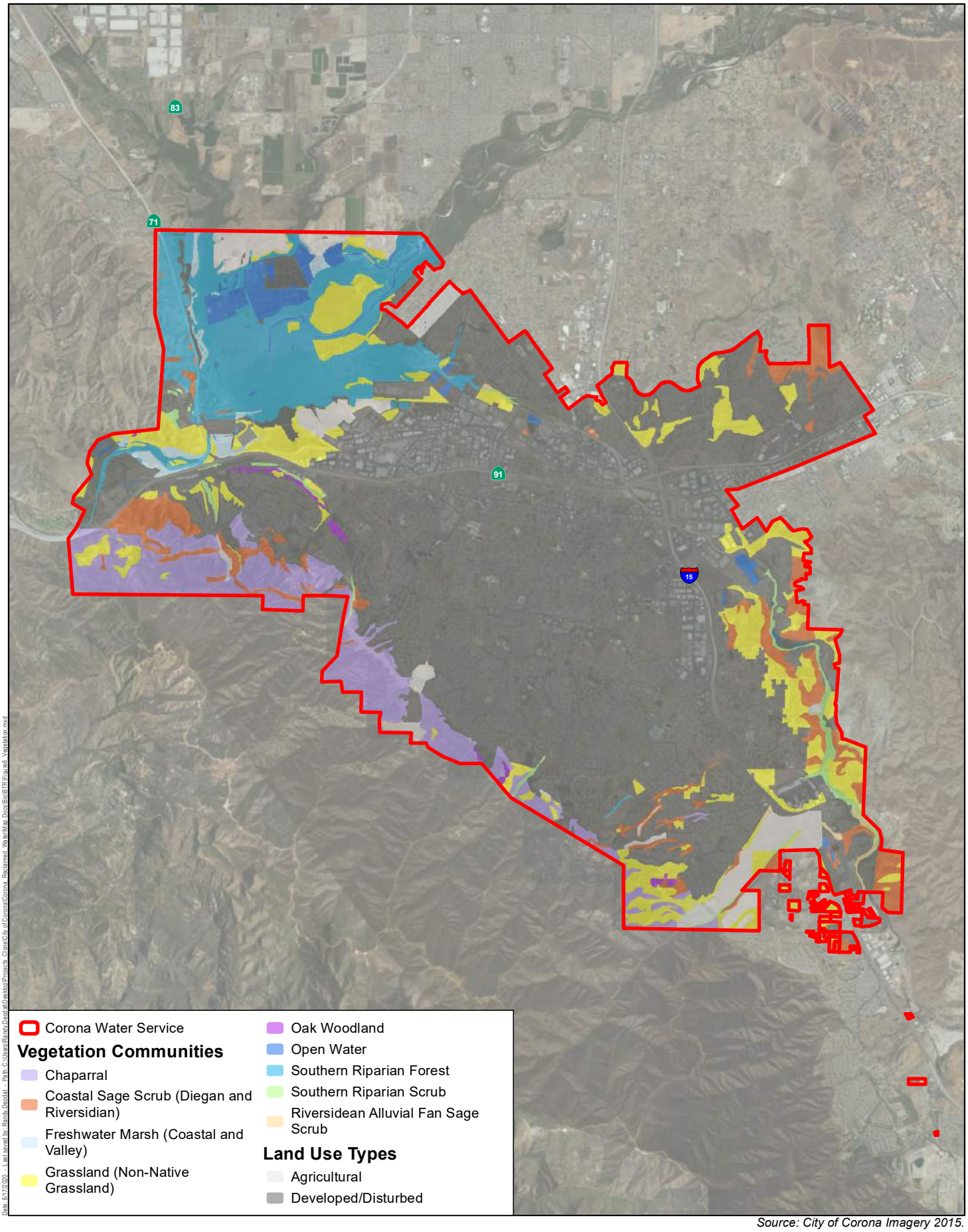
3.1.3 Freshwater Marsh (Coastal and Valley)

Freshwater marsh in the water service area consists of coastal and valley freshwater marsh. Coastal and valley freshwater marsh is dominated by freshwater emergent monocots often forming closed canopies. Dominant species include cattails (*Typha* spp.) and tules (*Schoenoplectus* spp.) (Holland 1986).

In the water service area, coastal and valley freshwater marsh occurs in small pockets along the Santa Ana River north of the Corona Municipal Airport (Figure 6).

3.1.4 Grassland (Non-Native)

Non-native grassland is a dense to sparse cover of annual grasses sometimes associated with numerous species of native annual forbs. This association occurs on gradual slopes with deep, fine-textured, usually clay soils. Characteristic species include oat (*Avena* sp.), red brome (*Bromus madritensis* ssp. *rubens*), ripgut brome (*Bromus diandrus*), barley (*Hordeum* sp.), and mustard (*Brassica* sp.). The majority of species and biomass in the non-native grassland community originated from the Mediterranean region, an area with a history of agriculture and a climate similar to California (Holland 1986).



Source: City of Corona Imagery 2015.

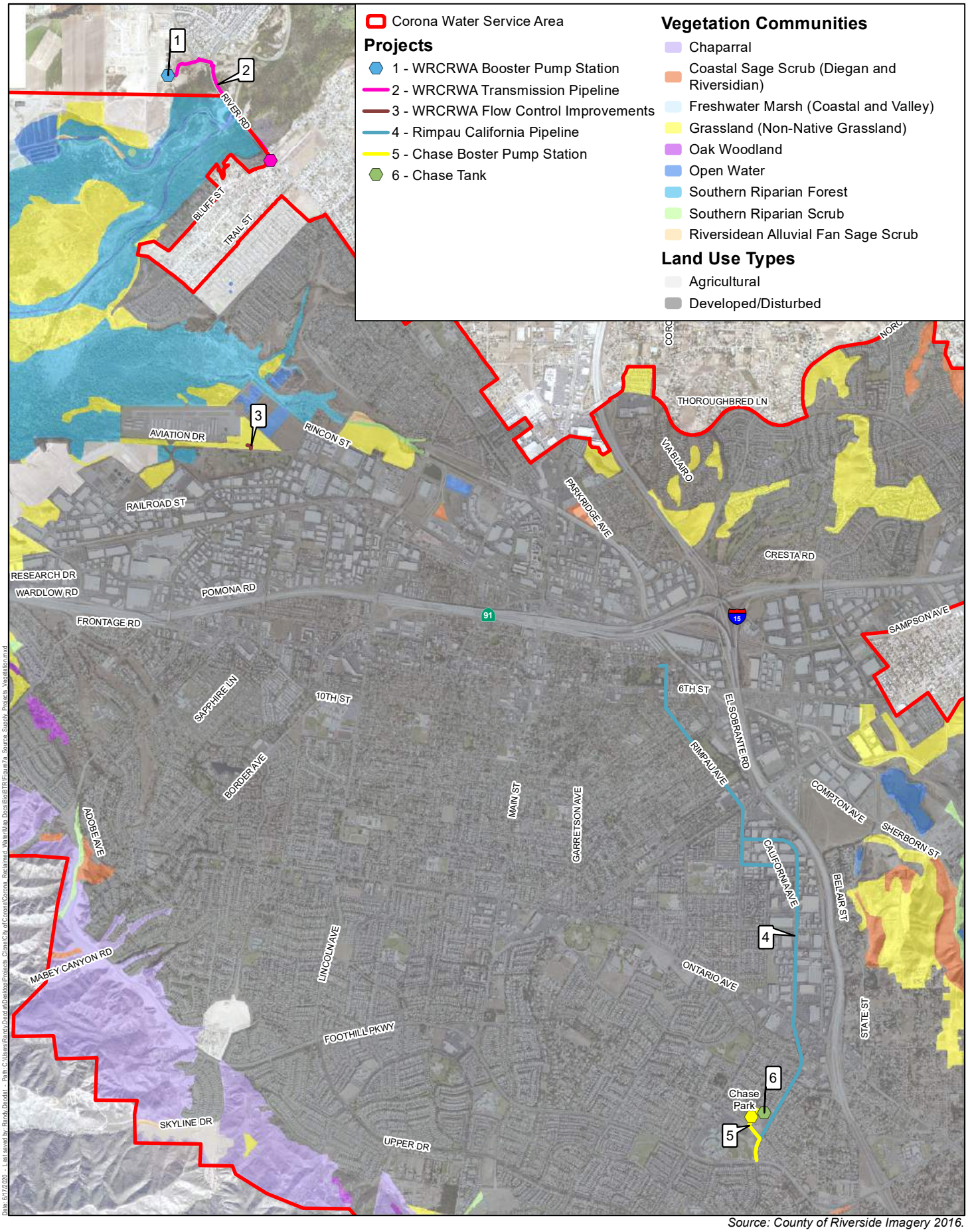
Harris & Associates

Figure 6

Vegetation Communities - Overview

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: County of Riverside Imagery 2016.

Harris & Associates

N

0 2,000 4,000

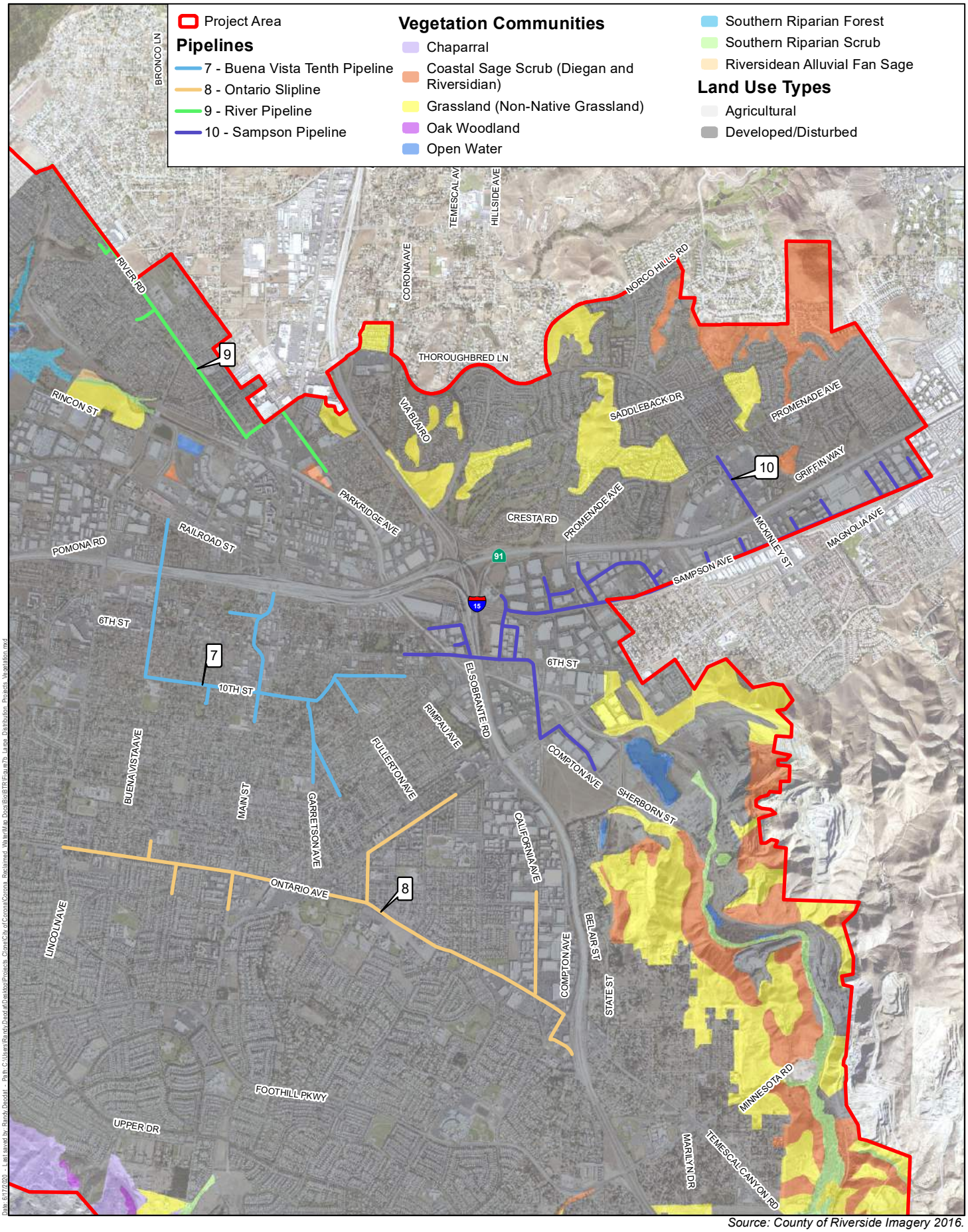
Feet

Figure 7a

Vegetation Communities, Source of Supply Projects

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: County of Riverside Imagery 2016.

Harris & Associates

N

0 2,000 4,000

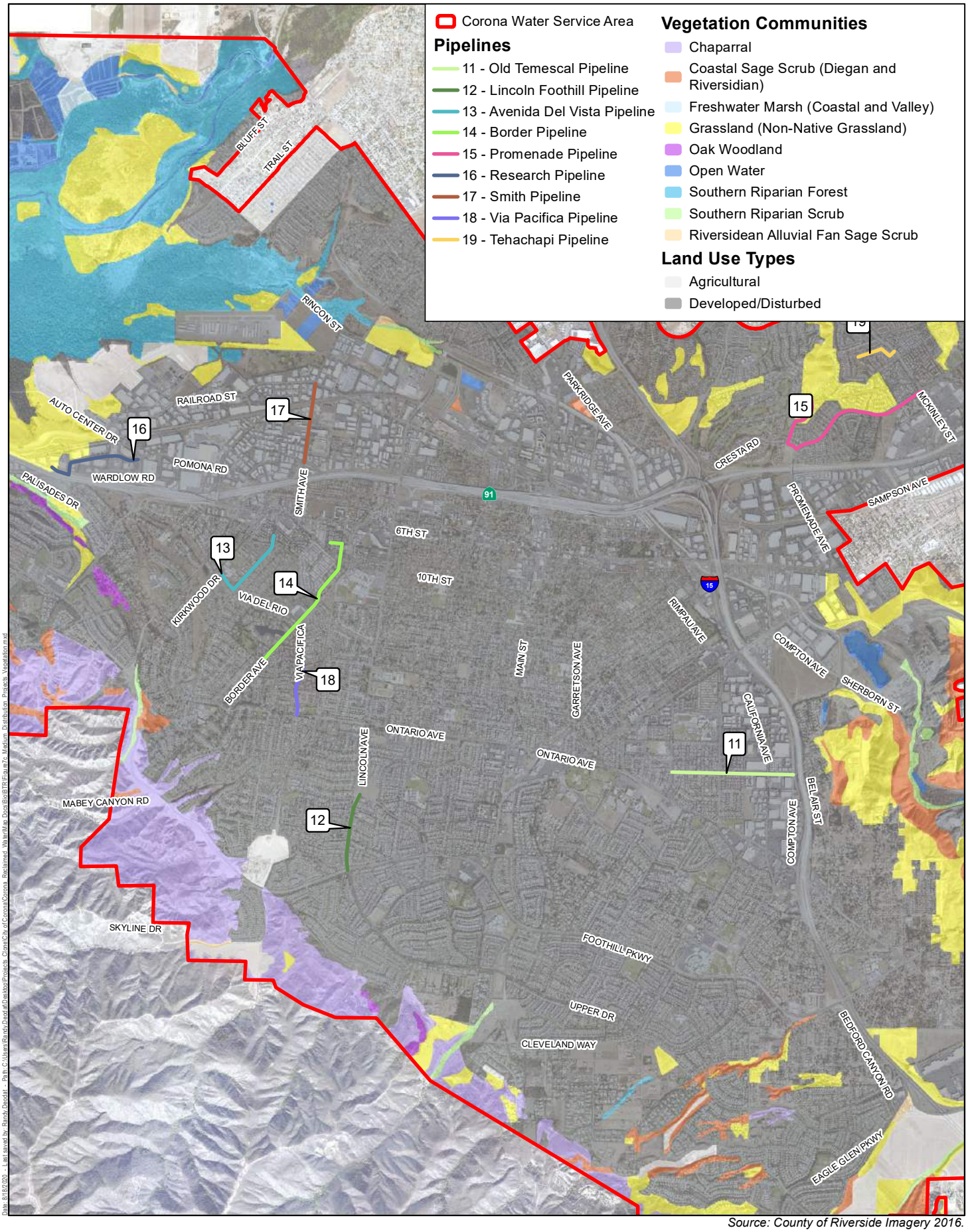
Feet

Figure 7b

Vegetation Communities, Large Distribution Pipelines

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: County of Riverside Imagery 2016.

Harris & Associates

N

0 2,000 4,000

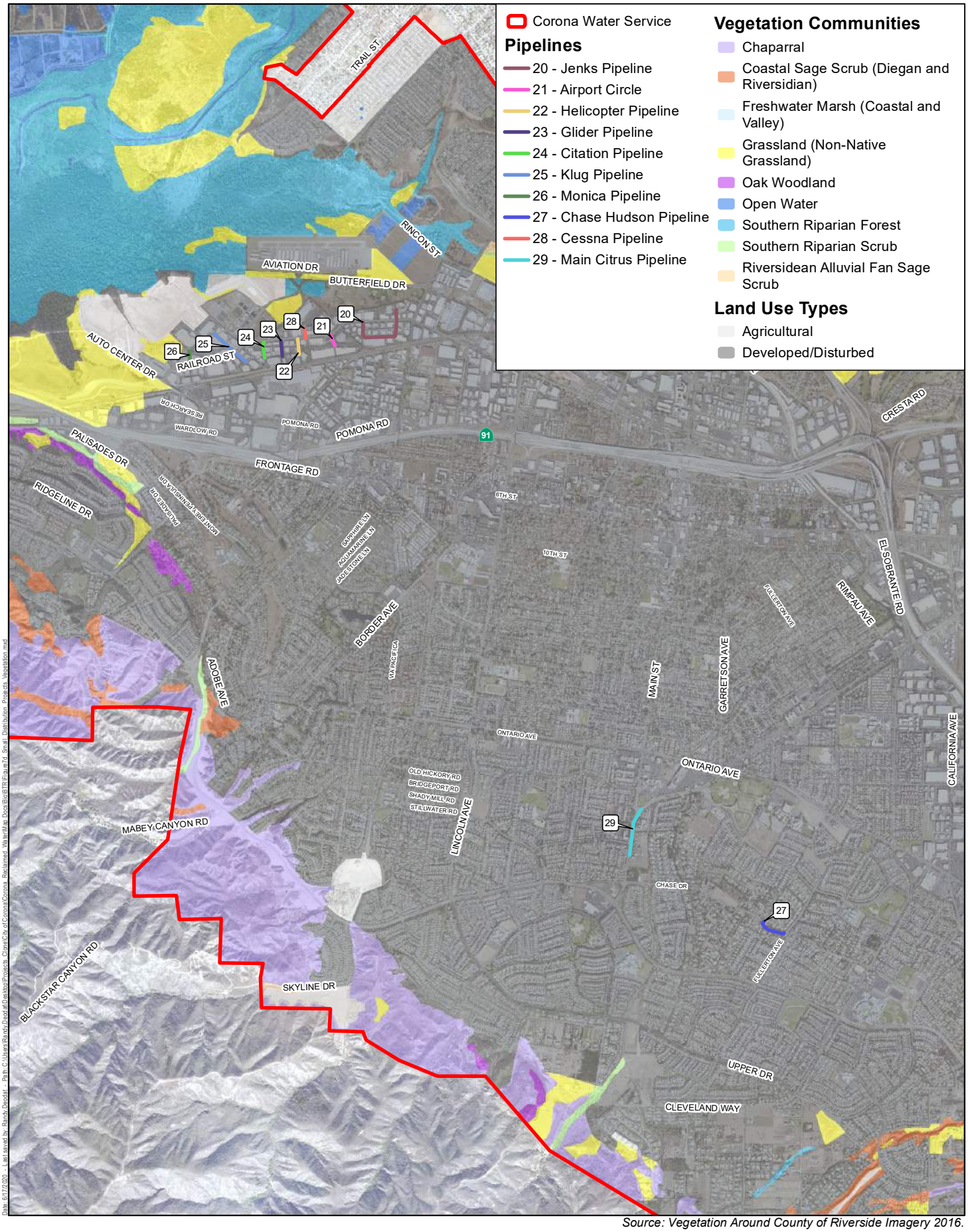
Feet

Figure 7c

Vegetation Communities, Medium Distribution Pipelines

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.



Source: Vegetation Around County of Riverside Imagery 2016.

Harris & Associates

Figure 7d

Vegetation Communities, Small Distribution Pipelines

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.

Directly and indirectly, non-native grasslands provide foraging habitat for raptors and may be succeeded naturally by coastal sage scrub or other native habitats over time. For these reasons, non-native grassland is considered sensitive by the CDFW.

Plant species in the water service area that are documented in this vegetation community include ripgut brome, cheatgrass (*Bromus tectorum*), red brome, wild oat (*Avena fatua*), Mediterranean grass (*Schismus barbatus*), shortpod mustard (*Hirschfeldia incana*), Russian thistle (*Salsola tragus*), and common sunflower (*Helianthus annuus*).

Three projects, Western Riverside County Regional Wastewater Authority (WRCRWA) Flood Control Improvements; Promenade Pipeline; and Research Pipeline, are in or adjacent to undeveloped non-native grassland (Figures 7a and 7c).

3.1.5 Oak Woodland

Oak woodland is dominated by Engelmann oak (*Quercus engelmannii*), coast live oak (*Quercus agrifolia*), canyon live oak (*Quercus chrysolepis*), interior live oak (*Quercus wislizenii*), and black oak (*Quercus kelloggii*) in the canopy, which may be continuous to intermittent or savannah-like.

Oak woodland in the water service area is dominated by coast live oak woodland and occurs in the southwestern portion of the water service area on the eastern side of the Santa Ana Mountains (Figure 6).

3.1.6 Open Water

Open water in the water service area consists of the Prado Flood Control Basin, Santa Ana River, and other drainages and includes non-vegetated channel and ponds (Holland 1986). Non-vegetated channel consists of predominantly unvegetated sandy, gravelly, or rocky channels. Variable water lines inhibit the growth of vegetation, although some weedy species of grass may grow along the outer edges of the channel. Vegetation may exist here but is usually less than 10 percent total cover.

The majority of open water occurs in the northern portion of the water service area (Figure 6).

3.1.7 Riversidian Alluvial Fan Sage Scrub

Riversidian alluvial fan sage scrub grows on well-drained, sandy, and rocky alluvial soils deposited by streams that experience periodic flooding along the base of the San Gabriel, San Bernardino, and San Jacinto Mountains. This community is typically dominated by scale-broom (*Lepidospartum squamatum*), which is considered an indicator species. Species in this community consist of a mix of riparian species including drought deciduous subshrubs and large, evergreen, woody shrubs that adapted to intense, periodic flooding events. Due to periodic flooding and erosion, pioneer, intermediate, and mature stages of alluvial fan sage scrub vegetation communities are often distinguished. These stages vary from sparse vegetation and low-diversity to dense

subshrubs and evergreen woody shrubs. Species associated with this community include California buckwheat, coastal sagebrush, brittlebush (*Encelia farinosa*), white sage, California sycamore (*Platanus racemosa*), deerweed (*Acmispon glaber*), and mulefat (*Baccharis salicifolia*).

Riversidian alluvial fan sage scrub occurs in the northern and southwestern portions of the water service area at the edges of the Santa Ana River and Temescal Wash riparian corridors (Figures 6, 7a, and 7c).

3.1.8 Southern Riparian Forest

Southern riparian forest is a general vegetation description in the Holland vegetation classification code that includes three elements: southern coast live oak riparian forest, southern arroyo willow riparian forest, and southern cottonwood-willow riparian forest. Southern riparian forest occurs along streams in canyons and valleys. Species that dominate each community vary but are typically coast live oak, willows, or a combination of cottonwoods and willows.

In the water service area, riparian forest consists primarily of native southern cottonwood-willow riparian forest with patches of giant reed (*Arundo donax*).

Southern cottonwood-willow riparian forest is a tall, open, broad-leaved, winter-deciduous riparian forest found along perennial wet streams. This community is dominated by Fremont cottonwood (*Populus fremontii*), black cottonwood (*Populus trichocarpa*), and several tree willow species (*Salix* spp.) and contains an understory of shrubby willows. This community is primarily found in subirrigated and frequently overflowed lands, which provide the moist, bare mineral soils required for the germination and establishment of the dominant species. Other plant species associated with this community include California mugwort (*Artemisia douglasiana*), mulefat, California sycamore, Goodding's black willow (*Salix gooddingii*), sandbar willow (*Salix exigua* var. *hindsiana*), Pacific willow (*Salix lasiandra*), arroyo willow (*Salix lasiolepis*), and stinging nettle (*Urtica dioica*).

Southern riparian forest occurs in the northern portion of the water service area in the Santa Ana River floodplain. As described in the 2016 Proposition 1 IS/MND prepared for the WRCRWA Transmission Pipeline, the source of supply project would be constructed in River Road and surrounded upstream and downstream by southern cottonwood-willow riparian forest along the Santa Ana River (Figure 7a). The source of supply project completed separate CEQA review and obtained site-specific permits and is not discussed further in this report.

3.1.9 Southern Riparian Scrub

Southern riparian scrub is a dense riparian community found along major river systems where flood scour occurs and can also be found in smaller drainages influenced by urban and agricultural runoff. This community is characterized by small trees or shrubs, such as willows, but lacks taller

riparian trees. Species typically associated with southern riparian scrub include arroyo willow and other willow species and desert broom (*Baccharis sarothroides*). The riparian scrub in the water service area consists of mulefat scrub and southern willow scrub.

This community requires repeated flooding events to prevent succession to southern riparian forest. Species associated with this community include sandbar willow, black willow, red willow (*Salix laevigata*), arroyo willow, and mulefat.

Southern riparian scrub is considered sensitive and declining by the USFWS and CDFW. Southern riparian scrub may be regulated by the CDFW pursuant to Sections 1600 et seq. of the California Fish and Game (CFG) Code, the RWQCB pursuant to Section 401 of the Clean Water Act (CWA) or the Porter-Cologne Water Quality Control Act (Porter-Cologne Act), or the USACE pursuant to Section 404 of the CWA (33 USC 1344) if adjacent to waters of the state or United States.

In Southern California, southern riparian scrub has been impacted by filling, draining, clearing of vegetation, water diversion projects, impoundment projects, channelization, increased sediment loading, lowering of water tables, human recreational activities, gravel mining, proliferation of exotic species, grazing, and urban development (Bowler 1990).

Southern riparian scrub occurs along streams in the western and southeastern portions of the water service area (Figure 6).

3.1.10 Agricultural and Developed/Disturbed Land Uses

3.1.10.1 Agricultural Land

Agricultural land includes areas occupied by dairies and livestock feed yards or areas that have been tilled for use as croplands or groves and orchards. Agricultural land in the water service area occurs primarily in the southwestern portion of the City, and grazing land occurs east of Interstate 15 in the southeastern portion of the water service area.

3.1.10.2 Developed/Disturbed Land

Developed/disturbed land includes areas of existing residential, commercial, and industrial development (locations of existing manufactured structures), roadways, parking lots, pedestrian paths, horticultural open spaces, landscape buffers and courtyards, plazas, gardens, recreation fields, and areas dominated by non-native (exotic) vegetation. Developed/disturbed land occupies the majority of the water service area and is not considered sensitive. The majority of the projects would be in developed/disturbed land (Figures 6 and 7a through 7c; Table 3).

Table 3. 2018 Reclaimed Water Master Plan Project Vegetation Communities and Land Use Types

Number	Project	Vegetation Community/Land Use Type
Source of Supply Projects		
1	WRCRWA Booster Pump Station	Developed/disturbed
2	**WRCRWA Transmission Pipeline**	**Southern cottonwood-willow riparian forest; developed/disturbed**
3	**WRCRWA Flow Control Improvements**	**Non-native grassland**
4	Rimpau California Pipeline	Developed/disturbed
5	Chase Booster Pump Station	Developed/disturbed
6	Chase Tank	Developed/disturbed
Large Distribution Pipelines		
7	Buena Vista Tenth Pipeline	Developed/disturbed
8	Ontario Slipline	Developed/disturbed
9	River Pipeline	Developed/disturbed
10	Sampson Pipeline	Developed/disturbed
Medium Distribution Pipelines		
11	Old Temescal Pipeline	Developed/disturbed
12	Lincoln Foothill Pipeline	Developed/disturbed
13	Avenida Del Vista Pipeline	Developed/disturbed
14	Border Pipeline	Developed/disturbed
15	**Promenade Pipeline**	**Non-native grassland; developed/disturbed**
16	**Research Pipeline**	**Non-native grassland; developed/disturbed**
17	Smith Pipeline	Developed/disturbed
18	Via Pacifica Pipeline	Developed/disturbed
19	Tehachapi Pipeline	Developed/disturbed
Small Distribution Pipelines		
20	Jenks Pipeline	Developed/disturbed
21	Airport Circle Pipeline	Developed/disturbed
22	Helicopter Pipeline	Developed/disturbed
23	Glider Pipeline	Developed/disturbed
24	Citation Pipeline	Developed/disturbed
25	Klug Pipeline	Developed/disturbed
26	Monica Pipeline	Developed/disturbed
27	Chase Hudson Pipeline	Developed/disturbed
28	Cessna Pipeline	Developed/disturbed
29	Main Citrus Pipeline	Developed/disturbed

Notes: WRCRWA = Western Riverside County Regional Wastewater Authority

Bold = 2018 RWMP projects that contain sensitive vegetation communities

3.2 Jurisdictional Wetlands and Waters

Aquatic resources jurisdictional delineations were not conducted as part of the site visit. However, wetlands and waters potentially subject to the regulatory jurisdiction of the USACE pursuant to Section 404 of the CWA (33 USC 1344), RWQCB pursuant to Section 401 of the CWA or the Porter-Cologne Act, and the CDFW pursuant to Sections 1600 et seq. of the CFG Code occur in the water service area. Wetland vegetation communities (i.e., freshwater marsh, open water, southern riparian forest, and southern riparian scrub) occur in the water service area and may fall under the regulatory jurisdiction of the USACE, RWQCB, or CDFW (Figure 6).

Non-wetland waters including non-vegetated stream channels, erosional features, gullies, and concrete-lined channels occur in the water service area (Figure 6). These features may fall under the regulatory jurisdiction of the USACE, RWQCB, or CDFW.

As described in the 2016 Proposition 1 IS/MND prepared for the WRCRWA Transmission Pipeline, the project would be constructed in River Road but would be surrounded upstream and downstream by southern cottonwood-willow riparian forest and the Santa Ana River (Figure 7a). This project has completed separate CEQA review and obtained site-specific permits and is not discussed further in this report.

3.3 Plant Species

The 25 projects in developed/disturbed land are primarily surrounded by landscaping (non-native ornamental vegetation) and roadside vegetation dominated by non-native annual herbs and non-native grasses. The WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects are proposed in undeveloped, non-native grassland vegetation. Dominant non-native grass species in the water service area consist of ripgut brome and red brome. Landscaped areas and non-native roadside vegetation consist of tree, scrubs, and grasses that could support nesting bird species.

3.4 Animal Species

In total, 48 animals species were observed during the site visit (2 invertebrate/insect, 2 reptile, 40 bird, and 4 mammal). Appendix A presents the list of animal species observed. Common bird species including American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), house finch (*Haemorhous mexicanus*), and mourning dove (*Zenaida macroura*) were observed in the developed/disturbed land during the site visit. Raptor species observed include red-tailed hawk (*Buteo jamaicensis*) and American kestrel (*Falco sparverius*). Four common mammal species, California ground squirrel (*Spermophilus beecheyi*), coyote (*Canis latrans*), desert cottontail (*Sylvilagus audubonii*), and mule deer (*Odocoileus hemionus*), and two common reptile species, western fence lizard (*Sceloporus occidentalis*), and western side-blotched lizard (*Uta stansburiana elegans*), were observed.

3.5 Sensitive Plant and Animal Species

This section includes sensitive plant and animal species, including critical habitat and nesting birds, as defined by the CDFW, City, California Native Plant Society (CNPS), USFWS, and Western Riverside County MSHCP (CDFW 2020a, 2020b, 2020c; City of Corona 2018; CNPS 2020; USFWS 2020a, 2020c; County of Riverside 2003).

3.5.1 Sensitive Plant Species

Sensitive plant species are considered uncommon or limited in that they (1) are endemic to Western Riverside County, (2) are a local representative of a species or association of species not otherwise found in the region, or (3) are severely depleted within their ranges or in the region. High-interest plants include those that are listed as threatened or endangered by the USFWS or CDFW and those afforded a California Rare Plant Rank (CRPR) designation of 1 or 2 by the CNPS, although species with lower CRPR ranks (i.e., CRPR 3 and 4 species) were also identified. CRPR 4 species are considered CDFW watch list (WL) species (CDFW 2020a, 2020b, 2020c; CNPS 2020) and are not afforded special status or recognition by the USFWS or CDFW but may be considered sensitive by local jurisdictions. Consistent with the CDFW, the City does not consider CRPR 3 or 4 species to be sensitive.

Status codes in Section 3.5.1.1 are defined by the CNPS CRPR system and described below (CNPS 2020):

- CRPR 1A plants are presumed extirpated in California and either rare or extinct elsewhere.
- CRPR 1B plants are rare, threatened, or endangered in California and elsewhere.
- CRPR 2A plants are presumed extirpated in California but common elsewhere.
- CRPR 2B plants are rare, threatened, or endangered in California but more common elsewhere.
- CRPR 3 plants lack the necessary information needed to assign them to one of the other ranks or to reject them.
- CRPR 4 plants are of limited distribution or infrequent throughout a broader area in California, and their status requires more regular monitoring.

The CNPS ranks at each level also include a threat rank and are determined as follows:

- **0.1:** Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)
- **0.2:** Moderately threatened in California (20–80 percent occurrences threatened/moderate degree and immediacy of threat)
- **0.3:** Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known)

3.5.1.1 Sensitive Plant Species Documented in the Water Service Area

Table 4 presents the three sensitive plant species documented in the water service area.

Table 4. Sensitive Plant Species Documented in the Water Service Area

Scientific Name	Common Name	Status Regional/CRPR
Abronia villosa var. aurita[1]	Chaparral sand-verbena	MSHCP/1B.1
Calochortus weedii var. *intermedius*	Intermediate mariposa lily	MSHCP/1B.2
Dudleya multicaulis	Many-stemmed dudleya	MSHCP/1B.2

Sources: Calflora 2020; CDFW 2020a, 2020c; City of Corona 2018; CNPS 2020.

Notes: CRPR = California Rare Plant Rank; MSHCP = Multiple Species Habitat Conservation Plan

CRPR: 1B = rare, threatened, or endangered in California and elsewhere; .1 = seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat); .2 = moderately threatened in California (20–80 percent occurrences threatened/moderate degree and immediacy of threat)

[1] Last observed in the water service area in 1934 (occurs in the Santa Ana River floodplain east and west of the water service area).

These three sensitive plant species are discussed in more detail below.

California Rare Plant Rank 1 Plant Species

Three CRPR 1 plant species were documented in the water service area. The three species are described below.

Chaparral Sand-Verbena (Abronia villosa var. aurita)

- **Status:**[1] MSHCP/List 1B.1
- **Distribution:** Southern California, Arizona, and Baja California, Mexico
- **Habitat:** Chaparral, coastal sage scrub, and desert dunes
- **Occurrence in Water Service Area:** Documented in the City before it was developed; likely extirpated
- **Year Documented:** 1934

Intermediate Mariposa Lily (Calochortus weedii var. intermedius)

- **Status:** MSHCP/List 1B.2
- **Distribution:** Southern California
- **Habitat:** Chaparral, coastal sage scrub, and grasslands
- **Occurrence in Water Service Area:** Riparian habitat adjacent to the Santa Ana River in the northwestern portion of the water service area
- **Year Documented:** 2019

Multi-Stemmed Dudleya (Dudleya multicaulis)

- **Status:** MSHCP/List 1B.2
- **Distribution:** Southern California
- **Habitat:** Chaparral, coastal sage scrub, and grasslands

[1] Regional/CRPR

- **Occurrence in Water Service Area:** Riparian habitat adjacent to the Santa Ana River in the northwestern portion of the water service area
- **Year Documented:** 2019

3.5.2 Sensitive Animal Species

Sensitive animal species include those that have been afforded special status or recognition by the USFWS, CDFW, or Western Riverside County MSHCP. In general, the principle reason an individual taxon (species or subspecies) is given such recognition is the documented or perceived decline or limitations of its population size or geographical extent or distribution resulting in most cases from habitat loss.

3.5.2.1 Sensitive Animal Species Documented in the Water Service Area

In total, 45 sensitive animal species (2 invertebrate, 1 amphibian, 6 reptile, 2 fish, 28 bird, and 6 mammal) have been documented in the water service area (Table 5). Four sensitive bird species, California horned lark (*Eremophila alpestris actia*), least Bell's vireo (*Vireo belli pusillus*), turkey vulture (*Cathartes aura*), and yellow-breasted chat (*Icteria virens*), were observed during the site visit. Coyote tracks were observed during the site visit.

Table 5. Sensitive Animal Species Documented in the Water Service Area

Species		Status1
Common Name	**Scientific Name**	**Regional/State/Federal**
Invertebrates		
Crotch bumble bee	*Bombus crotchii*	None/CCE/None
Monarch butterfly	*Danaus plexippus*	None/None/FC
Fish		
Arroyo chub	*Gila orcuttii*	MSHCP/SSC/None
Santa Ana sucker	*Catostomus santaanae*	MSHCP/SSC/FT
Amphibian		
Coast range newt	*Taricha torosa*	MSHCP/SSC/None
Reptiles		
American peregrine falcon	*Falco peregrinus anatum*	MSHCP/CFP/Delisted
Bald eagle	*Haliaeetus leucocephalus*	MSHCP/CFP/BGEPA
Belding's orange-throated whiptail	*Cnemidophorus hyperythrus beldingi*	MSHCP/WL/None
Bell's sage sparrow	*Artemisiospiza belli belli*	MSHCP/WL/None
Black-crowned night-heron	*Nycticorax nycticorax*	MSHCP/None/None
Blainville's (coast) horned lizard	*Phrynosoma blainvillii*	MSHCP/SSC/None
Burrowing owl	*Athene cunicularia*	MSHCP/SSC/None
California horned lark	*Eremophila alpestris actia*	MSHCP/WL/None
California red-sided garter snake	*Thamnophis sirtalis infernalis*	MSHCP/SSC/None
Coastal California gnatcatcher	*Polioptila californica*	MSHCP/SSC/FT

Table 5. Sensitive Animal Species Documented in the Water Service Area

Species		Status1
Common Name	**Scientific Name**	**Regional/State/Federal**
Coastal western whiptail	*Aspidoscelis tigris stejnegeri*	MSHCP/SSC/None
Cooper's hawk	*Accipiter cooperii*	MSHCP/None/None
Double-crested cormorant	*Phalacrocorax auritus*	MSHCP/WL/None
Golden eagle	*Aquila chrysaetos*	MSHCP/SSC/BGEPA
Great blue heron	*Ardea herodias*	MSHCP/None/None
Least Bell's vireo	*Vireo belli pusillus*	MSHCP/CE/FE
Least bittern	*Ixobrychus exilis*	None/SSC/None
Loggerhead shrike	*Lanius ludovicianus*	MSHCP/SSC/None
Merlin	*Falco columbarius*	MSHCP/WL/None
Northern harrier	*Circus cyaneus*	MSHCP/SSC/None
Osprey	*Pandion haliaetus*	MSHCP/None/None
Red-diamond rattlesnake	*Crotalus ruber*	MSHCP/SSC/None
Sharp-shinned hawk	*Accipiter striatus*	MSHCP/None/None
Southwestern willow flycatcher	*Empidonax traillii extimus*	MSHCP/CE/FE
Swainson's hawk	*Buteo swainsoni*	MSHCP/CT/None
Tree swallow	*Tachycineta bicolor*	MSHCP/None/None
Tricolored blackbird	*Agelaius tricolor*	MSHCP/CT/None
Turkey vulture	*Cathartes aura*	MSHCP/None/None
Western pond turtle	*Clemmys [marmorata] pallida*	MSHCP/SSC/None
Western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	MSHCP/CE/FT
White-faced ibis	*Plegadis chihi*	MSHCP/SSC/None
White-tailed kite	*Elanus leucurus*	MSHCP/SSC/None
Yellow warbler	*Setophaga petechia*	MSHCP/SSC/None
Yellow-breasted chat	*Icteria virens*	MSHCP/SSC/None
Mammals		
Bobcat	*Lynx rufus*	MSHCP/None/None
Coyote	*Canis latrans*	MSHCP/None/None
Northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	MSHCP/SSC/None
Pocket free-tailed bat	*Nyctinomops femorosaccus*	None/SSC/None
Stephens' kangaroo rat	*Dipodomys stephensi*	MSHCP/CT/FE
Western yellow bat	*Lasiurus xanthinus*	None/SSC/None

Sources: CaliforniaHerps.com 2020; CDFW 2020a, 2020b; City of Corona 2018; Cornell Lab of Ornithology 2020a, 2020b; iNaturalist 2020.

Notes: BGEPA = Bald and Golden Eagle Protection Act; CCE = California candidate endangered; CE = California endangered; CFP= California fully protected; CT = California threatened; FC = federal candidate for listing; FE = federally endangered; FT= federally threatened; MSHCP = Western Riverside Multiple Species Habitat Conservation Plan; SSC = CDFW species of special concern; WL = CDFW watch list

Invertebrates/Insects

Crotch's Bumble Bee (Bombus crotchii)

- **Status:**[2] MSHCP/California candidate endangered species (CCE)/None
- **Distribution:** California, Nevada, and Baja California, Mexico
- **Habitat:** Chaparral, grassland, and sage scrub
- **Occurrence in Water Service Area:** Historic record in the developed portion of the City
- **Year Documented:** 1933

Monarch (Danaus plexippus)

- **Status:** MSHCP/None/Candidate
- **Distribution:** Southern Canada, United States, Mexico, Central American, northern South America, parts of Australia, and western Europe
- **Habitat:** Host plant is milkweed (*Asclepias* spp.)
- **Occurrence in Water Service Area:** Forages and nectars on ornamental flowers throughout the water service area
- **Year Documented:** 2020

Fish

Arroyo Chub (Gila orcuttii)

- **Status:** MSHCP/California fully protected (CFP)/None
- **Distribution:** Coastal Southern California
- **Habitat:** Streams and rivers
- **Occurrence in Water Service Area:** Santa Ana River in the northern portion of the water service area
- **Year Documented:** 2013

Santa Ana Sucker (Catostomus santaanae)

- **Status:** MSHCP/CFP/FT
- **Distribution:** Southern California
- **Habitat:** Streams and rivers
- **Occurrence in Water Service Area:** Santa Ana River in the northern portion of the water service area
- **Year Documented:** 2017

[2] Status for sensitive animal species is organized as follows: regional/state/federal.

Amphibians

Coast Range Newt (Taricha torosa)

- **Status:** MSHCP/Species of special concern (SSC)/None
- **Distribution:** California
- **Habitat:** Aquatic habitats
- **Occurrence in Water Service Area:** Riparian forest, riparian scrub, and non-vegetated channel associated with the Santa Ana River in the northern portion of the water service area
- **Year Documented:** 1999

Reptiles

Belding's Orange-Throated Whiptail (Aspidoscelis hyperythra beldingi)

- **Status:** MSHCP/SSC/None
- **Distribution:** Southern California and Baja California, Mexico
- **Habitat:** Chaparral, grassland, riparian scrub, and sage scrub
- **Occurrence in Water Service Area:** Undeveloped scrub areas on the edges of the Santa Ana River riparian corridor in the northern portion of the water service area
- **Year Documented:** 2015

Blainville's (Coast) Horned Lizard (Phrynosoma blainvillii)

- **Status:** MSHCP/SSC/None
- **Distribution:** California and Baja California, Mexico
- **Habitat:** Chaparral, grassland, riparian scrub, and sage scrub
- **Occurrence in Water Service Area:** Riparian scrub southeastern portion of the water service area
- **Year Documented:** 1990

California Red-Sided Garter Snake (Thamnophis sirtalis infernalis)

- **Status:** MSHCP/SSC/None
- **Distribution:** Southern California and Baja California, Mexico
- **Habitat:** Chaparral, grassland, riparian scrub, and sage scrub
- **Occurrence in Water Service Area:** Documented in the Prado wetlands in the northwestern portion of the water service area
- **Year Documented:** 2016

Coastal Western Whiptail (Aspidoscelis tigris stejnegeri)

- **Status:** MSHCP/SSC/None
- **Distribution:** Southern California and Baja California, Mexico

- **Habitat:** Chaparral, grassland, woodland, riparian scrub, and sage scrub
- **Occurrence in Water Service Area:** Undeveloped scrub areas on the edges of the Santa Ana River riparian corridor in the northern portion of the water service area
- **Year Documented:** 2018

Red-Diamond Rattlesnake (Crotalus ruber)

- **Status:** MSHCP/SSC/None
- **Distribution:** Southern California and Baja California, Mexico
- **Habitat:** Chaparral, grassland, riparian scrub, and sage scrub
- **Occurrence in Water Service Area:** Three miles west of Lake Mathews in the southeastern portion of the water service area
- **Year Documented:** 1992

Western Pond Turtle (Clemmys [marmorata] pallida)

- **Status:** MSHCP/SSC/None
- **Distribution:** California and Baja California, Mexico
- **Habitat:** Surface water surrounded by vegetation
- **Occurrence in Water Service Area:** Santa Ana River corridor in the northern portion of the water service area
- **Year Documented:** 2011

Birds

American Peregrine Falcon (Falco peregrinus anatum)

- **Status:** MSHCP/CFP/None
- **Distribution:** North America
- **Habitat:** Large undeveloped areas near cliffs or tall buildings for nesting
- **Occurrence in Water Service Area:** Documented north of the Santa Ana River in the northwestern portion of the water service area
- **Year Documented:** 2014

Bald Eagle (Haliaeetus leucocephalus)

- **Status:** MSHCP/CFP/Bald and Golden Eagle Protection Act (BGEPA)
- **Distribution:** North America
- **Habitat:** Forests near surface water
- **Occurrence in Water Service Area:** Documented flying over the Santa Ana River at River Road in the northwestern portion of the water service area
- **Year Documented:** 2018

Bell's Sage Sparrow (Artemisiospiza belli belli)

- **Status:** MSHCP/WL/None
- **Distribution:** Southwestern United States, and northern Mexico
- **Habitat:** Sage scrub
- **Occurrence in Water Service Area:** Documented in a residential neighborhood in the eastern portion of the water service area
- **Year Documented:** 2019

Black-Crowned Night-Heron (Nycticorax nycticorax)

- **Status:** MSHCP/None/None
- **Distribution:** North America, South American, Asia, Africa, and Europe
- **Habitat:** Riparian
- **Occurrence in Water Service Area:** Documented in the Santa Ana River corridor in the northwestern portion of the water service area
- **Year Documented:** 2016

Burrowing Owl (Athene cunicularia)

- **Status:** MSHCP/SSC/None
- **Distribution:** Throughout the United States, Mexico, Central America, South America, and southern Canada
- **Habitat:** Grasslands
- **Occurrence in Water Service Area:** Documented at Naval Weapons Station Seal Beach – Detention Norco in the central portion of the water service area
- **Year Documented:** 2012

California Horned Lark (Eremophila alpestris actia)

- **Status:** MSHCP/SSC/None
- **Distribution:** California
- **Habitat:** Agriculture, grassland, and opening in sage scrub
- **Occurrence in Water Service Area:** Documented on an undeveloped lot in the southern portion of the water service area
- **Year Documented:** 2020

Coastal California Gnatcatcher (Polioptila californica californica)

- **Status:** MSHCP/SSC/FT
- **Distribution:** Southern California and Baja California, Mexico
- **Habitat:** Coastal sage scrub

- **Occurrence in Water Service Area:** Documented in the northeastern portion of the water service area, east of River Road in sage scrub adjacent to the Santa Ana River riparian corridor
- **Year Documented:** 2012

Cooper's Hawk (Accipiter cooperii)

- **Status:** MSHCP/WL/None
- **Distribution:** Throughout the United States, Mexico, Central America, and southern Canada
- **Habitat:** Riparian and wooded habitat
- **Occurrence in Water Service Area:** Riparian and wooded habitat associated with the Santa Ana River floodplain
- **Year Documented:** 2020

Double-Crested Cormorant (Phalacrocorax auritus)

- **Status:** MSHCP/WL/None
- **Distribution:** North America
- **Habitat:** Open water
- **Occurrence in Water Service Area:** Riparian forest habitat in the Santa Ana River corridor in the northwestern portion of the water service area
- **Year Documented:** 2020

Great Blue Heron (Audea herodias)

- **Status:** MSHCP/None/None
- **Distribution:** North America
- **Habitat:** Riparian forest near surface water
- **Occurrence in Water Service Area:** Riparian forest habitat in the Santa Ana River corridor in the northwestern portion of the water service area
- **Year Documented:** 2020

Golden Eagle (Athene cunicularia)

- **Status:** MSHCP/None/BGEPA
- **Distribution:** Throughout the United States, Mexico, Canada, Europe, and parts of Asia
- **Habitat:** Forests, grasslands, and shrublands; needs large undeveloped area for foraging and cliffs for nesting
- **Occurrence in Water Service Area:** Flying over the Santa Ana River in the northwestern portion of the water service area
- **Year Documented:** 2015

Least Bell's Vireo (Vireo belli pusillus)

- **Status:** MSHCP/California endangered (CE)/FE
- **Distribution:** Nesting – California and northern Baja California, Mexico; wintering – southern Baja California, Mexico
- **Habitat:** Riparian forest and riparian scrub
- **Occurrence in Water Service Area:** Riparian habitat adjacent to the Santa Ana River; documented in riparian forest on the northern side of the Santa Ana River west of River Road in the northwestern portion of the water service area
- **Year Documented:** 2020

Least Bittern (Ixobrychus exilis)

- **Status:** MSHCP/SSC/None
- **Distribution:** Throughout the United States, Mexico, Central America, northern South America, and southern Canada
- **Habitat:** Freshwater marsh
- **Occurrence in Water Service Area:** Coastal and valley freshwater marsh in the Santa Ana River floodplain in the northwestern portion of the water service area
- **Year Documented:** 2020

Loggerhead Shrike (Lanius ludovicianus)

- **Status:** None/SSC/None
- **Distribution:** Throughout the United States, Mexico, and southern Canada
- **Habitat:** Grasslands and open scrub habitat
- **Occurrence in Water Service Area:** Southwest of the Corona Municipal Airport in the western portion of the water service area
- **Year Documented:** 2019

Merlin (Falco columbarius)

- **Status:** MSHCP/WL/None
- **Distribution:** Throughout North America, Europe, and northern South America and sporadic in Asia
- **Habitat:** Grasslands and open scrub habitat
- **Occurrence in Water Service Area:** Documented in the northern portion of the water service area
- **Year Documented:** 2019

Northern Harrier (Circus cyaneus)

- **Status:** MSHCP/SSC/None
- **Distribution:** Throughout North America

- **Habitat:** Uplands; forages over grasslands and open areas and nests on ledges
- **Occurrence in Water Service Area:** Documented in the southeastern portion of the water service area
- **Year Documented:** 2018

Osprey (Pandion haliaetus)

- **Status:** MSHCP/WL/None
- **Distribution:** North America, South American, Asia, Africa, Australia, and Europe
- **Habitat:** Trees near surface water
- **Occurrence in Water Service Area:** Riparian forest habitat in the Santa Ana River corridor in the northwestern portion of the water service area
- **Year Documented:** 2019

Sharp-Shinned Hawk (Accipiter striatus)

- **Status:** MSHCP/WL/None
- **Distribution:** Nesting – North America and South America
- **Habitat:** Forests and woodlands
- **Occurrence in Water Service Area:** Flying over a developed area in the central portion of the water service area
- **Year Documented:** 2019

Southwestern Willow Flycatcher (Empidonax traillii extimus)

- **Status:** MSHCP/CE/FE
- **Distribution:** Nesting – Southwestern United States; wintering – Central American and northern South America
- **Habitat:** Riparian forest near surface water
- **Occurrence in Water Service Area:** Riparian forest habitat in the Santa Ana River corridor in the northwestern portion of the water service area
- **Year Documented:** 2015

Swainson's Hawk (Buteo swainsoni)

- **Status:** MSHCP/CT/None
- **Distribution:** Western North America and portions of South America
- **Habitat:** Agriculture and grasslands
- **Occurrence in Water Service Area:** Documented flying over the Santa Ana River corridor in the northern portion of the water service area
- **Year Documented:** 2018

Tree Swallow (Tachycineta bicolor)

- **Status:** MSHCP/None/None
- **Distribution:** North America
- **Habitat:** Trees near surface water
- **Occurrence in Water Service Area:** Documented in the Santa Ana River corridor in the northwestern portion of the water service area
- **Year Documented:** 2020

Tricolored Blackbird (Agelaius tricolor)

- **Status:** MSHCP/CT/None
- **Distribution:** Western United States and Baja California, Mexico
- **Habitat:** Freshwater marsh
- **Occurrence in Water Service Area:** Documented in the Santa Ana River corridor in the northern portion of the water service area
- **Year Documented:** 2015

Turkey Vulture (Cathartes aura)

- **Status:** MSHCP/None/None
- **Distribution:** North America and South America
- **Habitat:** Riparian, scrub, grasslands, agriculture, and disturbed
- **Occurrence in Water Service Area:** Soaring over the water service area
- **Year Documented:** 2020

Western Yellow-Billed Cuckoo (Coccyzus americanus occidentalis)

- **Status:** MSHCP/CE/FT
- **Distribution:** California
- **Habitat:** Riparian forest
- **Occurrence in Water Service Area:** Riparian forest habitat in the Santa Ana River corridor in the northwestern portion of the water service area
- **Year Documented:** 2011

White-Faced Ibis (Plegadis chihi)

- **Status:** MSHCP/WL/None
- **Distribution:** United States, southern Canada, Mexico, Central American, and South America
- **Habitat:** Freshwater wetlands and marshes
- **Occurrence in Water Service Area:** Marsh and wetland habitat in the Santa Ana River corridor in the northwestern portion of the water service area
- **Year Documented:** 2019

White-Tailed Kite (Elanus leucurus)

- **Status:** MSHCP/CFP/None
- **Distribution:** United States, Mexico, Central American, and South America
- **Habitat:** Nesting – woodlands; foraging – grasslands and agriculture land
- **Occurrence in Water Service Area:** Documented in the Santa Ana River corridor in the northern portion of the water service area and flying over developed areas
- **Year Documented:** 2019

Yellow-Breasted Chat (Icteria virens)

- **Status:** MSHCP/SSC/None
- **Distribution:** Throughout the United States, Mexico, Central America, and southern Canada
- **Habitat:** Riparian forest and riparian scrub
- **Occurrence in Water Service Area:** Riparian forest habitat north of the Santa Ana River and west of River Road in the northern portion of the water service area
- **Year Documented:** 2020

Yellow Warbler (Setophaga petechia)

- **Status:** MSHCP/SSC/None
- **Distribution:** Breeding – United States and Canada; winter: Mexico, Central, and South America
- **Habitat:** Riparian forest, riparian scrub, and montane scrub
- **Occurrence in Water Service Area:** Riparian habitat adjacent to the Santa Ana River in the northern portion of the water service area
- **Year Documented:** 2019

Mammals

Bobcat (Lynx rufus)

- **Status:** MSHCP/None/None
- **Distribution:** United States, northern Mexico, and southern Canada
- **Habitat:** Chaparral, forest, grassland, riparian, and sage scrub
- **Occurrence in Water Service Area:** Riparian and disturbed habitat north of the Santa Ana River and west of River Road in the northern portion of the water service area
- **Year Documented:** 2017

Coyote (Canis latrans)

- **Status:** MSHCP/None/None
- **Distribution:** United States, Mexico, and Canada
- **Habitat:** Riparian, chaparral, grassland, and sage scrub

- **Occurrence in Water Service Area:** Riparian habitat in the northwestern portion of the water service area
- **Year Documented:** 2020

Northwestern San Diego Pocket Mouse (Chaetodipus fallax fallax)

- **Status:** MSHCP/SSC/None
- **Distribution:** Southern California and Mexico
- **Habitat:** Chaparral, desert scrub, grassland, forests, riparian scrub, and sage scrub; requires low-growing vegetation or rocky outcroppings and sandy soils for burrowing
- **Occurrence in Water Service Area:** Northern portion of the water service area
- **Year Documented:** 2001

Pocket Free-Tailed Bat (Lasiurus xanthinus)

- **Status:** MSHCP/SSC/None
- **Distribution:** Southern California, southern Arizona, southern New Mexico, southwestern Texas, and western Mexico
- **Habitat:** Desert scrub, desert wash, Joshua tree scrub, riparian forest, riparian scrub, palm oasis, and pinyon-juniper woodlands
- **Occurrence in Water Service Area:** City of Corona
- **Year Documented:** 1986

Stephens' Kangaroo Rat (Dipodomys stephensi)

- **Status:** MSHCP/ST/FE
- **Distribution:** Southern California
- **Habitat:** Open chaparral, open grassland, and open sage scrub; prefers open habitats with less than 50 percent vegetative cover; requires soft, well-drained substrate for building burrows and is typically found in areas with sandy soil
- **Occurrence in Water Service Area:** City of Corona
- **Year Documented:** 1993

Western Yellow Bat (Lasiurus xanthinus)

- **Status:** MSHCP/SSC/None
- **Distribution:** California
- **Habitat:** Desert wash, palm oasis, and riparian; needs access to water for foraging
- **Occurrence in Water Service Area:** Riparian habitat adjacent to the Santa Ana River in the northern portion of the water service area
- **Year Documented:** 1999

3.5.3 Critical Habitat

The USFWS designates critical habitat for listed endangered or threatened species of plants and animals. Critical habitat is defined in the federal Endangered Species Act (FESA) as habitat deemed essential to the survival of a federally listed species.

Four animal species designated as federally endangered (FE) or federally threatened (FT) have designated critical habitat mapped in the water service area (Figure 8, Critical Habitat) (USFWS 2020c). The four species are listed below:

- Bird species
  - Coastal California gnatcatcher (*Polioptila californica californica*) (FT)
  - Least Bell's vireo (FE)
  - Southwestern willow flycatcher (*Empidonax traillii extimus*) (FE)
- Fish species
  - Santa Ana sucker (*Catostomus santaanae*) (FT)

3.5.4 Nesting Birds

The water service area contains nesting habitat for several bird species, including raptors, protected under the CFG Code and Migratory Bird Treaty Act (MBTA). The highest quality habitat for nesting birds in the water service area is the Santa Ana River riparian corridor in the northern portion of the area. The projects proposed in developed/disturbed land and the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects proposed in undeveloped, non-native grassland vegetation are adjacent to trees and shrubs that provide potential nesting habitat.

3.6 Wildlife Corridors and Linkages

Wildlife corridors and linkages are defined by the CDFW as areas that connect suitable animal habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance (CDFW 2014). Natural features such as canyon drainages, ridgelines, or undeveloped areas with vegetation can provide corridors for animals. Wildlife corridors are important because they provide access to food, water, and mates; allow dispersal of individuals away from high population densities; and facilitate the exchange of genetic material between populations.

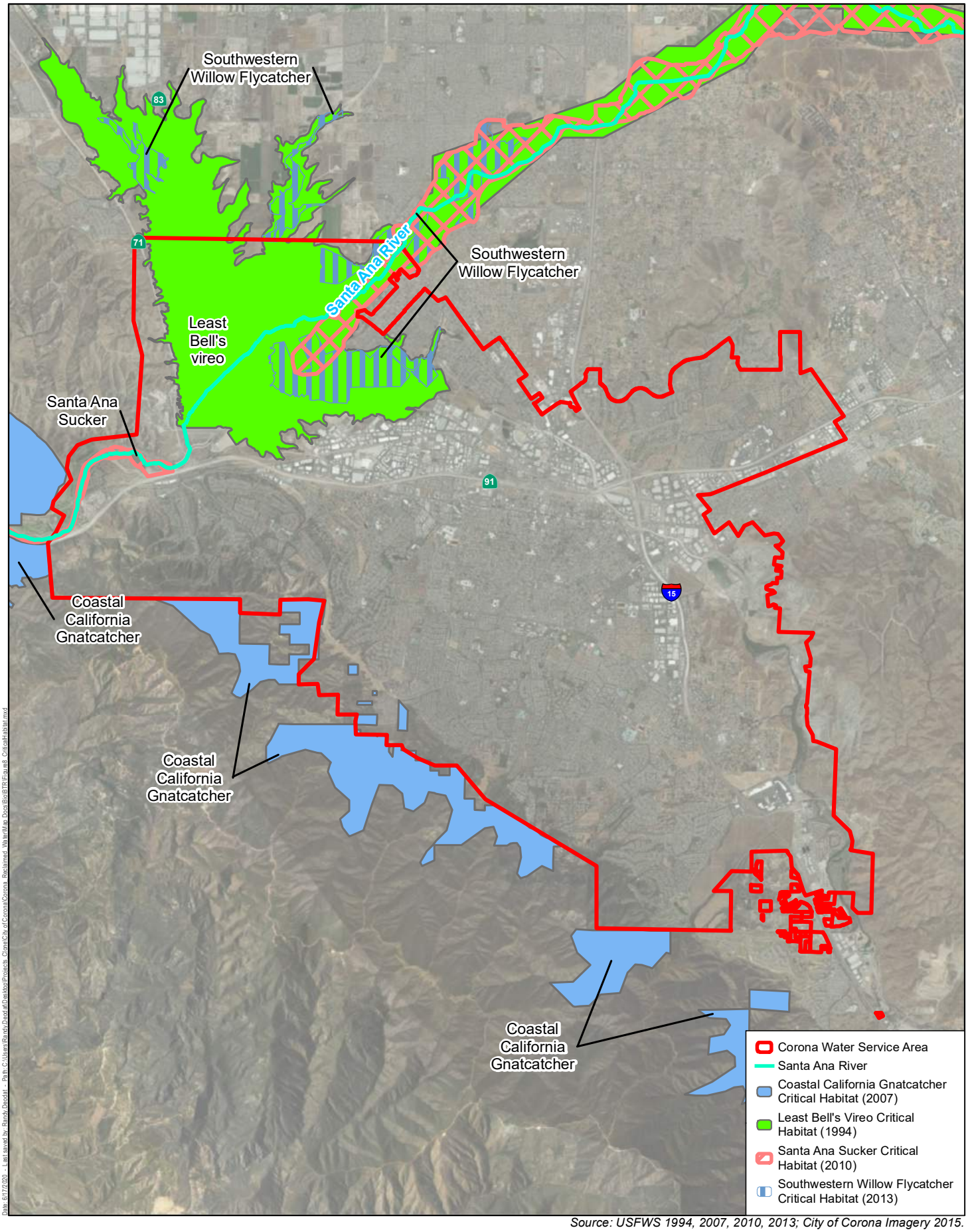
The Santa Ana River and surrounding riparian vegetation is an important wildlife corridor in the Counties of Riverside and Orange. The Santa Ana Mountains on the western side of the water service area are also an important wildlife corridor (County of Riverside 2003).

During the site visit, the biologists assessed areas identified in the Western Riverside County MSHCP in the water service area for potential wildlife corridor functions. Potential wildlife

corridors can include streams, riparian areas, and culverts under roadways. Habitat characteristics considered included topography, habitat quality, and adjacent land uses. In addition to reviewing the water service area for presence of continuous corridors, biologists also reviewed the water service area where critical habitat has been identified for potential dispersal corridors for coastal California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher based on habitat type and quality, size of habitat patches, and distance separating habitat patches (Figure 8). The Santa Ana River and associated floodplain occupy the land in the northern portion of the water service area. The Santa Ana River functions to facilitate amphibian, bird, and large mammal movement in the local area. The river provides habitat for both common and sensitive species, including least Bell's vireo and southwestern willow flycatcher.

The northern portion of the water service area is likely to be used as a wildlife corridor because of its proximity to the Santa Ana River and associated riparian corridor and open hills and mountains to the southwest and the presence of native vegetation communities. Although the presence of dense urban development throughout the water service area is likely to impede animal movement outside of the Santa Ana River corridor, the northern portion of the water service area has been designated as an important habitat connectivity area along the Santa Ana River.

This page intentionally left blank.



Source: USFWS 1994, 2007, 2010, 2013; City of Corona Imagery 2015.

Harris & Associates

N

0 1 2

Miles

Figure 8

Critical Habitat

City of Corona 2018 Reclaimed Water Master Plan

This page intentionally left blank.

Section 4 Regional Context and Applicable Regulations

Biological resources in the water service area are subject to regulatory administration by the federal government and State of California. The federal government administers nonmarine plant- and animal-related issues through the USFWS, while waters of the United States issues are administered by the USACE. California law relating to wetland, water-related, and animal issues is administered by the CDFW. Under CEQA, impacts associated with a proposed project or program are assessed with regard to significance criteria determined by the CEQA lead agency, which, for the project, is the City, pursuant to CEQA Guidelines. Biological resources-related laws and regulations that apply to the project include FESA, the MBTA, the CWA, CEQA, the California Endangered Species Act (CESA), and the CFG Code.

4.1 Federal Regulations

4.1.1 Federal Clean Water Act (U.S. Code, Title 33, Sections 1251 through 1376)

The CWA provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires a project operator to obtain a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the CWA. The RWQCB administers the certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by the USACE that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. The USACE implementing regulations are found at the Code of Federal Regulations, Title 33, Parts 320 and 330. Guidelines for implementation are referred to as the "Section 404(b)(1) Guidelines," which were developed by the U.S. Environmental Protection Agency in conjunction with the USACE (40 CFR 230). These guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

4.1.2 Federal Endangered Species Act (U.S. Code, Title 16, Sections 1531 through 1543)

FESA and subsequent amendments provide guidance for the conservation of endangered and threatened species and the ecosystems on which they depend. In addition, FESA defines species as threatened or endangered and provides regulatory protection for listed species. FESA also provides a program for the conservation and recovery of threatened and endangered species and the conservation of designated critical habitat that the USFWS determines to be required for the survival and recovery of these listed species.

Section 7 of FESA requires federal agencies, in consultation with the Secretary of the Interior or the Secretary of Commerce, to ensure that actions the federal agencies authorize, fund, or carry

out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. The USFWS and National Marine Fisheries Service share responsibilities for administering FESA. Regulations governing interagency cooperation under Section 7 are found in California Code of Regulations, Title 50, Part 402. The opinion issued at the conclusion of consultation will include a statement authorizing "take" (e.g., to harass, harm, pursue, hunt, wound, kill) that may occur incidentally to an otherwise legal activity.

Section 9 lists those actions that are prohibited under FESA. Although take of a listed species is prohibited, it is allowed when it is incidental to an otherwise legal activity. Section 9 prohibits take of listed species of fish, wildlife, and plants without special exemption. The definition of "harm" includes significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns related to breeding, feeding, or shelter. "Harass" is defined as actions that create the likelihood of injury to listed species by significantly disrupting normal behavioral patterns related to breeding, feeding, and shelter.

Section 10 provides a means whereby a nonfederal action with the potential to result in take of a listed species can be allowed under an incidental take permit. Application procedures are found in the Code of Federal Regulations, Title 50, Parts 13 and 17, for species under the jurisdiction of the USFWS and the Code of Federal Regulations, Title 50, Parts 217, 220, and 222, for species under the jurisdiction of the National Marine Fisheries Service.

4.1.3 Migratory Bird Treaty Act (U.S. Code, Title 16, Sections 703 through 711)

The MBTA is the domestic law that affirms or implements a commitment by the United States to four international conventions (with Canada, Mexico, Japan, and Russia) for the protection of a shared migratory bird resource. The MBTA makes it unlawful at any time, by any means, or in any manner to pursue, hunt, take, capture, or kill migratory birds. The act also applies to the removal of nests occupied by migratory birds during the nesting season. The MBTA makes it unlawful to take, pursue, molest, or disturb these species, their nests, or their eggs anywhere in the United States.

4.1.4 Wetlands and Other Waters of the United States

Aquatic resources, including riparian areas, wetlands, and certain aquatic vegetation communities, are considered sensitive biological resources and can fall under the jurisdiction of several regulatory agencies. The USACE exerts jurisdiction over waters of the United States, including waters that are subject to the ebb and flow of the tide; wetlands and other waters such as lakes, rivers, streams (including intermittent or ephemeral streams), mudflats, sandflats, sloughs, prairie potholes, vernal pools, wet meadows, playa lakes, or natural ponds; and tributaries of the previously mentioned features. The extent of waters of the United States is generally defined as

the portion that falls within the limits of the ordinary high water mark. Typically, the ordinary high water mark corresponds to the 5- to 7-year flood event.

Wetlands, including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas, are defined by the USACE as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3[b]; 40 CFR 230.3[t]). Indicators of three wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present for a site to be classified as a wetland by the USACE (USACE 1987).

4.2 State of California Regulations

4.2.1 California Endangered Species Act (California Fish and Game Code, Sections 2050 et seq.)

CESA establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under CESA. For projects that would affect a listed species under both CESA and FESA, compliance with FESA would satisfy CESA if the CDFW determines that the federal incidental take authorization is consistent with CESA under CFG Code, Section 2080.1. For projects that would result in take of a species only listed under CESA, the project operator would need to apply for a take permit under Section 2081(b).

4.2.2 California Environmental Quality Act Guidelines, Section 15380

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines, Section 15380(b), provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and Sections 2050 through 2059.26 of the CFG Code dealing with rare or endangered plants or animals. This section was included in CEQA primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on, for example, a candidate species that has not been listed by either the USFWS or CDFW. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agencies have an opportunity to designate the species as protected, if warranted. CEQA also calls for the protection of other locally or regionally significant resources, including natural communities. Although natural communities do not currently have legal protection of any kind, CEQA calls for an assessment of whether any such resources would be affected and requires findings of significance if there would be substantial losses. Natural communities listed as sensitive by the

California Natural Diversity Database are considered by the CDFW to be significant resources and fall under the CEQA Guidelines to address impacts. Local planning documents, such as General Plans, often identify these resources as well.

4.2.3 California Fish and Game Code, Section 1602

Under this section of the California Fish and Game Code, the project operator is required to notify the CDFW before the start of any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the code, a "stream" is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel that has banks and supports fish or other aquatic life. Based on this definition, a watercourse with surface or subsurface flows that supports or has supported riparian vegetation is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses valuable to fish and animals are subject to CDFW jurisdiction. The CDFW also has jurisdiction over dry washes that carry water during storm events.

Preliminary notification and project review generally occur during the environmental process. When an existing fish or animal resource may be substantially adversely affected, the CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a streambed alteration agreement, which becomes part of the plans, specifications, and bid documents for the project.

4.2.4 California Fish and Game Code, Sections 2080 and 2081

Section 2080 of the CFG Code states that "no person shall import into this state [California], export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission [California Fish and Game Commission] determines to be an endangered species or threatened species, or attempt any of those acts, except as otherwise provided in this chapter, or the Native Plant Protection Act, or the California Desert Native Plants Act." Pursuant to Section 2081 of the code, the CDFW may authorize individuals or public agencies to import, export, take, or possess state-listed endangered, threatened, or candidate species. These otherwise prohibited acts may be authorized through permits or memoranda of understanding if the take is incidental to an otherwise lawful activity, impacts of the authorized take are minimized and fully mitigated, the permit is consistent with any regulations adopted pursuant to any recovery plan for the species, and the project operator ensures adequate funding to implement the measures required by the CDFW. The CDFW makes this determination based on available scientific information and considers the ability of the species to survive and reproduce.

4.2.5 California Fish and Game Code, Sections 3503, 3503.5, 3513, and 3800

Section 3503 of the CFG Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptor (i.e., species in the orders Falconiformes and Strigiformes), including nests or

eggs. Typical violations of this code include destruction of active nests resulting from removal of vegetation in which the nests are located. Violation of Section 3503.5 could also include failure of active raptor nests resulting from disturbance of nesting pairs by nearby project construction. This statute does not provide for the issuance of any type of incidental take permit.

Section 3513 of the CFG Code upholds the MBTA by prohibiting any take or possession of birds that are designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations promulgated pursuant to the MBTA.

Section 3800 of the CFG Code affords protection to nongame birds, which are birds occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds.

4.2.6 California Fish and Game Code, Sections 3511, 4700, 5050, and 5515

California fully protected species are described in Sections 3511, 4700, 5050, and 5515 of the CFG Code. These statutes prohibit take or possession of fully protected species. The CDFW is unable to authorize incidental take of fully protected species when activities are proposed in areas inhabited by these species.

4.2.7 California Wetland Definition

Unlike the federal government, California has adopted the Cowardin et al. (1992) definition of "wetlands." For this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes (at least 50 percent of the aerial vegetative cover); (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is non-soil and saturated with water or covered by shallow water at some time during the growing season of each year.

Under normal circumstances, the federal definition of wetlands requires all three wetland identification parameters to be met, whereas the Cowardin et al. (1992) definition requires the presence of at least one of these parameters. For this reason, identification of wetlands by state agencies consists of the union of all areas that are periodically inundated or saturated or in which at least seasonal dominance by hydrophytes may be documented or in which hydric soils are present.

4.2.8 Native Plant Protection Act (California Fish and Game Code, Sections 1900 through 1913)

California's Native Plant Protection Act requires state agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provisions of the act prohibit the take of listed plants from the wild and require notification to the CDFW at least 10 days in advance of any change in land use. This allows the CDFW to salvage listed plant species that would otherwise be destroyed. The project operator is required to conduct botanical inventories and consult with the

CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

4.2.9 Natural Community Conservation Planning Act

The Natural Community Conservation Planning (NCCP) program is a cooperative effort to protect habitats and species. It began under the state's NCCP Act of 1991, legislation that is broader in its orientation and objectives than CESA or FESA. These laws are designed to identify and protect individual species that have already declined significantly in number. The act and the associated Southern California Coastal Sage Scrub NCCP Process Guidelines (1993), Southern California Coastal Sage Scrub NCCP Conservation Guidelines (1993), and NCCP General Process Guidelines (1998) have been superseded by the NCCP Act of 2003, which was subsequently amended in 2003, 2011, 2012, and 2016.

The primary objective of the NCCP program is to conserve natural communities at the ecosystem level while accommodating compatible land use. The program seeks to anticipate and prevent the controversies and gridlock caused by species' listings by focusing on the long-term stability of animal and vegetation communities and including key interests in the process.

This voluntary program allows the state to enter into planning agreements with landowners, local governments, and other stakeholders to prepare plans that identify the most important areas for a threatened or endangered species, and the areas that may be less important. These NCCP plans may become the basis for a state permit to take threatened and endangered species in exchange for conserving their habitat. The CDFW and USFWS worked to combine the NCCP program with the federal Habitat Conservation Plan (HCP) process to provide take permits for state and federally listed species. Under the NCCP Act, local governments, such as the City, can take the lead in developing these NCCP plans and become the recipients of state and federal take permits.

4.2.10 Porter-Cologne Water Quality Control Act

The State Water Resources Control Board works in coordination with the nine RWQCBs to preserve, protect, enhance, and restore water quality. Each RWQCB makes decisions related to water quality for its region and may approve, with or without conditions, or deny projects that could affect waters of the state. Their authority comes from the CWA and the state's Porter-Cologne Act. The Porter-Cologne Act broadly defines waters of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code, Section 13050[e]). Because the Porter-Cologne Act applies to any water, whereas the CWA applies only to certain waters, California's jurisdictional reach overlaps and may exceed the boundaries of waters of the United States. For example, Water Quality Order No. 2004-0004-DWQ states that "shallow" waters of the state include headwaters, wetlands, and riparian areas. Moreover, in practice, the RWQCBs claim jurisdiction over riparian areas. Where riparian habitat is not present, which may be the case in headwaters, jurisdiction is taken to the top of bank.

Under the Porter-Cologne Act, the State Water Resources Control Board and the nine RWQCBs also have the responsibility of granting CWA National Pollutant Discharge Elimination System permits and waste discharge requirements for certain point-source and nonpoint-source discharges to waters. These regulations limit impacts on aquatic and riparian habitats from a variety of urban sources.

4.3 Local Regulations

4.3.1 City of Corona 2020–2040 General Plan

The following goals and policies in the City of Corona 2020–2040 General Plan (City of Corona 2020b) as it relates to biological resources.

Environmental Resources Element

Goal ER-4. Proper management of floodplain and riparian areas for their importance to wildlife habitat, unique and sensitive plant life, water recharge, and public health and safety.

Policy ER-4.1. Require urban uses to have a sufficient distance from a floodway boundary to ensure adequate protection of life, property, and habitat values.

Policy ER-4.2. Avoid altering floodways or channelization wherever possible; however, limit alterations to those that meet the following criteria:

- Alterations necessary for the protection of public health and safety only after all other options are exhausted
- Alterations essential to public service projects where no other feasible construction method or alternative project location exists
- Projects where the primary function is the improvement of fish and wildlife habitats

Policy ER-4.3. Design alterations and improvements to floodways so that they avoid adverse environmental effects to the maximum extent feasible, considering the following environmental factors:

- Stream scour
- Erosion protection and sedimentation
- Wildlife habitat and linkages
- Groundwater recharge capability
- Adjacent property
- Natural designs (e.g., soft riparian bottoms and gentle bank slopes, and landscaping with native plants)

Policy ER-4.4. Preserve and enhance existing native riparian habitat and prevent obstruction of natural watercourses to the extent feasible in new private and public developments or implement on-site replacement as mitigation.

Policy ER-4.5. Allow variances from city development standards on land area restricted from development due to its retention as a natural floodway, floodplain, or watercourse to encourage the preservation of natural watercourses without creating undue hardship on property owners.

Goal ER-5. Preservation and protection of natural and man-made wetlands from development impacts for their importance to wildlife habitat, unique and sensitive plant life, water recharge, and scenic value.

Policy ER-5.1. Prohibit encroachment of development into wetlands; provide buffer zones, setbacks, or other effective techniques in project siting and design to minimize direct and indirect effects to wetland habitats.

Policy ER-5.2. During the development review process, ensure compliance with the Clean Water Act's Section 404 in terms of wetlands mitigation policies and policies concerning fill material in jurisdictional wetlands.

Policy ER-5.3. Ensure compliance with habitat mitigation plans accepted by the applicable state and federal regulatory agencies that meet established ratios for wetland enhancement/restoration and on-/off-site compensation for the loss of wetland functions and values.

Policy ER-5.4. Consider wetlands for use as natural water treatment areas that will result in improvement of water quality.

Policy ER-5.5. Prohibit the planting of invasive, nonnative species in areas that would encroach and affect watercourses, their banks, and riparian areas.

Goal ER-6. Protection, enhancement, and sustaining of significant plant and wildlife species and habitat that exists in Corona and its Planning Area, for the long-term benefit of the natural environment and Corona residents and visitors.

Policy ER-6.1. Support the rehabilitation and enhancement the biological diversity and integrity of the City's natural resources through such means as vegetation restoration, control of alien plants and animals, landscape buffering, and natural watercourse channel restoration.

Policy ER-6.2. Preserve the wildlife and plant species and habitats listed in Tables 4-12 and 4-13 of the Technical Background Report for the General Plan and EIR [Environmental Impact Report] and those that may be considered by the City of Corona in the future.

Policy ER-6.3. Ensure that new developments and circulation improvements demonstrate compliance with state and federal regulations concerning the status, location, and condition of significant and sensitive biological species and habitats and riparian and riverine corridors. Biological surveys, as required and defined by the Western Riverside County Multiple Species

Habitat Conservation Plan, should identify potential impacts on biological resources and include mitigation measures to protect/replace resources in like kind.

Policy ER-6.4. Ensure that new developments through the development review process adhere to the Western Riverside County Multiple Species Habitat Conservation Plan, the Stephens' Kangaroo Rat Habitat Conservation Plan, and other habitat plans as appropriate to conserve biological diversity through protection of natural communities.

Policy ER-6.5. Preserve wildlife habitat of significant natural open space areas, including expanding habitat ranges, movement corridors, and nesting sites by adhering to and implementing the core biological linkages identified in the MSHCP for parts of the Temescal Canyon Area Plan in the City. Any proposed recreational use of those areas such as trails shall be designed to not interfere with the preservation efforts established in the MSHCP.

Goal ER-7. Adequate protection of biological resources and increased public awareness of their value to the community.

Policy ER-7.1. Require that public and private construction activities be conducted in a manner to minimize adverse impacts on natural resources and biological resources in proximity to MSHCP conservation areas and adhere to the MSHCP Guidelines pertaining to Urban/Wildlife Interface for drainage, toxics, lighting, noise, invasive barriers and grading [MSHCP Section 6.1.4].

Policy ER-7.2. Allow for publicly accessible sites that facilitate observation of natural resources in Corona and its sphere without compromising environmental quality.

Policy ER-7.3. Promote education programs and materials prepared by the Western Riverside County Regional Conservation Authority, Riverside-Corona Resource Conservation District, and other entities that promote awareness of biological resources conservation.

Goal ER-8. Protection of forest and vegetation resources in the City of Corona.

Policy ER-8.1. Cooperate with federal and state agencies to achieve the sustainable conservation of forest lands as a means of providing open space and protecting natural resources and MSHCP habitat.

Policy ER-8.2. Support conservation programs to reforest privately held forest lands.

Policy ER-8.3. Work with Riverside County to update the Vegetation Map for Corona and the SOI [sphere of influence] areas in cooperation with the California Department of Fish and Wildlife, the Natural Diversity Data Base, the United States Forest Service, and other knowledgeable agencies.

Policy ER-8.4. Maintain and conserve superior examples of native trees (including oak trees), natural vegetation, stands of established trees, and other features for aesthetic and water conservation purposes.

Policy ER-8.5. Conserve the oak tree resources in the City to the extent feasible.

Goal ER-9. Protection of regional washes and waterways and their use for recreational and open space purposes such as trails, habitat preservation, and groundwater recharge.

Policy ER-9.1. Protect sensitive biological resources in the Temescal Canyon Area Plan through adherence to policies in the Western Riverside County MSHCP.

Policy ER-9.2. Conserve existing wetlands and wetland functions and values in the Temescal Canyon Wash, Prado Basin, and the Santa Ana River with a focus on conservation of existing riparian, woodland, coastal sage scrub, alluvial fan scrub, and open water habitats.

Policy ER-9.3. Conserve existing known populations of least Bell's vireo and southwestern willow flycatcher within the Temescal Canyon Area Plan including locations at Prado Basin, Santa Ana River, and Temescal Wash. Maintain existing breeding habitat for these species at Prado Basin, Santa Ana River, and Temescal Wash where applicable to a particular project and location.

Policy ER-9.4. Conserve and manage suitable habitat for species known to exist in the Temescal Canyon Area Plan of Western Riverside County's Multiple Species Habitat Conservation Plan.

Policy ER-9.5. Conserve clay soils supporting sensitive plant species known to occur in the Temescal Canyon area, including Munz's onion, Palmer's grappling hook, small-flowered morning glory, long-spined spineflower, thread-leaved brodiaea, small-flowered microseris, and many-stemmed dudleya.

Policy ER-9.6. Conserve sandy soils co-occurring with chaparral supporting Palomar monkeyflower, known to occur in the Temescal Canyon area.

Policy ER-9.7. Conserve locations supporting California muhly, heart-lived pitcher sage, Hall's monardella, and other sensitive plant species that may occur in a wide variety of habitat types within the Temescal Canyon Area Plan.

Policy ER-9.8. Provide for and maintain connection(s) from the Cleveland National Forest to Prado Basin and the Santa Ana River within Temescal Canyon, providing opportunities for offsite connections to Chino Hills State Park.

Policy ER-9.9. Conserve upland habitat adjacent to Temescal Wash to augment existing upland habitat conservation in the Lake Matthews/Estelle Mountain Reserve areas and provide for contiguous connection of upland habitat blocks from the existing reserve to Temescal Wash. Habitat conservation should focus on blocks of existing upland habitat east of Temescal Wash connecting to Lake Matthews/Estelle Mountain Reserve.

Policy ER-9.10. Conserve floodplain areas supporting sensitive plant species known to occur in Temescal Canyon, including Parry's spineflower, peninsular spineflower, and smooth tarplant, and Coulter's matilija poppy.

Policy ER-9.11. Conserve rocky soils co-occurring with coastal sage scrub, peninsular jumper, or chaparral supporting Payson's jewelflower, known to occur in the Temescal Canyon area.

Policy ER-9.12. Provide for and maintain a continuous linkage along Temescal Wash from the southern boundary of the Temescal Canyon area to the Santa Ana River.

4.3.2 Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County MSHCP is a comprehensive, multi-jurisdictional plan that addresses biological and ecological diversity by conserving species and associated habitats while allowing approval of development in Western Riverside County (County of Riverside 2003). It is administered by the Western Riverside County Regional Conservation Authority.

The MSHCP functions as an HCP pursuant to Section 10(a)(1)(B) of FESA and as an NCCP pursuant to California's NCCP Act. The MSHCP provides a framework for the USFWS and CDFW to grant take authorization (i.e., Incidental Take Permits) for species covered by the MSHCP that are FESA or CESA listed as threatened or endangered; take of these species without a permit would be unlawful.

The MSHCP covers 146 species, not all of which are FESA or CESA listed. However, mitigation for impacts to listed and non-listed species may be required pursuant to CEQA or other regulatory processes, and the MSHCP Conservation Area provides an avenue for this mitigation. Furthermore, should any of the non-listed covered species be subsequently FESA or CESA listed, take authorization may be granted through the MSHCP framework.

The MSHCP was approved and permits were issued by the USFWS and CDFW in 2004. The MSHCP Plan Area encompasses approximately 1.26 million acres (approximately 1,967 square miles) in Western Riverside County and addresses 146 sensitive plant and animal species and the vegetation communities on which they depend. In total, 14 animal species and 11 plant species are designated by the USFWS as federally listed under FESA. Several of these species also have federally designated critical habitat within the MSHCP jurisdiction (USFWS 2020c). The MSHCP encompasses the City and many other city, county, and state entities. It should be noted that the listing status of plants and animals may change over time, with species added or removed from listing. This Biological Resources Technical Report prepared for the project describes the species used to define the original planning subunits.

The MSHCP originally set a target Conservation Area of 500,000 acres for Western Riverside County that included the following: (1) conservation of existing publicly owned lands; (2)

voluntary acquisition of privately held lands by the cities, the County, or other involved agencies; (3) voluntary acquisition of privately held lands by state or federal agencies; and (4) contribution from public and private development. The Implementing Agreement for the MSHCP between the City and other appropriate implementing agencies outlined a strategy for assembling the 500,000-acre MSHCP Conservation Area. Local implementing agencies would be responsible for contributing approximately 97,000 acres of Additional Reserve Lands through the development review process. If it is determined that all or a portion of a property is needed for inclusion as Additional Reserve Lands, various incentives may be available to the property owner in lieu of, or in addition to, monetary compensation in exchange for conveyance of property interest, such as development rights.

Within the Western Riverside County MSHCP Plan Area, the City is within the Eastvale Area Plan and the Temescal Canyon Area Plan.

The Western Riverside County MSHCP area plans are organized into the following components:

- **Criteria Areas:** Areas within Western Riverside County in which land can be acquired for the MSHCP.
- **Core Areas:** Large habitats within the reserve that have the resources to support the species covered under the MSHCP. Existing areas consist of conserved land, such as national forests, wildlife refuges, and wilderness area. Proposed Core Areas will be assembled from the land acquired within the Criteria Area. Noncontiguous Criteria Cells are connected by Linkages. Additional reserve lands will come from these areas.
- **Linkages:** Land bridges between two Core Areas are called Linkages. These narrower strips of land allow wildlife to travel between conserved habitat.
- **Criteria Cells:** Series of grids used to organize and track development and conservation within the Criteria Area.

In combination, these components are intended to result in a MSHCP Conservation Area configuration that provides significant blocks of habitat, minimizes internal fragmentation and edge effects, and maximizes the ratio of surface area to perimeter.

Approval of the MSHCP and execution of the Implementing Agreement by the USFWS and CDFW allows the agencies to issue take authorizations, including the City. Issue of take authorization to the City would allow implementation of land use decisions consistent with the MSHCP without project-by-project review and permitting by the USFWS and CDFW.

Section 5 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a significant impact related to would occur if the project would (CEQA Guidelines, Section 15000 et seq.):

1. Have a substantial adverse effect, either directly or through habitat modifications, on any plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service
2. Have a substantial adverse effect, either directly or through habitat modifications, on any animal species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service
3. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service
4. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
5. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites
6. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
7. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

This page intentionally left blank.

Section 6 Impacts

This section evaluates potential impacts to biological resources from implementation of the projects identified in the 2018 RWMP. As discussed in Section 1.1, Project Description, the analysis of impacts to biological resources are addressed by project. The proposed improvements and 2018 RWMP projects are presented on Figures 3a through 3d and described in Section 1.1.

6.1 Direct Impacts

Direct impacts to biological resources include temporary and permanent impacts to upland vegetation, wetlands, and non-vegetated channels. Potential direct impacts include temporary and permanent impacts to vegetation that could support sensitive plant species, sensitive animal species, nesting birds, and wildlife corridors and linkages. Potential direct impacts include impacts to water quality. Potential direct impacts also include impacts to local policies and ordinances and regional conservation planning. Direct impacts are presented in the following subsections.

Implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline could impact sensitive vegetation.

6.1.1 Riparian Habitat or Other Sensitive Vegetation Community

The WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline are proposed in undeveloped non-native grassland vegetation. The WRCRWA Transmission Pipeline is proposed adjacent to undeveloped land, riparian forest, and the Santa Ana River. The WRCRWA Transmission Pipeline was previously evaluated under CEQA in the 2016 Proposition 1 IS/MND (City of Corona 2016). No further analysis of this project is required or provided in this report.

Potentially significant impacts to ~~one~~ sensitive vegetation communities~~y~~, including non-native grassland, could result during the implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites.

~~Impacts to non-native grassland totaling less than 0.10 acre per construction phase would not be considered significant and would not require mitigation under CEQA because the small size of the impact would not be considered a substantial adverse effect. Exceptions to the previously described thresholds would be for projects impacting habitat occupied by federally or state-listed endangered or threatened species, which would be considered significant regardless of the acreage impacted.~~

No other direct impacts to sensitive vegetation communities would result from implementation of the remaining projects.

6.1.2 Sensitive Plant Species

Sensitive plant species have been documented in the water service area. Implementation of the projects located in developed/disturbed land would not impact sensitive plant species. Although the likelihood is low, implementation of some projects in undeveloped areas have the potential to impact sensitive plant species. The WRCRWA Booster Pump Station, WRCRWA Transmission Pipeline, WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects are proposed on undeveloped sites that may contain sensitive plant species. The WRCRWA Booster Pump Station and WRCRWA Transmission Pipeline projects were previously evaluated under CEQA in the 2010 Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project EIR (WRCRWA 2010) and the 2016 Proposition 1 IS/MND (City of Corona 2016), respectively. No further analysis of these projects is required or provided in this report.

The WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites contain non-native grassland habitat that could support sensitive plant species. Impacts to non-native grassland habitat that could support sensitive plant species on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites would be potentially significant.

6.1.3 Sensitive Animal Species

In total, 45 sensitive animal species have been documented in the water service area. Sensitive animal species have been documented in undeveloped areas near the WRCRWA Transmission Pipeline, WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites. The undeveloped areas on these project sites may contain sensitive animal species. The majority of sensitive animal species, including least Bell's vireo and tricolored blackbird (Agelaius tricolor), occur in the Santa Ana River floodplain adjacent to the WRCRWA Transmission Pipeline, which was previously evaluated under CEQA in the 2010 Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project EIR (WRCRWA 2010) and the 2016 Proposition 1 IS/MND (City of Corona 2016), respectively. No further analysis of this project is required or provided in this report. None of the other projects identified in the 2018 RWMP have the potential to impact least Bell's vireo or tricolored blackbird. Therefore, impacts would not occur to these species as a result of project implementation.

Non-native grassland vegetation on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites has the potential to support sensitive animal species. A query requested in the Riverside County Integrated Project Conservation Summary Report Generator found that the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites contain potentially suitable habitat for burrowing owl. Based on habitat requirements and the availability and quality of the habitats on site, it was determined that the burrowing owl is

presumed to have a low likelihood of occurring due to the lack of suitable habitat and existing development and disturbance. The conservation goals of the Western Riverside County MSHCP require that burrowing owl remain absent from the project sites. If burrowing owl were found on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a potential impact would occur.

6.1.3.1 Nesting Birds

Federal- and state-protected nesting birds have the potential to occur on or adjacent to the projects, including projects in developed/disturbed land. Implementation of the projects would have the potential to impact nesting birds (including raptors) through direct removal of nesting habitat and through disturbance to nesting birds from substantial sources of noise generated at the start of new construction during the nesting season. Construction activities that begin during the raptor nesting season and general bird nesting season (January 15 through September 15) would have the potential to significantly impact nesting birds protected under the MBTA and CFG Code.

6.1.3.2 Critical Habitat

Critical habitat for least Bell's vireo, southwestern willow flycatcher, and Santa Ana sucker primarily occurs in the Santa Ana River floodplain adjacent to the WRCRWA Transmission Pipeline, which was previously evaluated under CEQA in the 2016 Proposition 1 IS/MND (City of Corona 2016) (Figure 8). No further analysis of this project is required or provided in this report. No other projects identified in the 2018 RWMP have the potential to impact critical habitat for least Bell's vireo, southwestern willow flycatcher, or Santa Ana sucker. The majority of the critical habitat for coastal California gnatcatcher occurs outside of the water service area and would not be impacted by implementation of the projects (Figure 8). Therefore, impacts would not occur to these species as a result of project implementation.

6.1.4 Jurisdictional Resources

Implementation of the projects is not expected to impact jurisdictional aquatic resources. The WRCRWA Transmission Pipeline is adjacent to the Santa Ana River and has been designed to avoid riparian habitat and jurisdictional aquatic resources (City of Corona 2016). The WRCRWA Transmission Pipeline was previously evaluated under CEQA in the 2016 Proposition 1 IS/MND (City of Corona 2016). No further analysis of this project is required or provided in this report.

The WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline are proposed on undeveloped land that could support jurisdictional aquatic resources, although unlikely. If the potential for jurisdictional aquatic resources to occur on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites is identified, impacts to state or federally protected jurisdictional aquatic resources could occur through direct removal, filling, hydrological interruption, or other means. Impacts to jurisdictional aquatic

resources could be considered significant under CEQA depending on the type of aquatic resource and the extent of the proposed impact.

6.1.5 Wildlife Corridors and Linkages

As discussed in Section 3.6, Wildlife Corridors and Linkages, important wildlife corridors occur in the northern and western portions the water service area. The Santa Ana Mountains are an important north–south wildlife corridor; however, no projects identified in the 2018 RWMP are proposed in the Santa Ana Mountains. The Santa Ana River floodplain is an important east–west wildlife corridor. The WRCRWA Transmission Pipeline crosses the Santa Ana River, which is a regional wildlife movement corridor; however, the pipeline would be installed in the existing paved road right-of-way and would not impact the Santa Ana River. The WRCRWA Transmission Pipeline was previously evaluated under CEQA in the 2016 Proposition 1 IS/MND (City of Corona 2016). No further analysis of this project is required or provided in this report. No other projects identified in the 2018 RWMP are proposed in the Santa Ana River floodplain.

6.1.6 Local Policies and Ordinances

The project would comply with local policies and ordinances protecting biological resources in the City of Corona 2020–2040 General Plan (City of Corona 2020b). Section 4.3, Local Regulations, outlines the City of Corona 2020–2040 General Plan goals and policies related to biological resources and implementation of the projects.

As discussed in Section 6.1.4, the projects would avoid, or if avoidance is not feasible, fully mitigate potential impacts to jurisdictional aquatic resources, thereby complying with the City of Corona 2020–2040 General Plan Goal ER-4, Policies ER-4.1 through ER-4.5, Goal ER-5, and Policies ER-5.1 through ER-5.5.

As discussed in Sections 6.1.1 through Sections 6.1.3 and 6.3, the projects' potential impacts to sensitive plant animal species, sensitive vegetation communities, and jurisdictional aquatic resources would be potentially significant before incorporation of mitigation. Therefore, with implementation of mitigation measures fully mitigating impacts to sensitive plant animal species, sensitive vegetation communities, and jurisdictional aquatic resources discussed in Section 6.3, Mitigation Measures, the projects would not conflict with the City of Corona 2020–2040 General Plan Goal ER-6 and Policies ER-6.1 through ER-6.5 regarding protection of plant and animal species and sensitive vegetation communities in the City and its Planning Area.

The projects would be consistent with the conservation goals outlined in the Western Riverside County MSHCP. The 2018 RWMP would result in less than significant impacts to biological resources with mitigation incorporated and is therefore compliant with the Western Riverside County MSHCP conservation planning goals and the City of Corona 2020–2040 General Plan Goal ER-7 and Policies ER-7.1 through ER-7.3.

No oak trees were identified on the project sites that would be impacted by implementation of the projects. Therefore, the project is not in conflict with the City of Corona 2020–2040 General Plan Goal ER-8 and Policies ER-8.1 through ER-8.5 or the Riverside County Oak Tree Management Guidelines (City of Corona 2020; County of Riverside 1993).

The projects do not propose development in the Temescal Canyon Plan Area, in the Santa Ana River, or other regional washes. Therefore, the projects would not conflict with the City of Corona 2020–2040 General Plan Goal ER-9 and Policies ER-9.1 through ER-9.12.

Implementation of the project would not result in conflicts with any local policies or ordinances protecting biological resources.

6.1.7 Regional Conservation Planning

As discussed in Section 4.3, the Western Riverside County MSHCP functions as a comprehensive, multi-jurisdictional plan that addresses biological and ecological diversity by conserving species and associated habitats while allowing approval of development within the County. It is the City's policy to comply with the Western Riverside County MSHCP in its consideration and approval of development projects, including the projects identified in the 2018 RWMP. Further, the City of Corona 2020–2040 General Plan incorporates compliance with the Western Riverside County MSHCP in the goals and policies used to guide development in the City and its Planning Area (City of Corona 2020b). The projects' compliance with the City of Corona 2020–2040 General Plan natural resources goals and policies was previously discussed in Section 6.1.6.

The WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites are not within Western Riverside County MSHCP Criteria Areas, Core or Linkage Areas, Criteria Cells, or MSHCP-designated conserved lands (Figures 3-1 through 3-3, County of Riverside 2003). Therefore, implementation of these projects would be consistent with the Western Riverside County MSHCP and would not result in impacts to the Western Riverside County MSHCP conservation and preservation goals. These projects would be required to implement Mitigation Measure BIO-1 to prepare an MSHCP Consistency Analysis Report once project design is available. At this time, it is not anticipated that these projects would require submittal of a Regional Conservation Authority Joint Project Review Application due to their anticipated location outside of Western Riverside County MSHCP Criteria Areas, Core or Linkage Areas, Criteria Cells, or MSHCP-designated conserved lands.

~~The avoidance, minimization, and mitigation measures proposed in Sections 6.1.1 through 6.1.4 would reduce potentially significant impacts to sensitive plant and animal species, sensitive vegetation communities, and jurisdictional aquatic resources to a less than significant level. Because the projects would not contribute to the loss of sensitive vegetation or sensitive species, the project would comply with the Western Riverside County MSHCP. Therefore, before~~ Prior to

the implementation of the avoidance, minimization, and mitigation measures proposed to reduce potentially significant impacts to sensitive plant and animal species, sensitive vegetation communities, and jurisdictional aquatic resources as detailed in Section 6.3, potentially significant impacts would occur from conflicts with Western Riverside County MSHCP and other regional conservation plans and mitigation would be required.

6.2 Indirect Impacts

Indirect impacts may occur during the construction of the 2018 RWMP projects and post-construction operations. Potential indirect impacts from implementation of the project includes decreased water quality (e.g., through sedimentation, contaminants, or fuel release), fugitive dust, colonization of invasive plant species, noise, and lighting. The majority (25 of 29) of the projects anticipated in the project would be situated in currently developed (non-sensitive) areas of the water service area. However, the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects are planned on non-native grassland habitat that may support sensitive plant species. These three projects have the potential to result in indirect impacts on sensitive vegetation communities and sensitive plants and animals, and such impacts are further discussed below.

6.2.1 Water Quality

Indirect impacts may occur during the construction of the projects and post-construction operations. Potential indirect impacts to sensitive vegetation communities from implementation of the project includes decreased water quality (e.g., through sedimentation, contaminants, or fuel release). The majority (25 of 29) of the projects anticipated in the project would be situated in currently developed (non-sensitive) areas of the water service area. However, the WRCRWA Booster Pump Station, WRCRWA Transmission Pipeline, WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects are planned in non-native grassland habitat. As previously discussed, the WRCRWA Booster Pump Station and WRCRWA Transmission Pipeline projects were previously evaluated under CEQA in the 2010 Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project EIR (WRCRWA 2010) and the 2016 Proposition 1 IS/MND (City of Corona 2016), respectively. No further analysis of these projects is required or provided in this report.

Section 3.10, Hydrology and Water Quality, in the 2018 RWMP PEIR analyzes potential water quality impacts from implementation of projects, and concludes that impacts would be less than significant because they would comply with the applicable policies and regulations pertaining to water quality. Therefore, water quality impacts to sensitive vegetation communities would be less than significant.

6.2.2 Fugitive Dust

Fugitive dust produced during construction may disperse onto sensitive vegetation adjacent to the project sites that could support sensitive plant species. The resulting dust cover may reduce native plant productivity, displacing native vegetation, reducing diversity, and affecting animals dependent on the vegetation.

Air quality impacts during construction, including fugitive dust, are analyzed in Section 3.3, Air Quality, in the 2018 RWMP PEIR. The analysis concluded that no significant impacts would result from implementation of the projects. The project would avoid indirect impacts to sensitive plants and animals from fugitive dust by implementing standard air quality control measures and National Pollutant Discharge Elimination System regulations required by construction specifications to effectively reduce fugitive dust during construction. The control measures may include but are not limited to the application of soil stabilizers (water) to disturbed areas, termination of soil disturbance during high wind events, and covering of material stockpiles. Applicable construction best management practices would also be implemented. Therefore, fugitive dust impacts would be less than significant, and no mitigation is required.

6.2.3 Invasive Plant Species

Non-native plants may colonize sites disturbed by demolition and construction and may spread into adjacent native vegetation communities. Some non-native plants are highly invasive and can disrupt native habitats by reducing native and sensitive species diversity, potentially increase flammability and fire frequency, change ground and surface water levels, and potentially adversely affect native animals that are dependent on native plant species.

Colonization by non-native plant species in the vegetated areas that may support sensitive plant species on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites would be a potentially significant impact.

6.2.4 Noise

Construction-related noise from clearing, grubbing, and grading may impact sensitive animals. Breeding birds and mammals may temporarily or permanently leave their territories to avoid direct impacts from construction activities, which may lead to reduced reproductive success and increased mortality. Indirect noise impacts would be considered significant for state- or federally listed species and for nesting raptors and birds protected by the CFG Code and MBTA. Nesting raptors may also be affected by noise from construction activity. Construction activity that commences during the nesting season within 500 feet of an active raptor nest would result in a significant impact to sensitive animal species and nesting birds. A Construction Noise Management Plan would be implemented in the projects with Mitigation Measure NOI-1, detailed in Section 3.13, Noise, in the 2018 RWMP PEIR. Implementation of Mitigation Measure NOI-1

would incorporate best management practices into project construction so that noise levels would not be an excessive nuisance to humans and animals. Therefore, indirect noise impacts to sensitive animal species would be less than significant.

6.2.5 Lighting

Nighttime lighting during construction has the potential to spill into native vegetation communities, exposing animal species to an unnatural light regime and potentially altering their behavior patterns, which can result in lower reproductive success, reducing species diversity. In addition, nighttime lighting may provide nocturnal predators with an unnatural advantage over their prey. This may cause an increased loss in native animals that may be significant, especially for sensitive species that may occur. Temporary construction lighting that spills into undeveloped areas would be potentially significant where these areas are not currently affected by lighting. Therefore, indirect impacts from nighttime lighting would have the potential to result in a significant impact to sensitive animal species.

6.3 Mitigation Measures

This section includes mitigation measures necessary to avoid and reduce significant direct and indirect impacts to sensitive vegetation communities, sensitive plant and animal species, nesting birds, and jurisdictional aquatic resources including waters and wetlands.

For reference, Table 6 provides a crosswalk for mitigation measures between this report and Section 3, Biological Resources, in the 2018 RWMP PEIR.

The mitigation measures listed in Table 6 were clarified following consultation with the Western Riverside County Regional Conservation Authority and in response to public comments received during the 2018 RWMP PEIR public review period. Mitigation Measure BIO-1 was renamed and refined to more accurately describe the Western Riverside County MSHCP Consistency Analysis Report process and components. Mitigation Measure BIO-1, Multiple Species Habitat Conservation Plan Consistency Analysis Report, includes requirements for identifying the presence of sensitive plant and animal species, including burrowing owl, and potential sensitive habitats. It was determined that Mitigation Measure BIO-1 would mitigate for potential impacts to sensitive plant species, sensitive habitats, and burrowing owl. Separate mitigation measures were previously included to address potential impacts to sensitive plant species (previous Mitigation Measure BIO-4), sensitive habitat (previous Mitigation Measures BIO-2 and BIO-3), and burrowing owl (previous Mitigation Measure BIO-9). Consistent with CEQA Guidelines, Section 15088.5(b), and following consultation with the Western Riverside County Regional Conservation Authority, these separate mitigation measures were determined not to be necessary because they are included in the requirements in Mitigation Measure BIO-1 and, therefore, have been removed. These mitigation refinements resulted in removing previous stand-alone Mitigation Measures

BIO-2, BIO-3, BIO-4, and BIO-9 and renumbering the remaining mitigation measures. Additional language was added to clarify Mitigation Measures BIO-8 and BIO-9 (previously Mitigation Measures BIO-12 and BIO-13) by including the applicable requirements for jurisdictional aquatic resources identification under Mitigation Measure BIO-1, Multiple Species Habitat Conservation Plan Consistency Analysis Report. The equivalent Mitigation Measures in PEIR Section 3.4, Biological Resources, were revised to be consistent with the clarifications made in this Biological Resources Technical Report.

Table 6. Biological Resources Mitigation Measure Equivalency Table for the 2018 Reclaimed Water Master Plan Project

Biological Resources Technical Report	PEIR Section 3.4: Biological Resources
BIO-1: Multiple Species Habitat Conservation Plan Consistency Analysis Report ~~Biological Resources Survey/Habitat Assessment~~	BIO-1~~1~~
~~BIO-2: Permanent Impacts to Non-native Grassland~~	~~BIO-2~~
~~BIO-3: Temporary Impacts to Non-native Grassland~~	~~BIO-3~~
~~BIO-4: Sensitive Plant Species Surveys~~	~~BIO-1~~
BIO-2~~5~~: Invasive Plant Species Prevention	BIO-2~~4~~
BIO-3~~6~~: Flagging and Fencing	BIO-3~~5~~
BIO-4~~7~~: Contractor Training Program	BIO-4~~6~~
BIO-5~~8~~: Biological Monitor	BIO-5~~7~~
~~BIO-9: Burrowing Owl Surveys~~	~~BIO-8~~
BIO-6~~10~~: Preconstruction Nesting Bird Surveys	BIO-6~~9~~
BIO-7~~11~~: Night Lighting	BIO-7~~10~~
BIO-8~~12~~: Aquatic Resources Delineation	BIO-8~~12~~
BIO-9~~13~~: Aquatic Resources Permitting and Multiple Species Habitat Conservation Plan Consistency	BIO-9~~13~~

Notes: PEIR = Program Environmental Impact Report

6.3.1 Sensitive Vegetation Communities

6.3.1.1 Survey Requirements

Implementation of Mitigation Measure BIO-1 would reduce permanent impacts to non-native grassland that could support sensitive plant species on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites.

BIO-1: **Multiple Species Habitat Conservation Plan Consistency Analysis Report ~~Biological Resources Survey/Habitat Assessment~~.** For projects proposed in the City of Corona 2018 Reclaimed Water Master Plan on undeveloped land, including the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline, a Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis Report site-specific biological resources survey shall be ~~conducted~~ completed during the project design phase. The

Consistency Analysis Report shall be prepared for each project to demonstrate consistency with the Multiple Species Habitat Conservation Plan Implementation Structure and shall include project-level existing conditions documentation of vegetation mapping and identification of sensitive habitats (non-native grassland, riparian and riverine areas, and vernal pools), plants, and animals (including burrowing owl [*Athene cunicularia*]) on the project site.

The Consistency Analysis Report shall be used as the basis for determining if a project is subject to a Joint Project Review and is required to complete a Joint Project Review Application. The Multiple Species Habitat Conservation Plan Consistency Analysis Report template and requirements can be accessed on the Western Riverside County Regional Conservation Authority Document Library: https://www.wrc-rca.org/document-library/. The Western Riverside County Multiple Species Habitat Conservation Plan Permittee Implementation Guidance Manual (2007) shall also be reviewed and followed to ensure project consistency with Multiple Species Habitat Conservation Plan requirements.

~~The biological resources survey shall be conducted by a qualified biologist and shall include, but not be limited to, the following:~~

~~An analysis of available literature and biological databases, such as the California Natural Diversity Database, to determine sensitive biological resources that have been reported historically from the proposed project vicinity.~~

- ~~A review of current land use and land ownership within the project vicinity.~~
- ~~An assessment and mapping of vegetation communities present within the proposed project vicinity. If vegetation community mapping has not been conducted on the site in the previous 3 years, updated vegetation mapping shall be conducted by a qualified biologist as part of the project planning and environmental review process. Vegetation communities shall be mapped according to the Manual of California Vegetation at the alliance level and a crosswalk table with Holland vegetation communities shall be provided.~~
- ~~A general assessment of the potential for aquatic resources, including wetlands and riparian habitats, to occur onsite.~~
- ~~An evaluation of potential local and regional wildlife movement corridors.~~
- ~~If the project sites support vegetation communities that may provide habitat for plant or animal species, a focused habitat assessment conducted by a qualified biologist to determine the potential for sensitive plant or animal species to occur on or adjacent to the project sites.~~

~~The results of the biological survey shall be presented in a biological survey letter report.~~

6.3.1.2 Habitat Mitigation Requirements

Permanent Impacts

If a project site is identified as occupied or potentially occupied habitat for sensitive plant or animal species during preparation of the MSHCP Consistency Analysis Report (Mitigation Measure BIO-1), potential impacts shall be documented consistent with the MSHCP requirements, including project-level vegetation mapping, adherence to narrow endemic plant species protection policies, conservation easements for avoidance areas, and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures. ~~Implementation of Mitigation Measure BIO-2, a mitigation ratio of 0.5:1, would be applied to reduce potentially significant impacts to sensitive vegetation communities to less than significant. Mitigation Measure BIO-2 would reduce permanent impacts to non-native grassland to a less than significant level.~~

~~**BIO-2: Permanent Impacts to Non-Native Grassland.** Permanent impacts to sensitive non-native grassland shall be mitigated through the preservation of habitat, habitat creation, or enhancement, or combination thereof, in the City of Corona or off site through habitat acquisition and preservation or purchase of credits from an approved conservation bank. Mitigation for impacts to non-native grassland shall be in-kind using native grasses. Permanent impacts to sensitive non-native grassland shall be mitigated at a ratio of 0.5:1.~~

~~For on-site mitigation, a detailed Mitigation Plan shall be prepared before the start of construction (not applicable to mitigation met through the purchase of credits from an approved wetland mitigation bank). The Mitigation Plan shall include at a minimum the proposed location of the mitigation areas, site preparation, a plant palette, installation procedures, success criteria, fencing and signage, monitoring requirements, and other details of the habitat restoration effort and shall be prepared by a qualified biologist.~~

Temporary Impacts

If a project site is identified as occupied or potentially occupied habitat for sensitive plant or animal species during preparation of the Western Riverside County MSHCP Consistency Analysis Report (Mitigation Measure BIO-1), potential impacts shall be documented consistent with the MSHCP requirements, including project-level vegetation mapping, adherence to narrow endemic plant species protection policies, conservation easements for avoidance areas, and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures. ~~With implementation of Mitigation Measure BIO-3, temporary impacts to non-native grassland would be restored in place or elsewhere on the project site at a mitigation ratio of 1:1, as described in Mitigation Measure BIO-3. Mitigation Measure BIO-3 would reduce temporary impacts to non-native grassland to a less than significant level.~~

~~**BIO-3: Temporary Impacts to Non-Native Grassland.** Temporary impacts to non-native grassland shall be restored in place or elsewhere on the project site at a 1:1 replacement ratio using native grass species.~~

~~A Revegetation Plan shall be prepared. The Revegetation Plan shall include site preparation specifications, a plant palette, installation procedures, development of reasonable success criteria, appropriate monitoring and reporting protocols, implementation timelines, and contingency measures in the event of restoration failure. The City of Corona shall provide guidance for and oversight of the Revegetation Plan and implementation.~~

~~In the event that non-native grassland vegetation cannot be restored in place or elsewhere on the project site after construction, these impacts would be considered permanent, and Mitigation Measure BIO-2 would be implemented.~~

6.3.2 Sensitive Plant Species

6.3.2.1 Survey Requirements

Implementation of Mitigation Measure BIO-14, Multiple Species Habitat Conservation Plan Consistency Analysis Report, would ~~require~~ include identification of sensitive plant species and potential surveys for projects including ~~at~~ the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline ~~project sites~~. If sensitive plant species are identified on the project site during implementation of Mitigation Measure BIO-1, potential impacts shall be documented consistent with the MSHCP requirements, including conservation easements for avoidance areas and preparation of a Determination of Biological Equivalent or Superior Preservation Report for proposed mitigation measures.

~~**BIO-4: Sensitive Plant Species Surveys.** If one or more sensitive plant species has the potential to occur on the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, focused species surveys shall be conducted before construction to determine the presence and absence of these species to adequately evaluate potential direct or indirect impacts to these species.~~

~~Sensitive plant species surveys shall be conducted by a qualified biologist retained by the City of Corona during the appropriate season for to detect species as part of the project design phase. Surveys shall be floristic in nature and include lists of the plants identified in the survey area. Surveys shall be conducted on foot, employing a level of effort sufficient to provide comprehensive coverage. The locations and prevalence (estimated total numbers and percent cover, as applicable) of sensitive plants shall be recorded. The sensitive plant species surveys shall be valid for 3 years.~~

~~If site-specific surveys are not required because a survey was conducted within the last 3 years, impact assessment and minimization and mitigation requirements shall be based on the most recent available survey. These requirements shall also include an analysis of the potential for sensitive plant species to occur on site based on existing site conditions and shall be consistent with the most recent U.S. Fish and Wildlife Service and California Department of Fish and Wildlife survey protocols.~~

~~If sensitive plant species are observed, they shall be avoided if possible. If species cannot be avoided, impacts shall be mitigated through conservation of habitat that supports the impacted species in accordance with Mitigation Measures BIO-2 and BIO-3.~~

Construction

The following mitigation measures would minimize construction impacts to sensitive plant species, including the spread of invasive non-native plant species, during the implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects.

BIO-2~~5~~: **Invasive Plant Species Prevention.** During construction of the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects, the following measures shall be implemented to minimize the spread of invasive plant species:

- Construction equipment shall be cleaned before coming to the project sites.
- Weed-free straw wattles shall be used for erosion control.

BIO-3~~6~~: **Flagging and Fencing.** If sensitive biological resources are identified on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, the construction limits shall be clearly identified on construction drawings and flagged on the project site to ensure impacts to sensitive biological resources are avoided or minimized to the extent feasible. Before implementing construction activities, a qualified biologist shall verify that the flagging clearly delineates the construction limits and sensitive resources to be avoided.

BIO-4~~7~~: **Contractor Training Program.** If sensitive biological resources are known to occur on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a project-specific contractor training program shall be developed and implemented to educate project contractors on the sensitive biological resources on and adjacent to the project sites and measures being implemented to avoid or minimize impacts to these species. A qualified biologist shall develop and implement the contractor training program.

BIO-5~~8~~: **Biological Monitor.** If sensitive biological resources are present on or adjacent to the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites and impacts may occur from implementation of construction activities, a qualified biological monitor may be required during all or a portion of the construction activities to ensure impacts to the sensitive biological resources are avoided or minimized to the extent feasible. The specific biological monitoring requirements shall be evaluated on a project-by-project basis. The qualified biological monitor shall be approved by the City of Corona based on applicable experience with the sensitive biological resources that may be impacted.

6.3.3 Sensitive Animal Species

6.3.3.1 Burrowing Owl

Implementation of Mitigation Measure BIO-1~~9~~, Multiple Species Habitat Conservation Plan Consistency Analysis Report, would require burrowing owl habitat analysis and potential focused ~~clearance~~ surveys on the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites to reduce potential impacts to burrowing owl to less than significant. If burrowing owl is identified on the project site during implementation of Mitigation Measure BIO-1, potential impacts shall be documented consistent with the MSHCP requirements, including preparation of a Determination of Biological Equivalent or Superior Preservation Report to ensure that an appropriate mitigation strategy will be implemented, preparation of a Burrowing Owl Protection and Relocation Plan, and coordination with the Western Riverside County Regional Conservation Authority and CDFW prior to implementation of proposed mitigation measures.

~~**BIO-9:** **Burrowing Owl Surveys.** A burrowing owl clearance survey shall be conducted before any ground-disturbing activities in accordance with the California Department of Fish and Wildlife 2012 Staff Report on Burrowing Owl Mitigation. Two preconstruction clearance surveys shall be conducted 14-30 days and 24 hours before ground-disturbing activities to document the continued absence of burrowing owl from the project sites. The burrowing owl surveys shall be valid for 1 year.~~

6.3.3.2 Nesting Birds

Implementation of Mitigation Measure BIO-6~~10~~ would reduce potential impacts to nesting birds protected by the CFG Code and MBTA to less than significant.

BIO-6~~10~~: **Preconstruction Nesting Bird Surveys.** To the extent feasible, grubbing, trimming, or clearing of vegetation from project sites shall not occur during the general bird nesting season (January 15 through September 15). If grubbing, trimming, or clearing of vegetation cannot feasibly occur outside of the general bird nesting season, a qualified

biologist shall perform a preconstruction nesting bird survey at project sites with vegetation supporting nesting birds. Nesting bird surveys shall occur within ~~10~~7 days before the start of vegetation clearing or grubbing to determine if active bird nests are present. If no active bird nests are identified on the project sites or within a 300-foot buffer of the project sites, no further mitigation is necessary. If active nests of bird species covered by the Migratory Bird Treaty Act are detected on the project site during the ~~10~~7-day preconstruction survey, construction activities should stay outside of a 300-foot buffer around the active nest. For raptor species, this buffer is expanded to 500 feet. It is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged, and a qualified biologist has determined the nest is inactive, normal construction activities can occur.

6.3.3.3 Construction Lighting

Construction is expected is occur primarily during the daylight hours. However, if night work is needed near sensitive biological resources, implementation of Mitigation Measure BIO-7~~11~~ shall be implemented at the project sites to reduce potential nighttime lighting impacts to sensitive animal species to less than significant.

BIO-7~~11~~: Night Lighting. If temporary night lighting is necessary during construction adjacent to sensitive vegetation communities, construction contractors shall ensure lights are directed away from sensitive vegetation communities and shielded to minimize temporary lighting of the surrounding habitat and should be of the lowest illumination necessary for human safety.

6.3.4 Jurisdictional Aquatic Resources

In the event that state- or federally protected jurisdictional aquatic resources are identified during implementation of Mitigation Measure BIO-1, the Mitigation Measures BIO-8~~12~~ and BIO-9~~13~~ shall be implemented.

BIO-8~~12~~: Aquatic Resources Delineation. If sensitive aquatic resources are identified on the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline project sites, a qualified biologist shall conduct an aquatic resources delineation following the methods outlined in the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the U.S. Army Corps of Engineers Wetland Delineation Manual: Arid West Region to map the extent of wetlands and non-wetland waters, determine jurisdiction, and assess potential impacts. The results of the delineation shall be presented in an aquatic resources delineation report and shall be incorporated into

the California Environmental Quality Act documents required for approval and permitting of the proposed project. The Aquatic Resources Delineation Report shall be included as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1).

BIO-9~~13~~: Aquatic Resources Permitting and Multiple Species Habitat Conservation Plan Consistency. If the Western Riverside County Regional Wastewater Authority Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would impact sensitive aquatic resources, permits and authorizations shall be obtained from the U.S. Army Corps Engineers, California Department of Fish and Wildlife, or Regional Water Quality Control Board. The regulatory agency authorizations would include impact avoidance and minimization measures and mitigation measures for unavoidable impacts. Specific avoidance, minimization, and mitigation measures for impacts to jurisdictional resources shall be determined through discussions with the regulatory agencies during the proposed project permitting process and may include monetary contributions to a mitigation bank or habitat creation, restoration, or enhancement.

In addition, consistent with the Western Riverside Multiple Species Habitat Conservation Plan and as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1), a Determination of Biologically Equivalent or Superior Preservation Report shall be prepared to identify mitigation that demonstrates equivalent or superior function and value, including re-establishment, establishment, and/or permanent conservation of aquatic resources, as feasible. The Determination of Biologically Equivalent or Superior Preservation shall be included as a component of the Multiple Species Habitat Conservation Plan Consistency Analysis Report (Mitigation Measure BIO-1).

6.4 Level of Significance After Mitigation

Project implementation would result in potentially significant direct and indirect impacts to sensitive vegetation communities, sensitive plant and animal species, nesting birds, and jurisdictional aquatic resources.

With implementation of Mitigation Measure~~s~~ BIO-1 ~~through BIO-3~~, impacts to the sensitive habitat ~~vegetation community~~, non-native grassland, from implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would be reduced to a less than significant level.

With implementation of Mitigation Measures BIO-1~~2~~ through BIO-5~~8~~, impacts to sensitive plant species identified as candidate, sensitive, or special-status species by the CDFW or USFWS from

implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would be reduced to a less than significant level.

With implementation of Mitigation Measures BIO-1~~9~~ through BIO-7~~11~~, direct and indirect impacts to sensitive animal species identified as candidate, sensitive, or special-status species by the CDFW or USFWS from implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would be reduced to a less than significant level.

With implementation of Mitigation Measures BIO-1, BIO-8~~12~~, and BIO-9~~13~~, impacts to state or federally protected aquatic resources through direct removal, filling, hydrological interruption, or other means from implementation of the WRCRWA Flow Control Improvements, Promenade Pipeline, and Research Pipeline projects would be reduced to a less than significant level.

With implementation of Mitigation Measures BIO-1 through BIO-9~~13~~, impacts from conflicts with the Western Riverside County MSHCP or other regional conservation plans would be less than significant.

With implementation of Mitigation Measures BIO-1 through BIO-9~~13~~, direct and indirect impacts to sensitive biological resources from implementation of the projects would be less than significant.

This page intentionally left blank.

Section 7 Cumulative Impacts and Mitigation

The cumulative impact analysis for biological resources considers RWMP 2018 project development in conjunction with other development projects in the water service area as well as projects covered by the Western Riverside County MSHCP.

7.1 Riparian Habitat or Other Sensitive Natural Community

The geographic context for the analysis of cumulative impacts to riparian habitat or other sensitive natural communities is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for impacts to riparian habitat and sensitive vegetation communities, as appropriate. The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements. As analyzed in Section 6.3.1, potentially significant project-level impacts to non-native grassland habitat would be reduced to a less than significant level with implementation of Mitigation Measure~~s~~ BIO-1~~ through BIO-3~~. Therefore, the project's contribution would not be cumulatively considerable.

7.2 Sensitive Plant Species

The geographic context for the analysis of cumulative impacts to sensitive plant species is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would result in a substantial adverse impact on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS. All projects, including the 2018 RWMP, approved in the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for impacts to sensitive plant species, as appropriate. As analyzed in Section 6.3.2, potentially significant project-level impacts to sensitive plant species would be reduced to a less than significant level with implementation of Mitigation Measures BIO-1~~2~~ through BIO-5~~8~~. Since cumulative projects and the 2018 RWMP would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements, and project-specific mitigation measures would be implemented to reduce the project's impacts to sensitive plant species to below a level of significance, the project's contribution would not be cumulatively considerable.

7.3 Sensitive Animal Species

The geographic context for the analysis of cumulative impacts to sensitive animal species is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would result in a substantial adverse impact on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW or USFWS. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for impacts to sensitive animal species, as appropriate. The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements. As analyzed in Section 6.3.3, potentially significant project-level impacts to burrowing owl and nesting birds would be reduced to a less than significant level with implementation of Mitigation Measures BIO-1~~9~~ through BIO-7~~11~~. Therefore, the project's contribution would not be cumulatively considerable.

7.4 Jurisdictional Aquatic Resources

The geographic context for the analysis of cumulative impacts to jurisdictional aquatic resources is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would have a substantial adverse impact on a state or federally protected wetland through direct removal, filling, hydrological interruption, or other means. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b) and the Western Riverside County MSHCP and to provide mitigation for impacts to jurisdictional aquatic resources, as appropriate. The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements, and implement project-specific mitigation measures to reduce significant impacts. As analyzed in Section 6.3.4, potentially significant project-level impacts to jurisdictional aquatic resources would be reduced to a less than significant level with implementation of Mitigation Measures BIO-1, BIO-8~~12~~, and BIO-9~~13~~. Therefore, the project's contribution would not be cumulatively considerable.

7.5 Wildlife Corridors and Linkages

The geographic context for the analysis of cumulative impacts to wildlife corridors and linkages is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would interfere substantially with the movement of any native resident or migratory fish or animal species or with established native resident or migratory wildlife corridors, or impede the use of native animal nursery sites. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be

consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b), the Western Riverside County MSHCP and to provide mitigation for impacts to wildlife corridors and linkages, as appropriate. The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed the Western Riverside County MSHCP regional conservation requirements and implement project-specific mitigation measures to reduce significant impacts. As analyzed in Section 6.1.5, the project would have a less than significant impact to wildlife corridors and linkages, and no mitigation is required. Therefore, the project's contribution would not be cumulatively considerable.

7.6 Local Policies and Ordinances

The geographic context for the analysis of cumulative impacts to local policies and ordinances is the City. A significant cumulative impact would occur if, in combination, cumulative projects would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. All projects, including the 2018 RWMP, approved within the City's jurisdiction are required to be consistent with the City of Corona 2020–2040 General Plan natural resources goals and policies (City of Corona 2020b), and the Western Riverside County MSHCP and to provide mitigation for conflicts with local policies and ordinances, as appropriate. As analyzed in Section 6.1.6, with implementation of Mitigation Measures BIO-1 through BIO-9~~13~~, the 2018 RWMP would have a less than significant impact from conflicts with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance. Therefore, the project's contribution would not be cumulatively considerable.

7.7 Regional Conservation Planning

The geographic context for the analysis of cumulative impacts to regional conservation planning is the area covered by the Western Riverside County MSHCP. A significant cumulative impact would occur if, in combination, cumulative projects would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state HCP.

In 1991, the State of California passed the NCCP Act, providing for the long-term, regional conservation of natural vegetation and animal diversity. The biological conservation offered by the Western Riverside County MSHCP provides sufficient habitat area, diversity, and linkages to allow the participating local jurisdictions to directly impact or "take" up to 146 sensitive plant and animal species in the region. These "covered species" identified in the MSHCP consist of species listed as endangered or threatened by the federal or state Endangered Species Acts and other regional rare but currently unlisted sensitive species.

The 2018 RWMP, as with other cumulative projects, would be required to meet or exceed Western Riverside County MSHCP regional conservation requirements and provide mitigation for

significant impacts, as appropriate. Consistency with regional conservation plans and mitigation measures, as appropriate, must be demonstrated in order for the project and other cumulative projects to be approved. Mitigation Measures BIO-1 through BIO-9~~13~~ would reduce project-level direct and indirect impacts on sensitive plants and animals, nesting birds, sensitive vegetation communities, and jurisdictional aquatic resources. Implementation of these mitigation measures would reduce project-level impacts and ensure the project would not contribute to cumulatively significant impacts from conflicts with regional conservation planning. The project would comply with the Western Riverside County MSHCP and would not contribute to loss of sensitive vegetation communities or sensitive species. Therefore, the project's contribution would not be cumulatively considerable.

Section 8 References

33 CFR 328.3(b). "Definitions." In Title 33, Navigation and Navigable Waters; Chapter II, Corps of Engineers, Department of the Army, Department of Defense; Part 328, Definition of Waters of the United States.

40 CFR 230.3(t). "Definitions." In Title 40, Protection of Environment; Chapter I, Environmental Protection Agency; Subchapter H, Ocean Dumping; Part 230, Section 404(B)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material; Subpart A, General.

American Ornithological Society. 2019. Sixtieth Supplement to the American Ornithological Society's Check-List of North American Birds. The Auk 136 (3):1–23. July 1. Accessed July 2020. https://doi.org/10.1093/auk/ukz042.

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, eds. 2012. The Jepson Manual: Vascular Plants of California. 2nd ed. Berkeley, California: University of California Press. January.

Bowler, P.A. 1990. "Riparian Woodland: An Endangered Habitat in Southern California." In Endangered Plant Communities of Southern California, edited by A.A. Schoenherr. Southern California Botanists Special Publication No. 3: 80–97.

Bowman, R. 1973. Soil Survey of the San Diego Area. December.

Bradley, R.D., L.K. Ammerman, R.J. Baker, L.C. Bradley, J.A. Cook, R.D. Dowler, C. Jones, D.J. Schmidly, F.B. Stangi, R.A.Van De Bussche, and B. Wursig. 2014. Revised Checklist of North American Mammals North of Mexico. Texas Tech University Natural Science Research Laboratory. October.

Calflora. 2020. "Information on Wild California Plants." Accessed July 2020. http://www.calflora.org/.

California Fish and Game Code, Section 2080. In Division 3, Fish and Game Generally; Chapter 1.5, Endangered Species; Article 3, Taking, Importation, Exportation, or Sale.

California Water Code, Section 13050[e]. In Division 7, Water Quality; Chapter 2, Definitions.

CaliforniaHerps.com. 2020. California Herps: A Guide to the Amphibians and Reptiles of California. Accessed July 2020. https://CaliforniaHerps.com.

CDFG (California Department of Fish and Game) and California Resources Agency. 1993. Southern California Coastal Sage Scrub Natural Community Conservation Planning Process Guidelines. November.

CDFW (California Department of Fish and Wildlife). 2014. Guidance Document for Fine-Scale Wildlife Connectivity Analysis. Prepared by Crystal Krause and Melanie Gogol-Prokurat. California Department of Fish and Wildlife, Biogeographic Data Branch, Conservation Analysis Unit. December.

CDFW. 2020a. Database Query for the City of Corona, California. California Natural Diversity Database (CNDDB). Commercial Version dated March 1. Wildlife and Habitat Data Analysis Branch.

CDFW. 2020b. Special Animals Including California Species of Special Concern. Resource Management and Planning Division, Biogeographic Data Branch. August 2020.

CDFW. 2020c. Special Vascular Plants, Bryophytes, and Lichens List. California Natural Diversity Database (CNDDB). January.

City of Corona. 2016. Proposition 1 – Reclaimed Water Distribution System Initial Study/Mitigated Negative Declaration. Department of Power and Water.

City of Corona. 2018. City of Corona General Plan Biological Resources Report.

City of Corona. 2020a. City of Corona General Plan Technical Update: Final Environmental Impact Report.

City of Corona. 2020b. City of Corona 2020–2040 General Plan. Adopted June 3.

CNPS (California Native Plant Society). 2020. Inventory of Rare and Endangered Plants of California. Online edition, v8-03 0.39. Accessed July 2020. http:www.rareplants.cnps.org/.

Cornell Lab of Ornithology. 2020a. eBird database. Accessed July 2020. https://ebird.org/home.

Cornell Lab of Ornithology. 2020b. All about Birds. Accessed July 2020. https://www.birds.cornell.edu/home/.

County of Riverside. 1993. Riverside County Oak Tree Management Guidelines. Approved March 2. Accessed July 2020. https://planning.rctlma.org/Portals/14/devproc/guidelines/oak_trees/oak_trees.html.

County of Riverside. 2003. Western Riverside County Multiple Species Habitat Conservation Plan. Transportation and Land Management Agency. Accessed July 2020. http://www.wrc-rca.org/about-rca/multiple-species-habitat-conservation-plan/.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1992. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Department of the Interior – Fish and Wildlife Service. December 1979. Reprinted 1992.

Holland, Robert F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Game. October.

iNaturalist. 2020. iNaturalist database. California Academy of Science and National Geographic Society. Accessed July 2020. https://www.inaturalist.org/.

Jepson Flora Project. 2014. "The Jepson Online Interchange for California Floristics." Updated July 1. Accessed July 2020. http://ucjeps.berkeley.edu/interchange/.

San Diego Natural History Museum. 2020a. Checklist of Butterflies of San Diego County. Accessed July 2020. https://www.sdnhm.org/science/entomology/projects/checklist-of-butterflies-of-san-diego-county/.

San Diego Natural History Museum. 2020b. Entomology Resources. Accessed July 2020. https://www.sdnhm.org/science/entomology/resources/.

Sawyer, J.O., T. Keeler-Wolf, and J. Evens. 2009. A Manual of California Vegetation. 2nd edition. Sacramento, California: California Native Plant Society.

USACE (U.S. Army Corps of Engineers). 1987. Corps of Engineers Wetlands Delineation Manual. Final. Wetlands Research Program Technical Report Y-87-1. Online edition. Prepared by Environmental Laboratory, U.S. Army Corps of Engineers, Waterways Experiment Station. Wetlands Research Program. January. Accessed July 2020. http://www.cpe.rutgers.edu/Wetlands/1987-Army-Corps-Wetlands-Delineation-Manual.pdf

USDA (U.S. Department of Agriculture). 1971. Soil Survey of the Western Riverside Area. Prepared by USDA in cooperation with the Under Secretary of Defense for Intelligence, Agricultural Experiment Station, and Bureau of Indian Affairs. November.

USDA. 2020. Web Soil Survey. Natural Resources Conservation Service, Soil Survey Staff. March 26. Accessed July 2020. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

USFWS (U.S. Fish and Wildlife Service). 2020a. Information for Planning and Consultation database. Accessed July 2020. https://ecos.fws.gov/ipac/.

USFWS. 2020b. National Wetlands Inventory: Wetlands Mapper. Accessed July 2020. https://www.fws.gov/wetlands/data/Mapper.html.

USFWS. 2020c. "USFWS Threatened & Endangered Species Active Critical Habitat Report." Environmental Conservation Online System (ECOS). Accessed July 2020. https://ecos.fws.gov/ecp/report/table/critical-habitat.html.

WRCRWA (Western Riverside County Regional Wastewater Authority). 2010. Western Riverside County Regional Wastewater Treatment Plant Enhancement and Expansion Project Environmental Impact Report. August.

This page intentionally left blank.

Appendix A. Animal Species Observed

This page intentionally left blank.

Animal Species Observed in the Water Service Area

Family	Common Name	Scientific Name
Birds		
Accipitriformes (Hawks, Kites, Eagles, and Allies)		
Accipitridae Hawks, Eagles, Kites, and Allies	Red-tailed hawk	*Buteo jamaicensis*
Cathartidae New World Vultures	Turkey vulture[1]	*Cathartes aura*
Anseriformes (Ducks, Geese, and Swans)		
Anatidae Ducks, Geese, and Swans	Mallard	*Anas platyrhynchos*
Falconiformes (Falcons)		
Falconidae Falcons	American kestrel	*Falco sparverius*
Caprimulgiformes (Nightjars)		
Apodidae Swifts	White-throated swift	*Aeronautes saxatalis*
Trochilidae Hummingbirds	Anna's hummingbird	*Calypte anna*
	Allen's hummingbird	*Selasphorus sasin*
Passeriformes (Perching Birds)		
Aegithalidae Bushtits	Bushtit	*Psaltriparus minimus*
Alaudidae Larks	California horned lark[2]	*Eremophila alpestris actia*
Cardinalidae Cardinals	Black-headed grosbeak	*Passerina melanocephalus*
Columbiformidae Doves	Mourning dove	*Zenaida macroura*
	Rock pigeon[3]	*Columba livia*
Corvidae Jays, Magpies, and Crows	American crow	*Corvus brachyrhynchos*
Fringillidae Finches	House finch	*Haemorhous mexicanus*
	Lawrence's goldfinch	*Spinus lawrencei*
	Lesser goldfinch	*Spinus psaltria*
Icteridae Orioles	Bullock's oriole	*Icterus bullockii*
	Hooded oriole	*Icterus cucullatus*
	Yellow-breasted chat[1,4]	*Icteria virens*
	Western meadowlark	*Sturnella neglecta*
Mimidae Mockingbirds	Northern mockingbird	*Mimus polyglottos*

Animal Species Observed in the Water Service Area

Family	Common Name	Scientific Name
Passerellidae Passerines	California towhee	*Melozone crissalis*
	Song sparrow	*Melospiza melodia*
	Spotted towhee	*Pipilo maculatus*
	White-crowned sparrow	*Zonotrichia leucophrys*
Parulidae Wood Warblers	Yellow-rumped warbler	*Setophaga coronata*
Turdidae Songbirds	Western bluebird	*Sialia mexicana*
Sturnidae Starlings	European starling[3]	*Sturnus vulgaris*
Sylviidae Sylviid Warblers	Wrentit	*Chamaea fasciata*
Troglodytidae Wrens	Bewick's wren	*Thryomanes bewickii*
	House wren	*Troglodytes aedon*
Tyrannidae Tyrant Flycatchers	Ash-throated flycatcher	*Myiarchus cinerascens*
	Black phoebe	*Sayornis nigricans*
	Cassin's kingbird	*Tyrannus vociferans*
	Say's phoebe	*Sayornis saya*
Hirundinidae Swallows, Martins, and Saw-Wings	Northern rough-winged swallow	*Stelgidopteryx serripennis*
Vireonidae Vireos	Least Bell's vireo[1, 4,4]	*Vireo bellii pusillus*
Galliformes (Fowls)		
Odontophoridae New World Quails	California quail	*Callipepla californica*
Piciformes (Woodpeckers)		
Picidae Woodpeckers	Acorn woodpecker	*Melanerpes formicivorus*
	Nuttall's woodpecker	*Dryobates nuttallii*
Mammals		
Artiodactyla (Cloven-hoofed Mammals)		
Cervidae Deer and Elk	Mule deer	*Odocoileus hemionus*
Carnivora (Carnivores)		
Canidae Foxes, Wolves, and Relatives	Coyote[1]	*Canis latrans*
Rodentia (Rodents)		
Sciuridae Squirrels, Chipmunks, and Marmots	California ground squirrel	*Spermophilus beecheyi*

Animal Species Observed in the Water Service Area

Family	Common Name	Scientific Name
Lagomorpha (Rabbits, Hares, and Pika)		
Leporidae Rabbits and Hares	Desert cottontail rabbit	*Sylvilagus audubonii*
Invertebrates		
Lepidoptera (Butterflies)		
Nymphalidae Brush-Footed Butterflies	Painted lady	*Vanessa cardui*
	Lorquin's admiral	*Limenitis lorquini*
Reptiles		
Squamata (Lizards and Snakes)		
Iguanidae American Arboreal Lizards, Chuckwallas, and Iguanas	Western fence lizard	*Sceloporus occidentalis*
Phrynosomatidae North American Spiny Lizards	Western side-blotched lizard	*Uta stansburiana elegans*

Notes:

[1] Western Riverside County Multiple Species Habitat Conservation Plan

[2] California Department of Fish and Wildlife Watch List species

[3] Non-native

[4] California Department of Fish and Wildlife Species of Special Concern

This page intentionally left blank.

Cultural and Tribal Cultural Resources Technical Report for the City of Corona 2018 Reclaimed Water Master Plan, Corona, California

Submitted to:

City of Corona
Public Works Department

Prepared for:

Kristin Blackson
Harris & Associates
600 B Street, Suite 2000
San Diego, CA 92101

Prepared by:

Shelby Gunderman Castells, M.A., RPA
Director of Archaeology
Spencer Bietz
Senior Archaeologist
Red Tail Environmental
1529 Simpson Way
Escondido, CA 92029
(760) 294-3100

~~June 2020~~March 2021

TABLE OF CONTENTS

CHAPTER **PAGE**

NATIONAL ARCHAEOLOGICAL DATABASE INFORMATION ..... iviv~~ii~~

ACRONYMS AND ABBREVIATIONS vviii

EXECUTIVE SUMMARY viviiv

1. INTRODUCTION 1

1.1 PURPOSE OF STUDY 1
1.2 REGULATORY FRAMEWORK 1
1.2.1 CEQA and California Register of Historical Resources 1
1.2.2 California State Assembly Bill 52 ..... 2~~2~~
1.2.3 California State Senate Bill 18 ..... 2~~2~~
1.2.4 California Public Resource Code Section 5097.98 ..... 2~~2~~
1.2.5 California Health and Safety Code Section 7050.5 ..... 4~~4~~
1.2.6 Corona Historic Resources Ordinance ..... 4~~4~~
1.2.7 Corona Register of Historic Resources (Corona Register) ..... 5~~5~~
1.2.8 Corona Heritage Inventory ..... 6~~6~~
1.3 PROJECT DESCRIPTION ..... 7~~7~~
1.3.1 Project Purpose ..... 7~~7~~
1.3.2 Project Objectives ..... 7~~7~~
1.3.3 Project Components ..... 7~~7~~
1.4 PROJECT LOCATION ..... 7~~7~~
1.4.1 Regional Location ..... 7~~7~~
1.4.2 Water Service Area ..... 8~~8~~
1.5 PROJECT PERSONNEL ..... 8~~8~~

2. SETTING ..... 19~~19~~

2.1 NATURAL SETTING ..... 19~~19~~
2.2 CULTURAL SETTING ..... 20~~20~~
2.2.1 Prehistoric Period ..... 20~~20~~
2.2.2 Ethnohistoric Period ..... 25~~25~~
2.2.3 Historic Period ..... 30~~30~~

3. METHODS ..... 34~~34~~

3.1 RECORD SEARCHES ..... 34~~34~~
3.1.1 Eastern Information Center ..... 34~~34~~
3.1.2 Native American Heritage Commission ..... 34~~34~~
3.2 ARCHIVAL RESEARCH ..... 34~~34~~
3.3 TRIBAL CULTURAL RESOURCES ..... 34~~34~~

4. RESULTS ..... 37~~37~~

4.1 RECORD SEARCH RESULTS ..... 37~~37~~
4.1.1 EIC Record Search Results ..... 37~~37~~
4.1.2 NAHC Record Search Results ..... 56~~56~~
4.2 ARCHIVAL RESEARCH RESULTS ..... 57~~57~~
4.3 TRIBAL CULTURAL RESOURCES RESULTS ..... 57~~57~~

5. CULTURAL RESOURCE SENSITIVITY ANALYSIS 5959

6. RESOURCE IMPACT ANALYSIS 6262

6.1 SIGNIFICANCE CRITERIA 6262
6.2 BUILT ENVIRONMENT RESOURCES IMPACT ANALYSIS 6262
6.3 ARCHAEOLOGICAL RESOURCES IMPACT ANALYSIS 6363
6.4 TRIBAL CULTURAL RESOURCES IMPACT ANALYSIS 6464

7. RECOMMENDATIONS 6666

7.1 RESOURCE MANAGEMENT 6666
7.2 MITIGATION MEASURES 6666
7.2.1 Mitigation Measure CULT-1: Construction Related Vibration 6666
7.2.2 Mitigation Measure CULT-2: Project Specific Archaeological Survey 6767
7.2.3 Mitigation Measure CULT-3: Archaeological and Native American Monitoring Program 6767
7.2.4 Mitigation Measure CULT-4: Identification and Treatment of Human Remains 706968

8. REFERENCES 727169

APPENDICES 797775

APPENDIX A: RESUMES 817977
APPENDIX B: NAHC CORRESPONDENCE 838179
APPENDIX C: CONFIDENTIAL MAPS, CULTURAL RESOURCE LOCATIONS (provided separately) 848280

LIST OF TABLES

Page

Table 1. Previously Conducted Cultural Resources Studies within the City of Corona and the SOI 3737
Table 2. Previously Recorded Cultural Resources within the RWMP Project Area 4646
Table 3. Built Environment Resources within the RWMP Project Area. 5050
Table 4. City of Corona Historic Districts and Historic Landmarks 5353
Table 5. City of Corona Historic Markers 5555
Table 6. Impact Analysis and Recommended Mitigation Measure for RWMP Project Components 6363

LIST OF FIGURES

Page

Figure 1. Project Vicinity Map. 99
Figure 2. Project Area shown on an aerial photograph. 1010
Figure 3. Project area shown on the USGS 7.5' Topographic Quadrangle (Map 1 of 7). 1111
Figure 4. Project area shown on the USGS 7.5' Topographic Quadrangle (Map 2 of 7). 1212
Figure 5. Project area shown on the USGS 7.5' Topographic Quadrangle (Map 3 of 7). 1313
Figure 6. Project area shown on the USGS 7.5' Topographic Quadrangle (Map 4 of 7). 1414
Figure 7. Project area shown on the USGS 7.5' Topographic Quadrangle (Map 5 of 7). 1515

Figure 8. Project area shown on the USGS 7.5' Topographic Quadrangle (Map 6 of 7). ..... 16~~16~~
Figure 9. Project area shown on the USGS 7.5' Topographic Quadrangle (Map 7 of 7). ..... 17~~17~~
Figure 10. Record Search Area for the RWMP Project and the City of Corona General Plan Update Project. ..... 35~~35~~
Figure 11. Cultural Resource Sensitivity within the RWMP Project Area. ..... 61~~61~~

NATIONAL ARCHAEOLOGICAL DATABASE INFORMATION

Authors: Shelby Castells, M.A., RPA, and Spencer Bietz

Firm: Red Tail Environmental

Client: Harris and Associates

Submitted to: City of Corona

Report Date: ~~J~~March 2021~~une 2020~~

Report Title: Cultural and Tribal Cultural Resources Technical Report for the City of Corona 2018 Reclaimed Water Master Plan, Corona, California

Type of Study: Record Search Summary and Constraints and Resources Sensitivity Analysis

New Sites: N/A

Updated Sites: N/A

USGS Quads: Prado Dam, Corona North, Black Star Canyon, Corona South, Corona, and Lake Mathews 7.5' Quadrangles

Acreage: Approximately 24,930 acres (39 square miles)

Key Words: City of Corona Reclaimed Water Master Plan, Constraints Analyses, prehistoric archaeology, historic archaeology

ACRONYMS AND ABBREVIATIONS

AB 52	California State Assembly Bill 42
AMSL	above mean sea level
APE	Area of Potential Effects
CEQA	California Environmental Quality Act
CHRIS	California Historical Resources Information System
City	City of Corona
Corona Register	Corona Register of Historic Resources
CRHR	California Register of Historical Resources
EIC	Eastern Information Center
PEIR	Program Environmental Impact Report
NAHC	Native American Heritage Commission
OHP	Office of Historic Preservation
OPR	Office of Planning and Research
PRC	Public Resources Code
Red Tail	Red Tail Environmental
RWMP	City of Corona 2018 Reclaimed Water Master Plan
SB 18	California State Senate Bill 18
USGS	U.S. Geological Survey

EXECUTIVE SUMMARY

Red Tail Environmental (Red Tail) was contracted by Harris and Associates to conduct a cultural resources and Tribal Cultural Resources study in support of the Program Environmental Impact Report (PEIR) in order to evaluate if the City of Corona 2018 Reclaimed Water Master Plan (RWMP) Project will cause an adverse effect on significant historical resources or Tribal Cultural Resources; to identify areas which may be sensitive for cultural resources; make recommendations for program-wide mitigation measures for future specific projects within the RWMP project area; and make recommendations for future archaeological work that may be required in compliance with the California Environmental Quality Act (CEQA) and the Corona Historic Resources Ordinance—Chapter 17.63 of the Corona Municipal Code. The City of Corona 2018 Reclaimed Water Master Plan Project is located within the City of Corona Water Service area, which includes the City of Corona's jurisdictional boundary and portions of the unincorporated communities of El Cerrito and Coronita and Tesmescal Canyon. The City of Corona is the lead agency.

The following cultural resources constraints analysis and sensitivity study includes a review of relevant site records and reports on file with the Eastern Information Center (EIC) of the California Historical Resources Information System (CHRIS), a review of the Sacred Lands File (SLF) held by the Native American Heritage Commission (NAHC), Native American outreach, and archival research.

The record search of the CHRIS held at the EIC, is currently not available as the EIC is temporarily closed due to COVID-19, therefore the record search results provided for the *City of Corona General Plan Update: Cultural Resources Technical Report* (SWCA 2018) were utilized, as this report area largely overlaps with the City of Corona Water Service area. Only the northwest section of the City of Corona Water Service area is not included in the 2018 record search, no Project Components are located within this area, and this information can be added to subsequent draft of the report, if it becomes available. The record search identified 172 previously conducted cultural resources studies that have been conducted within the City of Corona Water Service area. The record search identified that 96 cultural resources have been previously recorded within the City of Corona water service area. Of these resources, 28 are prehistoric archaeological sites, 66 are historic archaeological sites, and two are multicomponent resources. Thirty previously recorded built environment resources have been identified within the City or Corona water service area. Thirteen of the previously recorded cultural resources are located within 100 feet of Project Component and an additional three previously recorded resources are intersected by a Project Component.

A search of the SLF held by the NAHC was positive, indicating that sacred lands have been identified within the RWMP project area. The NAHC provided a list of 37 tribal organizations and individuals to contact for additional information. Red Tail sent information request letters to the 37 tribal organizations and individuals. To date, three responses have been received.

In order to assess the cultural resources sensitivity of the RWMP project area Red Tail combined the results of the record searches, environmental factors, impacts of modern development and archival research to identify areas of the RWMP as high, medium, and low for cultural resources sensitivity. Due to the identification of numerous cultural resources, the geographic features of the project area being located within an alluvial area and bisected by the Santa Ana River and multiple drainages, and development of portions of the project area prior to the start of environmental laws which required archaeological studies in the mid-1970s, much of the City of Corona Water Service area was identified as moderate to high sensitivity for cultural resources, which could include prehistoric and/or historic archaeological resources. Areas with steep slopes on the western side of the project area and a disturbed mining area located on the eastern edge of the project area was identified as having a low sensitivity for cultural resources.

Prior to any future projects within the RWMP that could directly affect cultural resources, steps should be taken to determine the presence of cultural resources and the appropriate mitigation for any significant resources that may be impacted. CEQA requires that before approving discretionary projects the Lead Agency must identify and examine the significant adverse environmental impacts which may result from that project. A project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment (Sections 15064.5(b) and 21084). A substantial adverse change is defined as demolition, destruction, relocation, or alteration activities which would impair historical significance (Sections 15064.5(b)(1) and 5020.1). Any historical resource listed in or eligible to be listed in the California Register of Historical Resources and/or the Corona Register of Historic Resources, is considered to be historically or culturally significant. Resources which are listed in a local historic register or deemed significant in a historical resource survey as provided under Section 5024.1(g) are presumed historically or culturally significant unless "the preponderance of evidence" demonstrates they are not. Finally, a resource that is not listed in, or determined to be eligible for listing in, the California Register of Historic Resources, not included in a local register of historic resources, or not deemed significant in a historical resource survey may nonetheless be historically significant, pursuant to Section 21084.1.

The report includes an impact analysis to identify if implementation of the RWMP will adversely impact cultural and/or Tribal Cultural Resources. Construction of the Project Components of the RWMP could result in temporary vibration-related effects, which could potentially be significant, in the immediate vicinity of the construction of a built environment historical resource. Development in accordance with the proposed project could adversely impact known or previously unrecorded cultural resources that may be eligible to the CRHR or Corona Register and/or Tribal Cultural Resources. In addition, there is a potential to identify unexpected human remains during implementation of the RWMP. Four mitigation measures are recommended to mitigate potential adverse effects. The recommended mitigation measures include: construction related vibration; project specific archaeological surveys; the creation of an archaeological and Native American monitoring program; and the identification and treatment of Human Remains.

1. INTRODUCTION

1.1 PURPOSE OF STUDY

Red Tail Environmental (Red Tail) was contracted by Harris and Associates to conduct a cultural resources and Tribal Cultural Resources study in support of the Program Environmental Impact Report (PEIR) in order to evaluate if the City of Corona 2018 Reclaimed Water Master Plan Project (RWMP project) will cause adverse effects on significant historical resources or Tribal Cultural Resources, to identify areas which may be sensitive for cultural resources; makes recommendations for program-wide mitigation measures for future specific projects within the RWMP project area, and recommendations for future archaeological work that may be required in compliance with the California Environmental Quality Act (CEQA) and/or the Corona Historic Resources Ordinance—Chapter 17.63 of the Corona Municipal Code. The City of Corona (City) is the lead agency for the RWMP Project and the PEIR.

1.2 REGULATORY FRAMEWORK

1.2.1 CEQA and California Register of Historical Resources

CEQA requires that all private and public activities not specifically exempted be evaluated against the potential for environmental damage, including effects to historical resources. Historical resources are recognized as part of the environment under CEQA. The act defines historical resources as "any object, building, structure, site, area, or place that is historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (Division I, Public Resources Code, Section 5021.1[b]).

Lead agencies have a responsibility to evaluate historical resources against the California Register of Historical Resources (CRHR) criteria prior to making a finding as to a proposed project's impacts to historical resources. Mitigation of adverse impacts is required if the proposed project will cause substantial adverse change. Substantial adverse change includes demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired. While demolition and destruction are fairly obvious significant impacts, it is more difficult to assess when change, alteration, or relocation crosses the threshold of substantial adverse change. The CEQA Guidelines provide that a project that demolishes or alters those physical characteristics of a historical resource that convey its historical significance (i.e., its character-defining features) is considered to materially impair the resource's significance. The CRHR is used in the consideration of historical resources relative to significance for purposes of CEQA. The CRHR includes resources listed in, or formally determined eligible for listing in, the NRHP and some California State Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts), or that have been identified in a local historical resources inventory, may be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise.

Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the CRHR (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852), which consist of the following:

- Criteria 1: it is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
- Criteria 2: it is associated with the lives of persons important to local, California, or national history; or

- Criteria 3: it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
- Criteria 4: it has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

1.2.2 California State Assembly Bill 52

California State Assembly Bill No. 52 (AB 52) amends CEQA by creating a new category of cultural resources, Tribal Cultural Resources, and new requirements for consultation with Native American Tribes. AB 52 came into effect July 1, 2015. Lead agencies are required to offer Native American tribes with an interest in tribal cultural resources located within its jurisdiction the opportunity to consult on CEQA documents. The procedures under AB 52 offer the tribes an opportunity to take an active role in the CEQA process in order to protect tribal cultural resources. If the tribe requests consultation within 30 days upon receipt of the notice, the lead agency must consult with the tribe.

A Tribal Cultural Resource is defined as a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and may be considered significant if it is (1) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources; or (2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1.

1.2.3 California State Senate Bill 18

California State Senate Bill 18 (SB 18) requires local city and county governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places ("cultural places") through local land use planning. SB 18 also requires the Governor's Office of Planning and Research (OPR) to include in the General Plan Guidelines advice to local governments for how to conduct these consultations.

The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level land use decisions are made by a local government.

SB 18 refers to Public Resources Code §5097.9 and 5097.995 to define cultural places:

> Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine (Public Resources Code §5097.9).
>
> Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register of Historic Resources pursuant to Section 5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site (Public Resources Code §5097.995)

1.2.4 California Public Resource Code Section 5097.98

In the fall of 2006, AB 2641 was signed into law by Governor Schwarzenegger. This bill amended PRC 5097.98 to revise the process for the discovery of Native American remains during land development. The purposes of the revisions are to encourage culturally sensitive treatment of Native American remains and

to require meaningful discussions and agreements concerning treatment of the remains at the earliest possible time. The intent is to foster the preservation and avoidance of human remains during development. The law now requires that the following process be followed if human remains are discovered.

A. Whenever the Native American Heritage Commission receives notification of a discovery of Native American human remains from a county coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The descendants shall complete their inspection and make their recommendation within 48 hours of their notification by the Native American Heritage Commission. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials.
B. Upon the discovery of the Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section, with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.
    1. The descendant’s preferences for treatment may include the following:
        a. The nondestructive removal and analysis of human remains and items associated with Native American human remains.
        b. Preservation of Native American human remains and associated items in place.
        c. Relinquishment of Native American human remains and associated items to the descendants for treatment.
        d. Other culturally appropriate treatment.
    2. The parties may also mutually agree to extend discussions, taking into account the possibility that additional or multiple Native American human remains, as defined in this section, are located in the project area providing a basis for additional treatment measures.
C. For the purposes of this section, "conferral" or "discuss and confer" means the meaningful and timely discussion and careful consideration of the views of each party, in a manner that is cognizant of all parties' cultural values, and where feasible, seeking agreement. Each party shall recognize the other's needs and concerns for confidentiality of information provided to the other.
D. 1. Human remains of a Native American may be an inhumation or cremation, and in any state of decomposition or skeletal completeness.
    2. Any items associated with human remains that are placed or buried with Native American human remains are to be treated in the same manner as the remains, but do not by themselves constitute human remains.
E. Whenever the commission is unable to identify a descendant, or the descendants identified fail to make a recommendation, or the landowner or his or her authorized representative rejects the recommendation of the descendants and the mediation provided for in subdivision (k) of section 5097.94. if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance. To protect these sites, that landowner shall do one or more of the following:
    1. Record the site with the commission or the appropriate Information Center.
    2. Utilize an open-space or conservation zoning designation or easement.

3. Record a document with the county in which the property is located.

F. Upon the discovery of multiple Native American human remains during a ground disturbing land development activity, the landowner may agree that additional conferral with descendants is necessary to consider culturally appropriate treatment of multiple Native American human remains. Culturally appropriate treatment of such a discovery may be ascertained from review of the site utilizing cultural and archaeological standards. Where the parties are unable to agree on the appropriate treatment measures the human remains and buried with Native American human remains shall be reinterred with appropriate dignity, pursuant to subdivision (e).

G. Notwithstanding the provisions of Section 5097.9, this section, including those actions taken by the landowner or his or her authorized representative to implement this section and any action taken to implement an agreement developed pursuant to subdivision (1) of Section 5097.94 shall be exempt from the California Environmental Quality Act (Division 13 (commencing with Section 21000)).

H. Notwithstanding the provisions of Section 30244. this section, includes those actions taken by the landowner or his or her authorized representative to implement this section, and any action taken to implement an agreement developed pursuant to subdivision (1) of Section 5097.94 shall be exempt from the requirements of the California Coastal Act of 1976 (Division 20 (commencing with Section 30000)).

1.2.5 California Health and Safety Code Section 7050.5

California Health and Safety Code §7050.5 states that, in the event of the discovery of human remains outside of a dedicated cemetery, all ground disturbance must cease and the county coroner must be notified. If the remains are found to be Native American then the County Coroner must contact the Native American Heritage Commission within 24-hours.

1.2.6 Corona Historic Resources Ordinance

The Corona Historic Resources Ordinance is described within Chapter 17.63 of the Corona Municipal Code. The Corona Historic Resources Ordinance was established to promote the recognition, preservation, and continued viability of historic resources in Corona in the interest of prosperity, social and cultural enrichment, and the general welfare of the people of Corona. The Corona Historic Resources Ordinance is based on the following principles:

A. Encouraging knowledge and civic pride in the character of Corona's heritage and its many historic resources, in accordance with the declaration of intent and purpose in the city's General Plan;

B. Providing a process and register for the public identification and official recognition of Corona's many historic resources;

C. Establishing processes for the thoughtful review of plans for future projects and developments that could affect the management and preservation of Corona's historic resources;

D. Encouraging and assisting Corona's private property owners with the management and preservation of their own historic resources and properties;

E. Promoting the management and preservation of Corona's historic resources, including historic districts, that reflect the city's diverse cultural, social, artistic, economic, engineering, political and architectural heritage;

F. Enhancing Corona's cultural heritage as a general attraction to residents, tourists, businesses, industries and development enterprises, thereby strengthening Corona's general economy around its core heritage areas; and

G. Promoting the use of Corona's historic resources and districts for the education, enjoyment and welfare of the people of the city.

The Corona Historic Resources Ordinance also provided for the establishment of the Corona Register of Historical Resources and Corona Heritage Inventory. It also authorized the property preservation/tax

reduction program, historic markers program, and historic design guidelines, which set the standards by which buildings are evaluated for the Corona Register of Historic Resources and Heritage Inventory.

1.2.7 Corona Register of Historic Resources (Corona Register)

As a Certified Local Government (CLG) in the Federal Historic Preservation Program, the City pledged its commitment to historic preservation. The Corona Register of Historic Resources (Corona Register) includes landmarks, historic markers, and historic districts and the contributing historic resources within such historic districts. Sites, improvements and natural features within the city's boundaries that are listed on the California Register or National Register shall automatically be deemed listed on the Corona Register. The Corona Register has separate criteria for landmarks, historic districts and historic markers.

Landmarks are those physical elements of Corona's historical development that provide the community with its own unique civic identity and character. A site, improvement or natural feature shall be eligible for listing on the Corona Register as a landmark if the City Council finds that all of the following criteria are satisfied:

1. It has been in existence for a period of at least 50 years, or if less than 50 years old, is of exceptional importance to the community;
2. It has significant historic, cultural or architectural value and its designation as a landmark is reasonable, appropriate and necessary to promote, preserve and further the purposes and intent of this chapter;
3. It exhibits one or more of the following characteristics:
    a. It is associated with events that have made a significant contribution to the history of Corona, the region, the state or the nation;
    b. It is associated with the lives of persons significant in Corona's past;
    c. It embodies distinctive characteristics of a style, type, period or method of construction or a valuable example of the use of materials or craftsmanship;
    d. It exemplifies or reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural or natural history;
    e. It is representative of the work of a notable builder, designer or architect;
    f. It exemplifies one of the best remaining architectural styles or types in a neighborhood or contains outstanding elements of architectural design, detail, materials or craftsmanship of a particular historic period;
    g. It is in a unique location or contains physical characteristics representing an established and familiar visual feature of a neighborhood;
    h. It is a potential source of archeological or paleontological interest;
    i. It is or contains a natural setting or feature that strongly contributes to the well being of the people of the city;
4. It has integrity of location, design, setting, materials, workmanship, feeling and association:
    a. Integrity is the authenticity of an historic resource's physical identity, as evidenced by the survival of characteristics that existed during the historic resource's period of significance, to be recognizable and to convey the reasons for its significance;
    b. A site, improvement or natural feature that has diminished historic character or appearance may still have sufficient integrity for the Corona Register if it retains the potential to yield significant scientific or historical information or specific data or retains sufficient character to convey the reasons for its significance. Thus, it is possible that a site, improvement or natural feature may not retain sufficient integrity to meet the criteria for listing on the California Register or National Register, but it may still be eligible for listing on the Corona Register;
    c. Integrity shall be judged with reference to the particular criterion or criteria which provide its eligibility. An improvement removed from its original location shall be eligible if it is

significant primarily for its architectural value or it is the surviving structure most importantly associated with an historic person or event.

A Historic District is a geographically defined area possessing a concentration of contributing historic resources that relate to each other and are unified by physical development or historical context. A defined area shall be eligible for listing on the Corona Register as an historic district if the City Council finds that all the following criteria are satisfied:

1. The defined area is a unified geographical area with precisely defined boundaries;
2. The defined area contains a significant concentration of individually recognized contributing historic resources united in character by an historic plan, physical development, cultural heritage, past events, an historic period or prehistory era, aesthetics design or architectural traditions;
3. At least 75% of the contributing historic resources in the defined area are 50 years of age or older and retain their original architectural character;
4. The civic and historic value of the contributing historic resources is greater as a collective whole than as individual historic resources;
5. The defined area has significant historic, cultural or architectural value and its designation as an historic district promotes, preserves and furthers the purposes and intent of this chapter.

Upon the listing of an historic district on the Corona Register, all identified contributing historic resources in the historic district shall be individually listed on the Corona Register, along with notation of the historic district's noncontributing resources.

A Historic Marker, is defined as a sign, plaque, monument, or other symbol which may be listed on the Corona Register by resolution of the City Council or placed by the City of Corona Historic Preservation Society for the purpose of recognizing one or more of the following:

1. Events that have made a significant contribution to the history of Corona, the region, the state or the nation;
2. Persons significant in Corona's past;
3. Examples of distinctive characteristics of a style, type, period or method of construction or a valuable example of the use of materials or craftsmanship;
4. Special elements of the city's cultural, social, economic, political, aesthetic, engineering, architectural or natural history;
5. The work of a notable builder, designer or architect;
6. Outstanding elements of architectural design, detail, materials or craftsmanship of a particular historic period;
7. A unique location or physical characteristic representing an established and familiar visual feature of a neighborhood;
8. An archeological or paleontological site; or
9. A natural setting or feature that strongly contributes to the wellbeing of the people of the city. The actual site, improvement or natural feature that is designated by the historic marker may or may not be listed, or may or may not be eligible for listing, on the Corona Register or the Corona Heritage Inventory.

1.2.8 Corona Heritage Inventory

The Corona Heritage Inventory includes only heritage properties listed by the Planning Commission. Heritage properties listed on the Corona Heritage Inventory may or may not be eligible for listing on the Corona Register. To be listed on the Corona Heritage Inventory a site, improvement, or natural feature must satisfy all of the following criteria:

A. An official survey describing the features, merits and quality of the site, improvement or natural feature has been prepared;

B. The site, improvement or natural feature is identified as a potential resource to be conserved because of its age, and either its context in the neighborhood, its association with a historic event or period or its significance to the architectural, engineering, scientific, economic, agricultural, educational, cultural, social, artistic, political or military history of Corona.

1.3 PROJECT DESCRIPTION

The proposed City of Corona 2018 Reclaimed Water Master Plan is an update to the City of Corona's adopted Reclaimed Water Master Plan (2001), which provides guidance to create infrastructure to efficiently use treated effluent from its existing and future wastewater reclamation facilities (WRFs) to reduce dependence on imported water and groundwater. The project identifies the extent and types of reclaimed water development needed to achieve the City's physical, economic, and environmental goals.

1.3.1 Project Purpose

The primary purpose of the project is to assist the City with meeting its goals for reclaimed water use through implementation of appropriate projects, programs, and additional studies.

1.3.2 Project Objectives

The project objectives are as follows:

1. Expand and improve the City's recycled water program in accordance with Ordinance 2854 (Recycled Water Rules and Regulations)
2. Prioritize and implement system improvements pursuant to the City of Corona 2018 Reclaimed Water Master Plan to maximize reclaimed water supply availability and significantly reduce the use of potable water
3. Improve water supply system performance by facilitating supply management and maximizing water resources
4. Efficiently implement priority improvement projects to manage and distribute new sources of water supply as they become available

1.3.3 Project Components

Future Project Components are categorized as sources of supply, large distribution pipelines, medium distribution pipelines, and small distribution pipelines. In total, 29 Project Components are included in the RWMP. These include: six sources of supply; four large distribution pipelines; nine medium distribution pipelines; and ten small distribution pipelines.

1.4 PROJECT LOCATION

1.4.1 Regional Location

The City is in the northwestern portion of the County of Riverside (County), near the convergence of the Counties of Los Angeles, Orange, and Riverside, 45 miles southeast of the City of Los Angeles, as shown on Figure 1. The City is in a valley framed by mountains and the Prado Flood Control Basin. The City is bordered by the City of Norco to the north, the City of Riverside to the east, the County to the west and south, the Cleveland National Forest to the south/southwest, and the Prado Flood Control Basin to the northeast.

The City is defined in the County by its transportation infrastructure. Two major freeways and one railroad transect the City. Riverside Freeway (State Route 91) runs east–west directly north of the City's transportation routes to the economic center of the County of Orange from the Inland Empire, while

Interstate 15 runs north–south. In addition, the Burlington Northern Santa Fe Railway transects the center of the City, running parallel to State Route 91.

1.4.2 Water Service Area

The City's water service area encompasses approximately 39 square miles and provides potable and reclaimed water infrastructure. The water service area boundary differs slightly from the City's jurisdictional boundary because it also includes the unincorporated communities of El Cerrito and Coronita and parts of Tesmescal Canyon, as shown on Figure 2. The water service area is bordered by the neighboring Cities of Norco and Eastvale to the north and the City of Riverside to the northeast. The eastern portion of the water service area is generally bounded by unincorporated County lands, including the unincorporated community of Home Gardens. The southern and western portions of the water service area are bounded by the Cleveland National Forest and other County lands. The Prado Flood Control Basin is adjacent to the City's northwestern corner.

The following study considered direct impacts within the RWMP project area only, shown on Figure 2. As the project consists of a master plan which will be used to guide future projects there are no anticipated indirect or cumulative impacts that would necessitate a larger impact area outside of the direct RWMP project area.

The RWMP project area is shown on five USGS 7.5' Quad Maps (Figures 3-9). Specifically, on the *Prado Dam* Quad Map within Township 3 South, Range 7 West, Section 30; Township 3 South, Range 8 West Section 25; and unsectioned portions of the La Sierra Yorba Land Grant. *Black Star Canyon* Quad Map within Township 3 South, Range 7 West, Sections 32 and 33; Township 3 South, Range 8 West, Section 36, Township 4 South, Range 7 West, Section 5; and unsectioned portions of the La Sierra Yorba Land Grant. Corona South Quad Map within Township 3 South, Range 7 West, Section 33, Township 4 South, Range 6 West, Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22; Township 4 South, Range 7 West, Sections 5, 9, and 10; unsectioned portions of the La Sierra Yorba Land Grant; unsectioned portions of the Sobrante De San Jacinto Land Grant. *Lake Matthews* Quad Map within Township 4 South, Range 6 West, Section 22; unsectioned portions of the Sobrante De San Jacinto Land Grant. *Corona North* Quad Map within unsectioned portions of the La Sierra Yorba Land Grant and unsectioned portions of the Sobrante De San Jacinto Land Grant.

1.5 PROJECT PERSONNEL

Red Tail Principal Investigator Shelby Castells, M.A., RPA served as the primary author of this report, and managed the study. Red Tail Senior Archaeologist Spencer Bietz contributed to the report and prepared the report figures. Resumes of key personnel are included in Appendix A.



Figure 1. Project Vicinity Map.

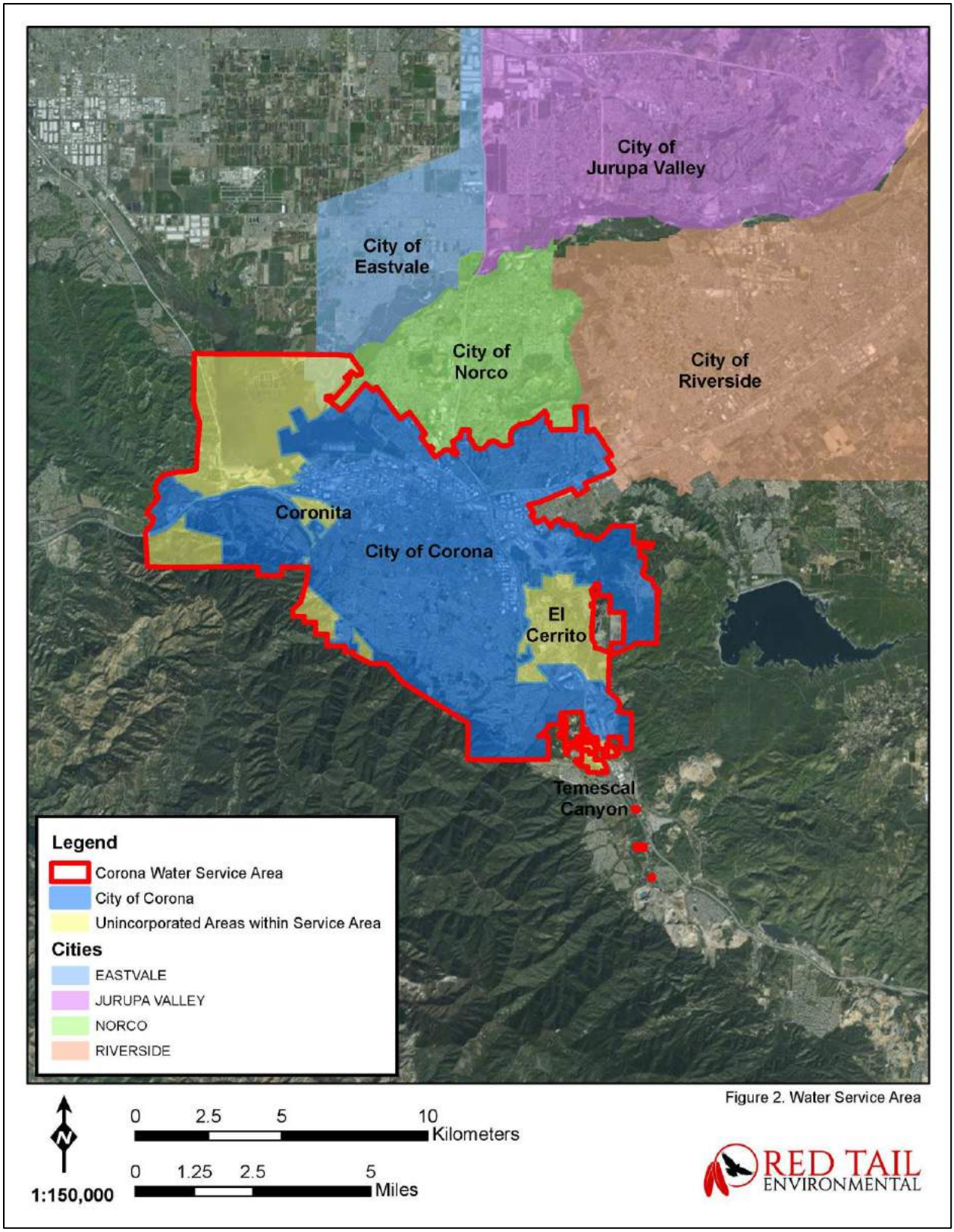


Figure 2. Project Area shown on an aerial photograph.

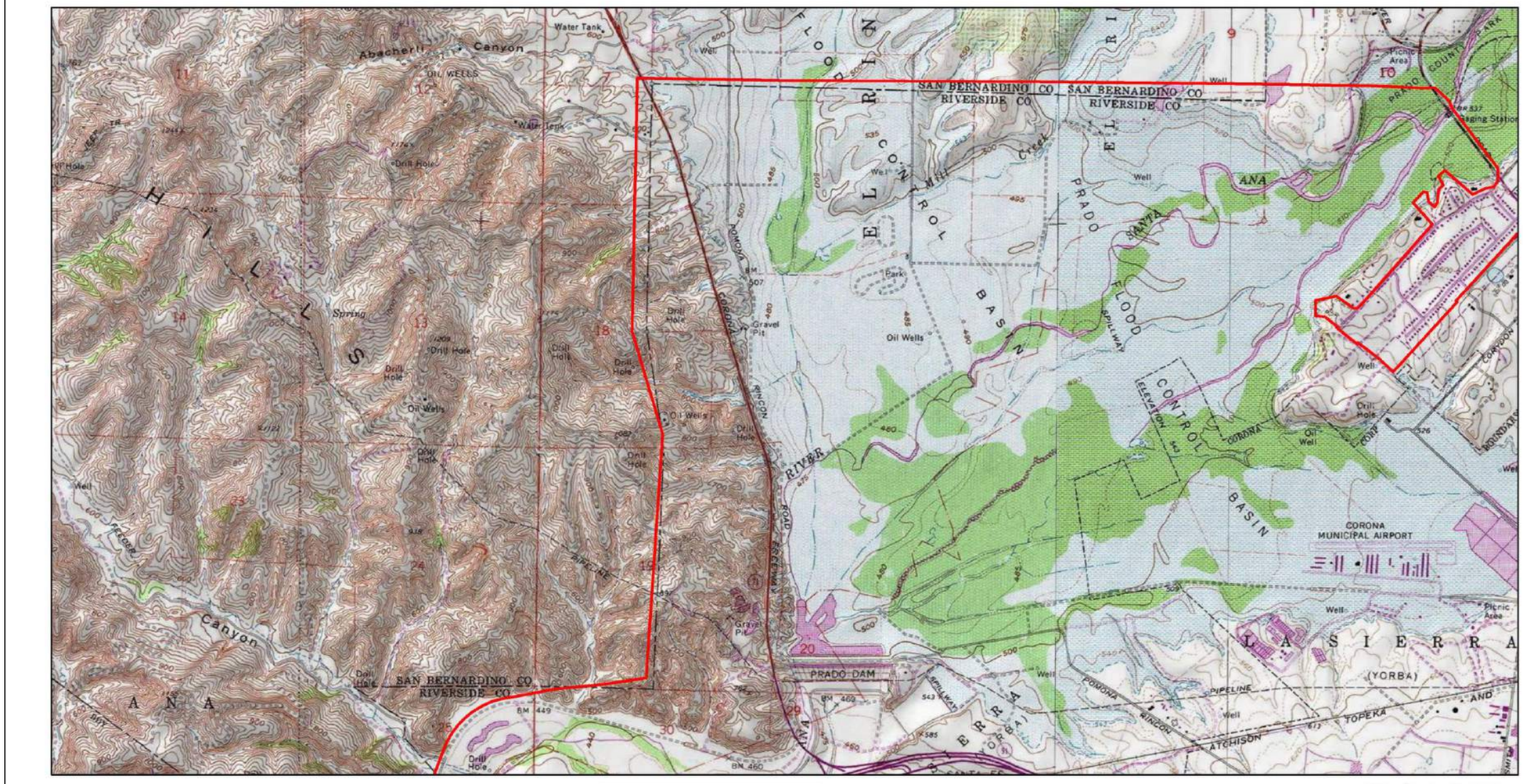


Figure 3. Project area shown on the USGS 7.5' Topographic Quadrangle (Map 1 of 7).

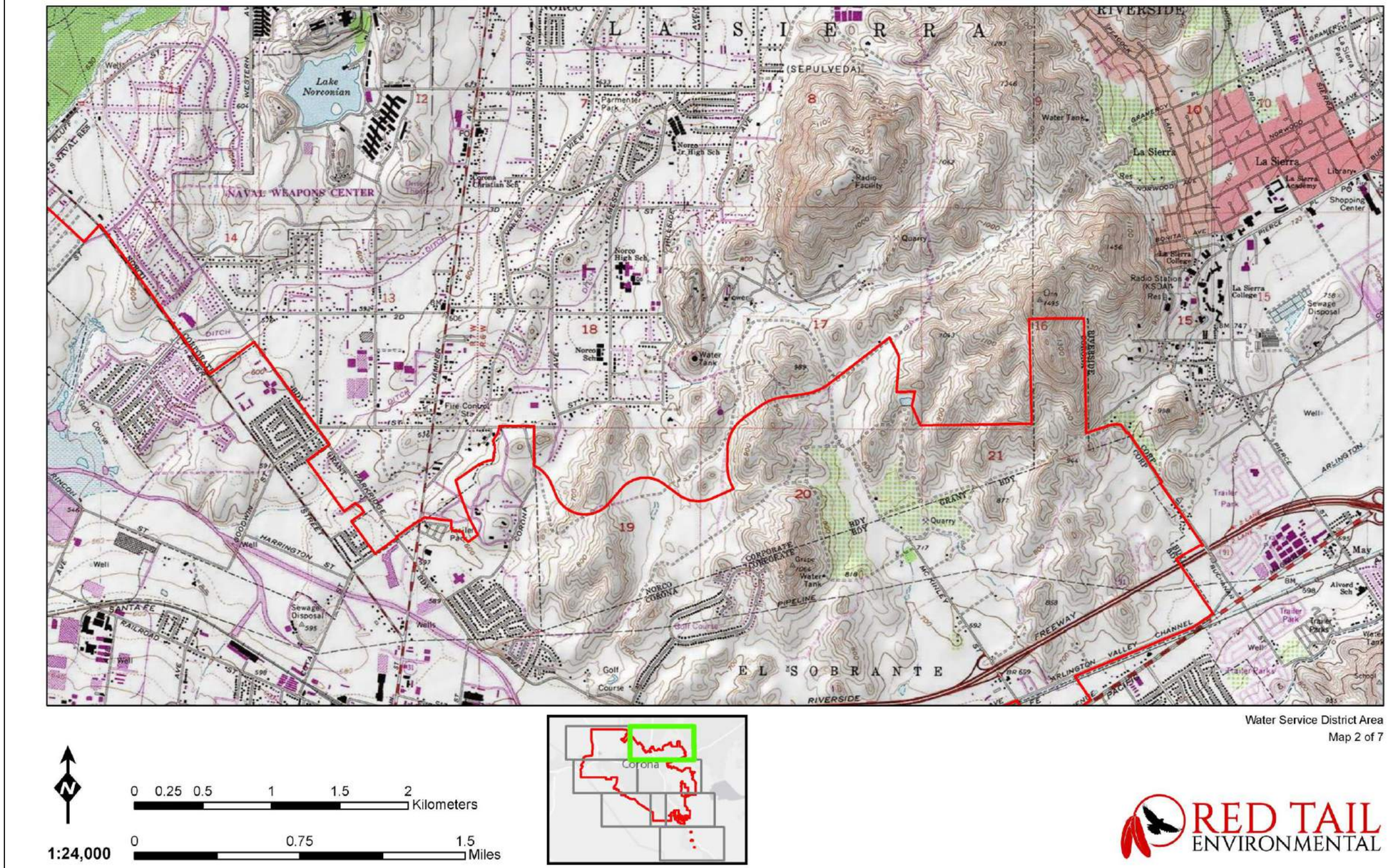


Figure 4. Project area shown on the USGS 7.5' Topographic Quadrangle (Map 2 of 7).

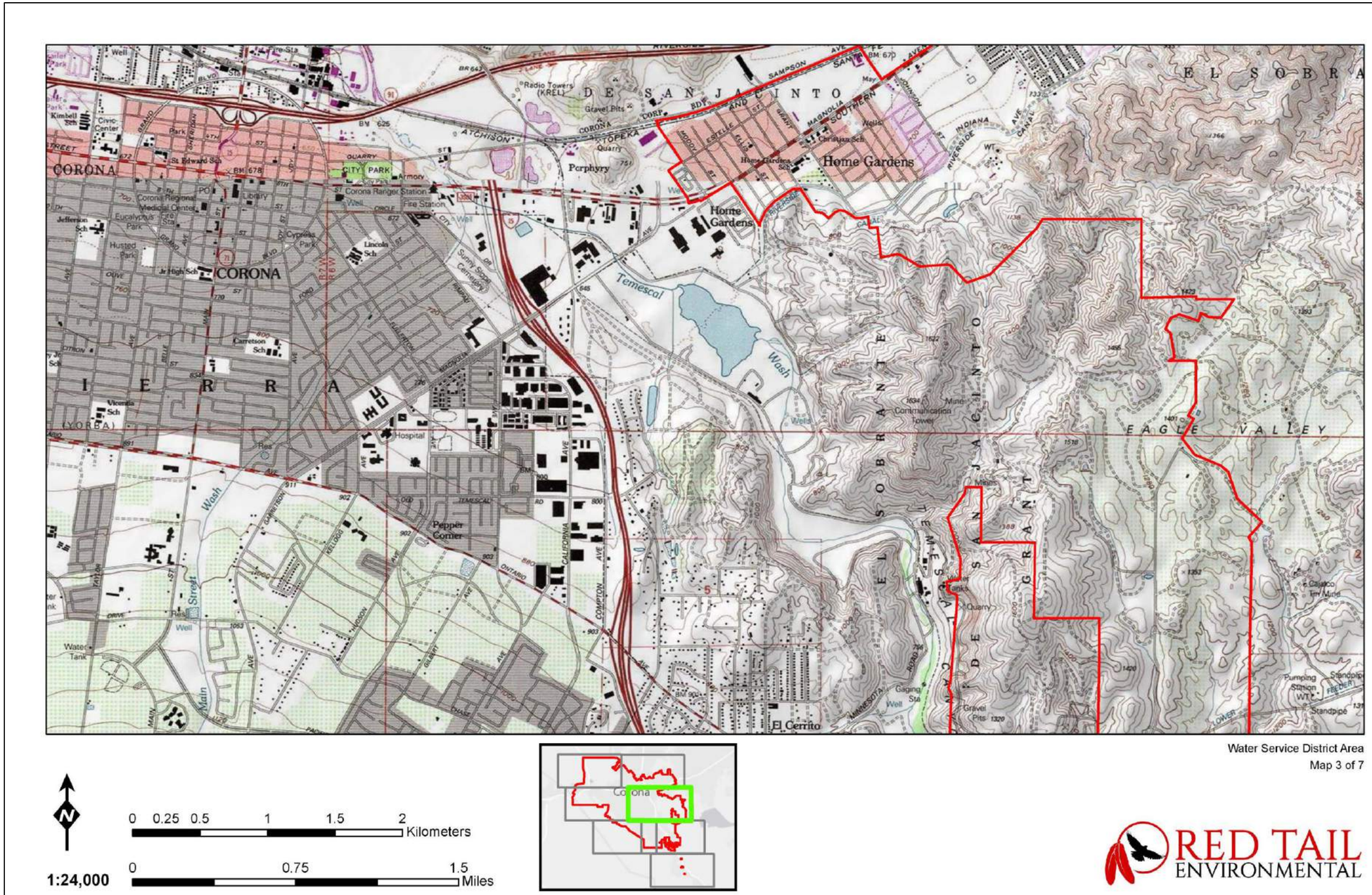
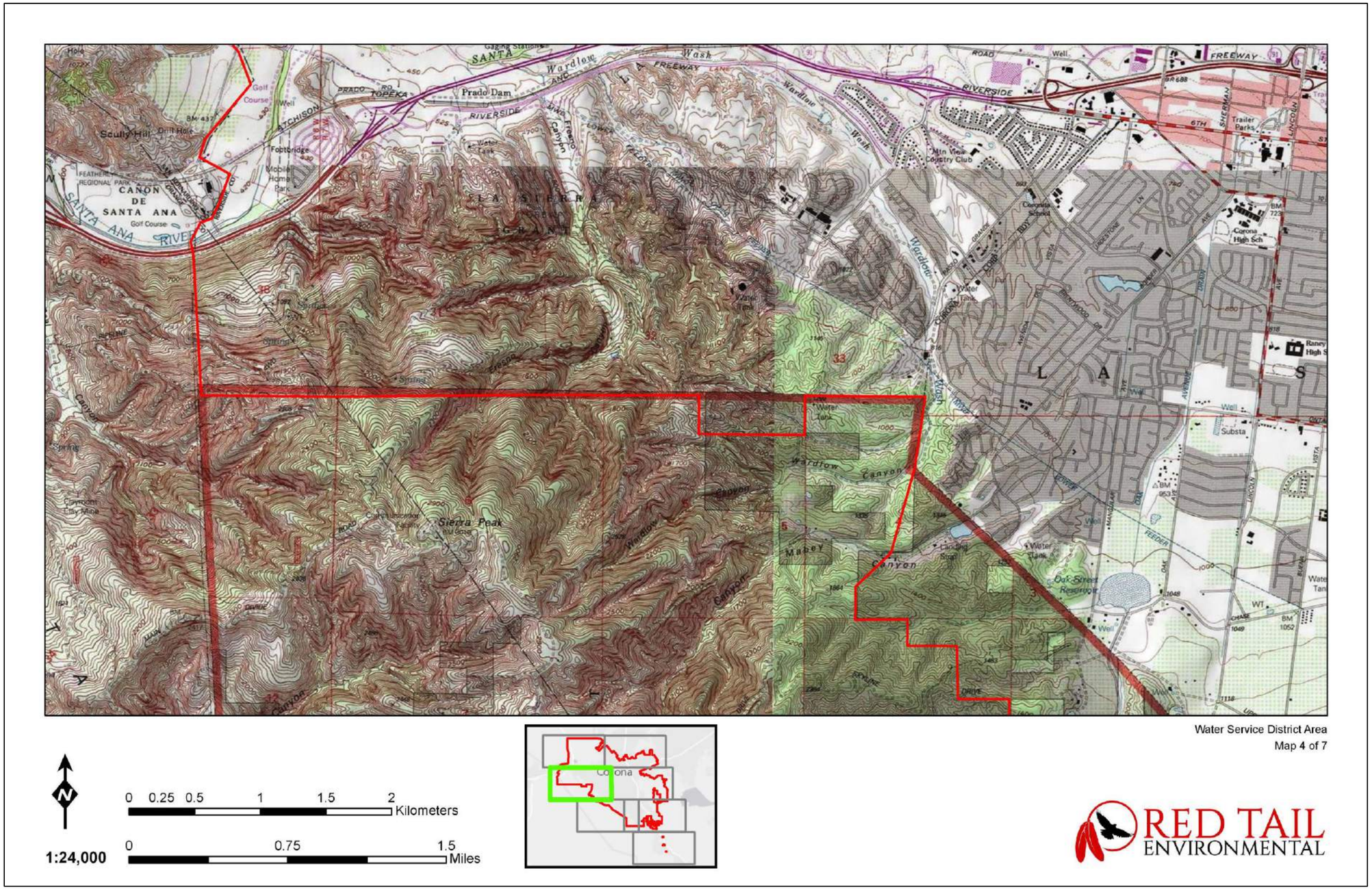


Figure 5. Project area shown on the USGS 7.5' Topographic Quadrangle (Map 3 of 7).



Water Service District Area
Map 4 of 7

RED TAIL ENVIRONMENTAL

Figure 6. Project area shown on the USGS 7.5' Topographic Quadrangle (Map 4 of 7).

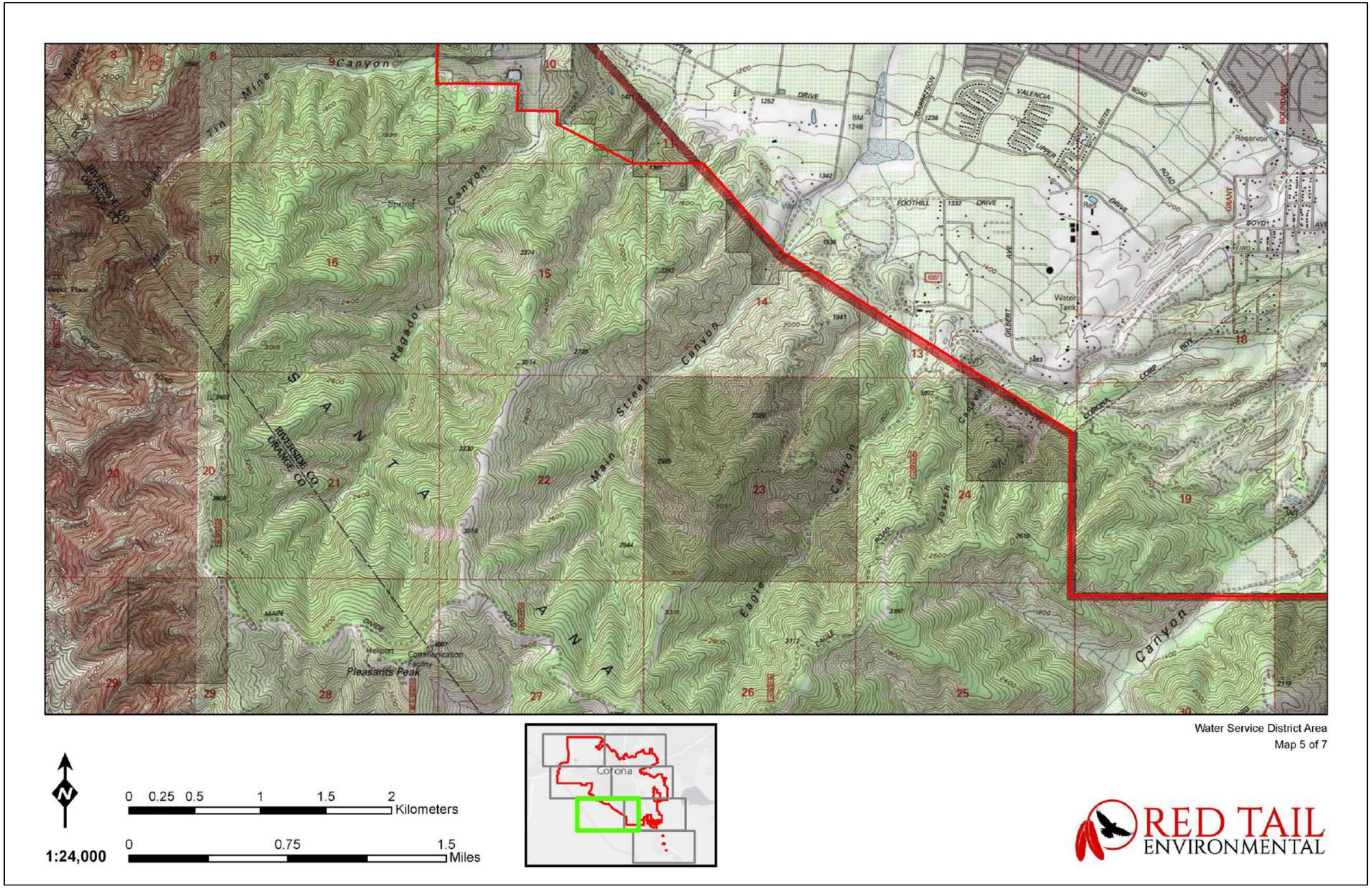


Figure 7. Project area shown on the USGS 7.5' Topographic Quadrangle (Map 5 of 7).

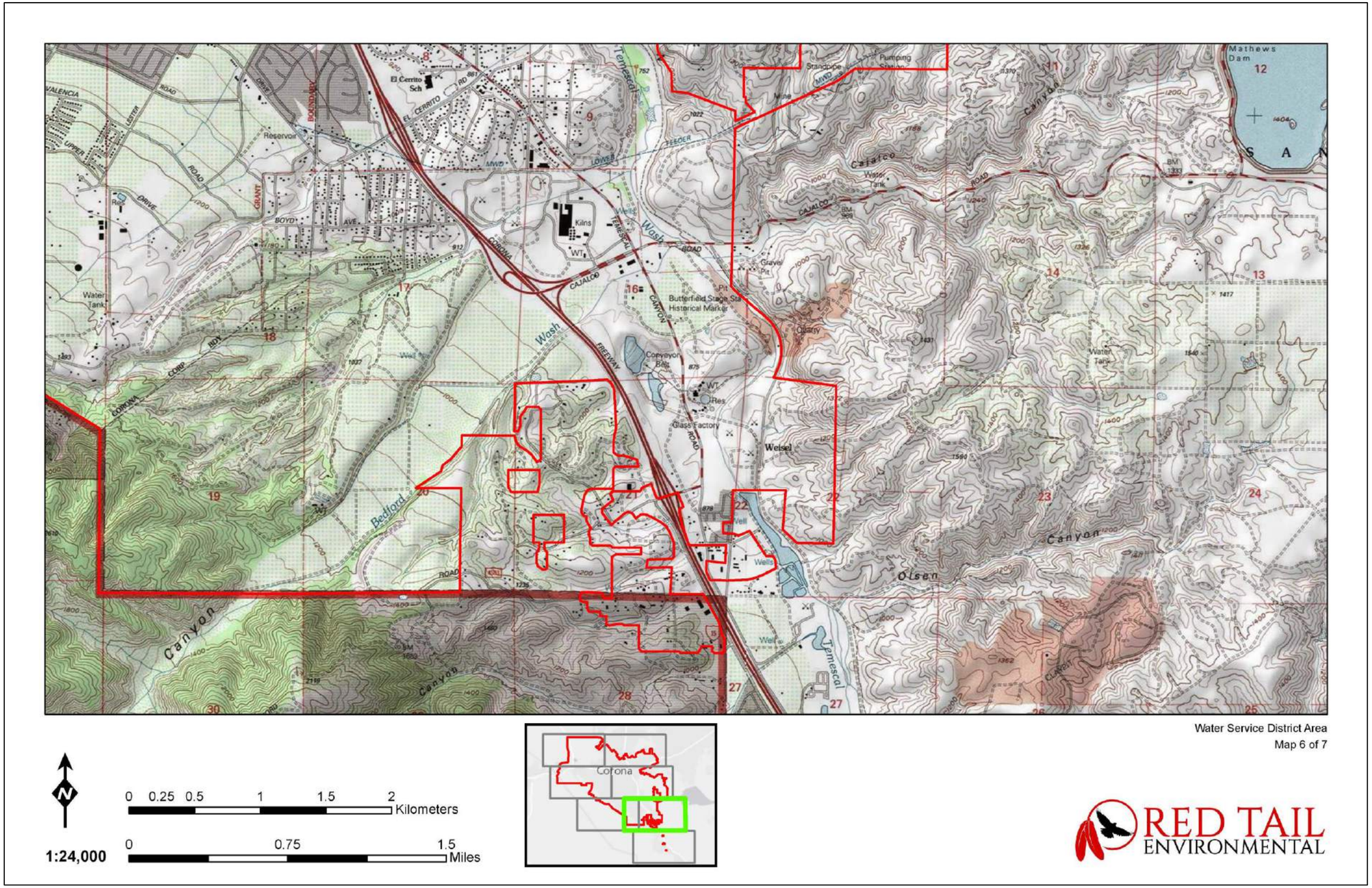


Figure 8. Project area shown on the USGS 7.5' Topographic Quadrangle (Map 6 of 7).

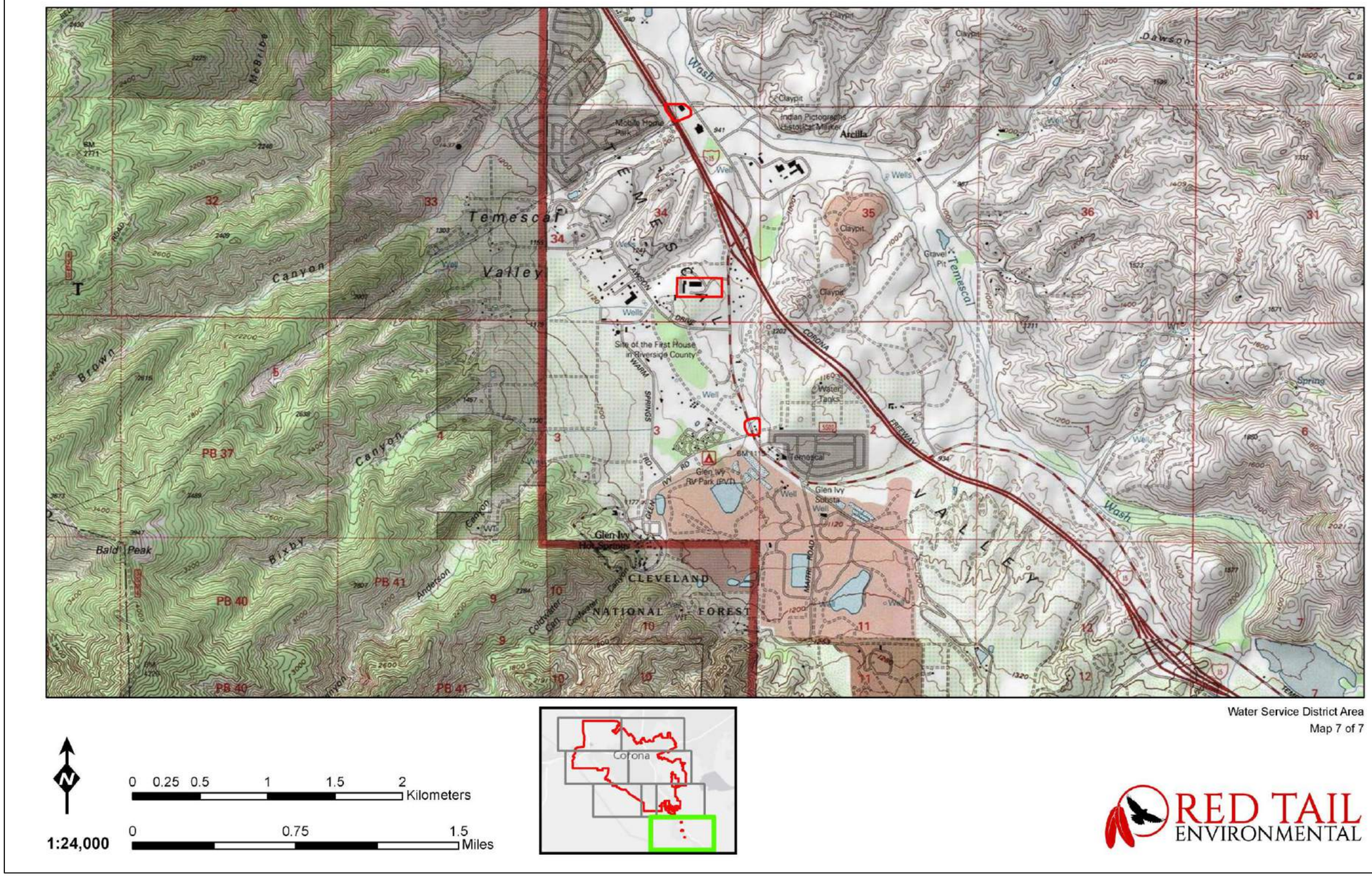


Figure 9. Project area shown on the USGS 7.5' Topographic Quadrangle (Map 7 of 7).

2. SETTING

2.1 NATURAL SETTING

Geologically, the RWMP project area is located within the Peninsular Ranges Province in Southern California. Much of the project area lies within the Perris block, which is located between the Elsinore and San Jacinto fault zones. The southern portion of the project area also encompasses the Chino fault zone (Gray et al. 2002a). The portion of the Peninsular Ranges beneath the project area is composed primarily of a variety of Cretaceous plutonic rocks, primarily monzogranite and granodiorite, but also including micropegmatite granite and gabbros, amongst others. Monzogranites of the Cajalco pluton, a large composite intrusion that extends south and east of the project area, are the most widespread of the group (Gray et al. 2002a). The southern portions of the project area border the base of the Santa Ana Mountains, whose basement rocks are composed primarily of Bedford Canyon Formation, a fossiliferous limestone containing faunal remains that suggest the Formation was formed in black smoker environments (Gray et al. 2002b). Santiago Peak Volcanics unconformably overly and intrude the Bedford Canyon Formation, and consist of Cretaceous age basaltic andesite, andesite, dacite, rhyolite, breccia, and volcaniclastic rocks. Volcanic activity occurring during the same time the Santiago Peak Volcanics were formed also hydrothermally altered the rocks, and minor serpentine and associated silica-carbonate rock occur in association (Gray et al. 2002b).

The Santa Ana River is the largest drainage within the project area and is fed by several tributaries including Temescal Wash and Chino Creek. Distal parts of alluvial fans at the base of the San Gabriel Mountains dominate the alluvial deposits north of the Santa Ana River. Older alluvial fan deposits resting on remnants of early Quaternary to late Tertiary nonmarine sediments comprise the majority of alluvial deposits south of the Santa Ana River, especially within areas between the Santa Ana and Temescal Wash (Gray et al. 2002a). The underlying Quaternary and late Tertiary sediments were initially deposited by an ancestral Santa Ana River, and several non-contiguous remnants of late Tertiary marine sandstone including some conglomerate lenses are present between Norco and Temescal Wash (Gray et al. 2002a). This late Tertiary (Pliocene) sandstone was deposited in paleoenvironmental conditions similar to present-day shorelines of Monterey, California, with much of the deposits accumulating a rocky shoreline developed in the granitic rocks. South of Temescal Wash, Pleistocene and Holocene alluvial fan deposits accumulate from erosion of the Santa Ana Mountains (Gray et al. 2002b).

The study area encompasses the northern end of the Elsinore Fault zone, a major active right-lateral strike-slip fault zone of the San Andreas Fault system (Gray et al. 2002b). The Elsinore fault serves as the dividing line between the Santa Ana Mountains (west of the fault) and the Perris block (east of the fault). Sedimentary rocks of the late Cretaceous and Paleogene along with some Neogene rocks are present within the Elsinore Fault Zone. Middle Miocene Topanga Formation marine sandstones are present within the fault zone southeast of the study area and are underlain by nonmarine undivided Sespe and Vaqueros Formations, both composed predominately of sandstone. Much of the fault zone contains Silverado Formation, a mix of sandstone, siltstone, and conglomerate of the marine and nonmarine Paleocene era (Gray et al. 2002b).

The majority of the project area can be characterized as an alluvial basin that gently lowers in elevation as it proceeds north to the Santa Ana River. The west and southwestern portions of the project area are bordered by the Santa Ana Mountains, containing steep undeveloped slopes. Elevations within these areas range between 850 feet above mean sea level (AMSL) to upwards of 2,275 feet AMSL. The east and southeastern portions of the project area are bordered by the Temescal Mountains, ranging between 750 feet and 1,580 feet AMSL. The north and northeastern portions of the project area consist of a north-trending alluvial basin proceeding towards the Santa Ana River, with the northern limit of the project area

bordered by Prado Regional Park and the Prado Regional Control Dam. The lowest elevation within the project area (425 feet AMSL) is located in the northwestern limits as the river begins its westward journey out of Riverside County towards Orange County and the cities of Yorba Linda, Anaheim, and Orange, finally ending at the Pacific Ocean.

The vast majority of the project area contains urban development, with undeveloped areas primarily being located along the foothills and steep slopes of the Santa Ana Mountains and Temescal Mountains. Within developed areas, isolated areas contain native vegetation, mostly within associated riparian drainages. Undeveloped areas along the Santa Ana Mountain slopes contain a mix of riparian drainages and canyon slopes, with vegetation communities including chaparral and riparian forest and scrub. Undeveloped areas along the slopes of the Temescal Mountains also contain a mix of riparian drainages and canyon slopes, with native vegetation communities including coastal sage scrub, chaparral, riparian woodland, and valley grassland.

The City of Corona project area contains a Mediterranean climate with hot dry summers and cooler wetter winters. Mean annual precipitation for the City is 13.5 inches of rainfall a year, with an average of 65 degrees Fahrenheit with average highs 79 degrees Fahrenheit and lows of 51 degrees Fahrenheit (USDA 2020).

2.2 CULTURAL SETTING

2.2.1 Prehistoric Period

While no single chronology is agreed upon, archaeologists generally concur that human occupation within Southern California spans at least the last 14,000 years. It was believed that people first came to North and South America over the Bering Land Bridge, however recent studies have identified that this ice-free corridor was not passable until 13,000 years ago and an alternate coastal route has been proposed. The Pacific Northwest coast was deglaciated by approximately 14,000 B.C. and travel along the Pacific Coast in boats would have been possible during this period. A widespread kelp forest could have created a "kelp highway" with enough resources to support people entering North America (Erlandson et al. 2007, Masters and Aiello 2007, Gallegos 2017). Erlandson (2007:56) contends that "it seems most likely that the peopling of the Americas included both coastal and interior migrations of peoples from northeastern Asia and Beringia, with an earlier migration possibly following the northern Pacific coast".

In Riverside County and the surrounding area, there is no consensus on times or terms in which human occupation started. It is unknown if the first people arrived in Riverside County via the coast or from the pluvial lakes within the Great Basin to the east, as both locations contain archaeological sites with early dates (Gallegos 2017). In addition, the inland valleys of Southern California, have been less intensively studied than the desert and coastal regions and therefore a variety of cultural periods have been suggested but generally researchers have not reached a consensus on the start or phases of prehistoric occupation of the area (Horne and McDougall 2007). Overall, three general cultural periods are recognized: the Paleo-Indian Period, the Archaic Period and the Late Prehistoric Period.

Paleo-Indian Period / San Dieguito Period (ca. 12,000 to 8,000 YBP)

As in most of North America, the Paleo-Indian Period is the earliest recognized period of California prehistory and coincides with the end of the late Pleistocene, circa 11,000 to 13,000 YBP (years before present). The environment was cool and moist, with deep pluvial lakes in the desert and basin lands (Moratto 1984). However, by the end of the late Pleistocene, the climate became warmer, causing glaciers to melt and sea levels to rise. Inland lakes began to recede and evaporate and there was a great deal of

erosion in the coastal areas. The warmer climate also resulted in major vegetation changes and the extinction of Pleistocene megafauna (Moratto 1984, Martin 1967, Martin 1973, Fagan 1991).

Paleo-Indian sites have been identified across most of North American, often referred to as the Clovis Complex. The Clovis Complex is defined by the use of large fluted projectile points and other large bifacial stone tools. Within Southern California and the Colorado Desert the Clovis Complex is referred to as the Western Stemmed Point Tradition (WSPT) and was characterized by leaf shaped and large stemmed projectile points, scrapers and other stone tools. Archaeological evidence of the WSPT has been found across the western interior of North America with small regional variations (Gallegos 2017, Sutton 2016, Warren 1968). Similar archaeological remains are also known as the Lake Mohave Complex (Warren 1968). Overall, ground stone use was infrequent in San Dieguito archaeological remains, leading to the belief that the San Dieguito were highly mobile groups and their subsistence practices focused on the hunting of large game.

Several isolated fluted points have been recorded in Southern California, but none have been recorded near the project area in associated with radiocarbon dates or in association with Pleistocene fauna (Rondeau et al. 2007). In Riverside County, only one isolated fluted point has been identified on the surface of a site in the Pinto Basin in the central part of the county (Campbell and Campbell 1935, Dillon 2002:113). Fluted points have been dated outside of California to 13,500 years before the present. The earliest known archaeological sites near the Project area, with reliable dates, are from the Channel Islands. The Arlington Springs site on Santa Rosa Island dates to 13,300 years ago, and the Daisy Cave site on San Miguel Island dates to 12,300-11,120 years ago (Lightfoot and Parrish 2009). Daisy Cave mentioned above, is one of the largest, early Holocene archaeological deposits that has been excavated. The study identified over 18 types of fish, multiple shellfish, marine mammals, and birds remains, showing that people relied on a wide assortment of marine resources as early as 8000 B.C., rather than subsisting on large mammal hunting (Erlandson, et al., 2007). Over 25 shell midden sites that date to between 12,000 and 8,000 years ago have been recorded on the Channel Islands. On the mainland, a site near San Luis Obispo dates to 10,300-9,650 years ago and a several sites on Cedros Island in Baja California date to 12,000 years ago (Lightfoot and Parrish 2009). Other early sites in the vicinity of the Project area consist of the C.W. Harris Site (SDI-149), in San Diego County, with radiocarbon dates ranging from 9,030 YBP to 8,540 YBP (Byrd and Raab 2007, Gallegos 2017) and within Orange County, there are sites dating from 9,000 to 10,000 years ago (Macko 1998a:4, Mason and Peterson 1994:55–57) and the Elsinore site (CA-RIV-2798-B), has deposits dating as early as 8,580 YBP (Grenda 1997:260). As, no archaeological sites dating to the Paleoindian Period have been identified within the vicinity of the Project Area. It is unknown if the lack of Paleoindian Period sites relates to a lack of archaeological data or is evidence that the vicinity of the Project Area was a less sustainable area than the interior desert or the coastal regions. During this period the desert interior may have been more suitable to prehistoric occupation than the interior valleys of southern California and it is more likely that Paleoindian populations in southern California were centered on the coastal or interior desert regions or around the few large, reliable, drought-resistant water sources present within the inland valley areas (Horne and McDougall 2007).

When Paleo megafauna began to become extinct, Paleo-Indian peoples had to focus on different subsistence strategies (Erlandson et al., 2007). Recent studies along the Southern California coast have focused on the diversity of subsistence strategies during this period, acknowledging the use of smaller animals and plant foods as staples, with limited evidence for big game hunting. Byrd and Raab argue that an environmental change from 10,000 to 8,000 cal. B.C. caused warming and drying conditions which shrunk the interior lakes and streams in Southern California's deserts and spurred the change from a reliance on large game hunting to a focus on a variety of subsistence strategies (Byrd and Raab 2007). Archaeological research across Southern California has shown the use of shellfish, marine mammals, and fish declined proportionately with distance from the coast. Less is known about plant use in interior sites aside from the

fact that an increase of milling tools is present suggesting that plant resources were heavily relied upon during this early period (Erlandson et al., 2007).

Archaic Period / Millingstone Horizon (ca. 9500/8000 to 1500 YBP)

The Archaic Period within the vicinity of the Project area was defined by a lengthy time period with little change within the archaeological record. In contrast to the Paleoindian Period the archaeological record within the Archaic Period consisted of a tool kit that focused on collection and processing of small plant seeds and hunting of a variety of medium and small game animals (Byrd and Raab 2007, Hale 2009, Rogers 1945, Warren 1968). Across Southern California this period is often referred to as the Millingstone Horizon, and is often divided into the Early, Middle, and Late Archaic Period. In addition to the Early, Middle, and Late Archaic Period, it was also referred to as the Encinitas Tradition by Warren (1968), the La Jolla Tradition, in San Diego County, and the Greven Knoll Pattern (SWCA 2018, Sutton 2010, Sutton 2011). Sutton created the Greven Knoll Pattern nomenclature as a redefined interpretation of the Encinitas Tradition, and used it to refer to all expressions of the inland Milling Stone Horizon in Southern California north of San Diego County (Sutton 2010).

There is a discrepancy on the start of the Millingstone Horizon, while Lightfoot and Parrish (2009) argues that early milling stone assemblages show that by 9,000 years ago milling tools were in use and that seeds and nuts must have been a dominate food source, other archaeologists argue that the Millingstone Horizon is generally attribute to the Middle to Late Holocene Period and has been identified across much of central and southern California by ca. 8,000 to 7,000 YBP (Byrd and Raab 2007, Hale 2009, Moratto 1984).

Interior archaeological sites from this period were thought to have been left by seasonally mobile groups with small settlements, based on the availability of food resources. There is little archaeological evidence for group size and type and use of habitation structures within Riverside County for the middle Holocene. The Millingstone Horizon or Archaic Period tool kit at inland sites focused on collection and processing of small plant seeds and hunting of a variety of medium and small game animals; while along the coast there was a reliance on marine resources (Byrd and Raab 2007, Hale 2009, Rogers 1945, Warren 1968). Artifacts from this period consist of grinding implements (manos and metates), atlatl or dart projectile points, quarry-based tools, as well as lithic choppers and scrapers that indicate the focus was on collection and processing of small plant seeds and hunting of a variety of medium and small game animals (Byrd & Raab 2007, Hale 2009, Rogers 1945, Warren 1968).

Mortuary practices consist of flexed inhumations which are often accompanied by grave goods of milling stones and other artifacts. This seems to represent a more sedentary lifestyle with a subsistence economy based upon the use of a broad variety of terrestrial resources than identified during the Paleoindian Period. Research indicates that residential bases or camps were moved in a seasonal round (de Barros 1996, Mason 1997, Koerper 2002), with some sites occupied year-round, with portions of the village population leaving at certain times of the year to exploit seasonally available resources.

During this lengthy period very little technological changes are identified within the archaeological record until approximately 5,000 years ago when there was an increase in sedimentation along the coast. This transformed the estuaries into shallow wetlands, closed several of the lagoons, transformed the coastal areas into sand and mudflats, and limited the kelp forests, causing the coastal region to have a lower level of subsistence resources than in the past. During this time the deserts became more arid, and there was an increase in use of the inland valleys within the vicinity of the Project Area (Byrd and Raab 2007, Gallegos 2007, Masters and Aiello 2007).

Early Archaic Period (ca. 9500/8000 to 7000 YBP)

Horne and McDougall (2007) report that there is little archaeological evidence within Riverside County during this period. However, several sites within the region date to the Early Archaic Period. The first consists of a single human burial dating to 7380 ± 300 B.P., which was capped by several large highly shaped metates. The second was a small temporary camp dated by obsidian hydration data and stratigraphic information to the Early Archaic Period (Horne and McDougall 2007:19). An additional site within Riverside County, SDI-6069, within the San Jacinto Valley area was identified in an alluvial fan just above the floor of the San Jacinto Valley. The site contains several different cultural occupations, and the lowest level contained radiocarbon dates from 7940 to 8370 B.P., while radiocarbon from the upper component of the site dated to 2230 B.P., within the Late Archaic Period (Horne and McDougall 2007:19). An additional site, SDI-2798/H, known as the Lake Elsinore site, contained one radiocarbon date from 8400 ± 60 B.P. Additional radiocarbon dates show habitation of the site during the Middle Archaic Period as well (Horne and McDougall 2007:19).

Artifacts associated with these Early Archaic Period sites include flaked stone tools and ground stone tools. Data recovery excavation within SDI-6069 identified a larger variety of artifact types including an extensive variety of flaked and ground stone tools, marine and terrestrial faunal remains, and bone and shell tools and ornaments. Crescents have also been found sparsely during this period.

Overall evidence of Early Archaic Period habitations in the vicinity of the Project area are scarce, identifying that during this period the region around the Project area was likely too arid to support sedentary residential occupation, and the few sites dating to this time period with evidence of a larger habitation area were found near large inland water sources (Horne and McDougall 2007:19).

Middle Archaic Period (ca. 7000 to 4000 YBP)

During the Middle Archaic Period environmental conditions changed as the deserts became more arid and the coastal estuaries became less productive for shellfish and other food sources, causing a depopulation along the coastal zone, and settlements shifted to inland river valleys with an intensification of terrestrial game and plant resources (Byrd and Raab 2007, Gallegos 2007, Masters and Aiello 2007). Gallegos states that during this period to adapt to the changing environmental condition people changed their settlement patterns by increasing their use of plant and terrestrial animal use, which is evidence in the archaeological record through an increase in habitation areas near oak and grassland resources and away from the coastal zone (Gallegos 2007). Therefore, the inland valleys of western Riverside County became a more hospitable environment and there is a significantly larger number of archaeological sites dating to this period within the vicinity of the Project area (Horne and McDougall 2007).

The archaeological record dating to the Middle Archaic Period has identified several intensively used residential bases, and numerous temporary camps. Diagnostic artifacts include Pinto and Silver Lake projectile points and other large leaf-shaped projectile points, choppers, crescents, large drills, manos and metates inhumations, and a variety of flaked and groundstone tools. Additional non-utilitarian items include beads, pendants, charmstones, discoidals, spherical stones, and cogged stones (Horne and McDougall 2007). During this period, it is largely unknown if occupations of inland and coastal sites represent seasonal movement by the same groups of people, or if coastal sites represent a more permanent occupation, while inland groups followed a more mobile subsistence round.

Late Archaic Period (ca. 4000 to 1500 YBP)

The Late Archaic Period corresponds to a period of increased moisture in Southern California, followed by another dry period. This period is also referred to as the Intermediate Period by Wallace (1955) and the Campbell Tradition (Warren 1968). Horne and McDougall (2007) report that archaeological site types during this period range from residential bases with large diverse artifact assemblages, abundant faunal

remains and cultural features to temporary bases, camps and task specific activity areas. More intensely used archaeological sites from the Late Archaic Period are often found adjacent to permanent water sources while smaller or temporary sites are found on upland benches or adjacent to alluvial fans (2007:23). In contrast to the Early and Middle Archaic Periods, archaeological sites from the Late Archaic Period show a longer and more frequent reuse suggesting an increase in sedentism. Generally, the artifact assemblage is similar to the Early and Middle Archaic Period, focusing on large projectile points, used for spears and atlatls, and ground stone items. However, projectile points became more refined, such as notched points, points with concave bases, and small stemmed points. Greater use of the mortar and pestle suggest that acorns became a more important food source. There was also an increase in broad leaf-shaped blades, bone and antler tools and use of asphaltum and steatite (Horne and McDougall 2007:24). In general, through the Archaic Period the archaeological evidence and artifact assemblages remain similar, but become more elaborate over time, possibly implying an increase in sedentism, an increase in subsistence efficiency, and/or an increase in sociopolitical complexity (Horne and McDougall 2007:24).

Little is known about the transition from the Archaic Period to the Late Prehistoric Period. Laylander reports that there is a relative scarcity of dates within archaeological sites from the period between 1300 B.C. to A.D. 200, but it is unknown if this represents a decline in population during the end of the Archaic Period, or a bias in research data (Laylander 2014a).

During the end of the Late Archaic Period several researchers have identified an intermediate period, however it is largely unknown if this period is representative of the cultural change between the Milling Stone Period and the Late Prehistoric Period over time, adaptation to changing environmental conditions, or a distinct culture (Horne and McDougall 2007, SWCA 2018). This intermediate period roughly corresponds to the Medieval Warm Period which caused drought and warmer temperatures across the western United States. Archaeological evidence during this period supports a greater reliance on acorns as a food staple. Other changes include an influx of archaeological sites at reliable water sources such as the Colorado River and Lake Cahuilla.

Late Holocene Period /Late Prehistoric Period (1500 to 150 YBP)

There are differing opinions between researchers as to whether the shift to the Late Prehistoric Period was caused by new technologies developed by people already living in the area, spurred by changing environmental conditions, or if it was brought in by a migration of people into Southern California. Archaeological and anthropological evidence suggests that at approximately 1500 to 1,350 YBP, Takic speaking (speakers of Uto-Aztecan languages) groups from the Great Basin region moved into Riverside County, marking the transition to the Late Prehistoric Period, known as the Shoshonean Wedge (Byrd and Raab 2007, Gallegos 2017). An analysis of the Takic expansion by Sutton (2009) indicates that inland southern California was occupied by "proto-Yuman" populations before 1,000 YBP. The comprehensive, multi-phase model offered by Sutton (2009) uses linguistic, ethnographic, archaeological, and biological data to propose that Takic speaking groups moved south and east from the Los Angeles Basin. They then diffused south into Orange County and northern San Diego County, inland up the San Luis Rey River into the Palomar Mountain area and north into interior southern California around 1,250 YBP. In addition, during this period Lake Cahuilla began to receded, and the large populations of people living along the lake shores transitioned into the Colorado River basin to the east or the inland valleys to the west. The Late Prehistoric Period is identified as a continuation of the cultural practices that were present during the initial Euro-American exploration of Southern California and that were recorded during the Ethno-Historic Period (Byrd and Raab 2007).

The Late Prehistoric Period is defined by the introduction of the bow and arrow after approximately A.D. 500 and by A.D. 1000 ceramic vessels begin to appear at some sites (Meighan 1954, Warren 1961). Also,

during this time mortuary practices changed from inhumations to cremations. It is thought that this practice came from the north or east, and it is unknown if the transition from inhumations to cremations was adopted for religious or population reasons, or to control the spread of disease (Byrd and Raab 2007, Lightfoot and Parrish 2009, Gallegos 2017). Other hallmarks of the Late Prehistoric Period include an increase in the reliance on plant food sources, small projectile points, increase use of mortars and pestles, the use of obsidian from the Obsidian Butte source and overall an increase in the complexity and diversity of material cultural (SWCA 2018).

Many of the Late Prehistoric Period archaeological sites are located inland and contain bedrock milling features, thought to relate to acorn or other seed processing. People lived in larger coastal and lower valley villages, that were located near permanent water sources. These villages acted as ceremonial and political centers, and may have been occupied, at least partially, year-round. Smaller villages and residential areas were inhabited seasonally and were located near subsistence resources or were used for specialized activities, especially in inland areas (Byrd and Raab 2007, Lightfoot and Parrish 2009). This may have led to an increase in community size, longer stays at the major residences and different societal organization.

Archaeological remains have identified over four dozen plant types were used in Southern California during this period (Byrd and Raab 2007). Grass seeds had the highest frequencies of use with a gradual increase in acorn usage (Hale 2009). Little is known about plant cultivation during the Late Holocene. There is evidence that a high number of plants that follow fires were used, but no major research projects have focused on proto-agriculture. Early Spanish accounts identify that the Native Americans were practicing cultivation of certain plants through burning and water diversion (Gallegos 2017). Agriculture was in use along the Colorado River, east of the Project Area as early as A.D. 700 (Schaefer and Laylander 2007).

Changes in lithic artifacts show a greater number of small, finely chipped projectile points, usually stemless with convex or concave bases, suggesting an increased utilization of the bow and arrow rather than the atlatl and dart for hunting. Common lithic materials for formed tools, primarily projectile points include chert, jasper, agate, silicified wood, rhyolite, wonderstone, quartz, obsidian from Obsidian Butte, and Santiago Peak metavolcanics (Shackley 2004, Lightfoot and Parrish 2009). Other items include steatite cooking vessels and containers, the increased presence of smaller bone and shell circular fishhooks, perforated stones, arrow shaft straighteners made of steatite, a variety of bone tools, and personal ornaments made from shell, bone, and stone. There is also an increased use of asphalt for waterproofing and as an adhesive (SWCA 2018).

During the Late Prehistoric Period villages acted as ceremonial and political centers, and may have been occupied, at least partially, year-round. Smaller residential areas were inhabited seasonally and were located near subsistence resources or were used for specialized activities, especially in inland areas (Byrd and Raab 2007, Lightfoot 2009). This may have led to an increase in community size, longer stays at the major residences and different societal organization. Most of the rock art in Riverside County, as in the rest of Southern California has been attributed to the Late Prehistoric Period. Ceramic use included a variety of vessel types as well as clay smoking pipes. While ceramic use is present in the Lake Cahuilla region as early as 800 YBP and there were at least five ceramic types present in the desert (Shackley 2004), it is not present in the vicinity of the Project area until circa 350 YBP (Horne and McDougall 2007, Schaefer and Laylander 2007). Ceramic types consisted of brownwares, graywares, and buffwares.

2.2.2 Ethnohistoric Period

The Late Prehistoric period essentially ended with the Spanish colonization and establishment of the missions. Disease and forced relocation, which reduced the populations considerably among the coastal settlements, did much to destroy the cultural pattern established at that period (Bean and Shipek 1978). The Late Prehistoric culture pattern appears to have lasted longer among the inland groups. Even after the

missions were secularized in 1834, some inland groups were able to maintain most of their traditional orientation until the arrival of the settlers from 1859-1879, when most of the groups were displaced or dispersed (Bean and Shipek 1978).

During the Ethnohistoric period, the region that today is known as Riverside County was a shared-use area and home to three closely related Takic-speaking groups: the Cahuilla, the Gabrielino, and the Luiseño/Juaneño. Settlement patterns for all three groups were essentially very similar with settlements typically located within valley bottoms, along streams, or along coastal strands near mountain ranges. Villages were often located in sheltered areas near good water supplies, in a defensive location, or on the side of warm thermal zone slopes.

Within the region, the diverse ecological zones provided a wide array of subsistence products. Principal game animals included deer, rabbit, jackrabbit, woodrat, mice, ground squirrels, antelope, valley and mountain quail, doves, ducks, and other birds. Coastal game included sea mammals, fish, mollusks, and crustaceans. Fresh-water game included trout and other local fish (Bean and Shipek 1978, Kroeber 1925). Of high importance were acorns, and village locations were typically located near water sources for use in acorn leeching. Grass seeds were the next most ample resource, in addition to manzanita, sunflower, chia, sage, lemonade berry, prickly pear, and pine nuts. Fire was used as a crop management technique as well as for community rabbit drives. Tools for the acquisition, storage, or preparation of food were highly varied and constructed from locally derived materials, with a few items acquired via trade from specific localities (Bean 1978). Hunting activities used either individual or group participation, using bows and arrows for larger game or curved throwing sticks, slings, traps, or pit type deadfalls for smaller animals. Cremations were used in each group rather than inhumations. While culturally the groups shared similarities with may parts of their culture the Cahuilla differed from the Luiseño/Juaneño and Gabrielino in that their religion was more like the Mohave tribes of the eastern deserts than the Chingichngish cult of the Luiseño and Gabrielino. Overall, the archaeological record between the three groups is very similar.

Cahuilla

The Cahuilla traditional use area included the San Bernardino Mountains, Orocopia Mountains, and the Chocolate Mountains to the east, the Salton Sea and Borrego Springs to the south, the eastern slopes of Palomar Mountain and Lake Mathews to the west, and the Santa Ana River to the north (Bean 1978, Kroeber 1908). The Cahuilla traditionally inhabited areas from the desert and valley floors to the mountain areas, which included drastically different environmental areas and resources. The Project area is located along the western boundary of what would have been the Cahuilla traditional use area. Living inland, the Cahuilla had minimal contact with the Spaniards and were not as influenced to the extent that the coastal groups were, although the Asistencia at San Bernardino in 1819 did have several Cahuilla within their register.

Subsistence practices were similar to the Luiseño and Gabrielino, with a focus on hunting medium and small game, such as rabbits, with bow and arrow. At least six kinds of acorns, mesquite, screw beans, piñon nuts, cacti, variety of seeds, wild fruits and berries and succulents were collected. Granaries were used to store items such as acorns and mesquite beans. Additional plants were used for medicine and construction materials. Within the desert region the Cahuilla practiced proto-agriculture with the cultivation of corn, beans, squashes, and melons (Bean 1978).

Baskets were used for a variety of purposes and forms primarily for food production and storage. Ceramic pottery, was generally a redware with five main vessel types: small mouthed jars, cooking pots, open bowls, dishes, and pipes (Bean 1978).

The Cahuilla were organized into two major groups of patrilineal, totemic clans: the Wildcats and the Coyotes (Bean 1978, Gifford 1918). Within the clans, either an entire clan, or family groups had ownership over important resources, such as mesquite or agave areas. Members of the clan could split into smaller family groups during certain times of the year and come together for resource collection or defense. The acorn collecting season caused the most dispersal outside of villages and family groups left for several weeks to collect at various acorn groves (Bean 1978). Within Cahuilla villages structures ranged from brush shelters to dome shaped and rectangular houses.

In the mid-1800s the Cahuilla began to be more directly affected by European-American migrants moving into the area in response to the California Gold Rush. In addition, a smallpox epidemic in 1863 took a large toll on the native population (Hooper 1920:340).

Gabrielino

The largest, most powerful group in Southern California were the Gabrielino. Their traditional use area was centered in what is now the Los Angeles Basin and encompassed the Los Angeles, San Gabriel, and Santa Ana watersheds. Their range extended as far east as present-day San Bernardino, west to the Santa Monica Mountains, south to Aliso Creek and as far north as the San Fernando Valley. This group also occupied several Channel Islands, including Santa Barbara Island, Santa Catalina Island, San Nicholas Island, and San Clemente Island. The Gabrielino had access to important resources, including a steatite source from Santa Catalina Island and controlled the trade of materials and resources as far north as the San Joaquin Valley, east to the Colorado River, and even as far south as Baja California (Bean and Smith 1978; Kroeber 1925). The Gabrielino came under the influence of two Spanish missions, Mission San Gabriel and Mission San Fernando, and most of the natives from the coastal areas and inland valleys were removed to these missions (Bean and Smith 1978). According to the archaeological record, the Gabrielino were not the first inhabitants of the Los Angeles basin but arrived in the area around 500 B.C. as part of the "Shoshonean (Takic) wedge" (Bean and Smith 1978, Kroeber 1925).

The study area is located within the south eastern boundary of the Gabrielino territory (Bean and Smith 1978:538, Kroeber 1925:Plate 57). The name Gabrielino, which can also be spelled Gabrieleno or Gabrieleño, describes the people who were governed by the Spanish from the Mission San Gabriel. In the post-Contact period, Mission San Gabriel included natives of the greater Los Angeles area, as well as members of surrounding groups such as Kitanemuk, Serrano, and Cahuilla.

Little evidence exists that suggest that the people we call Gabrielino had a broad denotation for their group. According to Dakin (1978:222), the Gabrielino identified themselves as inhabitants of a specific community through the use of locational suffixes, similar to how residents of present-day communities identify themselves with their location (e.g. San Franciscan, San Diegan, California, etc.). However, there are Native words that have been suggested as labels for broader groups of Native Americans in the Los Angeles region. These labels include Tongva (or Tong-v) and Kizh (Kij or Kichereno). Heizer noted that evidence existed that these Native terms originally referred to local places or smaller groups of people within the larger group that we now call Gabrielino (Heizer 1968). The term Gabrielino, which combines the most commonly used group names, is used in the remainder of this study to designate native people of the Los Angeles Basin and their descendants.

The Gabrielino language is a member of the Takic branch of the Uto-Aztecan language family, which also includes the languages of the neighboring Juaneño/Luiseño, Tatataviam/Alliklik, and Serrano tribes. According to Mithun, the Uto-Aztecan language family can be traced back to the Great Basin area (2004). Linguistic analysis suggests that Takic-speaking immigrants from the Great Basin area began moving into southern California around 500 B.C. (Kroeber 1925:579).

The Uto-Aztecan family's origin differs greatly from that of the Chumash to the north and the Kumeyaay to the south. The language shared by the Kumeyaay is derived from the California-Delta branch of the Yuman-Cochimi language family, originating in the American Southwest (Mithun 2004:577). In contrast, the Chumash language may represent a unique language family with a lineage unlike both the Yuman-Cochimi and Uto-Aztecan families (Mithun 2004:390). Linguistic analysis suggests that Takic-speaking immigrants from the Great Basin area began moving into southern California around 500 B.C. (Kroeber 1925:579). Linguistic analysis suggests that Chumashan- and Yuman-speaking populations predated the arrival of Takic-speaking groups. The introduction of Takic-speaking groups to the region may have displaced both Chumashan- and Yuman-speaking peoples, however the timing and extent of their impact on indigenous peoples is not well understood.

Gabrielino society was organized along patrilineal non-localized clans, a characteristic Takic pattern, with each clan containing several lineages and their own ceremonial leader. One or two clans generally made up the population of a village. The chief, or tómyaar, always came from the primary lineage of the clan/village. There were two general classes of individuals in the forms of elites and commoners, although the Gabrielino did not have a distinctly stratified society. The elites consisted of primary lineage members, other lineage leaders (who maintained a separate ceremonial language), the wealthy, and the elite families of the various villages who commonly married among themselves. The commoner class contained those from "fairly well-to-do and long-established lineages" (Bean and Smith 1978:543). Slaves taken in war and individuals who drifted into the village and were unrelated to the local inhabitants made up a third class, lower than both the commoners and elites.

The Gabrielino lived in large, permanent villages that typically bordered rivers and streams or in sheltered areas along the coast. Gabrielino territory stretched from the foothills of the San Gabriel Mountains to the Pacific Ocean. Houses constructed by the Gabrielino were large, circular domed structures constructed of willow poles thatched with tule (Bean and Smith 1978), with capacities of up to 50 people per structure. Other structures constructed by the Gabrielino included sweathouses, menstrual huts, ceremonial enclosures, and communal granaries. The subsistence economy of Gabrielinos was centered on gathering and hunting. The surrounding environment was rich and varied, and the tribe exploited resources from mountain, foothill, valley, and desert environments in addition to riparian, estuarine, and open and rocky coastal eco-niches. Acorns were the staple food, and by the time of the early Intermediate period the gathering of acorns had become an established industry. Acorns were supplemented by the roots, leaves, seeds, and fruits of a wide variety of flora. Protein sources including fresh and saltwater fish, shellfish, birds, reptiles, large and small mammals, and insects were also consumed (Bean and Smith 1978:546; Kroeber 1925:631–632; McCawley 1996:119–123, 128–131).

A wide variety of tools and implements were used by the Gabrielino for the collection of food resources. Typical tools such as the bow and arrow, traps, nets, blinds, throwing sticks and slings, spears, harpoons, and hooks were used. Many plant foods were collected with woven seed beaters, several forms of burden baskets, carrying nets, and sharpened digging sticks which were occasionally fitted with stone weights. A variety of tools were used to process acorns, including portable and bedrock mortars, pestles, basket hopper mortars, manos and metates, hammerstones and anvils, woven strainers and winnowers, leaching baskets and bowls, woven parching trays, knives, bone saws, and wooden drying racks. The ground meal and unprocessed hard seeds were stored in large, finely woven baskets, and the unprocessed acorns were stored in large granaries woven of willow branches and raised off the ground on platforms. Santa Catalina Island steatite was used to make comals, ollas, and cooking vessels that would not crack after repeated firings. Food was consumed from a number of woven and carved wood vessels (Blackburn 1963; Kroeber 1925:631-639; McCawley 1996:129-138).

There is well-documented interaction between the Gabrielino and many of their neighbors in the form of intermarriage and trade. The Gabrielino participated in an extensive exchange network, trading coastal goods for inland resources. They exported Santa Catalina Island steatite products, roots, seal and otter skins, fish and shellfish, red ochre, and lead ore to neighboring tribes, as well as people as far away as the Colorado River. These exports were exchanged for ceramic goods, deer skin shirts, obsidian, acorns, and other items. This burgeoning trade was facilitated by the use of craft specialists, a standard medium of exchange (Olivella bead currency), and the regular destruction of valuables in ceremonies that maintained a high demand for these goods (McCawley 1996:112-115). Several Gabrielino villages appear to have served as trade centers, due in large part to their centralized geographic position in relation to the southern Channel Islands and to other tribes. These villages maintained particularly large populations and hosted annual trade fairs that would bring their population to 1,000 or more for the duration of the event (McCawley 1996:113–114).

At the time of Spanish contact, the basis of Gabrielino religious life was the Chinigchinich cult, which centered on the last of a series of heroic mythological figures. Chinigchinich gave instruction on laws and institutions, and also taught the people how to dance, the primary religious act for this society. He later withdrew into heaven, where he rewarded the faithful and punished those who disobeyed his laws (Kroeber 1925:637–638). The Chinigchinich religion seems to have been relatively new when the Spanish arrived and was spreading south into the Southern Takic groups even as Christian missions were being built. According to McCawley, the Chinigchinich religion also may have represented a mixture of native and Christian belief and practices (1996:143–144).

Gabrielino rituals and beliefs regarding death varied within their occupied territories. Deceased Gabrielino were either buried or cremated, with cremation practices being the dominant form within interior areas and portions of the coast line. Inhumations were reportedly more common on the Channel Islands and the neighboring mainland coast areas (Harrington 1942; McCawley 1996:157). Cremation ashes have been found in subsurface archaeological contexts within stone bowls and in shell dishes (Ashby and Winterbourne 1966), as well as contexts suggesting the scattering of ashes amongst broken ground stone implements (Altschul et al. 2007; Cleland et al. 2007). Gravegoods associated with burials/cremations included projectile points, beads, steatite objects, and asphaltum, and varied in quantity and content (Fraizer 2000:175). These archaeological contexts correspond with ethnographic descriptions of an elaborate mourning ceremony that included a wide variety of offerings, including seeds, stone grinding tools, otter skins, baskets, wood tools, shell beads, bone and shell ornaments, and projectile points and knives (Boscana 1846:314). Cremation practices essentially ceased during the post-Contact period (McCawley 1996:157).

Luiseño/Juaneño

The traditional use area of the Luiseño encompassed about 1,500 square miles and extended in a north-northeasterly direction from Agua Hedondia Lagoon, to Aliso Creek and, to the east, included what are today known as Oceanside, Vista, San Marcos, Escondido, Palomar Mountain, the Gujieto, a portion of Valle de San Jose, north to Soboba and Temescal (Bean and Shipek 1978, Sparkman 1908, White 1962). The Luiseño was designated based on their associate with the Mission San Luis Rey, while the Juaneño are associated with the Mission San Juan Capistrano, however Bean and Shipek (1978) state that the Luiseño and Juaneño are ethnologically and linguistically similar and that the distinction is based on the influence of the mission system. The Project area is adjacent to the northern boundary of the Luiseño/Juaneño traditional territory.

While the Luiseño along with the Cahuilla and Gabrielino were all Takic-speaking, and had similar social structures Bean and Shipek (1978) argue that the Luiseño social structure was more rigid due to their greater population density. The Luiseño lived in sedentary and autonomous villages located near reliable water sources and high resource areas. Each village contained named places associated with food products, raw materials, or sacred beings (Bean and Shipek 1978) Named places were owned by either an individual, a

family, a chief, or the collective group. Group economic activities were restricted to areas owned by the village, whereas familial gatherings were limited to family-owned areas, unless given express permission to hold such gatherings in areas other than their own (Bean and Shipek 1978). The concept of private property was important, and trespassing upon private areas was punished severely. A Luiseño ritual and ceremonial specialist maintained the knowledge of the various ceremonies and passed on the knowledge to only one heir. Such ceremonies included funerals and clothes burning ceremonies. The decimation of the population after European contact, without doubt, caused the loss of some spiritual specialists. Additionally, the reservation system interrupted the social organization and settlement patterns (Bean and Shipek 1978, Shipek 1986).

Settlements were typically located within valley bottoms, along streams, or along coastal strands near mountain ranges. Villages were often located in sheltered areas near good water supplies, in a defensive location, or on the side of warm thermal zone slopes. Each village contained named places associated with food products, raw materials, or sacred beings (Bean and Shipek 1978). Named places were owned by either an individual, a family, a chief, or the collective group. Group economic activities were restricted to areas owned by the village as a whole, whereas familial gatherings were limited to family-owned areas, unless given express permission to hold such gatherings in areas other than their own (Bean and Shipek 1978). The concept of private property was important to the Luiseño, and trespassing upon private areas was punished severely. Private property also included houses, capital equipment, treasure goods and ritual equipment, trade and ceremonial beads, eagle nests, songs, and other nonmaterial possessions. Privately owned property was either inherited patrilineally or transferred to another owner (Sparkman 1908, Bean and Shipek 1978).

The diverse ecological zones within the Luiseño territory provided a wide array of subsistence products. Principal game animals included deer, rabbit, jackrabbit, woodrat, mice, ground squirrels, antelope, valley and mountain quail, doves, ducks, and other birds. (Gifford 1918, Sparkman 1908, Bean and Shipek 1978). The most important gathered resource were acorns, and village locations were typically located near water sources for use in acorn leeching. Grass seeds were the next most abundant resource, in addition to manzanita, sunflower, chia, sage, lemonade berry, prickly pear, and pine nuts. Fire was used as a crop management technique as well as for community rabbit drives. Tools for the acquisition, storage, or preparation of food were highly varied and constructed from locally derived materials, with a few items acquired via trade from specific localities (steatite bowls from Santa Catalina Island, obsidian blanks or tools from either eastern or northern neighbors) (Bean and Shipek 1978). Hunting activities used either individual or group participation, using bows and arrows for larger game or curved throwing sticks, slings, traps, or pit type deadfalls for smaller animals.

2.2.3 Historic Period

The first part of the next section provides a brief history of post-contact California up to the American period, followed by more detailed information regarding the history of Corona. Post-Contact history for the state of California is generally divided into three specific periods: the Spanish period (1769–1821), the Mexican period (1821–1848), and the American period (1848–present).

Spanish Period (1769-1821)

Along the coast of California, Spanish explorers began making expeditions between the mid-1500s and 1700s. Juan Rodríguez Cabrillo, a Portuguese in Spanish service, explored Catalina Island, San Pedro and Santa Monica bays and also stopped in 1542 at present-day San Diego Bay (Sparkman 1908). Sebastián Vizcaíno, a Spanish naval officer spent much of the late 1500's mapping the coast of California north into Oregon. Like Cabrillo, Vizcaíno's crew also landed on Santa Catalina Island and at San Pedro and Santa Monica Bays, naming each location. The Spanish crown laid claim to California based on the surveys

conducted by Cabríllo and Vizcaíno (Bancroft 1886). While none of these expeditions may have had direct contact with the vicinity of the Project area it is likely that Old World diseases and other indirect impacts reached the Native Americans living in the Project area.

In 1769, the King of Spain directed the Franciscan Order to direct religious and colonization matters in assigned territories of the Americas. Captain Gaspar de Portolá, 64 soldiers, missionaries, Baja (lower) California Native Americans, and Mexican civilians, established the Presidio of San Diego, a fortified military outpost, as the first Spanish settlement in Alta California. In July of 1769, while Portolá was exploring southern California, Franciscan Fr. Junípero Serra founded Mission San Diego de Alcalá at Presidio Hill, the first of the 21 missions that would be established in Alta California by the Spanish and the Franciscan Order between 1769 and 1823. In 1771 the Mission San Gabriel Archangel was established and in 1776 Mission San Juan Capistrano was established. The mission of San Luis Rey de Francia was established in 1798 four miles up the San Luis Rey river from the coast and in 1816, an outpost of San Luis Rey was established at Pala, 20 miles upriver. An additional outpost, the San Bernardino estancia was established in 1819. Mission San Gabriel would have had the greatest impact on the Native Americans within the vicinity of the Project area.

A Spanish expedition led by Pedro Fages in 1772 was the first European group to travel in the vicinity of the Project area. Looking for deserters from the military post in San Diego, Fages crossed into the San Bernardino Valley from the southeast, crossing the Santa Ana River, then heading north through the Cajon Pass and into the Mojave Desert (Hampson et al. 1988). In 1774, Juan Bautista de Anza led an expedition into California and traversed the San Jacinto Valley, camping in the San Jacinto River Valley for water, and then heading west away from the river through Bernasconi Pass near present-day Lakeview. He went on through Moreno Valley near March Air Reserve Base, then headed into the Santa Ana River Valley near the present site of the City of Riverside. His expedition opened an overland travel route from Sonora in the Mexican interior to Monterey in California. Following his first expedition, Anza returned to the region in 1775 leading a group of settlers to establish a mission and presidio in San Francisco (Brown and Boyd 1922, Rawls and Bean 2003).

Mexican Period (1821-1846)

After years of sporadic rebellion and warfare, New Spain (Mexico and the California territory) won independence from Spain in 1821 marking the beginning of the Mexican Period. As the ports in California were opened to foreign ships the population near the coast grew. However, the inland valleys remained largely vacant of European settlers expect for use as grazing lands for cattle. During the Mexican Period the cattle industry grew in importance to become the leading industry in the region and the central focus of the Califoriño culture. The Mexican Government continued the land grant system first began by Spain and granted several land grants as part of the ranch system within the vicinity of the project area. Land grants within the vicinity of the project area include: the La Sierra Yorba, La Sierra Sepulveda, Sobrante de San Jacinto, Jurupa-Stearns, and El Rincon land grants.

The Mexican government secularized the California missions in 1833, and much of the mission lands were included in the land grants. The Native Americans which had been captured as part of the mission system became eligible for Mexican citizenship, however this period continued the physical and cultural decline of the Native American population (Heizer 1978). At their peak, the 21 California missions controlled approximately 74,000 neophytes (Bolton 1917). By 1834, the year before secularization took the institution from the missionaries, only 17,000 natives remained within their domain (Heizer 1978, Monroy 1990).

American Period (1848-Present)

The signing of the Treaty of Guadalupe Hidalgo in 1848, ended the Mexican American War and marks the beginning of the American period, when California became a territory of the United States. California

became the 31st state in 1850 and within three years the population of California had increased to more than 300,000.

Cattle continued to dominate the southern California economy through the 1850s as a source of hides but for the more than 90,000 new residents lured to California by the Gold Rush beginning in 1848, cattle were now an important source of meat and other supplies. Cattle were at first driven along major trails or roads such as the Gila Trail or Southern Overland Trail, then were transported by trains where available. The cattle boom ended for southern California as neighbor states and territories drove herds to northern California at reduced prices (Cleland 2005).

In Southern California, the floods of 1861-1862 followed by drought in 1863 and 1864 decimated the cattle industry and the large rancho owners who were "land rich and cash poor" began to sell off portions of their grants to satisfy debts (Guinn 1907). It was at this time that the new residents, mainly farmers, began experimental plantings to determine what their newly acquired land was best suited for within the vicinity of the Project area. In 1866 California Legislature passed an act that authorized payment of 250 for every 5000 mulberry trees that were at least two years old and 300 for every 100,000 cocoons produced. Tens of millions mulberry trees were planted, and the State treasury went almost bankrupt paying the incentives. By the end of the 1860's, the silk craze had waned and the State canceled the payments for tree planting and cocoons (Guinn 1907). After several other agricultural experiments, it was found that oranges were the most suitable crop for the area. Although the first orange trees in Riverside County were planted in 1871, the citrus industry really took off two years later when Eliza Tibbets received two Brazilian navel orange trees sent to her by a friend at the Department of Agriculture in Washington. The trees thrived in the Southern California climate and the navel orange industry grew rapidly. The citrus industry expanded in the region and spurred irrigation projects further expanding usable land and encouraging additional development.

On March 11, 1893, Riverside County was formed from an approximately 6,500 square miles of San Diego County and 560 square miles of San Bernardino County (Holmes 1912). Riverside County was formed primarily over political and tax issues between residents in San Bernardino and Riverside, and the displeasure of residents in the Temecula Valley area being too great a distance from the County seat in San Diego.

City of Corona Project Area History

First called "South Riverside", Corona was founded in 1886 by the South Riverside Land and Water Company at the height of the Southern California citrus boom (Holmes 1912). In 1886, developer Robert Taylor and his partners, Adolph Rimpau, George L. Joy, A. S. Garretson, a Sioux City banker, and ex-governor of Iowa, Samuel Merrill formed the South Riverside Land and Water Company. Together they raised approximately $110,000 to purchase approximately 12,000 acres of agricultural land that had formerly been part of the Rancho La Sierra, and Rancho Temescal land grants. Anaheim engineer H. C. Kellogg was hired and the colony of South Riverside was laid out encircled by Grand Boulevard, 100 feet wide and three miles round that had plantings of shade trees along each side of the road. Another bonus was that the "colony" was located on the San Diego branch of the Santa Fe Railroad. To the north along the railroad tracks were the manufacturing plants and packing houses. The southern end of town was mostly occupied by the citrus industry. In 1889, the Temescal Water Company was incorporated to supply water for the new colony (Corkhill 2013). This company purchased all the water-bearing lands in the Temescal valley and began drilling artesian wells. Taylor and his partners realized the importance of water for the soon to be developed community, and additional funds were used to ensure that sufficient water rights were obtained. They also secured the water rights to Temescal Creek, its tributaries and Lee Lake. Dams and pipelines were built to carry the water to the colony. After an initial flurry of expansion, water supplied from Temescal Canyon was not enough for the growing population and increasing agriculture. In 1899 the

Corona Irrigation Company purchased 160 acres near Perris that had artesian waters. They constructed a 21-mile cement ditch to bring water to the area.

By 1893 the town boasted a large air-drying lumber yard, a clay and pipe works owned by the Pacific Clay Manufacturing Company, shipments of clay, gypsum, hay grain and honey were being shipped out. Hundreds of acres of were planted in orange, lemon and deciduous trees. There were three churches, Baptist, Methodist and Congregational, in addition, an Episcopalian group had purchased lots in town and were in the process of building their house of worship. There was a large two-story brick school, a bank, and a three-story hotel. In addition, there was a drug store, a newspaper, two bakeries, and a general merchandise store (Bynon 1893:4, Holmes 1912).

In addition to agricultural pursuits, mining also influence the early development of Corona. A tin mine had been discovered in 1857 in the nearby San Jacinto Hills. However, mining in the area did not gain traction until 1888, as Corona was the closest town to the mines and contained the most convenient rail depot, both supplies and workers arriving for the mines flowed through Corona. While the actual tin mines only remained open for a short time, they brough additional development and residents to Corona (Homes 1912).

Corona became known as the lemon capital of the world. Additional agricultural pursuits included other fruits and alfalfa (City of Corona n.d.). By the 1910s approximately ¼ of the residents Corona were involved in the citrus industry. The lemon production spurred the creation of the Exchange By-Products Company the processed lemons which were not used for food into citric acid, lemon oil, and other products. In addition to being known for their lemon production the City of Corona began auto racing in 1913 at the Corona Road Races on Grand Boulevard, however the auto race proved to be too dangerous and was stopped after several years (City of Corona nd). Agriculture remained the main economic activity for decades.

World War II prompted a change in the development of Corona away from agriculture, as military bases within the region raised the population and created additional industries outside of agriculture. The Prado Dam, located immediately to the west of the Project area was completed in May 1941. The Prado Dam was constructed by the U.S. Army Corps of Engineers, Los Angele s District, along the lower Santa Ana River. The dam was constructed as a flood risk management measure, along with recreation and water conservation purposes (USACE 2020).

Post-World War II housing needs increase development in the area and by 1962 the Riverside Freeway (State Highway 91) was constructed through Corona. Interstate 15 was constructed, to the east of Corona in 1989. By the 1980s Corona developed into a residential community and the population grew exponentially.

3. METHODS

Methods used to assess the cultural resources sensitivity of the RWMP project area include record searches from local repositories and archival research. No archaeological field survey was conducted for this study.

3.1 RECORD SEARCHES

3.1.1 Eastern Information Center

A record search of the CHRIS held by the EIC for the RWMP project area and a one-quarter mile record search radius was requested on April 1, 2020. However, the EIC is temporarily closed due to COVID-19, and it is unknown when the record search results will be available. Therefore, record search results from the *City of Corona General Plan Update: Cultural Resources Technical Report* (SWCA 2018) were summarized for this report. Most of the City of Corona General Plan Update and the RWMP project areas overlap. The record search area utilized for the *City of Corona General Plan Update: Cultural Resources Technical Report* is shown in Figure 10, and includes the Corona city boundaries and the City's Sphere of Influence (SOI). The record search information was not available for the north west corner of the Project area within the Prado Flood Control Basin. However, no Project Components of the RWMP are located within this area. If available, an updated record search at the EIC will be requested and can be added to a subsequent draft of this report.

3.1.2 Native American Heritage Commission

A record search of the SLF held by the NAHC was requested on March 30, 2020. The NAHC responded on April 2, 2020 that the results were positive and provided a list of 37 tribal organizations and individuals to contact for additional information. Red Tail sent information request letters to the 37 tribal organizations and individuals on April 6, 2020. All correspondence pertaining to the NAHC is included in Appendix B.

3.2 ARCHIVAL RESEARCH

Historic aerial photographs and maps, provided by historicaerials.com and USGS Historical Topographic Map Explorer, of the RWMP project area were examined. In addition, Red Tail conducted a search of the General Land Office (GLO) maps and records provided by the Bureau of Land Management (BLM) including land patents, survey plats and field notes, land status records and other historic documents. In order to assess previous ground disturbance and cultural resource sensitivity the *City of Corona General Plan Update: Cultural Resources Technical Report* (SWCA 2018) provided building record data per decade for properties within the project area.

3.3 TRIBAL CULTURAL RESOURCES

Per AB-52 and SB-18 consultation with Native American Tribes and the City is ongoing.

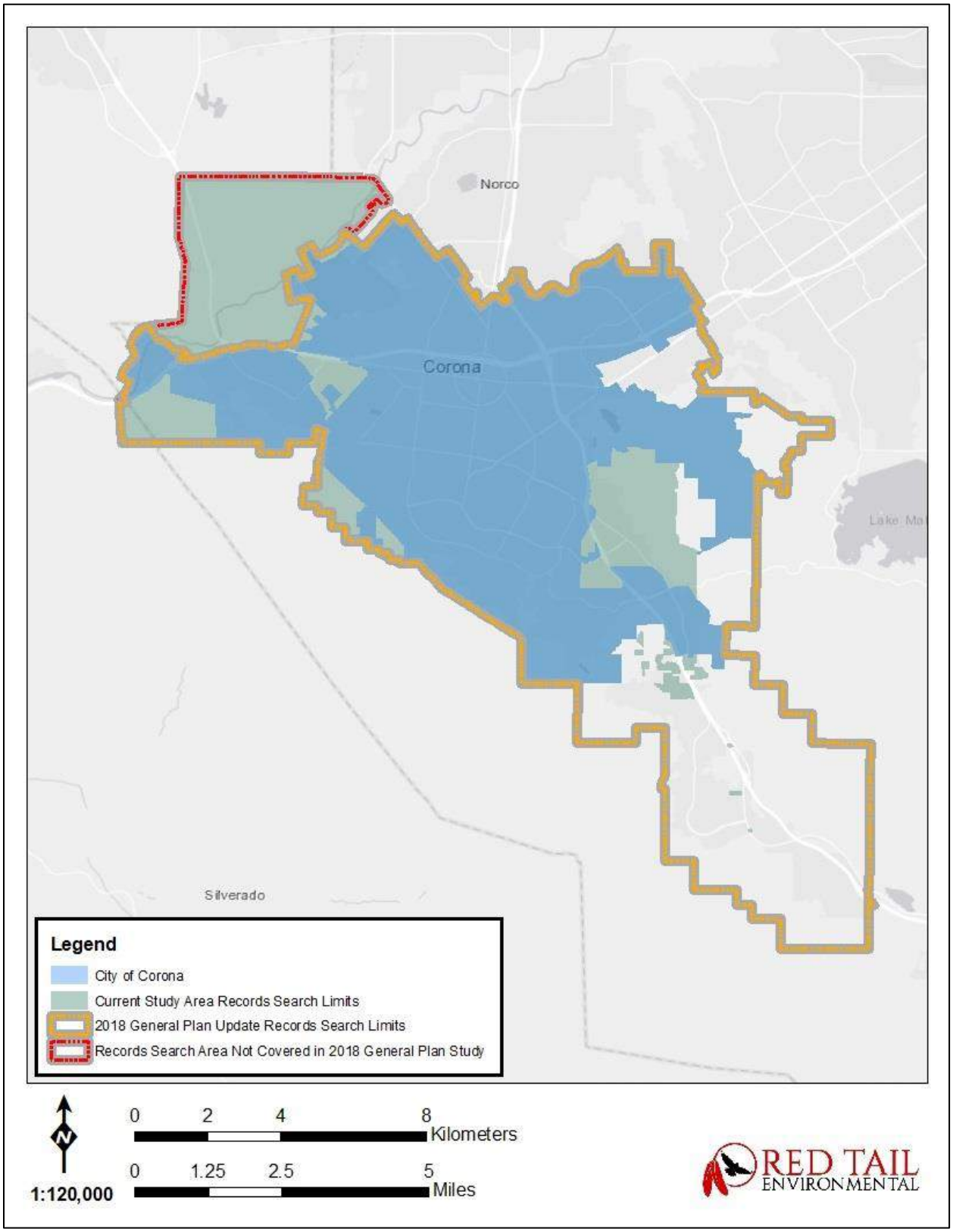


Figure 10. Record Search Area for the RWMP Project and the City of Corona General Plan Update Project.

4. RESULTS

4.1 RECORD SEARCH RESULTS

4.1.1 EIC Record Search Results

The *City of Corona General Plan Update: Cultural Resources Technical Report* (SWCA 2018) identified a total of 172 previously conducted cultural resources studies within the City of Corona and the City's Sphere of Influence (SOI) (Table 1). The majority of the City of Corona and the SOI overlaps with the RWMP Project area.

Table 1. Previously Conducted Cultural Resources Studies within the City of Corona and the SOI

Report	Author	Year	Title	Quad
RI-00062	RONALAD C. TOBEY, TERRY D. SUSS, AND LARRY BURGESS	1977	HISTORICAL RESOURCE SURVEY OF THE PRADO FLOOD CONTROL BASIN	CORONA NORTH, PRADO DAM
RI-00064	JEAN TADLOCK	1977	ARCHAEOLOGICAL ELEMENT OF AN ENVIRONMENTAL IMPACT REPORT WESTERN VILLAGE PROJECT, RIVERSIDE COUNTY, CALIFORNIA, LEIGHTON PROJECT 77201-1	BLACK STAR CANYON, PRADO DAM
RI-00078	MICHAEL C. GARDNER	1973	MAIN STREET WASH FLOOD CONTROL PROJECT: EXPECTED IMPACT TO ARCHAEOLOGICAL RESOURCES.	CORONA NORTH, CORONA SOUTH
RI-00080	MICHAEL C. GARNDER	1973	LINCOLN STREET CHANNEL STAGE II FLOOD CONTROL PROJECT: EXPECTED IMPACT TO ARCHAEOLOGICAL RESOURCES.	CORONA NORTH, RIVERSIDE WEST
RI-00169	PATRICIA MARTZ AND RICHARD A. WEAVER	1975	ENVIRONMENTAL EVALUATION: ARCHAEOLOGY OF THE PROPOSED ALIGNMENTS OF THE SANTA ANA REGIONAL INTERCEPTOR, RIVERSIDE, SAN BERNARDINO, AND ORANGE COUNTIES, CALIFORNIA	PRADO DAM
RI-00188	MARY A. BROWN	1976	LETTER REPORT: CULTURAL RESOURCES EVALUATION FOR PROPOSED WATER SUPPLY FACILITIES FOR THE CITY OF CORONA AND SURROUNDING COMMUNITIES (PHASE II).	CORONA SOUTH, LAKE MATHEWS
RI-00188	MARY A. BROWN	1976	LETTER REPORT: CULTURAL RESOURCES EVALUATION FOR PROPOSED WATER SUPPLY FACILITIES FOR THE CITY OF CORONA AND SURROUNDING COMMUNITIES (PHASE II).	CORONA SOUTH, LAKE MATHEWS
RI-00261	DONALD LIPP	1977	ENVIRONMENTAL IMPACT ASSESSMENT: ARCHAEOLOGICAL SURVEY OF SHARER RANCH, RIVERSIDE COUNTY, CALIFORNIA	BLACK STAR CANYON, PRADO DAM
RI-00336	CHRISTINA BREWER	1978	AN ARCHAEOLOGICAL SURVEY OF PARCEL NOS. 1, 2, AND 3 ON PARCEL MAP 11561, COUNTY OF RIVERSIDE, CALIFORNIA	LAKE MATHEWS
RI-00337	JANE ROSENTHAL	1996	ARCHAEOLOGICAL ASSESSMENT FOR CORONA CLAY PARCELS 1, 2, AND 3 TEMESCAL CANYON VICINITY, RIVERSIDE COUNTY, CALIFORNIA	LAKE MATHEWS
RI-00384	CHRISTOPHER E. DOVER	1978	ENVIRONMENTAL IMPACT EVALUATION: ARCHAEOLOGICAL ASSESSMENT OF TENTATIVE PARCEL MAP 11899, NEAR LAKE MATHEWS, RIVERSIDE COUNTY, CALIFORNIA	LAKE MATHEWS
RI-00410	JACK ZAHNISEC	1980	ARCHAEOLOGICAL ASSESSMENT FORM: RIVERSIDE COUNTY PLANNING DEPARTMENT, SMP NO. 133	ALBERHILL, LAKE MATHEWS
RI-00465	BRUCE LOVE AND BAI "TOM" TANG	1999	HISTORIC BUILDING EVALUATION, FORMER B&R SERVICE BUILDING, 1390 EAST CHASE DRIVE, CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA	CORONA SOUTH
RI-00608	BETH PADON	1982	ARCHAEOLOGICAL ASSESSMENT OF WOODLAKE VILLAGES GENERAL PLAN AMENDMENT	CORONA NORTH
RI-00609	THOMAS HOLCOMB, JAMES D. SWENSON, AND PHILIP J. WILKE	1979	RESULTS OF TEST EXCAVATIONS AT CA-RIV-1443, NORCO HILLS, RIVERSIDE COUNTY, CALIFORNIA	CORONA NORTH
RI-00610	CHRISTOPHER E. DROVER	1979	AN ARCHAEOLOGICAL ASSESSMENT OF THE NORCO HILLS PROPOSED SUBDIVISION NEAR NORCO, CALIFORNIA	CORONA NORTH
RI-00748	M.D CHAMBERS	1979	LETTER REPORT: ARCHAEOLOGICAL SURVEY OF TENTATIVE PARCEL NO. 13062	ALBERHILL, LAKE MATHEWS

Report	Author	Year	Title	Quad
RI-00755	MARIE COTTREL	1980	ARCHAEOLOGICAL RESOURCES CONDUCTED FOR THE CORONA ASSESSMENT DISTRICT ENVIRONMENTAL IMPACT REPORT	CORONA NORTH
RI-00757	JAMES E. BALDWIN	1980	CULTURAL RESOURCE IMPACT EVALUATION: ARCHAEOLOGICAL INSPECTION OF TENTATIVE PARCEL MAP NO. 15490, PORTION OF DAWSON CANYON, CORONA, RIVERSIDE COUNTY	LAKE MATHEWS
RI-00848	CHRISTOPHER E. DROVER	1980	ENVIRONMENTAL IMPACT EVALUATION: ARCHAEOLOGICAL ASSESSMENT OF A PROPOSED SUBDIVISION ON THE NORTHWEST CORNER OF TEMESCAL CANYON AND GLEN IVY ROADS NEAR CORONA, CALIFORNIA	LAKE MATHEWS
RI-01035	GEORGE R. MOMYER	1937	INDIAN PICTURE WRITING IN SOUTHERN CALIFORNIA (COPY)	-
RI-01076	JEAN A. SALPAS	1980	AN ARCHAEOLOGICAL ASSESSMENT OF 10 ACRES IN THE TEMESCAL VALLEY (LOT IN THE TEMESCAL VALLEY)	LAKE MATHEWS
RI-01077	JEAN A. SALPAS	1980	AN ARCHAEOLOGICAL ASSESSMENT OF 7.92 ACRES IN THE TEMESCAL VALLEY (PORTION OF PARCEL 2, PARCEL MAP 7239)	LAKE MATHEWS
RI-01112	STEVEN SCHWARTZ	1981	CULTURAL RESOURCES SURVEY, PRADO FIX	CORONA NORTH, PRADO DAM
RI-01169	ROGER J. DESAUTELS	1979	ARCHAEOLOGICAL SURVEY REPORT ON A 1700 + ACRE PARCEL OF LAND DESIGNATED THE "CAMPEAU PROJECT" LOCATED IN THE LAKE MATTHEWS AREA OF RIVERSIDE COUNTY	CORONA NORTH, CORONA SOUTH, LAKE MATHEWS, RIVERSIDE WEST
RI-01237	ROBERT J. WLODARSKI AND JOHN M. FOSTER	1980	CULTURAL RESOURCE OVERVIEW FOR THE DEVERS SUBSTATION TO SERRANO SUBSTATION TRANSMISSION ROUTE ALTERNATIVES CORRIDOR RIGHT-OF-WAY	ALBERHILL, BEAUMONT, BLACK STAR CANYON, CABAZON, CORONA SOUTH, EL CASCO, LAKE ELSINORE, LAKE MATHEWS, LAKEVIEW, PERRIS, ROMOLAND
RI-01237	ROBERT J. WLODARSKI AND JOHN M. FOSTER	1980	CULTURAL RESOURCE OVERVIEW FOR THE DEVERS SUBSTATION TO SERRANO SUBSTATION TRANSMISSION ROUTE ALTERNATIVES CORRIDOR RIGHT-OF-WAY	ALBERHILL, BEAUMONT, BLACK STAR CANYON, CABAZON, CORONA SOUTH, EL CASCO, LAKE ELSINORE, LAKE MATHEWS, LAKEVIEW, PERRIS, ROMOLAND
RI-01238	DANIEL F. MCCARTHY	1986	ENVIRONMENTAL EVALUATION: A ARCHAEOLOGICAL ASSESSMENT OF A 9.9 ACRE PARCEL OF LAND IN TEMESCAL CANYON, RIVERSIDE COUNTY, CALIFORNIA.	LAKE MATHEWS
RI-01242	STEPHEN R. HAMMOND	1980	FIRST ADDENDUM TO ARCHAEOLOGICAL SURVEY REPORT FOR THE PROPOSED ROUTE 15 TRANSPORTATION FACILITY BETWEEN MAGNOLIA AVENUE IN THE CITY OF CORONA AND THE ROUTE 60 FREEWAY, RIVERSIDE AND SAN BERNARDINO COUNTIES	CORONA NORTH
RI-01268	STEPHEN R. HAMMOND	1981	ARCHAEOLOGICAL SURVEY REPORT FOR THE PROPOSED GLEN IVY SAFETY ROADSIDE REST FACILITIES (P.M. 31.3/31.9)	LAKE MATHEWS
RI-01307	ANN S. PEAK	1975	CULTURAL RESOURCE ASSESSMENT OF SEWAGE TREATMENT FACILITIES EXPANSION PROJECT, CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA	CORONA NORTH
RI-01338	CHRISTINA BREWER	1979	AN ARCHAEOLOGICAL SURVEY OF TRACK 14684, COUNTY OF RIVERSIDE, CALIFORNIA	ALBERHILL, LAKE MATHEWS
RI-01354	WILLIAM BREECE AND BETH PADON	1982	ARCHAEOLOGICAL TESTING AT CA-RIV-1801, GREEN RIVER MEADOW PROJECT, RIVERSIDE COUNTY, CALIFORNIA	PRADO DAM
RI-01355	ROGER J. DESAUTELS	1979	ARCHAEOLOGICAL SURVEY REPORT ON: AN 85 ACRE SEGMENT OF THE CADILLAC FAIRVIEW'S " GREEN RIVER" PROJECT. LOCATED IN SANTA ANA CANYON, RIVERSIDE COUNTY, CALIFORNIA	PRADO DAM
RI-01420	LSA, INC.	1982	ARCHAEOLOGICAL RECORDS SEARCH AND RECONNAISSANCE WESTERN MUNICIPAL WATER DISTRICT PROPOSED WATER TREATMENT PLANT, RIVERSIDE COUNTY, CALIFORNIA	PRADO DAM
RI-01479	SCHROTH, ADELLA	1982	ARCHAEOLOGICAL ASSESSMENT OF THE TEMESCAL VALLEY PROJECT, COUNTY OF RIVERSIDE, CALIFORNIA	ALBERHILL, CORONA SOUTH, LAKE MATHEWS

Report	Author	Year	Title	Quad
RI-01517	BOWLES, LARRY L.	1982	ARCHAEOLOGICAL ASSESSMENT FOR TPM 18721	BLACK STAR CANYON, CORONA NORTH, CORONA SOUTH
RI-01665	WIRTH ASSOCIATES	1983	DEVERS-SERRANO-VILLA PARK TRANSMISSION SYSTEM SUPPLEMENT TO THE CULTURAL RESOURCES TECHNICAL REPORT - PUBLIC REVIEW DOCUMENT AND CONFIDENTIAL APPENDICES	ALBERHILL, BEAUMONT, CABAZON, CORONA NORTH, CORONA SOUTH, EL CASCO, LAKE FULMOR, LAKE MATHEWS, LAKEVIEW, PERRIS, REDLANDS, SAN BERNARDINO SOUTH, SAN JACINTO, SANTIAGO PEAK, SUNNYMEAD
RI-01724	RECTOR, CAROL	1983	AN ARCHAEOLOGICAL ASSESSMENT OF TRACT 17634, CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA	CORONA SOUTH
RI-01735	MCCARTHY, DANIEL F.	1983	AN ARCHAEOLOGICAL ASSESSMENT OF SKY ISLAND ESTATES, SANTA ANA CANYON AREA OF ORANGE AND RIVERSIDE COUNTIES, CALIFORNIA	BLACK STAR CANYON, PRADO DAM
RI-01736	PINK, W.J., M.A. BROWN AND NANCY EVANS	1983	CULTURAL AND PALEONTOLOGICAL RESOURCES ASSESSMENT OF THE GREENWAY FARMS, A PROPOSED SUBDIVISION, RIVERSIDE COUNTY, CALIFORNIA	CORONA NORTH, CORONA SOUTH, LAKE MATHEWS, RIVERSIDE WEST
RI-01873	COTTRELL, MARIE	1984	A CULTURAL RESOURCES ASSESSMENT CONDUCTED FOR TT 20060, CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA	CORONA NORTH
RI-01913	MCCARTHY, DANIEL F.	1985	AN ARCHAEOLOGICAL ASSESSMENT OF A PORTION OF A PROPOSED INTERCEPTOR SEWER PIPELINE RIGHT-OF-WAY IN THE NORCO- CORONA AREA, RIVERSIDE COUNTY, CALIFORNIA	CORONA NORTH
RI-01914	GALLEGOS, DENNIS AND RICHARD CARRICO	1985	CULTURAL RESOURCES SURVEY FOR THE PROPOSED SIERA DEL ORO PROJECT, CORONA, CALIFORNIA	BLACK STAR CANYON, CORONA NORTH, CORONA SOUTH, PRADO DAM
RI-01914	GALLEGOS, DENNIS AND RICHARD CARRICO	1985	CULTURAL RESOURCES SURVEY FOR THE PROPOSED SIERA DEL ORO PROJECT, CORONA, CALIFORNIA	BLACK STAR CANYON, CORONA NORTH, CORONA SOUTH, PRADO DAM
RI-01949	BOUSCAREN, STEPHEN	1985	FINAL REPORT: AN ARCHAEOLOGICAL ASSESSMENT OF THE PROPOSED VALLEY-SERRANO 500 KV TRANSMISSION LINE CORRIDOR, ORANGE AND RIVERSIDE COUNTIES	ALBERHILL, CORONA SOUTH, LAKE ELSINORE, LAKE MATHEWS, ROMOLAND
RI-01954	E. JANE ROSENTHAL AND STEVEN J. SCHWARZ	1981	A CULTURAL RESOURCE SURVEY OF THE PROPOSED SANTA ANA RIVER HIKING/BIKING TRAIL IN THE PRADO FLOOD CONTROL BASIN	BLACK STAR CANYON, CORONA NORTH, PRADO DAM
RI-01976	HAMMOND, STEPHEN R.	1985	ARCHAEOLOGICAL SURVEY REPORT FOR THE PROPOSED WIDENING OF INTERSTATE ROUTE 15 BETWEEN GLEN IVY UNDERCROSSING AND 0.4 MILE SOUTH OF ONTARIO AVENUE 08- RIV-15, P.M.33.3/38.3	CORONA SOUTH, LAKE MATHEWS
RI-02072	SWOPE, KAREN K.	1987	AN ARCHAEOLOGICAL ASSESSMENT OF TT 21268, CORONA AREA OF RIVERSIDE COUNTY, CALIFORNIA	CORONA SOUTH
RI-02267	SCHNEIDER, JOAN S.	1988	AN ARCHAEOLOGICAL ASSESSMENT OF TT 21355 LOCATED IN THE CITY OF CORONA, WESTERN RIVERSIDE COUNTY, CALIFORNIA	CORONA NORTH
RI-02270	DROVER, C.E.	1988	AN ARCHAEOLOGICAL ASSESSMENT OF THE PROPOSED TEMSCAL WASH SAND AND GRAVEL MINING OPERATION, TEMSCAL CANYON, RIVERSIDE COUNTY, CALIFORNIA	LAKE MATHEWS
RI-02308	PARR, ROBERT E.	1988	AN ARCHAEOLOGICAL ASSESSMENT OF TP 22782, LOCATED IN THE CORONA AREA OF RIVERSIDE COUNTY, CALIFORNIA	CORONA SOUTH
RI-02379	LSA, INC.	1989	CHASE RANCH SPECIFIC PLAN - ARCHAEOLOGICAL ASSESSMENT	CORONA SOUTH
RI-02381	SCIENTIFIC RESOURCE SURVEYS, INC.	1988	ARCHAEOLOGICAL ASSESSMENT - TP 23959	LAKE MATHEWS
RI-02396	DROVER, C.E.	1989	AN ARCHAEOLOGICAL ASSESSMENT OF THE INDIAN TRAILS PROJECT, TEMESCAL VALLEY, EAST OF CORONA, CALIFORNIA.	ALBERHILL, LAKE MATHEWS
RI-02396	DROVER, C.E.	1989	AN ARCHAEOLOGICAL ASSESSMENT OF THE INDIAN TRAILS PROJECT, TEMESCAL VALLEY, EAST OF CORONA, CALIFORNIA.	ALBERHILL, LAKE MATHEWS
RI-02429	STICKEL, E. GARY AND TERENCE D'ALTROY	1980	SANTA ANA RIVER AND SANTIAGO CREEK: A CULTURAL RESOURCE SURVEY	CORONA NORTH, EL CASCO, PRADO DAM

Report	Author	Year	Title	Quad
RI-02515	BROWN, JOAN C.	1989	CULTURAL RESOURCES RECONNAISSANCE OF THE 1,100 ACRE EAGLE VALLEY PROJECT, RIVERSIDE, CALIFORNIA.	CORONA SOUTH, LAKE MATHEWS
RI-02516	MORGAN, MARILYN	1989	ADDENDUM TO CULTURAL RESOURCES RECONNAISSANCE OF EAGLE VALLEY PROJECT, DATED 17 AND 20 JULY 1989, RIVERSIDE COUNTY, CALIFORNIA	CORONA SOUTH, LAKE MATHEWS
RI-02521	DIBBLE, STEPHEN D.	1987	AN ARCHAEOLOGICAL ASSESSMENT OF THE WARM SPRINGS GREEN DEVELOPMENT, RIVERSIDE COUNTY, CALIFORNIA.	LAKE MATHEWS
RI-02535	KELLER, JEAN S.	1989	AN ARCHAEOLOGICAL ASSESSMENT OF CHANGE OF ZONE 5328/PLOT PLAN 10,893 RIVERSIDE COUNTY, CALIFORNIA.	WILDOMAR
RI-02650	BERGIN, KATHLEEN A. AND RANDAL P. PRESTON	1989	TECHNICAL REPORT 3: ARCHAEOLOGICAL RESEARCH REPORT FOR THE TEMESCAL CANYON COMPOSING FACILITY EIR RIVERSIDE COUNTY, CALIFORNIA. SCH 88100318	LAKE MATHEWS
RI-02651	LOVE, BRUCE	1991	LETTER REPORT: CULTURAL RESOURCES MONITORING: TEMESCAL CANYON COMPOSTING PROJECT	LAKE MATHEWS
RI-02660	SCIENTIFIC RESOURCE SURVEYS	1989	CULTURAL AND PALEONTOLOGICAL RESOURCES INVESTIGATION OF LEE LAKE WATER DISTRICT REACH F EXTENSION RIVERSIDE COUNTY, CALIFORNIA.	LAKE MATHEWS
RI-02743	MCCARTHY, DANIEL	1990	ARCHAEOLOGICAL ASSESSMENT OF THE MORGER PROPERTY LOCATED IN OLSEN CANYON IN TEMESCAL VALLEY, RIVERSIDE COUNTY, CALIFORNIA	LAKE MATHEWS
RI-02744	MCKENNA, JEANETTE A., KEN HEDGES, AND DIANE HAMANN	1990	ARCHAEOLOGICAL TEST EXCAVATIONS IN THE TEMESCAL QUARRY SITE, OLSEN CANYON, RIVERSIDE COUNTY, CALIFORNIA	LAKE MATHEWS
RI-02881	GREENWOOD, ROBERTA AND J. FOSTER	1990	CONTEXT EVALUATION OF HISTORICAL SITES IN THE PRADO BASIN.	CORONA NORTH, PRADO DAM
RI-02890	MCKENNA, J. ET AL.	1990	HISTORIC AND ARCHAEOLOGICAL INVESTIGATIONS OF THE SANDBERG PROJECT SITE, GLEN IVY, RIVERSIDE COUNTY, CALIFORNIA	ALBERHILL, LAKE MATHEWS
RI-02905	MCKENNA, JEANETTE	1988	AN INTENSIVE SURVEY OF THE CORONA RANCH PROJECT AREA, CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA.	CORONA NORTH
RI-02980	DIGREGORIO, LEE A.	1990	AN ARCHAEOLOGICAL RECONNAISSANCE REPORT (TRABUCO LAND EXCHANGE)	ALBERHILL, CORONA SOUTH, WILDOMAR
RI-02984	DROVER, CHRISTOPHER	1990	AN ARCHAEOLOGICAL ASSESSMENT OF THE TEMESCAL VALLEY PROJECT, TEMESCAL VALLEY, EAST OF CORONA, CALIFORNIA.	ALBERHILL, LAKE MATHEWS
RI-03138	SCIENTIFIC RESOURCE SURVEYS, INC.	1990	CULTURAL AND PALEONTOLOGICAL SURVEY REPORT ON THE NASTONERO PROPERTY, RIVERSIDE COUNTY, CALIFORNIA	BLACK STAR CANYON, CORONA SOUTH
RI-03153	COTTRELL, MARIE G., D., STEPHEN DIBBLE, AND VADA DRUMMY-CHAPEL	1988	A CULTURAL RESOURCE ASSESSMENT OF A PROPOSED DEVELOPMENT IN THE TEMESCAL VALLEY, RIVERSIDE COUNTY, CALIFORNIA; PART I: ARCHAEOLOGY; PART II: HISTORIC ASSESSMENT	CORONA SOUTH, LAKE MATHEWS
RI-03175	SWOPE, KAREN	1991	CULTURAL RESOURCES ASSESSMENT: TEMESCAL VALLEY PROJECT, RIVERSIDE COUNTY, CALIFORNIA	ALBERHILL, CORONA SOUTH, LAKE MATHEWS
RI-03306	FREEMAN, TREVOR A. AND DAVID M. VAN HORN	1989	ARCHAEOLOGICAL SURVEY REPORT: CULTURAL RESOURCE ASSESSMENT OF THE SEIGAL FARMS PROPERTY LAKE MATHEWS, RIVERSIDE COUNTY, CALIFORNIA	LAKE MATHEWS
RI-03320	DROVER, CHRISTOPHER	1990	ENVIRONMENTAL IMPACT EVALUATION: AN ARCHAEOLOGICAL ASSESSMENT OF THE WERNER SURFACE MINE, TEMESCAL VALLEY, EAST OF CORONA, CALIFORNIA	ALBERHILL, LAKE MATHEWS
RI-03322	THE KEITH COMPANIES	1988	STATE ROUTE 91 IMPROVEMENTS PROJECT: HISTORIC PROPERTY SURVEY REPORT	BLACK STAR CANYON, CORONA NORTH, PRADO DAM, RIVERSIDE WEST
RI-03322	THE KEITH COMPANIES	1988	STATE ROUTE 91 IMPROVEMENTS PROJECT: HISTORIC PROPERTY SURVEY REPORT	BLACK STAR CANYON, CORONA NORTH, PRADO DAM, RIVERSIDE WEST

Report	Author	Year	Title	Quad
RI-03514	MACKO, MICHAEL E. AND KEITH D. RHODES	1992	PHASE I ARCHAEOLOGICAL RESOURCE ASSESSMENT: GLEN IVY HOT SPRINGS FLOOD CONTROL PROJECT, LINKED TO PLOT PLAN 9026, RIVERSIDE COUNTY, CALIFORNIA	LAKE MATHEWS
RI-03564	MCKENNA, JEANNETTE A.	1992	A CULTURAL RESOURCES INVESTIGATION AND SITE EVALUATIONS FOR THE PROPOSED 200 ACRE WINDWARD DEVELOPMENT PROJECT AREA, NORCO, RIVERSIDE COUNTY, CA.	CORONA NORTH
RI-03598	SEYMOUR, GREGORY AND DAVID DOAK	1992	AN ARCHAEOLOGICAL SURVEY FOR THE WESTERN RIVERSIDE REGIONAL WASTEWATER TREATMENT FACILITY CONVEYANCO SYSTEM IN CORONA AND NORCO, RIVERSIDE COUNTY, CALIFORNIA.	CORONA NORTH
RI-03599	SEYMOUR, GREGORY R.	1993	AN ARCHAEOLOGICAL SURVEY FOR THE HOME GARDENS SANITARY DISTRICT INITIAL STUDY IN CORONA, RIVERSIDE COUNTY, CALIFORNIA.	CORONA NORTH, CORONA SOUTH
RI-03602	BROWN, JOAN C.	1993	CULTURAL RESOURCE RECONNAISSANCE AND ASSESSMENT FOR THE EAGLE VALLEY EAST PROJECT.	LAKE MATHEWS
RI-03629	GREGORY SEYMOUR AND DAVID DOAK	1992	AN ARCHAEOLOGICAL SURVEY FOR THE WESTERN RIVERSIDE REGIONAL WASTE WATER TREATMENT SYSTEM IN CORONA AND NORCO, RIVERSIDE COUNTY.	CORONA NORTH
RI-03722	DESAUTELS, NANCY AND ROBERT BEER	1993	GEOPHYSICAL INVESTIGATIONS AND SUBSURFACE RECOVERY ON TOM'S FARMS PROPERTY, RIVERSIDE COUNTY, CALIFORNIA; PARCEL MAP 4927	LAKE MATHEWS
RI-03768	ALEXANDROWICZ , J. S., ARTHUR KUHNER, EDWARD KNELL, AND SUSAN ALEXANDROWICZ	1994	HISTORIC PRESERVATION INVESTIGATIONS FOR THE SOUTH NORCO CHANNEL LINE SB, STAGE 1, CITY OF CORONA, CITY OF NORCO, COUNTY OF RIVERSIDE, CALIFORNIA	CORONA NORTH
RI-03810	DUFFIELD, ANNE Q.	1989	ARCHAEOLOGICAL & HISTORICAL SURVEY REPORT FOR THE CAJALCO CANYON ROCK QUARRY	LAKE MATHEWS
RI-03811	HATHEWAY, ROGER	1990	LETTER REPORT: SUPPLEMENT TO ARCHAEOLOGICAL & HISTORICAL SURVEY REPORT FOR THE CAJALCO CANYON ROCK QUARRY	LAKE MATHEWS
RI-03890	LSA ASSOCIATES, INC.	1990	AN ARCHAEOLOGICAL ASSESSMENT OF THE EMPIRE HOMES SPECIFIC PLAN AND TENTATIVE TRACT 25466, RIVERSIDE COUNTY, CALIFORNIA	CORONA SOUTH
RI-04120	MASON, ROGER, PHILIPPE LAPIN, AND WAYNE H. BONNER	1998	CULTURAL RESOURCES RECORDS SEARCH AND SURVEY REPORT FOR A PACIFIC BELL MOBILE SERVICES TELECOMMUNICATIONS FACILITY: CM 150-03, CITY OF CORONA, CALIFORNIA	CORONA NORTH
RI-04144	LOVE, BRUCE AND BAI "TOM" TANG	1998	CULTURAL RESOURCES REPORT: TEMESCAL VALLEY REGIONAL INTERCEPTOR, SANTA ANA WATERSHED PROJECT AUTHORITY, RIVERSIDE COUNTY, CALIFORNIA	ALBERHILL, CORONA NORTH, CORONA SOUTH, LAKE ELSINORE, LAKE MATHEWS
RI-04144	LOVE, BRUCE AND BAI "TOM" TANG	1998	CULTURAL RESOURCES REPORT: TEMESCAL VALLEY REGIONAL INTERCEPTOR, SANTA ANA WATERSHED PROJECT AUTHORITY, RIVERSIDE COUNTY, CALIFORNIA	ALBERHILL, CORONA NORTH, CORONA SOUTH, LAKE ELSINORE, LAKE MATHEWS
RI-04144	LOVE, BRUCE AND BAI "TOM" TANG	1998	CULTURAL RESOURCES REPORT: TEMESCAL VALLEY REGIONAL INTERCEPTOR, SANTA ANA WATERSHED PROJECT AUTHORITY, RIVERSIDE COUNTY, CALIFORNIA	ALBERHILL, CORONA NORTH, CORONA SOUTH, LAKE ELSINORE, LAKE MATHEWS
RI-04170	LOVE, BRUCE AND BAI "TOM" TANG	1999	IDENTIFICATION AND EVALUATION OF HISTORIC PROPERTIES: TEMESCAL VALLEY PIPELINE PHASE III (EXTENSION), CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA	CORONA SOUTH
RI-04171	MCKENNA, JEANETTE AND KAREN C. BENNETT	1998	HISTORC RESOURCES INVESTIGATION AND EVALUATION OF THE RESIDENCE LOCATED AT 2542 GILBERT AVENUE, CORONA, RIVERSIDE COUNTY, CALIFORNIA	CORONA SOUTH
RI-04203	CHAMBERS GROUP, INC.	1993	CULTURAL RESOURCES SURVEY FOR THE CENTRAL POOL AUGMENTATION AND WATER QUALITY PROJECT.	BLACK STAR CANYON, CANADA GOBERNADORA, CORONA NORTH, CORONA SOUTH, LAKE MATHEWS, PRADO DAM
RI-04357	LAPIN, PHILIPPE	2000	LETTER REPORT: CULTURAL RESOURCE ASSESSMENT FOR MODIFICATIONS TO PACIFIC BELL WIRELESS FACILITY CM 109-06, COUNTY OF RIVERSIDE, CALIFORNIA.	CORONA NORTH
RI-04360	DUKE, CURT	2000	LETTER REPORT: CULTURAL RESOURCES ASSESSMENT FOR THE AT&T WIRELESS SERVICES FACILITY NUMBER C581, COUNTY OF RIVERSIDE, CALIFORNIA.	CORONA NORTH

Report	Author	Year	Title	Quad
RI-04659	WHITE, ROBERT S. AND LAURA S. WHITE	2004	A CULTURAL RESOURCES ASSESSMENT OF A PROPOSED REGIONAL DRAINAGE FACILITY, TEMESCAL CANYON ROAD AT LEROY ROAD, SOUTH CORONA, RIVERSIDE COUNTY	CORONA SOUTH, LAKE MATHEWS
RI-04665	LOVE, BRUCE AND BAI "TOM" TANG	1997	IDENTIFICATION AND EVALUATION OF HISTORIC PROPERTIES TEMESCAL VALLEY PROJECT ELSINORE VALLEY MUNICIPAL WATER DISTRICT RIVERSIDE COUNTY, CALIFORNIA	ALBERHILL, CORONA SOUTH, LAKE MATHEWS
RI-04665	LOVE, BRUCE AND BAI "TOM" TANG	1997	IDENTIFICATION AND EVALUATION OF HISTORIC PROPERTIES TEMESCAL VALLEY PROJECT ELSINORE VALLEY MUNICIPAL WATER DISTRICT RIVERSIDE COUNTY, CALIFORNIA	ALBERHILL, CORONA SOUTH, LAKE MATHEWS
RI-04713	SMITH, BROOKS AND DEBORAH MCLEAN	2004	CULTURAL RESOURCE ASSESSMENT, FAR WEST HOUSING, LLC, SIERRA BELLA PROJECT, RIVERSIDE COUNTY, CALIFORNIA	BLACK STAR CANYON, CORONA SOUTH
RI-04737	STRUDWICK, IVAN H. AND KATHLEEN ANN BERGIN	1999	ARCHAEOLOGICAL SURVEY, TESTING AND EVALUATION OF SITES CA-RIV-101/H, CA-RIV- 2992/H, CA-RIV-6152/H AND CA-RIV-6153 FOR THE TEMESCAL SUMMIT PROJECT, RIVERSIDE COUNTY, CALIFORNIA	LAKE MATHEWS
RI-04765	HOOVER, ANNA M., KRISTIE R. BLEVINS, HUGH M. WAGNER, AND STEPHEN VAN WORMER	2004	AN ARCHAEOLOGICAL AND PALEONTOLOGICAL PHASE I SURVEY, A PHASE II SIGNIFICANCE TESTING PROGRAM, AND A HISTORIC PROPERTIES EVALUATION REPORT, THE SERRANO SPECIFIC PLAN (SSP), CASE #441, RIVERSIDE COUNTY, CALIFORNIA	LAKE MATHEWS
RI-04871	LOVE, BRUCE, MICHAEL HOGAN, AND HARRY QUINN	2001	ARCHAEOLOGICAL MONITORING REPORT: TRILOGY AT GLEN IVY: NEAR THE COMMUNITY OF GLEN IVY HOT SPRINGS, RIVERSIDE COUNTY, CALIFORNIA	CORONA SOUTH, LAKE MATHEWS
RI-04891	WLODARSKI, ROBERT J.	2002	A PHASE 1 ARCHAEOLOGICAL STUDY FOR THE PROPOSED CORONA SENIOR HOUSING PROJECT LOCATED AT 701, 733, 735, AND 777 SHERMAN AVENUE (APN# 110-040- 013, -014,-015, AND -016), CITY OF CORONA, COUNTY OF RIVERSIDE, CALIFORNIA	CORONA NORTH
RI-04895	FOX, JULIA K., ANNA M. HOOVER, KRISTIE R. BLEVINS, HUGH M. WAGNER, AND MARK A ROEDER	2005	A BIOLOGICAL, ARCHAEOLOGICAL, AND PALEONTOLOGICAL PHASE IV MITIGATION REPORT, MONTE VERDE, TRACT 29000, +457-ACRE PROPERTY, CITY OF CORONA, COUNTY OF RIVERSIDE, CALIFORNIA	CORONA SOUTH
RI-04969	HOOVER, ANNA M., WILLIAM R. GILLEAN, AND HUGH M. WAGNER	2005	A PHASE I ARCHAEOLOGICAL AND PALEONTOLOGICAL SURVEY REPORT FOR APNS 290- 060-007, -017 AND -019 AND 290-080-012, -014 AND -015, A +32-ACRE PROPERTY, COUNTY OF RIVERSIDE, CALIFORNIA.	LAKE MATHEWS
RI-05153	HOLMES, AMY AND J.D. STEWART	2005	RESULTS OF A CULTURAL AND PALEONTOLOGICAL ASSESSMENT OF THE APPROXIMATELY 4 ACRE SMITH AVENUE	CORONA NORTH
RI-05409	LOVE, BRUCE, BAI "TOM" TANG, MICHAEL HOGAN, AND MARIAM DAHDUL	2001	HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT, ARLINGTON DESALTER AND PIPELINE, CITIES OF RIVERSIDE, CORONA, AND NORCO, RIVERSIDE COUNTY, CALIFORNIA	CORONA NORTH, RIVERSIDE WEST
RI-05433	JACKSON, ADRIANNA	2000	LETTER REPORT: RECORDS SEARCH RESULTS FOR SPRING PCS FACILITY RV54XC472A (GREEN RIVER WATER TANK SITE), CORONA, RIVERSIDE COUNTY, CALIFORNIA	PRADO DAM
RI-05435	JACKSON, ADRIANNA	2000	LETTER REPORT: RECORDS SEARCH RESULTS FOR SPRING PCS FACILITY RV34ZC472B (GREEN RIVER FIRE STATION SITE), CORONA, RIVERSIDE COUNTY, CALIFORNIA	PRADO DAM
RI-05764	WLODARSKI, ROBERT J.	2005	LETTER REPORT: RECORDS SEARCH AND FIELD RECONNAISSANCE RESULTS FOR THE PROPOSED NEXTEL WIRELESS COMMUNICATIONS SITE (CA5379-A: MOORE ELECTRIC) LOCATED AT 463 NORTH SMITH AVENUE, CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA 92880	CORONA NORTH
RI-05827	WHITE, ROBERT S., LAURIE S. WHITE, AND DAVID M. VAN HORN	2003	CULTURAL RESOURCES INVESTIGATION FOR THE ELSINORE ADVANCED PUMPED STORAGE PROJECT, LAKE ELSINORE, RIVERSIDE COUNTY	ALBERHILL, LAKE ELSINORE

Report	Author	Year	Title	Quad
RI-06085	STERNER, MATHEW., ET AL.	2004	RANCHING, RAILS, AND CLAY: THE DEVELOPMENT AND DEMISE OF THE TOWN OF RINCON/PRADO, ARCHAEOLOGICAL DATA RECOVERY AT CA-RIV-1039H AND CA-RIV- 1044H, RIVERSIDE COUNTY, CALIFORNIA	CORONA NORTH
RI-06103	AISLIN-KAY, MARNIE	2004	CULTURAL RESOURCE RECORDS SEARCH AND SITE VISIT RESULTS FOR SPRINT TELECOMMUNICATIONS FACILITY CANDIDATE RV60XC809A (255 AIRPORT CIRCLE), LOCATED AT 255 AIRPORT CIRCLE, CORONA, RIVERSIDE COUNTY, CA	CORONA NORTH
RI-06214	EARTH TOUCH, INC.	2006	NEW TOWER ("NT") SUBMISSION PACKET, FCC FORM 620: CORONA FIRE STATION	CORONA NORTH
RI-06626	HOGAN, MICHAEL	2006	LETTER REPORT: ARCHAEOLOGICAL/PALEONTOLOGICAL MONITORING OF EARTH-MOVING ACTIVITIES, THE SYCAMORE CREEK PROJECT, PHASE 2B, TRACTS 30440 (PA 2B), 30440-2 (PA 12B), AND 30440-3 (PA 10), NEAR THE COMMUNITY OF GLEN IVY HOT SPRINGS, RIVERSIDE COUNTY, CALIFORNIA	ALBERHILL, LAKE MATHEWS
RI-06888	LERCH, MICHAEL K. AND GRAY, MARLESA A.	2006	CULTURAL RESOURCES ASSESSMENT OF THE VALLEY-IVYGLEN TRANSMISSION LINE PROJECT, RIVERSIDE COUNTY, CALIFORNIA	ALBERHILL, LAKE ELSINORE, LAKE MATHEWS, PERRIS, ROMOLAND, STEELE PEAK
RI-06911	KING, GARY	2000	NEGATIVE HISTORY PROPERTY SURVEY REPORT FOR STATE ROUTE 91 AT MAIN STREET INTERCHANGE CORONA, CALIFORNIA	CORONA NORTH
RI-07166	CAPRICE D. HARPER	2004	CULTURAL RESOURCE ASSESSMENT FOR CINGULAR WIRELESS FACILITY NO. SB 286-01 NEAR CORONA, RIVERSIDE COUNTY, CALIFORNIA	PRADO DAM
RI-07219	COOLEY, THEDORE G.	2007	ARCHAEOLOGICAL SURVEY REPORT FOR SOUTHERN CALIFORNIA EDISON COMPANY UNDERGROUND CABLE CONDUIT INSTALLATIONS FOR THE EAST AND WEST TAPS TO THE CHASE SUBSTATION, CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA	CORONA SOUTH
RI-07425	MCLEAN, DEBORAH	2007	HISTORIC PROPERTY SURVEY REPORT (FIRST SUPPLEMENTAL HISTORIC PROPERTY SURVEY REPORT: 08/12-RIV/ORA-91-PM 15.9-19.9/0.0-2.9 KP25.6-32.0/0.0/4.7 EASTBOUND LANE ADDITION EA: 0E800/0G040)	BLACK STAR CANYON, PRADO DAM
RI-07433	BONNER, H. WAYNE AND AISLIN-KAY, MARNIE	2007	CULTURAL RESOURCE RECORDS SEARCH AND SITE VISIT RESULTS FOR T-MOBILE CANDIDATE IE05297 (SYCAMORE CREEK WATER TANK), UNADDRESSED PARCEL, CORONA, RIVERSIDE COUNTY, CALIFORNIA	ALBERHILL
RI-07494	UNDERBRINK, SUSAN	2006	HISTORIC PROPERTY SURVEY REPORT (ARCHAEOLOGICAL SURVEY REPORT FOR THE EASTBOUND SR-91 LANE ADDITION PROJECT FROM SR-241 TO SR-71, COUNTY OF ORANGE, AND COUNTY OF RIVERSIDE CALIFORNIA)	BLACK STAR CANYON, PRADO DAM
RI-07666	COOLEY, THEODORE G. AND ANDREA M. CRAFT	2008	ADDENDUM: CULTURAL RESOURCES ASSESSMENT OF THE VALLEY-IVYGLEN TRANSMISSION LINE PROJECT, RIVERSIDE COUNTY, CALIFORNIA	ALBERHILL, LAKE ELSINORE, LAKE MATHEWS
RI-07666	COOLEY, THEODORE G. AND ANDREA M. CRAFT	2008	ADDENDUM: CULTURAL RESOURCES ASSESSMENT OF THE VALLEY-IVYGLEN TRANSMISSION LINE PROJECT, RIVERSIDE COUNTY, CALIFORNIA	ALBERHILL, LAKE ELSINORE, LAKE MATHEWS
RI-07734	GREENE, RICHARD AND BRIAN F. SMITH	2006	A PHASE I ARCHAEOLOGICAL ASSESSMENT OF THE SITEWORK DEVELOPMENT PROJECT, APN 279-230-034	CORONA SOUTH
RI-07766	BROWN, JOAN C.	2007	CULTURAL RESOURCES SURVEY OF THE NEW PROPOSED CAJALCO ROAD, EAGLE CANYON ROAD AND THE SCENARIO 2 ROAD ALIGNMENTS, CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA. (INCLUDING RESULTS FROM PREVIOUS EAGLE VALLEY ACCESS ROAD STUDIES)	CORONA NORTH, CORONA SOUTH, LAKE MATHEWS, RIVERSIDE WEST
RI-08043	SHERRI GUST AND AMY GLOVER	2008	PHASE I CULTURAL RESOURCES ASSESSMENT REPORT FOR THE CENTENNIAL HIGH SCHOOL PROJECT IN CORONA, CALIFORNIA	CORONA SOUTH
RI-08044	SHERRI GUST AND AMY GLOVER	2008	PHASE I CULTURAL RESOURCES ASSESSMENT REPORT FOR THE SANTIAGO HIGH SCHOOL PROJECT IN CORONA, CALIFORNIA.	CORONA SOUTH

Report	Author	Year	Title	Quad
RI-08045	SHERRI GUST, AMY GLOVER, AND VERONICA HARPER	2008	PHASE I CULTURAL RESOURCES ASSESSMENT REPORT FOR THE LINCOLN ALTERNATIVE ELEMENTARY SCHOOL PROJECT IN CORONA, CALIFORNIA	CORONA SOUTH
RI-08215	BAI "TOM" TANG	2009	LETTER REPORT: HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY OF A PORTION OF APN 290-660-004, GLEN IVY HOT SPRINGS AREA, RIVERSIDE COUNTY, CALIFORNIA	ALBERHILL
RI-08238	PAMELA MAXWELL	1993	LOS ANGELES DISTRICT PROJECT TO CLEAR VEGETATION TO REGAIN EFFICIENT USE OF WATER GAUGING STATION, AND REPAIR EXISTING CONCRETE CHANNEL BOTTOM, ON THE SANTA ANA RIVER, RIVERSIDE COUNTY, CALIFORNIA-CULTURAL RESOURCES.	PRADO DAM
RI-08519	JAMES J. SCHMIDT	2010	LETTER REPORT: MIRA LOMA-CLEARGEN-DELGEN 66KV TRANSMISSION LINE DETERIORATED POLE REPLACEMENT PROJECT (WO 4305-4114; 80028383), CORONA, RIVERSIDE COUNTY, CALIFORNIA	CORONA NORTH
RI-08533	JAMES J. SCHMIDT	2010	LETTER REPORT: BUCKBOARD AND HITCH 12KV (P#2263076E) AND UNIDENTIFIED CIRCUIT (P#2245653E) DETERIORATED POLE REPLACEMENT PROJECT (WO 6088-4800; 0-4878, & 0-4880), RIVERSIDE COUNTY, CALIFORNIA	LAKE MATHEWS, PECHANGA
RI-08534	JAMES J. SCHMIDT	2010	LETTER REPORT: DETERIORATED POLE REPLACEMENTS PROJECTS (WO 6088-4800; 0- 4876, 0-4877, 0-4881, 0-4883.2010), RIVERSIDE COUNTY, CALIFORNIA	ALBERHILL, BACHELOR MTN, LAKE MATHEWS, SAGE
RI-08605	SUSAN GOLDBERG	2010	ARCHAEOLOGICAL SURVEY REPORT FOR STATE ROUTE 91/71 INTERCHANGE PROJECT, RIVERSIDE COUNTY, CALIFORNIA (08-RIV-91- P.M. R0.6/ R2.6; 08-RIV-71. 1.6/3.0) EA 0F541	BLACK STAR CANYON, PRADO DAM
RI-08623	CARY D. COTTERMAN AND EVELYN N. CHANDLER	2011	CULTURAL RESOURCES INVENTORY OF TWO PROPOSED POLE REPLACEMENTS IN CORONA AND TEMESCAL CANYON, RIVERSIDE COUNTY, CALIFORNIA (W.O. 6034-4800, K 4892, TD 495676)	CORONA SOUTH, LAKE MATHEWS
RI-08660	WAYNE H. BONNER, SARAH A. WILLIAMS, AND KATHLEEN A. CRAWFORD	2011	CULTURAL RESOURCES RECORDS SEARCH AND SITE VISIT RESULTS FOR T-MOBILE USA CANDIDATE IE24189-A	CORONA NORTH
RI-08694	WAYNE H. BONNER, SARAH A. WILLIAMS, AND KATHLEEN A. CRAWFORD	2011	CULTURAL RESOURCES RECORD SEARCH AND SITE VISIT RESULTS FOR T-MOBILE USA CANDIDATE IE25763-A	CORONA SOUTH
RI-08707	WAYNE H. BONNER, MARNIE AISLIN- KAY, AND KATHLEEN A. CRAWFORD	2010	CULTURAL RESOURCES RECORD SEARCH AND SITE VISIT RESULTS FOR T-MOBILE USA CANDIDATE IE24154-D	CORONA NORTH
RI-08761	BAI "TOM" TANG, MICHAEL HOGAN, DANIEL BALLESTER, HARRY M. QUINN, AND LAURA H. SHAKER	2012	IDENTIFICATION AND EVALUATION OF HISTORIC PROPERTIES: BUTTERFIELD PARK RECLAIMED WATERLINE	CORONA NORTH
RI-08763	ROBIN HOFFMAN, TIMOTHY YATES, AND KAREN CRAWFORD	2012	CULTURAL RESOURCES INVENTORY REPORT FOR THE PROPOSED CIRCLE CITY SUBSTATION AND MIRA LOMA-JEFFERSON SUBTRANSMISSION LINE PROJECT	CORONA NORTH, CORONA SOUTH, GUASTI
RI-08817	BAI "TOM" TANG, MICHAEL HOGAN, DANIEL BALLESTER, LAURA H. SHAKER, AND HARRY M. QUINN	2012	IDENTIFICATION AND EVALUATION OF HISTORIC PROPERTIES BUTTERFIELD PARK RECYCLED WATERLINE PROJECT	CORONA NORTH
RI-08826	BAI "TOM" TANG, MICHAEL HOGAN, AND TERRI JACQUEMAIN	2012	PHASE I CULTURAL RESOURCES ASSESSMENT: ASSESSOR'S PARCEL NOS. 172-110-007 AND -008	CORONA NORTH

Report	Author	Year	Title	Quad
RI-08838	WAYNE H. BONNER AND SARAH A. WILLIAMS	2012	LETTER REPORT: CULTURAL RESOURCES RECORDS SEARCH AND SITE VISITS RESULTS FOR AT&T MOBILITY, LLC CANDIDATE LA6044 (CATTLE RUN & GREEN RIVER), 1400 NICHOLAS PLACE, CORONA, RIVERSIDE COUNTY, CALIFORNIA	PRADO DAM
RI-08870	CARY D. COTTERMAN AND EVELYN N. CHANDLER	2011	CULTURAL RESOURCES INVENTORY OF TWO PROPOSED POLE REPLACEMENTS IN CORONA AND TEMESCAL CANYON, RIVERSIDE COUNTY, CALIFORNIA (W.O. 6034-4800, K 4872, TD 495676)	CORONA SOUTH, LAKE MATHEWS
RI-08897	RIORDAN GOODWEN	2012	CULTURAL RESOURCE ASSESSMENT: SANTA ANA RIVER TRAIL IMPROVEMENTS PROJECT	BLACK STAR CANYON, PRADO DAM
RI-08902	JOSH SMALLWOOD	2012	CULTURAL RESOURCES REPORT FOR THE PROPOSED MAGNOLIA POINT PROJECT, SW CORNER 6TH STREET AND MAGNOLIA AVENUE IN CORONA, RIVERSIDE COUNTY, CALIFORNIA. ASSESSOR'S PARCEL NOS. 107-030-003, -014, -015, -018, -019, -020, -024, AND -027	CORONA SOUTH
RI-08988	SUSAN L. BUPP	2013	SUPPLEMENTAL ARCHAEOLOGICAL SURVEY REPORT FOR SR-91CORRIDOR IMPROVEMENT PROJECT, CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA, CALIFORNIA DEPARTMENT OF TRANSPORTATION, DISTRICT 8	BLACK STAR CANYON, CORONA NORTH, CORONA SOUTH, PRADO DAM, RIVERSIDE WEST
RI-08989	CARRIE CHASTEEN	2013	SUPPLEMENTAL FINDING OF NO ADVERSE EFFECT REPORT FOR SR-91 CORRIDOR IMPROVEMENT PROJECT, CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA, CALIFORNIA DEPARTMENT OF TRANSPORTATION, DISTRICT 8	BLACK STAR CANYON, CORONA NORTH, CORONA SOUTH, PRADO DAM, RIVERSIDE WEST
RI-09088	MICHAEL DICE	2009	CULTURAL RESOURCE SURVEY AND HISTORIC RESOURCE ASSESSMENT OF THE CORONA CITY PARK, 930 E. SIXTH STREET, CORONA, CALIFORNIA	CORONA NORTH, CORONA SOUTH
RI-09144	J. CLAIRE DEAN	2009	JOSHUA TREE NATIONAL PARK: FINAL REPORT, ROCK IMAGE CONDITION ASSESSMENT AND CONSERVATION PROJECT	INDIAN COVE, KEYS VIEW, MALAPAI HILL
RI-09216	DON C. PREZ	2013	CULTURAL RESOURCES SURVEY RS0310	CORONA SOUTH
RI-09221	HEATHER R. PUCKETT	2013	CULTURAL RESOURCES SUMMARY FOR THE PROPOSED VERIZON WIRELESS. INC. PROPERTY AT THE TREEHOUSE SITE 615 RICHEY STREET, CORONA RIVERSIDE COUNTY, CALIFORNIA 92879	CORONA NORTH
RI-09304	SARA WILLIAMS	2014	CULTURAL RESOURCE RECORDS SEARCH AND SITE VISIT RESULTS FOR VERIZON WIRELESS CANDIDATE 'KLUG', 2395 RAILROAD STREET, CORONA, RIVERSIDE COUNTY, CALIFORNIA	CORONA NORTH
RI-09337	SHELLY LONG	2013	CORONA REGIONAL MEDICAL CENTER EXPANSION PROJECT ARCHAEOLOGICAL AND PALEONTOLOGICAL RESOURCES REPORT	CORONA NORTH, CORONA SOUTH
RI-09384	SUSAN L. BUPP	2013	SUPPLEMENTAL ARCHAEOLOGICAL SURVEY REPORT FOR SR-91 CORRIDOR IMPROVEMENT PROJECT, CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA	BLACK STAR CANYON, CORONA NORTH, CORONA SOUTH, PRADO DAM, RIVERSIDE WEST
RI-09384	SUSAN L. BUPP	2013	SUPPLEMENTAL ARCHAEOLOGICAL SURVEY REPORT FOR SR-91 CORRIDOR IMPROVEMENT PROJECT, CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA	BLACK STAR CANYON, CORONA NORTH, CORONA SOUTH, PRADO DAM, RIVERSIDE WEST
RI-09384	SUSAN L. BUPP	2013	SUPPLEMENTAL ARCHAEOLOGICAL SURVEY REPORT FOR SR-91 CORRIDOR IMPROVEMENT PROJECT, CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA	BLACK STAR CANYON, CORONA NORTH, CORONA SOUTH, PRADO DAM, RIVERSIDE WEST
RI-09419	BRIAN F. SMITH, DAVID K. GRABSKI, AND TRACY A. STOPES	2014	A SECTION 106 (NHPA) CULTURAL RESOURCES STUDY FOR THE TOSCANA PROJECT, RIVERSIDE COUNTY, CALIFORNIA	LAKE MATHEWS
RI-09420	LSA ASSOCIATES INC.	2000	CULTURAL RESOURCES ASSESSMENT GREEN RIVER RANCH SPECIFIC PLAN CORONA, RIVERSIDE COUNTY, CALIFORNIA, LSA PROJECT NO. CCR932	BLACK STAR CANYON, PRADO DAM
RI-09584	JUSTIN LEV- TOV, MEGAN WILSON, LYNN FURNIS, AND SHERRI GUST	2016	SHOPPES AT CORONA VISTA CULTURAL RESOURCES ASSESSMENT CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA	CORONA SOUTH

Report	Author	Year	Title	Quad
RI-09593	MICHAEL HOGAN	2016	FINAL REPORT ON ARCHAEOLOGICAL AND PALEONTOLOGICAL RESOURCES MONITORING SANTA ANA CANYON - BELOW PRADO: INLAND EMPIRE BRINE LINE PROTECTION PROJECT NEAR THE CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA CRM TECH CONTRACT #2903	PRADO DAM
RI-09603	ANDRE SIMMONS AND SHERRI GUST	2016	CULTURAL RESOURCES ASSESSMENT FOR THE CORONA AFFORDABLE HOUSING PROJECT, CITY OF CORONA, RIVERSIDE COUNTY, CALIFORNIA	CORONA SOUTH
RI-09678	CARRIE D. WILLS AND KATHLEEN A. CRAWFORD	2015	DIRECT APE HISTORIC ARCHITECTURAL ASSESSMENT FOR T-MOBILE WEST, LLC CANDIDATE IE04109A (CM109 LB124 [CORONA DOWNTOWN]) 511 SOUTH JOY STREET, CORONA , RIVERSIDE COUNTY	CORONA NORTH
RI-09714	HEATHER R. PUCKETT	2014	CULTURAL RESOURCES SUMMERY FOR THE PROPOSED VERIZON WIRELESS, INC., PROPERTY AT THE RAILROAD SITE, 665 WEST RINCON STREET, CORONA, RIVERSIDE COUNTY, CALIFORNIAN 92880	CORONA NORTH, CORONA SOUTH
RI-09741	RIORDAN GOODWIN	2016	CULTURAL RESOURCES ASSESSMENT CORONA 720 PROJECT LSA PROJECT NO. GRY1501	BLACK STAR CANYON, PRADO DAM
RI-09746	JASON ANDREW MILLER	2013	CULTURAL RESOURCES SURVEY REPORT ADDENDUM VALLEY-IVY GLENN 115KV TRANSMISSION LINE PROJECT SOUTHERN CALIFORNIA EDISON RIVERSIDE COUNTY, CALIFORNIA	ALBERHILL, LAKE ELSINORE, ROMOLAND
RI-09770	BRIAN F. SMITH AND DAVID K. GRABSKI	2014	A PHASE II CULTURAL RESOURCE EVALUATION REPORT FOR RIV-8118 AT THE TOSCANA PROJECT	LAKE MATHEWS
RI-09771	BRIAN F. SMITH AND JENNIFER R. KRAFT	2014	HISTORIC STRUCTURE ASSESSMENT 11950 EL HERMANDO ROAD	LAKE MATHEWS

The record search indicated that 96 previously recorded cultural resources are located within the RWMP Project area (Table 2). The previously recorded resources include prehistoric and historic archaeological sites, built environment resources and isolates. The locations of the cultural resources are included in Confidential Appendix C. Thirty of the previously recorded cultural resources are also listed as built environment resources and were included as historic addresses by the EIC, shown in Table 3.

The 96 previously recorded resources consist of 28 prehistoric resources, 66 historic resources, and 2 multicomponent resources. Fourteen of the resources are within 100 feet of a Project Component and an additional two of the resources are intersected by a Project Component.

Table 2. Previously Recorded Cultural Resources within the RWMP Project Area

Primary Number	Trinomial	Period	Quadrangle	Recorder Date	Intersect Project Component	Within 100 ft of Project Component
P-33-000675	CA-RIV-675	Prehistoric	Corona North	Smith (1952) S. Schwartz (1980)	No	No
P-33-000808	CA-RIV-808	Multicomponent	Corona North	Reiss, Clough, and Banwer (1974) Cottrell (1980)	No	No
P-33-001040	CA-RIV-1040	Prehistoric	-	G.Smith (n.d.) M.C. Hall (1975) S. Schwartz (1980)	No	No
P-33-001044	CA-RIV-1044	Historic	-	M. Hall (1975) S. Schwartz (1980) M.D. Selverson (1995)	No	No
P-33-001259	CA-RIV-1259	Prehistoric	-	J.P. Barker (1974) R.S. Brown and J.A. McKenna (1988)	No	No
P-33-001438	CA-RIV-1438	Prehistoric	-	S. Hammond (1977) Cottrell (1980)	Sampson Pipeline	No

Primary Number	Trinomial	Period	Quadrangle	Recorder Date	Intersect Project Component	Within 100 ft of Project Component
P-33-001439	CA-RIV-1439	Prehistoric	-	S. Hammond (1977) Cottrell (1980)	No	No
P-33-001440	CA-RIV-1440	Prehistoric	-	S. Hammond (1977) Cottrell (1980) P. Chace and B. McManis (1993)	No	No
P-33-001441	CA-RIV-1441	Prehistoric	-	S. Hammond (1977)	No	No
P-33-001443	CA-RIV-1443	Prehistoric	-	S. Hammond (1977) J. Swenson (1979) C.E. Drover (1979) R.S. Brown and J.A. McKenna (1988) L. Franklin and J. Schmidt (1992) P.O. Maxon (1999)	No	No
P-33-001445	CA-RIV-1445	Prehistoric	Corona North	S. Hammond (1977) J. McKenna and R. Brown (1988) R.S. Brown and J.A. McKenna (1988)	No	No
P-33-001511	-	Historic	Corona South	M. Brown (1978) C. Rector (1983)	No	No
P-33-001653	CA-RIV-1653	Prehistoric	Corona North	Pink and Singer (1979) Cottrell (1980)	No	No
P-33-001654	CA-RIV-1654	Prehistoric	Corona North	Ping, Singer, Brown, and Giansanti (1979) Cottrell (1980)	No	No
P-33-001801	CA-RIV-1801	Prehistoric	Prado Dam	M. Desautels and J. Cizek (1979)	No	No
P-33-001837	-	Prehistoric	Corona South	Schupp and Wessel (1980) R.S. Shepard (2004)	No	No
P-33-003055	-	Historic	Corona South	K.K. Swope (1987)	No	No
P-33-003175	CA-RIV-4112H	Prehistoric	Anza	S.J. Bouscaren, J. Pierrou, and E. Plummer (1987)	No	No
P-33-003424	CA-RIV-3424	Historic	Black Star Canyon	A. Pigniolo (1988)	No	No
P-33-003559	CA-RIV-3559	Prehistoric	Corona South	D.F McCarthy (1989)	No	No
P-33-003693	CA-RIV-3693	Historic	Prado Dam	J. Brock and J. Elliot (1989)	No	No
P-33-003832	CA-RIV-3832	Historic	Alberhill, Corona North, Corona South, Lake Elsinore, Lake Mathews	K. Swope and D. Peirce (1990) D.F. McCarthy (1990) B. Love and T. Tang (2001) K.R. Blevins and A.M. Hoover (2005) J.D. Goodman (2006) J. Goodman, N. Reseburg, and Windy Jones (2006) R.D. Hoffman (2011)	Sampson Pipeline	No
P-33-004112	CA-RIV-4112H	Historic	Corona South, Lake Mathews	K. Swope and K. Hallaran (1991) B. Love (1997) I. Strudwick, J. Bauman, and B. Jones (2005) J. Patterson (2007)	No	No
P-33-004118	CA-RIV-4118	Prehistoric	Lake Mathews	Dibble, Carr, and Jones (1988) A. Wesson (2002)	No	No
P-33-004119	CA-RIV-4119	Prehistoric	Lake Mathews	Dibble, Carr, and Jones (1988)	No	No
P-33-004120	CA-RIV-4120	Prehistoric	Lake Mathews	Dibble, Carr, and Jones (1988)	No	No

Primary Number	Trinomial	Period	Quadrangle	Recorder Date	Intersect Project Component	Within 100 ft of Project Component
P-33-004121	CA-RIV-4121	Prehistoric	Lake Mathews	Dibble, Carr, and Jones (1988)	No	No
P-33-004791	CA-RIV-4791	Historic	Corona North, Corona South, Riverside East, Riverside West, San Bernardino South	R. Wlodarski (1992) A. Gustafson and M. McGrath (2001) J.A. McKenna et al. (2005)	No	No
P-33-004808	CA-RIV-4808	Multicomponent	Myoma	R. Cecil and F. Dittmer (1992)	No	No
P-33-005310	CA-RIV-5310	Historic	Corona North	Unknown Recorder (n.d.)	No	No
P-33-005781	CA-RIV-5521H	Historic	Corona North	A.G. Toren (1995)	No	No
P-33-005782	CA-RIV-5522H	Historic	Prado Dam	A.G. Toren (1995) R. Goodwin (2012)	No	No
P-33-007423	-	Historic	Fontana	S. Saunders (1984)	No	No
P-33-007586	-	Historic	Corona North	J. Brock and B. Smith (1996)	No	No
P-33-007719	CA-RIV-6197H	Historic	Corona South	L. White (1999)	No	No
P-33-008406	CA-RIV-6133H	Historic	Corona South	B. Love (1998)	No	No
P-33-009653	CA-RIV-6453H	Historic	Corona South	Unknown Recorder (n.d.)	No	No
P-33-010819	CA-RIV-6532H	Historic	Black Star Canyon	M. Sterner (2000)	No	No
P-33-012556	-	Prehistoric	Corona South	Unknown Recorder (n.d.)	No	No
P-33-012622	-	Prehistoric	Corona North	Unknown Recorder (n.d.)	No	No
P-33-013056	CA-RIV-7574	Prehistoric	Toro Peak	Unknown Recorder (n.d.)	No	No
P-33-013148	-	Prehistoric	Corona South	K. Swope and D. Pierce (1990) J. Patterson (2007)	No	No
P-33-013275	-	Historic	Corona South	R. Goodwin (2004) R.S. Shepard (2007)	No	No
P-33-013276	-	Historic	Corona South	R. Goodwin (2004) R.S. Shepard (2007)	No	No
P-33-013277	-	Historic	Corona South	R. Goodwin (2004) R.S. Shepard (2007)	No	No
P-33-013409	-	Prehistoric	Corona North	C.E. Drover (1980)	No	No
P-33-013857	-	Prehistoric	Corona South	L.S. White (2004)	No	No
P-33-013858	-	Historic	Corona South	L.S. White (2004)	No	No
P-33-013859	-	Historic	Corona South	L.S. White (2004)	No	No
P-33- 014754	-	Historic	Corona North	Winn, R., and Winn, M. (2005)	No	Buena Vista Tenth Pipeline
P-33-017132	-	Historic	Corona South	C. Demcak (2008)	No	No
P-33-017133	-	Historic	Corona South	C. Demcak (2008)	No	No
P-33-017926	-	Historic	Corona North, Corona South	Dice, M.H. (2009)	No	Rimpau California Pipeline
P-33-019802	-	Historic	Prado Dam	A. Belcourt (2011)	No	No
P-33-020200	-	Historic	Corona South	Yates, T. (2011)	No	No

Primary Number	Trinomial	Period	Quadrangle	Recorder Date	Intersect Project Component	Within 100 ft of Project Component
P-33-020201	-	Historic	Corona South	Yates, T. (2011) Smallwood, J. (2012)	No	No
P-33-020202	-	Historic	Corona South	Yates, T. (2011)	No	Sampson Pipeline
P-33-020203	-	Historic	Corona South	Yates, T. (2011)	No	No
P-33-020204	-	Historic	Corona South	Yates, T. (2011)	No	No
P-33-020205	-	Historic	Corona South	Yates, T. (2011)	No	No
P-33-020206	-	Historic	Corona South	Yates, T. (2011)	No	No
P-33-020207	CA-RIV-20207	Historic	Corona South	Yates, T. (2011)	No	Sampson Pipeline
P-33-020208	-	Historic	Corona North	Yates, T. (2011)	No	No
P-33-020209	-	Historic	Corona North	Yates, T. (2011)	No	No
P-33-020210	-	Historic	Corona North	Yates, T. (2011)	No	No
P-33-020211	-	Historic	Corona North	Yates, T. (2011)	No	River Pipeline
P-33-020212	-	Historic	Corona North	Yates, T. (2011)	No	River Pipeline
P-33-020213	-	Historic	Corona North	Yates, T. (2011)	No	River Pipeline
P-33-020225	-	Historic	Corona North	Yates, T. (2011)	No	River Pipeline
P-33-020226	-	Historic	Corona North	Yates, T. (2011)	No	River Pipeline
P-33-020227	-	Historic	Corona North	Yates, T. (2011)	No	No
P-33-020229	-	Historic	Corona North	Yates, T. (2011)	No	No
P-33-020231	-	Historic	Corona North	Yates, T. (2011)	No	No
P-33-020232	-	Historic	Corona North	Yates, T. (2011)	No	No
P-33-020233	-	Historic	Corona North	Yates, T. (2011)	No	River Pipeline
P-33-020234	-	Historic	Corona North	Yates, T. (2011)	No	No
P-33-020235	-	Historic	Corona North	Yates, T. (2011)	No	River Pipeline
P-33-020236	-	Historic	Corona North	Yates, T. (2011)	No	No
P-33-020237	-	Historic	Corona North	Yates, T. (2011)	No	River Pipeline
P-33-023618	-	Historic	Corona South	C.D. Wills (2005)	No	No
P-33-024119	CA-RIV-11860	Historic	Corona South	Goodwin, R. (2014)	No	No
P-33-024188	-	Historic	Corona South	P. Moruzzi (2012)	No	Buena Vista Tenth Pipeline
P-33-024189	-	Historic	Corona South	P. Moruzzi (2012)	No	No
P-33-024190	-	Historic	Corona South	P. Moruzzi (2012)	No	No
P-33-024191	-	Historic	Corona South	P. Moruzzi (2012)	No	No
P-33-024192	-	Historic	Corona South	P. Moruzzi (2012)	No	No
P-33-024207	-	Historic	Corona North	Yates, T. (2012)	No	No
P-33-024551	CA-RIV-12171	Historic	Prado Dam	Goodwin, R. (2015)	No	No

Primary Number	Trinomial	Period	Quadrangle	Recorder Date	Intersect Project Component	Within 100 ft of Project Component
P-33-024552	-	Historic	Prado Dam	R.E. Reynolds (2000)	No	No
P-33-024553	CA-RIV-12173	Historic	Corona South	R.S. Shepard (2004)	No	No
P-33-024723	CA-RIV-12241	Historic	Corona South	W. Burns, N.F. Hearth, and B. Scherzer (2015)	No	No
P-33-024724	-	Prehistoric	Corona South	N.F. Hearth and W. Burns (2015)	No	No
P-33-024725	-	Prehistoric	Corona South	N.F. Hearth and W. Burns (2015)	No	No
P-33-024726	-	Prehistoric	Corona South	N.F. Hearth and W. Burns (2015)	No	No
P-33-024855	-	Historic	Corona South	L. Furnis (2015)	No	Ontario Slipline
P-33-024866	CA-RIV-12327	Historic	Corona North	H. Switalski and V. Harvey (2016)	No	No

The record search also indicated that 30 built environment resources, that have been assigned primary numbers, have been previously recorded within the RWMP Project area, (Table 3). Built environment resources primarily include residential or commercial buildings, but also includes a park, a quarry, and built environment resources associated with agriculture. Twelve of the built environment resources are within 100 ft of a Project Component. All thirty of the built environment resources were also included by the EIC as cultural resources, shown in Table 2, above.

Table 3. Built Environment Resources within the RWMP Project Area.

Primary Number	Trinomial	Address	Parcel Number	USGS Topographic Quadrangle	Recorder and Date	Intersect Project Component	Within 100 ft of Project Component
P-33-014754	-	-	-	Corona North	Winn, R., and Winn, M. (2005)	No	Buena Vista Tenth Pipeline
P-33-017926	-	Corona City Park	-	Corona North, Corona South	Dice, M.H. (2009)	No	Rimpau California Pipeline
P-33-020200	-	-	107-020-012	Corona South	Yates, T. (2011)	No	No
P-33-020201	-	14282 E. 6th Street	107-030-003	Corona South	Yates, T. (2011) Smallwood, J. (2012)	No	No
P-33-020202	-	-	107-030-022	Corona South	Yates, T. (2011)	No	Sampson Pipeline
P-33-020204	-	-	107-040-006	Corona South	Yates, T. (2011)	No	No
P-33-020203	-	-	107-040-005	Corona South	Yates, T. (2011)	No	No
P-33-020205	-	-	107-060-003	Corona South	Yates, T. (2011)	No	No
P-33-020206	-	-	107-060-008 107-060-009	Corona South	Yates, T. (2011)	No	No
P-33-020207	CA-RIV-20207	-	115-090-003	Corona South	Yates, T. (2011)	No	Sampson Pipeline
P-33-020208	-	-	117-031-001	Corona North	Yates, T. (2011)	No	No
P-33-020209	-	-	117-031-002	Corona North	Yates, T. (2011)	No	No
P-33-020210	-	-	117-031-036	Corona North	Yates, T. (2011)	No	No
P-33-020211	-	-	119-041-013	Corona North	Yates, T. (2011)	No	River Pipeline

Primary Number	Trinomial	Address	Parcel Number	USGS Topographic Quadrangle	Recorder and Date	Intersect Project Component	Within 100 ft of Project Component
P-33-020212	-	-	119-041-014	Corona North	Yates, T. (2011)	No	River Pipeline
P-33-020213	-	-	119-041-015	Corona North	Yates, T. (2011)	No	River Pipeline
P-33-020225	-	-	119-041-016	Corona North	Yates, T. (2011)	No	River Pipeline
P-33-020226	-	-	119-041-017	Corona North	Yates, T. (2011)	No	River Pipeline
P-33-020227	-	-	119-041-018	Corona North	Yates, T. (2011)	No	No
P-33-020229	-	-	119-041-020	Corona North	Yates, T. (2011)	No	No
P-33-020231	-	1108 Serene Drive	119-041-022	Corona North	Yates, T. (2011)	No	No
P-33-020232	-	1002 Peaceful Drive	119-041-024	Corona North	Yates, T. (2011)	No	No
P-33-020233	-	1090 Serene Drive	110-043-001	Corona North	Yates, T. (2011)	No	River Pipeline
P-33-020234	-	1082 Serene Drive	119-043-002	Corona North	Yates, T. (2011)	No	No
P-33-020235	-	1070 Serene Drive	119-043-003	Corona North	Yates, T. (2011)	No	River Pipeline
P-33-020236	-	1058 Serene Drive	119-043-004	Corona North	Yates, T. (2011)	No	No
P-33-020237	-	1050 Serene Drive	119-043-005	Corona North	Yates, T. (2011)	No	River Pipeline
P-33-024119	CA-RIV-11860	Sidebotham (Phillips) Quarry	-	Corona South	Goodwin, R. (2014)	No	No
P-33-024207	-	-	-	Corona North	Yates, T. (2012)	No	No
P-33-024551	CA-RIV-12171	-	-	Prado Dam	Goodwin, R. (2015)	No	No

The *City of Corona General Plan Update: Cultural Resources Technical Report* (SWCA 2018) identified That in the City of Corona and the SOI, 451 properties have been recorded at the EIC, and there are six historic properties defined as listed or eligible for listing on the NRHP.

Carnegie Library (1906): This neo-classical building was designed by Los Angeles architect Franklin Pierce Burnham with construction completed on July 2, 1906. The exterior was cream and red colored pressed brick, with stone and concrete trim. It was symmetrically designed with a central staircase flanked by sloping banisters, which held decorative iron lights. The entrance was topped by an overhanging triangular pediment with ornate plaster designs and supported by fluted Ionic columns on either side. This building served as the City's public library until July 3, 1971, when a much larger public library facility was constructed several blocks away. The building remained empty for the next six years. Despite efforts to have it restored, it fell into disrepair and was damaged by fires and vandalism; the building was demolished April 18, 1978.

Corona Heritage Park (1900): This 5-acre complex was the headquarters for the Corona Foothill Lemon Company, the largest citrus ranch in the area in the early 1900s. The various buildings within the complex were primarily constructed between 1913 and 1937, and are largely intact today. The Corona Heritage Foundation is restoring the complex as a historic park and museum facility.

Corona High School/Civic Center (1923): Originally constructed as Corona's second high school, it became the Civic Center in 1961. The classic Spanish Revival architecture and expansive front lawns make it a recognizable feature in Corona's downtown area.

Grand Boulevard Historic District (1886): This unique circular roadway was a prominent design element in the original layout for the townsite. Corona derives its longstanding moniker "The Circle City" from the boulevard. Internationally acclaimed road races were held on this street in 1913, 1914, and 1916, drawing more than 100,000 spectators, as well as racing legends. The boulevard displays wide parkways, large mature trees, and historic streetlights fronting grand homes and more modest bungalows along its route.

Women's Improvement Club Clubhouse (1913): Southern California architect Thomas Preston designed this one-story, multi-gabled, Craftsman-style bungalow clubhouse that was built in 1913. The club was formed in 1899 as a civic organization called the Town Improvement Association; it changed its name to the Women's Improvement Club of Corona in 1902. The building's architectural features include painted wood shingles on the exterior walls, a steep-gabled main roof with clipped gables over the side wings, an original oak front door with beveled glass, and wooden porch piers on a prominent brick base. It was added to the National Register on November 3, 1988, and is the only remaining structure within Corona city limits with that status.

Corona Theater Landmark Building (1929): The Spanish Revival-style Corona Theater, also known as the Landmark Building, was designed by Southern California architect Carl Boller and dedicated on August 29, 1929. Various celebrities including Al Jolson, Laurel and Hardy, and Irving Berlin attended its grand opening ceremonies. Its L-shaped design features a two-story elevation in front and three stories in the rear, with separate segments of varying heights topped by individual gable roofs and interspersed with hipped roof towers. The building was constructed of brick, with stucco on its front elevation. Some remodeling has been done to the exterior, but significant details remain. Over the years, the building has had various uses, including commercial office space, a Masonic Lodge meeting hall, and a large theater. The building is the only pre-Depression Era theater remaining in Corona, has been determined eligible for the National Register.

The six properties listed on the NRHP are also automatically eligible for listing to the CRHR. In addition, there are nine other properties that are eligible for the CRHR:

1. Jefferson Elementary School (1927)
2. Barber Home (1893) – Eastlake
3. 1101 S Ramona Ave (1915) – Vernacular Wood Frame with Classical revival Elements
4. Terpening House (1899) – Queen Anne
5. Corona First Methodist Church (1914) – Tudor Revival
6. 401 East 8th Street (1908) – Vernacular Wood Frame
7. Camp Haan Barracks (1942) – Vernacular Wood Frame
8. 517 E 8th Street (1896)
9. El Gordo Caballo Ranch (1939)

Within the City of Corona, there are no State Historic Landmarks. Within the SOI, outside the boundaries of the City of Corona, there are five State Historic Landmarks:

1. Butterfield Stage Station (No. 188): Site of Butterfield Stage Station where mail was delivered and horses changed. The first stage carrying overland mail left Tipton, Missouri on September 15, 1858 and, passing through Temescal, arrived in Los Angeles October 7, 1858.
2. Painted Rock (No. 190): In tribute to the earliest record of any people in this region, the Santa Fe Railway has preserved this rock with its ancient pictograph, and the Committee of the Corona Women's Improvement Club has placed a tablet.
3. Ruins of the Third Serrano Adobe (No. 224): Don Leandro Serrano set out orchards and vineyards and cultivated some of the fertile lands of the Temescal Valley. In the 1840s he built his third adobe, which the Serrano family occupied until 1898, on the well-traveled road between San Diego and Los Angeles.
4. Old Temescal Road (No. 638): This route was used by Luiseño and Gabrielino Indians, whose villages were nearby. Leandro Serrano established a home here in 1820. Jackson and Warner traveled the road in 1831, and Frémont in 1848. It was the southern emigrant road for gold seekers from 1849 to 1851, the Overland Mail route from 1858 to 1861, and a military road between Los Angeles and San Diego from 1861 to 1865.
5. Corona Founders Monument (No. 738): R.B. Taylor, George L. Joy, Samuel Merrill, A.S. Garretson, and Adolph Rimpau, after purchasing lands of La Sierra Rancho and El Temescal grant, founded the citrus colony and town of Corona on May 4, 1886.

The City of Corona contains two State Historical Points of Interest:

1. Bandini-Cota Adobe Site
2. Temescal Tin Mines California Register of Historical Resources

The City of Corona contains 10 historic districts and 47 historic landmarks (Table 4 below):

Table 4. City of Corona Historic Districts and Historic Landmarks

Historic District (HD)/ Historic Landmark (HL Number	Address	APN	Description	Date Approved by Corona City Council
HD-001	510 W Foothill Avenue	114-350-046	Heritage Park District	May 16, 2001
HD-002	2750 S Rimpau Av	120-121-028	Lemonia Grove District	May 16, 2001
HD-003	2837 S Kellogg Av	120-072-008	Kammeyer Ranch District	May 16, 2001
HD-004	1125 S Rimpau Av	111-290-024	Sunny Slope Cemetery District	May 16, 2001
HD-005	930 E Sixth St	117-310-001	City Park District	May 16, 2001
HD-006	Grand Blvd Circle	Not Available	Grand Blvd. Streetscape District	May 16, 2001
HD-007	Chase Dr (Garretson To Foothill)	Not Available	Chase Drive Palm Trees District	May 16, 2001
HD-008	Rimpau Av (Old Temescal Rd To Chase)	Not Available	Rimpau Ave. Palm Trees District	May 16, 2001
HD-009	Main St (Olive To Chase)	Not Available	South Main Street Palm Trees District	May 16, 2001
HD-010	Palisades Dr (1 Mile From Green River/Wardlow Wash Bridge)	Not Available	Palisades Drive Roadway District	June 3, 2015
HL-001	1101 S Main St	117-266-006	Woman's Improvement Club	May 16, 2001

Historic District (HD)/ Historic Landmark (HL Number	Address	APN	Description	Date Approved by Corona City Council
HL-002	815 W Sixth St	118-270-049	Historic City Hall	May 16, 2001
HL-003	900 S Victoria Av	117-236-001	Victoria Park/Old Lincoln Cemetery	May 16, 2001
HL-004	722/423 S Joy St/Eighth	117-206-009	Joy Street Market and Residence	Revoked On Nov 18, 2009
HL-005	1169 E Grand Blvd	Not Available	Not Available	May 16, 2001
HL-006	1156 E Grand Blvd	Not Available	Not Available	May 16, 2001
HL-007	1148 E Grand Blvd	Not Available	Not Available	May 16, 2001
HL-008	1136 E Grand Blvd	Not Available	Not Available	May 16, 2001
HL-009	1036 E Grand Blvd	Not Available	Not Available	May 16, 2001
HL-010	822 S Joy St	117-241-001	Not Available	September 17, 2001
HL-011	1314 S Victoria Av	109-041-014	Not Available	July 17, 2001
HL-012	1147 E Grand Blvd	Not Available	Not Available	September 18, 2002
HL-013	123 W Eleventh St	117-254-012	Vernacular Wood Frame	July 16, 2003
HL-014	1214 S Belle Av	110-192-018	Vernacular Wood Frame	July 16, 2003
HL-015	616 W Eleventh St	110-172-009	Provincial Revival	January 7, 2004
HL-016	1315 S Main St	109-041-002	Mediterranean/Spanish Revival	October 20, 2004
HL-017	818 S Howard St	117-233-022	Queen Anne	October 20, 2004
HL-018	1128 E Grand Blvd	117-263-016	Vernacular Wood Frame	October 19, 2005
HL-019	1052 E Grand Blvd	117-264-005	Victorian (mixed style)	May 3, 2006, Dec. 19, 2007
HL-020	809 E Grand Blvd	111-022-011	Not Available	May 3, 2006
HL-021	1052 E Grand Blvd	Not Available	Not Available	July 5, 2006
HL-022	1170 E Grand Blvd	117-265-010	Mediterranean/Spanish Revival	August 16, 2006
HL-023	1301 S Main St	109-041-004	Vernacular Wood Frame w/Craftsman Bungalow Elements	October 4, 2006
HL-024	1124 Palm Av	109-033-005	Vernacular Wood Frame	October 18, 2006
HL-025	920 S Victoria Av	117-237-002	Bungalow	October 18, 2006
HL-026	1107 W Grand Blvd	117-252-022	Vernacular Wood Frame	May 16, 2007
HL-027	1120 Palm Av	109-033-004	Vernacular Wood Frame	June 20, 2007
HL-028	824 S Sheridan St	117-221-001	Vernacular Wood Frame	June 20, 2007
HL-029	623 S Merrill St	117-173-016	Victorian (mixed style)/Queen Anne	July 18, 2007
HL-030	1047 E Grand Blvd	109-031-002	Not Available	September 5, 2007
HL-031	1101/1103 S Victoria Av	117-263-014	Transitional Bungalow	October 17, 2007
HL-032	1133 E Grand Blvd	109-022-002	Not Available	August 6, 2007

Historic District (HD)/ Historic Landmark (HL Number	Address	APN	Description	Date Approved by Corona City Council
HL-033	914 S Victoria Av	117-237-012	Vernacular Wood Frame w/Bungalow Elements	October 17, 2007
HL-034	1164 E Grand Blvd	117-265-009	Not Available	July 16, 2008
HL-035	1208 Palm Av	109-033-007	Bungalow	September 17, 2008
HL-036	122 E Olive St	109-041-006	Bungalow	September 17, 2008
HL-037	1222 S Victoria Av	109-021-011	Vernacular Wood Frame	September 17, 2008
HL-038	934 E Grand Blvd	117-243-009	Not Available	September 17, 2008
HL-039	802 W Grand Blvd	110-112-007	Not Available	October 21, 2009
HL-040	805/809 S Ramona Av	117-232-007	Gothic Revival	August 5, 2009
HL-041	1127 E Grand Blvd	109-022-003	Not Available	September 1, 2010
HL-041	1127 E Grand Blvd	109-022-003	Not Available	September 1, 2010
HL-042	353 E Olive St	109-033-012	Not Available	July 17, 2013
HL-043	1031 E Grand Blvd	109-031-004	Not Available	September 17, 2014
HL-044	1518 S Main St	109-072-008	Not Available	September 16, 2015
HL-045	119 E Kendall St	109-041-021	Vernacular Wood Frame	September 17, 2016
HL-046	502 W Eleventh St	110-172-020	Mission Revival	October 18, 2017

The City of Corona also contains 10 historic markers (Table 5 below):

Table 5. City of Corona Historic Markers

Historic Marker Number	Description	Location	Date Built	Date Dedicated
HM-00	Corona Road Races	W. Grand Blvd and Main Street	1913	1986
HM-01	Corona High School and Civic Center	W. Sixth Street and Buena Vista Avenue	1023	Date Not Available
HM-02	First Congregational Church	Ramona and Eighth Street	1887, 1911	Date Not Available
HM-03	First Corona Police Office Killed in Line of Duty Memorial	Sixth Street and Howard	1913	Date Not Available
HM-04	Jefferson Elementary	Tenth St and Vicentia Street	1927	Date Not Available
HM-05	Site of Corona's First Fire Station	S. Main and Eighth Street	1898	1998
HM-06	Site of Lincoln Elementary School	Howard and Ninth Street	1889, 1914	1998
HM-07	Original Site of Victoria Hotel	E. Sixth Street and Victoria Avenue	1904	1999
HM-08	Site of First Corona Hospital	Eighth St and Belle Street	1933	1999
HM-09	Corona's First High School and Middle School	Main Street and Grand Blvd	1937	2000

4.1.2 NAHC Record Search Results

A record search of the SLF held by the NAHC was requested on March 30, 2020. On April 2, 2020 the NAHC responded that the record search of the SLF was positive. The NAHC provided a list of 37 Native American tribal organizations and individuals that might have additional knowledge of cultural resources in the Project area. On April 6, 2020 Red Tail Environmental sent letters to the 37 Native American tribal organizations and individuals requesting any information they may have on cultural resources in the RWMP Project area. The 37 contacts provided by the NAHC are from the following Native American groups:

- Agua Caliente Band of Cahuilla Indians
- Augustine Band of Cahuilla Mission Indians
- Cabazon Band of Mission Indians
- Cahuilla Band of Indians
- Campo Band of Diegueno Mission Indians
- Ewiiaapaayp Band of Kumeyaay Indians
- Gabrielino Band of Mission Indians - Kizh Nation
- Gabrielino/Tongva San Gabriel Band of Mission Indians
- Gabrielino /Tongva Nation
- Gabrielino Tongva Indians of California Tribal Council
- Gabrielino-Tongva Tribe
- Jamul Indian Village
- Juaneno Band of Mission Indians Acjachemen Nation – Belardes
- La Jolla Band of Luiseno Indians
- La Posta Band of Diegueno Mission Indians
- Los Coyotes Band of Cahuilla and Cupeño Indians
- Manzanita Band of Kumeyaay Nation
- Mesa Grande Band of Diegueno Mission Indians
- Morongo Band of Mission Indians
- Pala Band of Mission Indians
- Pauma Band of Luiseno Indians
- Pechanga Band of Luiseno Indians
- Quechan Tribe of the Fort Yuma Reservation
- Ramona Band of Cahuilla
- Rincon Band of Luiseno Indians
- San Fernando Band of Mission Indians
- San Luis Rey Band of Mission Indians
- San Pasqual Band of Diegueno Mission Indians
- Santa Rosa Band of Cahuilla Indians
- Soboba Band of Luiseno Indians
- Sycuan Band of the Kumeyaay Nation
- Torres-Martinez Desert Cahuilla Indians
- Viejas Band of Kumeyaay Indians

To date, three responses have been received. Jill McCormick, Historic Preservation Officer for the Fort Yuma Quechan Tribe, responded on April 14, 2020 that the tribe has no comments on the project. Cheryl Madrigal, Tribal Historic Preservation Officer and Cultural Resources Manager for the Rincon Band of Luiseño Indians responded that the project is within the Territory of the Luiseño people and within the Band's specific Area of Historic Interest. They have identified Luiseño place names within the project area but no known Tribal Cultural Resources or Traditional Cultural Properties and they recommend at

archaeological/cultural resources study to be conducted and a final copy of the study to be provided to the Rincon Band for their review and comment, as well the inclusion of appropriate provisions for inadvertent discoveries. On June 9, 2020 Patricia Garcia Plotkin, Director of Historic Preservation, Agua Caliente Band of Cahuilla Indians, responded that the project is not located within the Tribe's Traditional Use Area, they defer to other tribes in the area, and this concludes their consultation efforts.

All correspondence pertaining to the NAHC is included in Appendix B.

4.2 ARCHIVAL RESEARCH RESULTS

USGS topographic maps from 1901, 1902, and 1904 show the Santa Ana River, Temescal Wash, the railroad, early streets within Corona, and the several land grants that bisect the project area. Additional USGS topographic maps are not available until the 1940s. The 1942 map shows development at the historic center of Corona and agricultural use in the remainder of the valley (USGS 2020).

Aerial photographs of the project area begin in 1938, however this aerial photograph includes only the far north wester corner of the project area. It shows the meandering alignment of the Santa Ana River, prior to the construction of the Prado Dam, along with agricultural use of the northwest corner of the project area. The 1946 aerial photograph shows a slightly larger portion of the north west corner of the project area and shows that the Prado dam has been constructed along with several transportation routes in the vicinity of the dam. The 1948 and subsequent aerial photographs show the entirety of the project area. The 1948 aerial photograph shows the residential and commercial development surrounding Grand Boulevard and that much of the project area is in use for agriculture, with residential or agricultural infrastructure and streets common across the project area. Aerial photographs from 1966, 1967 and 1980 show considerable additional development on the norther side of the project area spreading out from Grand Boulevard with the remainder of the project area in use for agriculture. The next aerial photograph which includes the entire project area is from 2005 and shows that most of the project area has been developed and little agricultural or undeveloped land remains (Historicaerial.com 2020).

The *City of Corona General Plan Update: Cultural Resources Technical Report* (SWCA 2018) received parcel information with building dates for Corona and the SOI. Historic development within the RWMP project area began in the late 1800s within the vicinity of Grand Boulevard. Development within the RWMP project area was focused around the Grand Boulevard circle through the 1920s. By the 1930s additional development spread farther out from Grand Boulevard and within El Cerrito. Through the 1940s development continued to be focused along Grande Boulevard, south of 6th Street, and in El Cerrito and south of El Cerrito Road. The 1950s show a large increase of development in Coronita, in Corona south of 6th Street, and in the vicinity of El Cerrito. The 1960s shows the first large scale residential development of track homes within the RWMP project area and this style development continued through the 1970s. The 1980s through the 2010s show a huge increase in development especially in the southern half of Corona and along the northern boundary of the City (SWCA 2018). As of 2018 there were at least 5,390 parcels that contain properties that were constructed prior to 1968 and therefore are at least 50 years old. There are an additional 3,217 parcels that contain buildings constructed between 1969 and 1978 (SWCA 2018).

4.3 TRIBAL CULTURAL RESOURCES RESULTS

A Scared Lands File search conducted by the Native American Heritage Commission (NAHC) for the project site. The NAHC identified 37 local Native American representatives from the following Native American groups as potentially having local knowledge of Tribal Cultural Resources:

- Agua Caliente Band of Cahuilla Indians
- Augustine Band of Cahuilla Mission Indians

- Cabazon Band of Mission Indians
- Cahuilla Band of Indians
- Campo Band of Diegueno Mission Indians
- Ewiiaapaayp Band of Kumeyaay Indians
- Gabrieleno Band of Mission Indians - Kizh Nation
- Gabrieleno/Tongva San Gabriel Band of Mission Indians
- Gabrielino /Tongva Nation
- Gabrielino Tongva Indians of California Tribal Council
- Gabrielino-Tongva Tribe
- Jamul Indian Village
- Juaneno Band of Mission Indians Acjachemen Nation – Belardes
- La Jolla Band of Luiseno Indians
- La Posta Band of Diegueno Mission Indians
- Los Coyotes Band of Cahuilla and Cupeño Indians
- Manzanita Band of Kumeyaay Nation
- Mesa Grande Band of Diegueno Mission Indians
- Morongo Band of Mission Indians
- Pala Band of Mission Indians
- Pauma Band of Luiseno Indians
- Pechanga Band of Luiseno Indians
- Quechan Tribe of the Fort Yuma Reservation
- Ramona Band of Cahuilla
- Rincon Band of Luiseno Indians
- San Fernando Band of Mission Indians
- San Luis Rey Band of Mission Indians
- San Pasqual Band of Diegueno Mission Indians
- Santa Rosa Band of Cahuilla Indians
- Soboba Band of Luiseno Indians
- Sycuan Band of the Kumeyaay Nation
- Torres-Martinez Desert Cahuilla Indians
- Viejas Band of Kumeyaay Indians

.

5. CULTURAL RESOURCE SENSITIVITY ANALYSIS

The RWMP project area has been categorized into three cultural resource sensitivity levels rated low, moderate, or high based on the results of the archival research, the NAHC Sacred Lands File record search, regional environmental factors, and historic and modern development (Figure 11 and Confidential Appendix C). A low sensitivity rating indicates areas where there is a high level of disturbance or development and the area has been subject to previous cultural resource surveys, such as areas developed after the late-1970s, since the introduction of environmental laws requiring archaeological studies or in areas where specific geographic features that have a low potential for cultural resources, such rugged areas with a slope over 20%. Within these areas, the potential for additional cultural resources to be identified is low. A moderate sensitivity rating indicates that some previously recorded resources have been identified, and/or the area has a moderate potential for cultural resources, or if the area has not been previously surveyed for cultural resources, the geographic features of the area cause the potential for cultural resources to be moderate. A high sensitivity rating indicates areas where significant resources have been documented, and/or have the potential to be identified, such as alluvial areas and areas near historic or prehistoric water sources. The resources in high sensitivity areas are generally complex in nature with unique and/or abundant artifact assemblages. In some cases, the previously identified resources in high sensitivity areas may have been determined to be significant under local, State or Federal guidelines.

City of Corona General Plan Update: Cultural Resources Technical Report, identified that much of the City and the SOI has not been systematically surveyed to identify cultural resources and that some cultural resources may have been paved over during development (SWCA 2018). In addition, the 2001 *Draft Program Environmental Impact Report for the City of Corona Recycled Water Master Plan Project SCH# 99031097* identified that much of the RWMP project area has a moderate to high sensitivity for cultural resources (Parsons Engineering Science, Inc. 2001). The 2001 DEIR identified that portions of the project area located on the Black Star Canyon, California 7.5' USGS topographic quad maps have a low potential for archaeological resources, however the remainder of the project area has a moderate to high level of sensitivity.

While much of the RWMP Project area has been developed, archaeological research identified Native American use of the RWMP Project area for thousands of years, and it is possible that intact subsurface cultural deposits are present in areas that have been previously developed or alluvial areas, as well as in areas that have had little ground disturbance. Developments constructed through the 1970s may not have been subject to cultural resource assessments as part of compliance with environmental laws and the cultural resource sensitivity of these areas may still be moderate to high depending on the amount of ground disturbance and mass grading previously conducted. The potential to encounter prehistoric cultural resources across the RWMP Project area is moderate to high, expected resource types include: lithic scatters, bedrock milling features, habitation areas, and resource procurement areas.

In addition to prehistoric resources, historic archaeological resources or built environment resources may also be present. Based on the historic and archival research conducted historic archaeological resources may include archaeological deposits and features associated with agriculture, especially ranching and citrus cultivation, as well as early development, such as trash scatters, wells and privy pits, and built environment resources. Historic development within the RWMP project area began in the late 1800s within the vicinity of Grand Boulevard and expanded, mostly southward into the project area through the 1920s. By the 1930s additional development spread farther out from Grande Boulevard and within El Cerrito. Through the 1940s development continued to be focused along Grande Boulevard, south of 6th Street, and in El Cerrito and south of El Cerrito Road. The 1950s show a large increase of development in Coronita, in Corona south of 6th Street, and in the vicinity of El Cerrito. The 1960s shows the first large scale residential development of track homes within the RWMP Project area and this style development continued through the 2000s. In

addition, portions of the RWMP Project area that were in use prior to the mid-20th century may contain built environment resources that exceed the age threshold for eligibility to the CRHR and Corona Register. In addition, properties constructed prior to the 1920s may contain historic archaeological features associated with privy pits, wells, and trash scatters. While these areas were subject to early development, they may not have been impacted by mass grading and buildings, roads, and hardscapes may have preserved intact subsurface archaeological deposits and features which could be eligible to the CRHR and/or Corona Register and impacted by the implementation of the Project.

Areas shown on Figure 11 as having a high sensitivity for cultural resources are in proximity to known water sources, contain previously recorded cultural resources, or contain areas that were developed prior to the mid-20th century and may contain historic resources. Early development and agricultural uses may have impacted the location of original water sources and drainages. Prehistoric resources are commonly found in proximity to water resources. Due to the presence of the Santa Ana River Basin within the Project and the unknown location of possible obscured or destroyed water sources, the majority of the project area is rated moderate to high for prehistoric archaeological resources. The areas identified as moderate and high sensitivity and unknown represents a prehistorically and historically active environment.

Areas identified as moderate sensitivity were developed later, and may have been subject to greater disturbances, contained a lower concentration of previously recorded cultural resources, or contain geographic features or distances from water sources which make them less ideal for prehistoric or early historic uses.

The area identified on the western edge of the RWMP Project area as low sensitivity contains steep slopes of greater than 20% which prohibited prehistoric and early historic uses. The area identified on the eastern edge of the RWMP Project area as low sensitivity contains extensive disturbances from mining and other land uses likely destroying any cultural resources which may have been present.

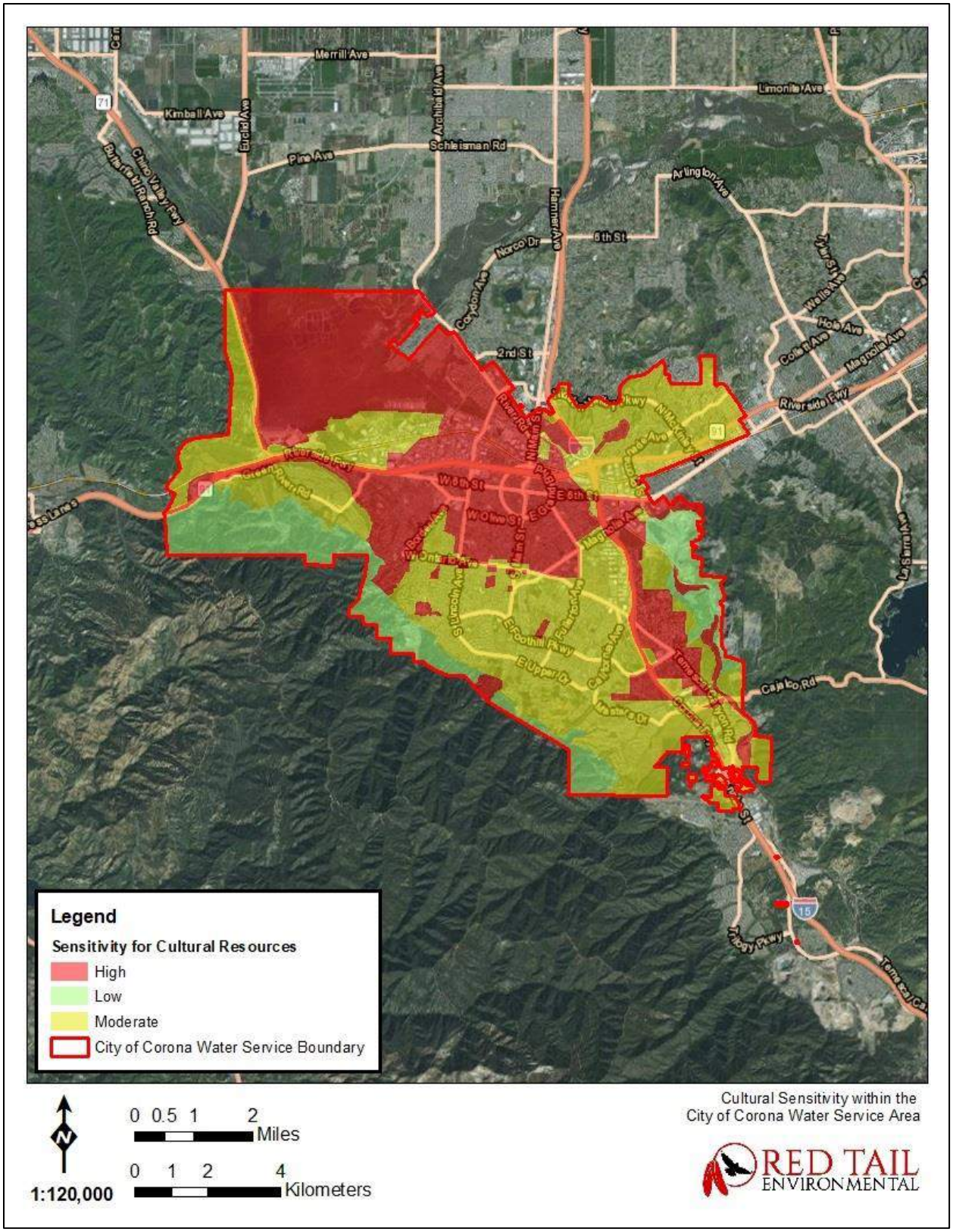


Figure 11. Cultural Resource Sensitivity within the RWMP Project Area.

6. RESOURCE IMPACT ANALYSIS

This impact analysis presents a program level analysis the evaluates the potential impacts of implementing the RWMP on existing pre-historic and historic environmental conditions. Based on the existing conductions described above this impact analysis programmatically assesses the direct and indirect impacts on cultural resources.

6.1 SIGNIFICANCE CRITERIA

Under CEQA, archaeological and/or built environment resources may meet the definition of a historical resource or unique archaeological resource. Any project that may cause a substantial adverse change in the significance of a historical resource would also have a significant effect on the environment. Substantial adverse change to the significance of a historical resource is defined as physical demolition, destruction, alteration, or relocation of the resource or immediate surroundings such that its significance would be materially impaired. CEQA states that when a project would cause damage to a unique archaeological resource, reasonable efforts must be made to preserve the resource in place or leave it in an undisturbed state.

6.2 BUILT ENVIRONMENT RESOURCES IMPACT ANALYSIS

The record search conducted for the *City of Corona General Plan Update: Cultural Resources Technical Report* identified 30 built environment resources, which were assigned a primary number by the EIC. Twelve of the built environment resources are within 100 ft of a Project Component (Table 6, below). In addition, six historic properties defined as listed or eligible for listing on the NRHP and nine other properties were eligible to the CRHR within the City of Corona. There were five State Historic Landmarks within the SOI and two State Historical Points of Interest within the City of Corona. The Corona Register included 10 Historic Districts, 47 Historic Landmarks, and 10 Historic Markers. Furthermore, as of 2018, the *City of Corona General Plan Update: Cultural Resources Technical Report* identified at least 5,390 parcels that contain properties that were constructed prior to 1968 and therefore are at least 50 years old. There are an additional 3,217 parcels that contain buildings constructed between 1969 and 1978, which may meet the 50-year age threshold for eligibility during implementation of the RWMP (SWCA 2018).

Construction of the Project Components of the RWMP would largely occur within existing roadway rights of way and developed areas. The demolition or direct physical alteration of potential historic structures, historic districts, or other built environment resources would be unlikely based on the description of the Project Components. For these reasons, direct impacts to historic properties would be less than significant. Once constructed all future maintenance and operational activities would be restricted to the City's existing rights of way or existing site locations and, therefore, no encroachment into adjacent properties would occur. Based on these considerations no impacts would result from future maintenance and operational activities.

Construction of the Project Components of the RWMP could result in temporary vibration-related effects in the immediate vicinity of the construction from the use of heavy equipment and machinery, as construction activities can produce varying degrees of ground vibration depending on the equipment and methods employed and localized soil conditions. Construction techniques that commonly result in excessive vibration, such blasting and pile driving, are not anticipated for RWMP implementation. Based on criteria presented in the Federal Transit Administration's (FTA) Noise and Vibration Manual (2006), "fragile buildings" are subject to damage when vibration exceeds 0.20 PPV. For the RWMP Project construction-related vibration levels would be below the 0.20 PPV threshold for typical building damage

and the 94 VdB threshold for annoyance at a distance of approximately 40 feet. Historic structures are often considered in this category due to their age of construction and the building codes enacted at the time of construction. As a result, construction activities within 40 feet of fragile structures could result in damaging vibration levels for historic structures, where present and eligible for the NRHP, CRHR, and/or Corona Register. However, in the absence of precise information on the location and types of construction, if work is proposed within 40 feet or less of one or more contributing elements to a historic property or district, then vibration-related impacts could potentially be significant. Therefore, Mitigation Measure CULT-1 is recommended to minimize construction-related vibration impacts to historic structures.

6.3 ARCHAEOLOGICAL RESOURCES IMPACT ANALYSIS

Based on the cultural resource sensitivity analysis much of the RWMP Project area has been identified as having a moderate to high sensitivity for cultural resources. Sensitivity is based on previously recorded archaeological findings and has not included ethno-historic or ethno-botanic research to further identify traditional cultural properties/tribal cultural landscapes. The record search conducted for the *City of Corona General Plan Update: Cultural Resources Technical Report* identified 96 previously recorded cultural resources are located within the RWMP Project area, 30 of which are included as built environment resources, discussed above (SWCA 2018). Thirteen of the resources are within 100 feet of a Project Component and an additional three of the resources are intersected by a Project Component (Table 6, below and Confidential Appendix C).

Development in accordance with the proposed project could adversely impact known or previously unrecorded cultural resources that may be eligible to the CRHR or Corona Register. Potential impacts to cultural/archaeological resources could result from clearing, trenching, and grading activities associated with the construction of pipelines, underground structures, or other related facilities, or any rehabilitations of existing pipes, which may result in disturbing native soil outside of previously excavated trenches. Impacts to resources that are determined to be important under criteria provided in CEQA (Section 15064.5) would be considered significant. The precise extent and nature of impacts that could result by the construction of the RWMP Project Components would be determine at the time more engineering detail is developed for each Project Component. Therefore, all potential impacts are assumed to be significant at the program level of analysis. Mitigation Measures CUL-2 and CULT-3 are recommended to minimize the potential for disturbance of archaeological resources.

In addition, there is a potential to identify unexpected human remains during the construction of the Project Components, as the RWMP Project area contained numerous prehistoric and historic settlements. These direct impacts could be significant. Mitigation Measure CULT-4 is recommended to reduce these potential impacts to the unexpected discovery of human remains.

Once constructed the Project Components would not have the potential for additional impacts to archaeological or historic resources. Typical operations and maintenance of the Project Components would not result in additional physical impacts and are recommended as a less than significant impact. No indirect effects to archaeological resources were identified.

Table 6. Impact Analysis and Recommended Mitigation Measure for RWMP Project Components

Project Component Number	Project Component	Known Resources Intersected	Known Resources within 100 ft.	Cultural Resource Sensitivity of the Project Component	Recommended Mitigation Measure
1*	WRCRWA Booster Pump Station*	n/a	n/a	n/a	n/a
2	WRCRWA Transmission Pipeline	None	None	High	CULT-1, CULT-2, CULT-3, CULT-4

3	WRCRWA Flow Control Improvements	None	None	High	CULT-1, CULT-2, CULT-3, CULT-4
4	Rimpau California Pipeline	None	P-33-017926	Moderate, High	CULT-1, CULT-2, CULT-3, CULT-4
5	Chase Booster Pump Station	None	None	Moderate	CULT-1, CULT-2, CULT-3, CULT-4
6	Chase Tank	None	None	Moderate	CULT-1, CULT-2, CULT-3, CULT-4
7	Buena Vista Tenth Pipeline	None	P-33-014754 P-33-024188	High	CULT-1, CULT-2, CULT-3, CULT-4
8	Ontario Slipline	None	P-33-024855	Moderate, High	CULT-1, CULT-2, CULT-3, CULT-4
9	River Pipeline	None	P-33-020211 P-33-020212 P-33-020213 P-33-020225 P-33-020226 P-33-020233 P-33-020235 P-33-020237	Moderate, High	CULT-1, CULT-2, CULT-3, CULT-4
10	Sampson Pipeline	P-33-001438 P-33-003832	P-33-020207 P-33-020202	Moderate, High	CULT-1, CULT-2, CULT-3, CULT-4
11	Old Temescal Pipeline	None	None	Moderate, High	CULT-1, CULT-2, CULT-3, CULT-4
12	Lincoln Foothill Pipeline	None	None	Moderate	CULT-1, CULT-2, CULT-3, CULT-4
13	Avenida Del Vista Pipeline	None	None	High	CULT-1, CULT-2, CULT-3, CULT-4
14	Border Pipeline	None	None	Moderate, High	CULT-1, CULT-2, CULT-3, CULT-4
15	Promenade Pipeline	None	None	Moderate	CULT-1, CULT-2, CULT-3, CULT-4
16	Research Promenade Pipeline	None	None	Moderate, High	CULT-1, CULT-2, CULT-3, CULT-4
17	Smith Pipeline	None	None	Moderate, High	CULT-1, CULT-2, CULT-3, CULT-4
18	Via Pacifica Pipeline	None	None	Moderate	CULT-1, CULT-2, CULT-3, CULT-4
19	Tehachapi Pipeline	None	None	Moderate	CULT-1, CULT-2, CULT-3, CULT-4
20	Jenks Pipeline	None	None	Moderate	CULT-1, CULT-2, CULT-3, CULT-4
21	Airport Circle Pipeline	None	None	Moderate	CULT-1, CULT-2, CULT-3, CULT-4
22	Helicopter Pipeline	None	None	Moderate	CULT-1, CULT-2, CULT-3, CULT-4
23	Glider Pipeline	None	None	Moderate	CULT-1, CULT-2, CULT-3, CULT-4
24	Citation Pipeline	None	None	Moderate	CULT-1, CULT-2, CULT-3, CULT-4
25	Klug Pipeline	None	None	Moderate	CULT-1, CULT-2, CULT-3, CULT-4
26	Monica Pipeline	None	None	Moderate	CULT-1, CULT-2, CULT-3, CULT-4
27	Chase Hudson Pipeline	None	None	Moderate	CULT-1, CULT-2, CULT-3, CULT-4
28	Cessna Pipeline	None	None	Moderate	CULT-1, CULT-2, CULT-3, CULT-4
29	Main Citrus Pipeline	None	None	Moderate, High	CULT-1, CULT-2, CULT-3, CULT-4

* WRCRWA Booster Pump Station, is located outside of the RWMP Project area, and was analyzed separately.

6.4 TRIBAL CULTURAL RESOURCES IMPACT ANALYSIS

The record search of the SLF held by the NAHC was positive. The NAHC identified 37 Native American organizations which may wish to consult with the City regarding Tribal Cultural Resources. Consultation with tribal organizations is ongoing.

The construction of Project Components as part of the RWMP would involve ground disturbing construction activities that would occur within 100 ft of potentially significant known or unknown archaeological resources. These direct impacts could be significant to Tribal Cultural Resources. Mitigation Measures CULT-2, CULT-3, and CULT-4 are recommended to mitigate impacts to Tribal Cultural Resources.

Once constructed the Project Components would not have the potential for additional impacts to Tribal Cultural Resources. Typical operations and maintenance of the Project Components would not result in additional physical impacts and are recommended as a less than significant impact.

During construction activities, indirect adverse effects may result from increased accessibility to archaeological or Tribal Cultural Resources (such as artifacts) that could lead to resource looting or vandalism activities. This is considered a significant impact. Mitigation Measures CULT-2, CULT-3 and CULT-4 are recommended to mitigate this potential indirect impact.

7. RECOMMENDATIONS

7.1 RESOURCE MANAGEMENT

Within the RWMP Project area 96 cultural resources have been previously recorded, and 13 of the resources are within 100 feet of a Project Component and an additional three of the resources are intersected by a Project Component. The *City of Corona General Plan Update: Cultural Resources Technical Report* identified that much of the RWMP has not been systematically surveyed for cultural resources (SWCA 2018). Due to continued use and development of the project area, it is assumed that many of the cultural resources within the RWMP Project area have been disturbed. However, it is possible that intact cultural resources are present in areas of the RWMP Project area that have not been previously developed, are buried in alluvial deposits, or have been preserved under hardscapes and pavement. This study reveals that cultural sensitivity varies across the RWMP Project area and the majority of the project area has been identified as moderate to high sensitivity for cultural resources. Therefore, there is a potential that cultural resources will be impacted during the implementation RWMP, especially within areas that have been categorized as moderate or high sensitivity for cultural resources.

Mitigation Measures CULT-1, -2, -3, and -4, outlined below, are recommended to avoid adverse effects to historical resources during implementation of the RWMP.

7.2 MITIGATION MEASURES

Implementation of the following recommended mitigation measures would reduce potentially significant impacts. This report was completed in compliance with state and local regulations. Separate mitigation measures are not required. Rather, each mitigation measure has been designed to fulfill the requirements of CEQA and the Corona Historic Resources Ordinance. The City is the lead agency implementing cultural resource mitigation measures.

7.2.1 Mitigation Measure CULT-1: Construction Related Vibration

Construction plans for individual projects under the 2018 RWMP shall include a requirement that no vibratory equipment be operated within 40 feet of a structure eligible or listed on the NRHP, CRHR, and/or Corona Register. Instead, alternative construction equipment shall be used, such as smooth wheel rollers without a vibratory component.

For structures that have not been previously evaluated, the City Engineer shall consult with a qualified Architectural Historian, approved by the City, to conduct an evaluation of the structure. If the structure is determined eligible or already eligible or listed in the NRHP, CRHR, or Corona Register, structural evaluation shall be conducted by a Professional Structural Engineer to identify maximum allowable levels of vibration during construction. If a historic determination is required, the engineer shall provide recommendations on approaches to stabilization in conjunction with vibration monitoring. Permanent stabilization measures shall follow the Secretary of the Interior's guidelines for the treatment of historic properties. If the buildings are temporarily stabilized for the duration of construction activities, when removed, the buildings shall be restored to their pre-construction condition when the stabilization measures are removed.

7.2.2 Mitigation Measure CULT-2: Project Specific Archaeological Survey

Each Project Component should be reviewed by the City to determine if a site-specific archaeological survey should be conducted. Site specific archaeological surveys should be conducted for Project Components which are located in areas that have not been previously developed, that will impact land with visible ground surface, and/or projects which may impact built environment resources that meet the age threshold for eligibility. A Native American monitor shall be on site during the site-specific archaeological surveys.

If cultural resources are identified during the site-specific archaeological survey then evaluation of the resources to the CRHR and the Corona Register should be conducted in conjunction with the Native American monitor to determine if the resource is significant under CEQA, and would be adversely impacted by the project. A Native American monitor from a culturally affiliated Tribe should be present during any archaeological excavations involving prehistoric cultural resources. If no significant resources are found, and site conditions are such that there is no potential for further discoveries, then no further action is required. Resources found to be non-significant as a result of a survey and/or evaluation will require no further work beyond documentation of the resources on the appropriate Department of Parks and Recreation (DPR) site forms and inclusion of results in a technical report.

If significant resources are present, consulting tribes or bands should be notified and consulted with on treatment. ~~then a~~Avoidance, preservation in place, or a data recovery program is recommended. The data recovery program is subject to the provisions as outlined in CEQA, Section 21083.2. The data recovery program should be conducted in accordance with the Office of Historic Preservation's *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format* (1990) and *Guidelines for Archaeological Research Designs* (1991). The data recovery program must be reviewed and approved by the City

If no significant resources are found, but if there is a potential for unknown archaeological resources, or Tribal Cultural Resources to be uncovered during construction activities then Mitigation Measure CULT-3, an archaeological and Native American monitoring program, is recommended.

7.2.3 Mitigation Measure CULT-3: Archaeological and Native American Monitoring Program

Because there is always a potential for encountering cultural and tribal cultural resources during excavation, the creation of an archaeological and Native American monitoring program is recommended for projects identified in the 2018 Reclaimed Water Master Plan that would conduct new ground disturbance in areas identified as moderate or high sensitivity for cultural resources, for project components that are within 100 feet of previously recorded archaeological resources, and for those projects where tribal consultation has identified traditional cultural properties/tribal cultural landscapes. Prior to the commencement of ground-disturbing activities below the road base, the City of Corona, Public Works Department, shall enter into an agreement with the consulting tribes or bands for Native American monitor. The Native American monitor shall be approved by the Gabrieleño Band of Mission Indians – Kizh Nation, Soboba Band of Luiseño Indians, and Rincon Band of Luiseño Indians—the tribes that consulted on the project pursuant to Assembly Bill 52 (consulting tribes or bands). A copy of the executed contract shall be submitted to the City of Corona prior to the issuance of any permit necessary to start a ground-disturbing activity.

The Native American monitor shall be on site during all initial ground-disturbing activities and excavation of each portion of the project site, including clearing, grubbing, tree removals, grading, and trenching. Monitoring will not take place within the imported fill soils in the road base and for potholing above known

utility lines. In conjunction with the archaeological monitor, the Native American monitor shall have the authority to temporarily divert, redirect, or halt the ground-disturbing activities to allow identification, evaluation, and potential recovery of cultural resources. The on-site monitoring shall end when all ground-disturbing activities on the project site are completed or when the tribal representatives and Native American monitor have indicated that all upcoming ground-disturbing activities on the project site have little to no potential for impacting cultural or tribal cultural resources. Upon discovery of any tribal cultural resources, construction activities shall cease in the immediate vicinity of the find (not less than the surrounding 100 feet) until the find can be assessed. All tribal cultural resources unearthed by project activities shall be evaluated by the qualified archaeologist and Native American monitor approved by the consulting tribe or band. If the resources are Native American in origin, the consulting tribe or band shall retain it/them in the form and/or manner the consulting tribe or band deems appropriate for educational, cultural, and/or historic purposes.

If a non-Native American resource is determined by the qualified archaeologist to constitute a "historical resource" or "unique archaeological resource," time allotment and funding sufficient to allow for implementation of avoidance measures or appropriate mitigation must be available. The treatment plan established for the resources shall be in accordance with the California Environmental Quality Act Guidelines, Section 15064.5(f), for historical resources and California Public Resources Code, Sections 21083.2(b), for unique archaeological resources.

Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the historic archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.

The City of Corona, Public Works Department, shall obtain a fully executed agreement(s) with the consulting tribes or bands to ensure compliance with this mitigation measure. This agreement shall not modify any condition of approval or mitigation measure.

The City of Corona, Public Works Department, and the consulting tribes or bands shall develop an Archaeological Monitoring Plan to address details, timing, and responsibilities of all archaeological activities that will occur on the project site when it is determined by either the City of Corona, Public Works Department, or the consulting tribes or bands to be necessary. The Archaeological Monitoring Plan shall include the following:

1. The development of a schedule in coordination with the City of Corona, Public Works Department, the project archaeologist, and the consulting tribes or bands for Native American and archaeological monitoring during ground-disturbing activities on the site, including the scheduling, safety requirements, duties, scope of work, and Native American monitor's authority to stop and redirect grading activities in coordination with all project archaeologists.
2. The protocols and stipulations that the City of Corona, Public Works Department, the consulting tribes or bands, and project archaeologist would follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resource evaluation. Such procedures include the following:

a. The archaeologist or Native American monitor may halt ground-disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground-disturbing activities shall be directed away from these deposits for a short time to allow for identification, evaluation, and potential recovery of cultural resources by the archaeologist and the Native American monitor. Ground-disturbing activities shall not resume until the archaeologist, in consultation with the Native American monitor and the City of Corona, deems the cultural resource or feature has been appropriately documented and protected.
b. All discovered resources shall be temporarily curated in a secure location on site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with Native American monitor oversight of the process.
c. The City of Corona, Public Works Department, shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains, as part of the required mitigation for impacts to cultural resources. The City of Corona, Public Works Department, shall relinquish the artifacts through one or more of the following methods and provide the consulting tribes or bands with evidence of the same:
    i. Accommodate the process for on-site reburial of the discovered items with the consulting tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloging and basic recordation have been completed.
    ii. A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per Title 36, Part 79, of the Code of Federal Regulations and, therefore, would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility in Riverside County to be accompanied by payment of the fees necessary for permanent curation.
    iii. If more than one Native American tribe or band is involved with the project and cannot come to a consensus on the disposition of cultural materials, the cultural materials shall be curated at the Western Science Center.
d. At the completion of grading, excavation, and ground-disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City of Corona, Public Works Department, documenting monitoring activities conducted by the project archaeologist and Native American monitor within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; and in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the consulting tribes or bands, Eastern Information Center, and interested tribes or bands.

~~As there is always a potential for encountering cultural resources during excavation, therefore the creation of an archaeological and Native American monitoring program is recommended for Project Components which will conduct new ground disturbance in areas identified as moderate or high sensitivity for cultural resources and for Project Components that are located within 100 ft of previously recorded archaeological resources. The archaeological and Native American monitoring program shall consist of the full-time presence of a qualified archaeologist and traditionally and culturally affiliated Native American monitor~~

~~during new ground disturbing activities. New ground disturbance can include new trenching, or expanding previously excavated trenches, grading, and vegetation removal. The archaeological and Native American monitoring program should include the following:~~

1. ~~The requirement for the archaeological and Native American monitoring to be noted on applicable construction documents, including plans;~~
2. ~~The archaeologist and Native American monitor should attend the preconstruction meeting with the contractor and/or the City;~~
3. ~~The archaeologist shall maintain ongoing collaborative consultation with the Native American Monitor during all ground disturbing or altering activities, as identified above;~~
4. ~~The archaeologist and/or Native American Monitor may halt ground disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground disturbing activities shall be directed away from these deposits for a short time to allow a determination of potential significance, the subject of which shall be determined by the archaeologist and the Native American Monitor. Ground disturbing activities shall not resume until the archaeologist, in consultation with the Native American Monitor and the City, deems the cultural resource or feature has been appropriately documented and/or protected;~~
5. ~~Archaeological isolates and non-significant materials will be minimally documented in the field and ground disturbance will be allowed to resume;~~
6. ~~The avoidance and protection of discovered unknown and significant cultural resources and/or unique archaeological resources is the preferable mitigation for the proposed project. If avoidance is not feasible, a Data Recovery Plan may be authorized by the City as the Lead Agency under CEQA; and~~
7. ~~Prior to the release of any Bonds associated with the construction of the Project Components a Monitoring Report and/or Evaluation Report, which describes the results, analysis and conclusions of the archaeological and Native American monitoring program (such as, but not limited to, a Data Recovery Program) shall be submitted by the archaeologist, along with the Native American monitor's notes and comments, to the City for approval.~~

7.2.4 Mitigation Measure CULT-4: Identification and Treatment of Human Remains

In the event that human remains, or possible human remains, and/or grave goods are encountered during any work associated with the projects identified in the 2018 Reclaimed Water Master Plan, ground disturbance within 100 feet of the remains shall immediately halt. The project proponent shall then immediately inform the Riverside County Coroner and the City of Corona, Public Works Department, and the County Coroner shall be permitted to examine the remains as required by California Health and Safety Code, Section 7050.5(b). Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains until the County Coroner can determine whether the remains are those of a Native American. If human remains are determined to be of Native American origin, the applicant shall comply with the state relating to the disposition of Native American burials that fall within the jurisdiction of the California Native American Heritage Commission (California Public Resources Code, Section 5097). The County Coroner shall contact the California Native American Heritage Commission to determine the most likely descendant. The most likely descendant shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The disposition of the remains shall be overseen by the most likely descendant to determine the most appropriate means of treating the human remains and any associated grave artifacts. The specific locations of Native American burials and reburials will be proprietary and not disclosed to the general public. The County Coroner will notify the California Native American Heritage Commission in accordance with California Public Resources Code, Section 5097.98. According to California Health and Safety Code, six or more human burials at one

location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052) as determined in consultation between the project proponent and the most likely descendant.

~~In the event that human remains or possible human remains are encountered during any work associated with the RWMP all ground disturbance within 25 ft of the remains shall halt and CEQA Guidelines Section 15064.5, subdivision (e), California Public Resource Code Section 5097.98, and California Health and Safety Code §7050.5 should be followed. If Native American remains are discovered, the remains shall be kept *in situ* (in place), or in a secure location, as approved by the Native American monitor until the repatriation process can be completed.~~

8. REFERENCES

Altschul, Jeffrey H., John G. Douglass, Richard Ciolek-Torrello, Sarah Van Galder, Benjamin R. Vargas, Kathleen L. Hull, Donn R. Grenda, Jeffrey Homburg, Manuel Palacios-Fest, Steven Shelley, Angela Keller, and David Maxwell

2007 Life at the Nexus of the Wetlands and Coastal Prairie, West Los Angeles. In *Proceedings of the Society for California Archaeology* 20:34–42.

Ashby, G. E., and John W. Winterbourne

1966 A Study of Primitive Man in Orange County and Some of Its Coastal Area. *Pacific Coast Archaeological Society Quarterly* 2(1):3-52.

Bancroft, Hubert Howe

1886 *History of California*. The History Company, San Francisco.

Bean, Lowell J.

1978 Cahuilla. In *California*, edited by Robert F. Heizer, pp. 575-587. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Bean, Lowell J., and Florence C. Shipek

1978 Luiseño. In *California*, edited by Robert F. Heizer, pp. 550-563. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Bean, Lowell J., and Charles R. Smith

1978 Gabrielino. In *California*, edited by Robert F. Heizer, pp. 538-549. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Blackburn, Thomas

1963 *Ethnohistoric Descriptions of Gabrielino Material Culture.* Annual Report, Archaeological Survey. University of California, Los Angeles.

Bolton, Herbert Eugene

1917 The Mission as a Frontier Institution in the Spanish-American Colonies. *American Historical Review* 23:42-61.

Boscana, Fr. Geronimo

1846 *Chinigchinich; A Historical Account of the Origin, Customs, and Traditions of the Indians at the Missionary Establishment of San Juan Capistrano, Alta California; called The Acagchemem Nation.* Translated by Alfred Robinson. Wiley and Putnam, New York. (Reprinted by Da Capo Press, New York, 1969.)

Brown, John Jr., and James Boyd

1922 *History of San Bernardino and Riverside Counties*. Lewis Publishing Company, Chicago.

Bynon, A.

1893 *History and Directory of Riverside County.* Riverside.

Byrd, Brian F. and L. Mark Raab
2007 Prehistory of the Southern Bight: Models for a New Millennium. In *California Prehistory: Colonization, Culture and Complexity*, edited by Terry L. Jones and Kathryn A. Klar. Alta Mira Press, Lanham, MD.

Campbell, Elizabeth W. C., and William H. Campbell
1935 *The Pinto Basin Site: An Ancient Aboriginal Camping Ground in the California Desert*. Southwest Museum Papers No. 9. Los Angeles.

Cleland, Robert Glass
2005 *The Cattle on a Thousand Hills: Southern California, 1850-80.* 2nd ed. Huntington Library, San Marino, California.

Cleland, James H., Andrew L. York, and Lorraine M. Willey
2007 *Piecing Together the Prehistory of Landing Hill: A Place Remembered.* EDAW Cultural Publications No. 3. EDAW, Inc., San Diego, California.

City of Corona
2018 City of Corona 2018 Reclaimed Water Master Plan.

City of Corona
nd History of Corona. Electronic Document: https://www.coronaca.gov/government/departments-divisions/library-recreation-services/library/heritage-room/history-of-corona. Site accessed May 20, 2020.

Corkhill, William
2013 History of Corona, California. Part 1 and Part 2. Electronic Document: http://history.rays-place.com/ca/rs-corona-1.htm. Site accessed May 20, 2020.

Dakin, Susanna Bryant
1978 *A Scotch Paisano in Old Los Angeles. Hugo Reid's Life in California, 1832-1852, Derived from His Correspondence*. Originally published 1939. University of California Press, Berkeley, Los Angeles, and London

de Barros, Philip
1996 *San Joaquin Hills Transportation Corridor: Results of Testing and Data Recovery at CAORA-1357*. Report on file, South Central Coastal Information Center, California State University, Fullerton

Dillon, Brian D.
2002 California Paleo-Indians: Lack of Evidence, or Evidence of a Lack? In *Essays in California Archaeology: A Memorial to Franklin Fenenga*, edited by William J. Wallace and Francis A. Riddell, pp. 110–128. Contributions of the University of California Archaeological Research Facility, No. 60, Berkeley.

Erlandson, Jon M., Torben C. Rick, Terry L. Jones, and Judith F. Porcasi
2007 One if by Land, Two if by Sea: Who Were the First Californians? In *California Prehistory: Colonization, Culture and Complexity*, edited by Terry L. Jones and Kathryn A. Klar. Alta Mira Press, Lanham, MD

Fagan, B.
1991 *Ancient North America: The Archaeology of a Continent.* London: Thames and Hudson.

Frazier, Sara
2000 Protohistoric Burial Practices of the Gabrielino as Evidenced by the Comparison of Funerary Objects from Three Southern California Sites. In *Proceedings of the Society for California Archaeology* Vol. 13, edited by Judyth Reed, Greg Greenway, and Kevin McCormick, pp.169–176. Society for California Archaeology, Fresno.

Gallegos, Dennis R.
2017 *First People: A Revised Chronology for San Diego County*. Story Seekers, San Diego, CA.

Gifford, Edward W.
1918 Clans and Moieties in Southern California. *University of California Publications in American Archaeology and Ethnology* 14:155-219.

Gray, C.H. Jr., Douglas M. Morton, and F.H. Weber, Jr.
2002a Geologic Map of the Corona North 7.5' Quadrangle, Riverside and Orange Counties, California: U.S. Geological Survey Open File Report 02-022
2002b Geologic Map of the Corona South 7.5' Quadrangle, Riverside and Orange Counties, California: U.S. Geological Survey Open File Report 02-021.

Grenda, Donn R.
1997 Continuity and Change: 8,500 Years of Lacustrine Adaptation on the Shores of Lake Elsinore. *Statistical Research Technical Series*(59).

Guinn, James M.
1907 *A History of California and an Extended History of Its Southern Coast Counties*. 2 volumes. Los Angeles Historic Records Company, Los Angeles.

Hale, Micah J.
2009 *Santa Barbara and San Diego: Contrasting Adaptive Strategies on the Southern California Coast.* Dissertation in Anthropology for the University of California, Davis.

Hampson, R. Paul, Jerrel Sorensen, Susan K. Goldberg, Mark T. Swanson, and Jeanne E. Arnold
1988 *Cultural Resources Survey, Upper Santa Ana River, California.* Report prepared for U.S. Army Corps of Engineers, Los Angeles District. On file at San Bernardino Archaeological Information Center, San Bernardino.

Harrington, John P.
1942 *Cultural Element Distributions: XIV Central California Coast*. University of California Anthropological Records 7(1). Berkeley.

Heizer, Robert F.
1968 *Village Names in Twelve California Mission Records.* Reports of the University of California Archaeological Survey, No. 74.

Historicaerials.com

2020 Historic Aerials by Netronline. Electronic Document: https://historicaerials.com/viewer. Site accessed May 1, 2020.

Holmes, Elmer Wallace
1912 *History of Riverside County, California: With Biographical Sketches of the Leading Men and Women of the County Who Have Been Identified With Its Growth and Development from the Early Days to the Present*. Historic Record Company, Los Angeles, California.

Hooper, Lucille
1920 The Cahuilla Indians. *University of California Publications in American Archaeology and Ethnology* 16:315-380. Berkeley.

Horne and McDougall 2007
2007 Cultural Resources Study for the City of Riverside General Plan 2025 Update Program EIR. City of Riverside Planning Department. Applied Earthworks.

Koerper, H. C.
2002 Complexity, Demography, and Change in Late Holocene Orange County; Catalysts to Complexity, Late Holocene Societies of the California Coast,. In *Perspectives in California Archaeology* (pp. 63-81). Los Angeles: Costen Institute of Archaeology.

Kroeber, Alfred L.
1908 Ethnography of the Cahuilla Indians. *University of California Publications in American Archaeology and Ethnology* 8(2):29-68. Berkeley.
1925 Handbook of the Indians of California. Smithsonian Institution, Bureau of American Ethnology Bulletin 78. Washington, D.C.

Lightfoot, Kent G. and Otis Parrish
2009 *California Indians and their Environment*: *An Introduction*. University of California Press, Berkley.

Macko, Michael E.
1984 The Economics of *Olivella biplicata* Shell Bead Production and Exchange in Southern California. Paper presented at the 46th Annual Meeting of the Society for American Archaeology, San Diego.

Martin, Paul S.
1967 Prehistoric Overkill. In P. M. Wright (Ed.), *Pleistocene Extinctions: The Search for a Cause.* New Haven: Yale University Press.
1973 The Discovery of America. *Science* 179:969-974.

Mason, Roger D., Henry C. Koerper, and Paul E. Lagenwalter II
1997 Middle Holocene adaptations on the Newport Coast of Orange County. In *Archaeology of the California Coast during the Middle Holocene*, edited by Jon M. Erlandson and Michael A. Glassow, pp. 35–60. UCLA Institute of Archaeology, Los Angeles.

Mason, Roger D., and Mark L. Peterson
1994 *Newport Coast Archaeological Project: Newport Coast Settlement Systems–Analysis and Discussion*, Vol. 1, part 1 of 2. Prepared by the Keith Companies. Copies on file at the South Central Coastal Information Center, California State University, Fullerton.

Masters, Patricia M. and Ivano W. Aiello
2007 Postglacial Evolution of Coastal Environments. In *California Prehistory: Colonization, Culture and Complexity*, edited by Terry L. Jones and Kathryn A. Klar. Alta Mira Press, Lanham MD.

McCawley, William
1996 *The First Angelinos.* Malki Museum Press, Banning, California, and Ballena Press, Novato, California.

Meighan, Clement W.
1954 A Late Complex in Southern California Prehistory. *Southwestern Journal of Anthropology* 10:215-227.

Mithun, Marianne
2004 *Languages of Native North America*. Reprinted. Cambridge University Press, New York. Originally published 1999.

Monroy, D.
1990 *Thrown Among Strangers: The Making of Mexican Culture in Frontier California.* University of California Press.

Moratto, Michael
1984 California Archaeology. Orlando: Academic Press. Moriarty, James R.

Office of Historic Preservation
1990 *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format.* Electronic Document: https://ohp.parks.ca.gov/pages/1054/files/armr.pdf. Site accessed May 1, 2020.

1991 *Preservation Planning Bulletin: Guidelines for Archaeological Research Designs.* Electronic Document: https://ohp.parks.ca.gov/pages/1069/files/arch%20research%20design.pdf. Site accessed May 1, 2020.

Parsons Engineering Science, Inc.
2001 *Draft Program Environmental Impact Report for the City of Corona Recycled Water Master Plan Project SCH# 99031097.* City of Corona.

Rawls, James J., and Walton Bean
2003 *California: An Interpretive History*, 8th edition. McGraw Hill, Boston.

Rogers, Malcolm J.
1945 An Outline of Yuman Prehistory. *Southwestern Journal of Anthropology* 1:167-198.

Rondeau, Michael F., Jim Cassidy, and Terry L. Jones
2007 Colonization Technologies: Fluted Projectile Points and the San Clemente Island Woodworking / Microblade Complex. In *California Prehistory: Colonization, Culture and Complexity*, edited by Terry L. Jones and Kathryn A. Klar. Alta Mira Press, Lanham MD.

Schaefer, Jerry and Don Laylander
2007 The Colorado Desert: Ancient Adaptations to Wetlands and Wastelands. In *California Prehistory: Colonization, Culture and Complexity*, edited by Terry L. Jones and Kathryn A. Klar. Alta Mira Press, Lanham MD.

Shackley, Steven
2004 *The Early Ethnography of the Kumeyaay*. Phoebe Hearst Museum of Anthropology, University of California, Berkley.

Shipek, Florence C.
1986 *An Archaeological Investigation: Pala Sand and Gravel Extraction Project.* San Diego State University.

Sparkman, Philip S.
1908 The Culture of the Luiseño Indians. *University of California Publications in American Archaeology and Ethnology* 8(4):187-234. Berkeley.

Sutton, Mark Q.
2010 Reconceptualizing the Encinitas Tradition of Southern California. *Pacific Coast Archaeological Society Quarterly, 42*(4), 1-64.

2011 The Palomar Tradition and its Place in the Prehistory of Southern California. *Pacific Coast Archaeological Society Quarterly*.
2016 *A Prehistory of North America*. Routledge, New York, NY.

SWCA Environmental Consultants
2018 *City of Corona General Plan Update: Cultural Resources Technical Report*. Submitted to PlaceWorks and City of Corona.

USACE
2020 Prado Dam. Electronic Document: https://www.spl.usace.army.mil/Missions/Asset-Management/Prado-Dam/. Site accessed, May 20, 2020.

USDA
2020 Natural Resources Conservation Service: Web Soil Survey. Electronic Document: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Site accessed April 20, 2020.

USGS
2020 USGS Topographic Map Explorer. Electronic Document: http://historicalmaps.arcgis.com/usgs/. Site accessed May 1, 2020.

Warren, Claude N.
1961 The San Dieguito Complex and its Place in California Prehistory. *Archaeological Survey Annual Report for 1960-1961,*. Los Angeles: University of California.
1968 Cultural Tradition and Ecological Adaptation on the Southern California Coast. In *Archaic Prehistory in the Western United States*, edited by Cynthia Irwin-Williams, pp. 1-14. Eastern New Mexico University Contributions in Anthropology No. 1. Portales.

White, Raymond
1963 Luiseño Social Organization. University of California Press, Berkeley and Los Angeles

APPENDICES

APPENDIX A: RESUMES

Shelby Castells, M.A., RPA

Director of Archaeology

Professional Profile

Ms. Castells is the Director of Archaeology for Red Tail Environmental and acts as the Project Manager and Principal Investigator for all cultural resource studies. She has over fourteen years of experience in archaeology and cultural resource management in Southern California. She has been the Principal Investigator and Project Manager for numerous survey, monitoring, testing, and data recovery projects within the counties of San Diego, Imperial, Orange, Riverside, San Bernardino, and Kern. Ms. Castells has extensive experience providing regulatory compliance for CEQA, NEPA, NHPA, NAGPRA, and local guidelines and regulations. Ms. Castells is a Registered Professional Archaeologist, and exceeds the Secretary of the Interior Professional Qualifications Standards for Archaeology. Her interests focus on historical archaeology and the regional history and prehistory of Southern California.

Education

M.A., Anthropology, San Diego State University
B.A., Anthropology, University of California, San Diego

Registrations

Register of Professional Archaeologists (3748180)
San Diego County CEQA Consultant List for Archaeological Resources
Orange County's Reference List for Certified Archaeologists
Riverside County Cultural Resources Consultants List

Selected Archaeological Experience

City of San Diego Cultural and Paleontological Resources On-Call As-Needed Environmental Consulting Agreement (R-309919/H146284), San Diego, CA
Principal Investigator / Project Manager | San Diego County, CA
Provides cultural resources and paleontological support of the City of San Diego's utilities undergrounding program. Conducts cultural resources inventories including record searches and archaeological surveys to identify project areas which may contain cultural resources in support of multiple MNDs and a programmatic EIR. Recommends mitigation measures including resource testing and evaluation, avoidance, and construction monitoring. Works with the City and contractors to fulfill mitigation measures including construction monitoring, resource identification, recordation, and evaluation. City of San Diego, Transportation and Storm Water Department is the lead agency.

University of California, San Diego, Hillcrest Campus Long Range Development Plan EIR Project
Principal Investigator / Project Manager | San Diego, CA
Conducted a cultural resources survey and prepared a technical report in support of the project's EIR. Identified a cultural resource with human remains within the project area. Recommended mitigation measures for the resource to avoid adverse effects. Assisted UCSD with their AB-52 tribal consultation, including organizing, scheduling, facilitating, and reporting on tribal consultation meetings. UCSD was the lead agency.

SANDAG Bayshore Bikeway – Segment 8B Project
Principal Investigator / Project Manager | San Diego and National Cities
Conducted a cultural resource study for the Project including: delineating and mapping the area of potential effect, conducting a record search and an archaeological survey of the APE, preparing the Historic Property Survey Report,

Archaeological Survey Report, Finding of Effect document, and Department of Parks and Recreation Archaeological Site Forms for a railroad line eligible for and listed in the San Diego Register of Historical Resources and for a historic district that was eligible for the National Register of Historic Places. Created mitigation measures to avoid an adverse impact to these historic properties during implementation of the Project. Conducted AB-52 consultation on behalf of SANDAG. Assisted in SHPO consultation.

Heritage Road Bridge Replacement Project
Principal Investigator / Project Manager | City of Chula Vista, CA
Conducted a cultural resource study for the Project including: delineating and mapping the area of potential effect (APE), conducting a record search and an archaeological survey of the APE, preparing the Historic Property Survey Report and the Archaeology Survey Report, and creating mitigation measures. City of Chula Vista and Caltrans were the lead agencies.

North County Transit District Advanced Train Control and Positive Train Control Antennas at Five Locations for the Elvira to Morena Double Track Project
Principal Investigator / Project Manager | San Diego, CA
Conducted a cultural resources survey of the five areas of potential effect and prepared the associated Archaeological Resources Management Reports. Prepared the Federal Communications Commission's Form 620, public outreach and Tower Construction Notification System for each antenna. Consulted with the California State Historic Preservation. Federal Communication Commission was the lead agency.

Harbor View Hotel Project,
Principal Investigator / Project Manager | San Diego, CA
Prepared an archaeological assessment of the Project area and a construction monitoring plan in compliance with the City of San Diego's Mitigation Monitoring requirements. Managed the archaeological monitoring of the Project's construction during the initial ground disturbance and grading of the Project area. Identified, documented, and evaluated for significance under CEQA, to the CRHR, and to the City of San Diego Historical Resources Register a feature containing the remains of a historic boat. Documented the boat feature on DPR 523 forms. Provided a technical report with the results of the monitoring, testing, evaluation and data recovery, including an artifact analysis and historic research. City of San Diego was the lead agency.

Machado Smith Excavation, Old Town San Diego State of California Historic Park
Principal Investigator / Project Manager | San Diego, CA
Prepared a work plan and California State Parks permit application for the excavation in order to identify the location of two 19th century structures, evaluate the archaeological remains for eligibility to the CRHR and significance under CEQA, and to assist in the recreation of the buildings in Old Town San Diego State of California Historic Park. Directed excavations including mechanical trenching and hand excavations. Excavated 19th century features. Directed laboratory work associated with the excavations, cataloged the artifacts, performed the artifact analysis, and prepared the artifact collection for curation. Evaluated the cultural resource for eligibility to the NRHP and CRHR, and for significance under CEQA. Prepared a technical report providing the results of the excavation, artifact analysis, evaluation of the resources to the CRHR, provided mitigation measures, and guidance to the building recreation process. Prepared DPR 523 forms for the cultural resource. California State Parks was the lead agency.

San Diego County Administration Center Parking Garage, Cedar and Ketter Project
Principal Investigator / Project Manager | San Diego, CA
Prepared an archaeological assessment of the project area and a construction monitoring plan in compliance with CEQA and the City of San Diego's Mitigation Monitoring requirements. Managed the archaeological monitoring of the project's construction during the initial ground disturbance and grading of the Project area. Identified, documented, and evaluated

for significance under CEQA, to the CRHR, and to the City of San Diego Historical Resources Register a historic well. Performed a data recovery on the well feature. Provided a technical report with the results of the monitoring, testing, evaluation and data recovery, including an artifact analysis and historic research. Documented cultural resources on DPR 523 forms. Prepared the artifact collection, artifact analysis, and historic research to be incorporated into a display to be placed in the parking garage and the County Administration Center. City of San Diego was the lead agency.

Archaeological Survey for the County of San Diego Fuel Reduction Parcel Preparation Program in Julian, Whispering Pines, and Along State Route 78/79
Principal Investigator / Project Manager | San Diego County, CA
Conducted a cultural resources survey of the project area in compliance with CEQA and San Diego County Guidelines. Prepared a technical report and created avoidance measures in consultation with the County of San Diego to avoid all impacts to cultural resources and prepared a technical report. Documented cultural resources on DPR 523 Forms. San Diego County was the lead agency.

Pacifica Vista Self Storage Project
Principal Investigator / Project Manager | Vista, CA
Conducted a cultural resource survey of the project area and prepared technical report in compliance with CEQA and City of Vista Guidelines. Identified two cultural resources within the Project area, evaluated one cultural resource and created avoidance measures to avoid the second resource. Documented cultural resources on DPR 523 Forms. City of Vista was the lead agency.

Broadway Earthen Channel Repairs Project
Principal Investigator / Project Manager | El Cajon, CA
Conducted a cultural resource survey of the project area and prepared a technical report in support of the project's environmental documents. The project is subject to CEQA-Plus and was conducted in compliance with City of EL Cajon, County of San Diego and Section 106 of the NHPA requirements. Identified, documented, and evaluated a cultural resource within the project area. City of El Cajon, County of San Diego, and California Clean Water State Revolving Fund Program were the lead agencies.

Rancho Del Rio Biological Mitigation Parcel Project
Principal Investigator / Project Manager | San Diego, CA
Conducted a cultural resource survey of the project area and prepared a technical report in compliance with the City of San Diego CEQA Guidelines. Identified a cultural resource within the project area and documented the resource on DPR 523 Forms recommended avoidance measures or evaluation of the resource to the CRHR and City Register. City of San Diego was the lead agency.

India and Date Project at 1703 India Street for H.G. Fenton
Principal Investigator / Project Manager | San Diego, CA
Prepared an archaeological assessment of the Project area and a construction monitoring plan in compliance with the City of San Diego's Mitigation Monitoring requirements. Conducted a pre-testing program within the Project area using mechanically excavated trenches to identify possible archaeological deposits. Identified a layer of fill soil that did not need to be monitored. Managed the archaeological monitoring of the Project's construction during the initial ground disturbance and grading of the Project area. Identified, documented, and evaluated for significance under CEQA, to the CRHR, and to the City of San Diego Historical Resources Register two historic trash scatters. Performed evaluation testing on the archaeological deposits. Documented cultural resources on DPR 523 forms. Provided a technical report with the results of the monitoring, testing, and evaluation, including an artifact analysis and historic research. City of San Diego was the lead agency.

Spencer Bietz, B.A.

Senior Archaeologist / GIS Specialist

Professional Profile

Mr. Spencer Bietz is the Archaeological Field Director at Red Tail Environmental and has worked as a qualified archaeologist in California for the past 15 years. Mr. Bietz has completed a wide variety of cultural resource management projects and is a qualified archaeological monitor for the City of San Diego and County of San Diego. Mr. Bietz has worked on cultural resource projects throughout San Diego, Imperial, Orange, Riverside, San Bernardino, Inyo, Kern, Mono, Los Angeles, and Tulare Counties in California. Mr. Bietz has participated in projects for federal agencies such as the Bureau of Land Management and U.S. Forest Service; state agencies, including California State Parks and Caltrans; local governments, including the City and County of San Diego; and private clients. As an archaeologist and paleontologist, Mr. Bietz has experience with construction monitoring, geotechnical sampling, GIS mapping and data management, technical writing, soil screening, field survey and site recordation, resource evaluation, and artifact cataloging and preparation for curation. Mr. Bietz's personal research interests include historical archaeology and the regional history and prehistory of Southern California, GIS data management, modeling, and cartography.

Education

Certificate of Performance as Geographic Information Systems Specialist, San Diego Mesa College
B.A., Anthropology with Concentration in Archaeology, University of California, San Diego

Selected Archaeology Experience

City of San Diego Cultural and Paleontological Resources On-Call As-Needed Environmental Consulting Agreement (R-309919/H146284), San Diego, CA
Senior Archaeologist | San Diego County, CA
Conducts cultural resources inventories including record searches and archaeological surveys to identify project areas which may contain cultural resources in support of multiple MNDs and a programmatic EIR. Recommends mitigation measures including resource testing and evaluation, avoidance, and construction monitoring. Performs archaeological construction monitoring, resource identification, recordation, and evaluation. Also acts as the GIS Specialist to produce report maps and record resources identified during construction monitoring. City of San Diego, Transportation and Storm Water Department is the lead agency.

Archaeological Survey and Monitoring for the Tenaja Fire State and Campground and the Upper San Juan Campground Contract Areas, Trabuco Ranger District
Field Archaeologist | Cleveland National Forest, CA (2018-ongoing)
Conducted cultural resource monitoring and documentation of planned structure demolition within the Upper San Juan Campground Contract Area. Will be performing archaeological monitoring during ground disturbance in 2019. Contributed to technical report and created cartographic figures and digital GIS database. United States Forest Service is the lead agency.

Archaeological and Native American Monitoring for UU525 Block 4J1 Project
Field Director/Archaeological Monitor | San Diego, CA (2018-ongoing)
Field Director and archaeological monitor for the archaeological monitoring for the utility undergrounding project. Worked with construction crews to provide updated schedules. Reviewed notes, created monitoring schedule and archaeological discovery database. Created cartographic figures and digital GIS database. Collected, cleaned, and cataloged artifacts recovered during cultural resource monitoring efforts. City of San Diego is the lead agency.

Ives Residential at 1874 Spindrift Project
Field Director | San Diego, CA (2018-ongoing)
Conducted extended Phase I testing of the project area. Identified, recorded, and evaluated a prehistoric archaeological deposit. Contributed to data recovery technical report and created cartographic figures and GIS digital database. City of San Diego is the lead agency.

Mission Bay Geo-Archaeological Testing
Cultural Resource Monitor | San Diego, CA (2018)
Contributed as the primary cultural resource monitor, assisting in the collection of subsurface core samples for geo-archaeological analysis. Performed subsurface geotechnical bore sampling, photo documentation, sample documentation, GIS map creation and data management, and technical writing. City of San Diego was lead agency.

Crown Point Sewer and Water Group Monitoring, San Diego, California
Cultural Resource Monitor | San Diego, California (2016-2018)
Contributed as a cultural resource monitor during the excavation of trenches and manhole vaults in the community of Crown Point in Pacific Beach, California. City of San Diego was the lead agency.

Pio Pico North Development Project
Field Director | Carlsbad, CA (2016-2017)
Contributed as field director for subsurface testing of multiple resources within a parcel proposed for residential development. Assisted in the creation of the testing protocol and with technical report writing, and directed the excavation of more than 50 mechanically-excavated trenches and 20 TEUs. Additional activities included site recordation and evaluation, historical archival research, recordation and evaluation of a historic-era linear feature (water pipeline), artifact cataloging, shell speciation, GIS data creation and management, and figure creation.

Administration of Courts (AOC) California, San Diego County Courthouse Monitoring
Lead Cultural Resource Monitor | San Diego, CA (2014)
Contributed as the primary cultural resource monitor, assisting in the recording of cultural deposits and features during footing excavation. Oversaw the recording of cultural discoveries, photo documentation, artifact collection, testing of historic features, and site recordation using Trimble GeoXH devices. Assisted in GIS map creation and data management, and artifact preparation.

San Diego Gas and Electric Cultural Resources On-Call, San Diego County, California
Field Archaeologist | Cultural Resource Monitor | San Diego, CA (2014)
Contributed as a field archaeologist assisting in a variety of projects including cultural resource monitoring, deteriorated pole survey, FiRM infrastructure survey, resource testing and evaluation, technical report and summary letter writing, GIS data creation and management, and figure creation.

Sunrise Powerlink Monitoring, San Diego County, California
Cultural Resource Monitor | San Diego, CA (2008-2009)
Contributed as a cultural resource monitor accompanying survey and geo-technical testing crews in the survey and placement of proposed electrical tower locations and their respective access areas along the Sunrise Powerlink. Assisted in site recording, photo documentation, and the identification and marking of sensitive cultural areas for future avoidance by work crews. Additional tasks included writing and compiling of tower cultural data for the final summary report.

APPENDIX B: NAHC CORRESPONDENCE

RED TAIL ENVIRONMENTAL

March 30, 2020

California Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
nahc@nahc.ca.gov

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear NAHC,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire city of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan.

Red Tail is currently conducting a records search with the Eastern Information Center. I am writing to request a record search of the Sacred Lands File to determine if you have registered any cultural resources, tribal cultural resources, traditional cultural properties, or areas of heritage sensitivity within the proposed project area. The project area is shown on the following USGS 7.5' Quad Maps:

Prado Dam Quad:
T3S R7W Section 30
T3S R8W Section 25
Unsectioned portions of the La Sierra Yorba land grant

Black Star Canyon Quad:
T3S R7W Sections 32, 33
T3S R8W Section 36
T4S R7W Section 5
Unsectioned portions of the La Sierra Yorba land grant

Corona South Quad:
T3S R7W Section 33
T4S R6W Sections 5, 8, 16, 17, 18, 19, 20, 21, 22
T4S R7W Sections 5, 9, 10
Unsectioned portions of the La Sierra Yorba land grant
Unsectioned portions of the Sobrante De San Jacinto land grant

Lake Matthews Quad:
T4S R6W Section 22
Unsectioned portions of the Sobrante De San Jacinto land grant

Corona North Quad:
Unsectioned portions of the La Sierra Yorba land grant
Unsectioned portions of the Sobrante De San Jacinto land grant

March 30, 2020
City of Corona Reclaimed Water Project

Our investigation will include direct contact with local tribal entities. Please include a list of the appropriate individuals to contact related to this project. Please submit your response via email to Shelby@redtailenvironmental.com.

Sincerely,

Shelby G. Castells

Shelby Castells, M.A., RPA
Director of Archaeology

Attachments: Project Area Maps (1-10)

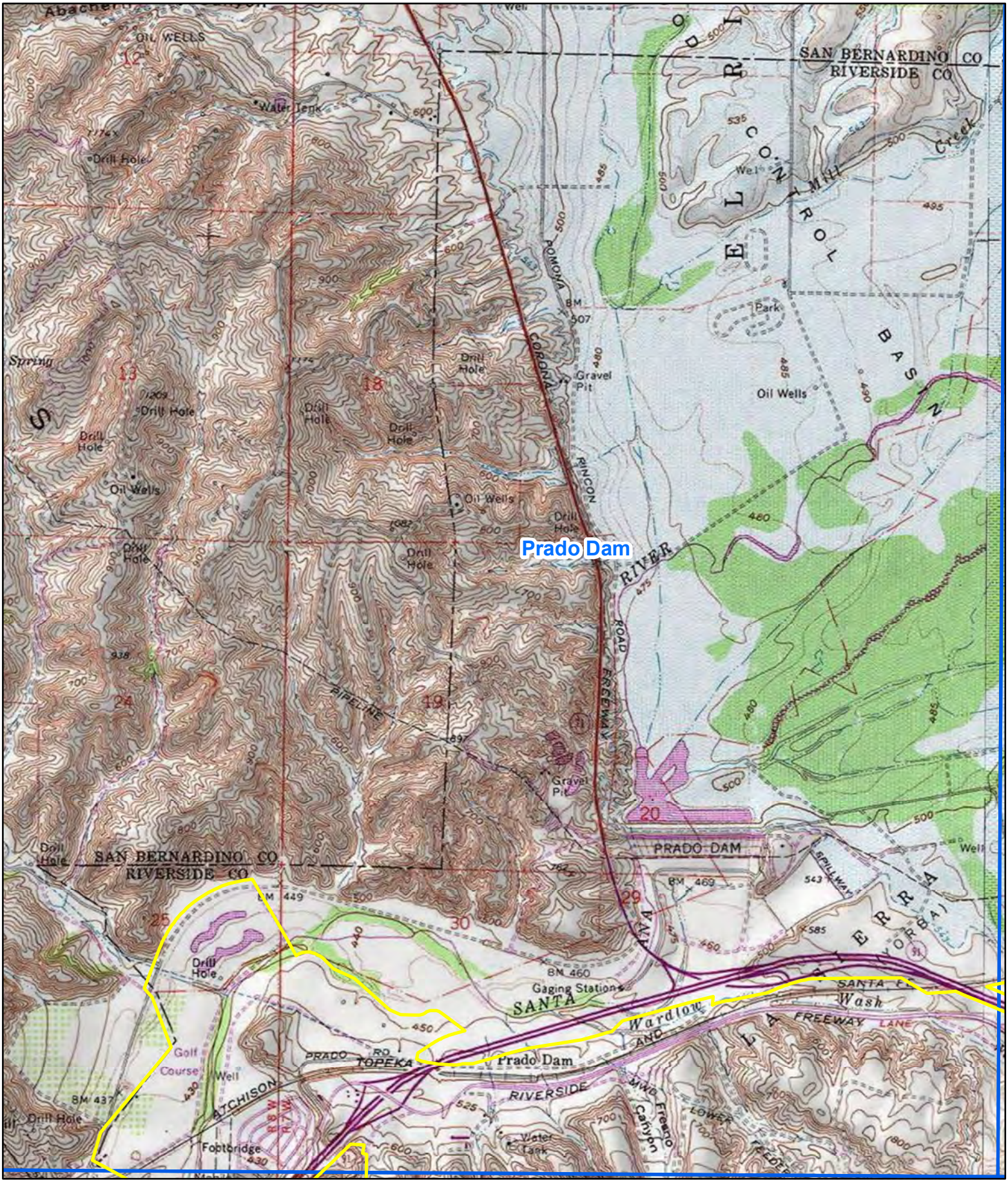


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

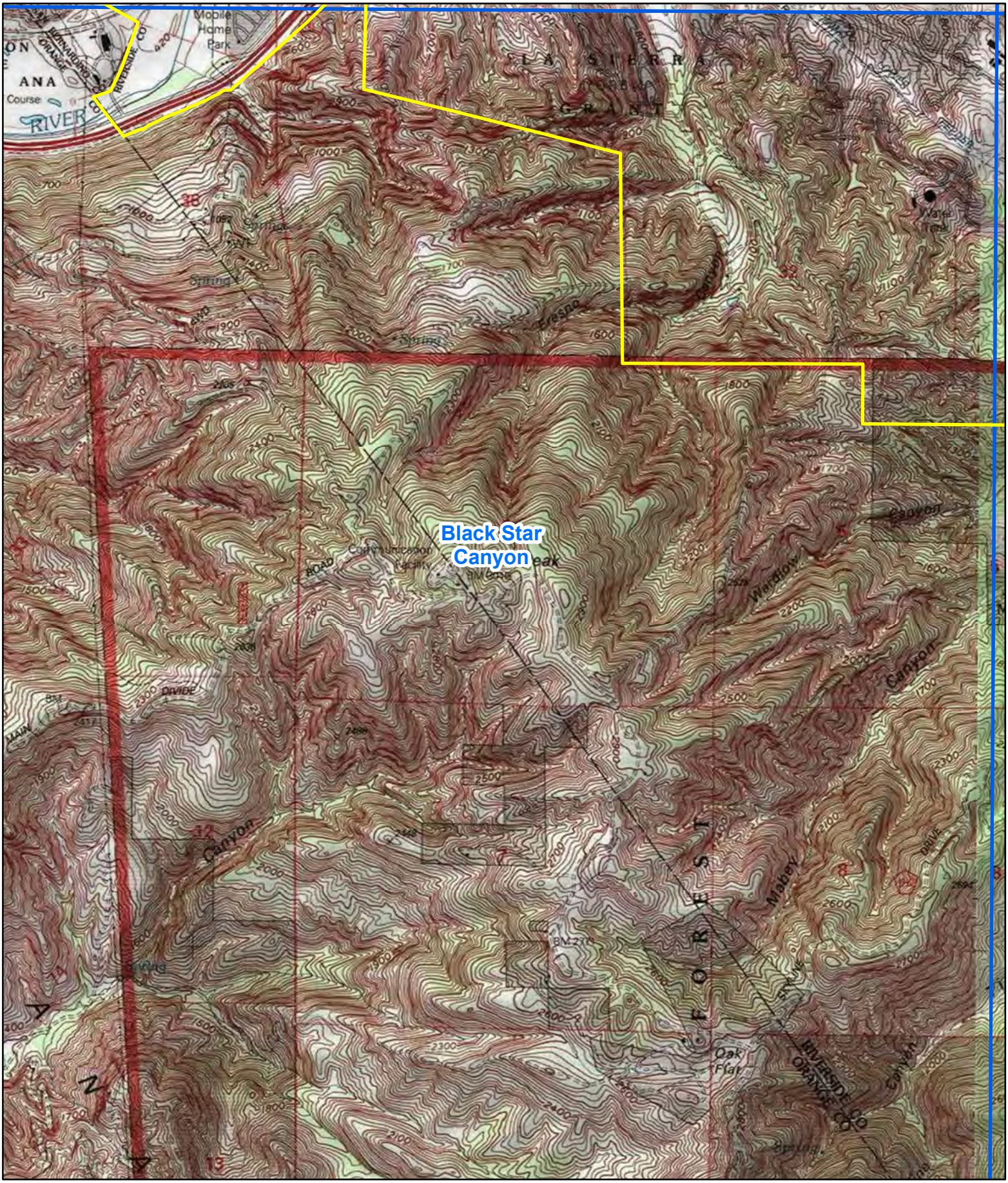
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

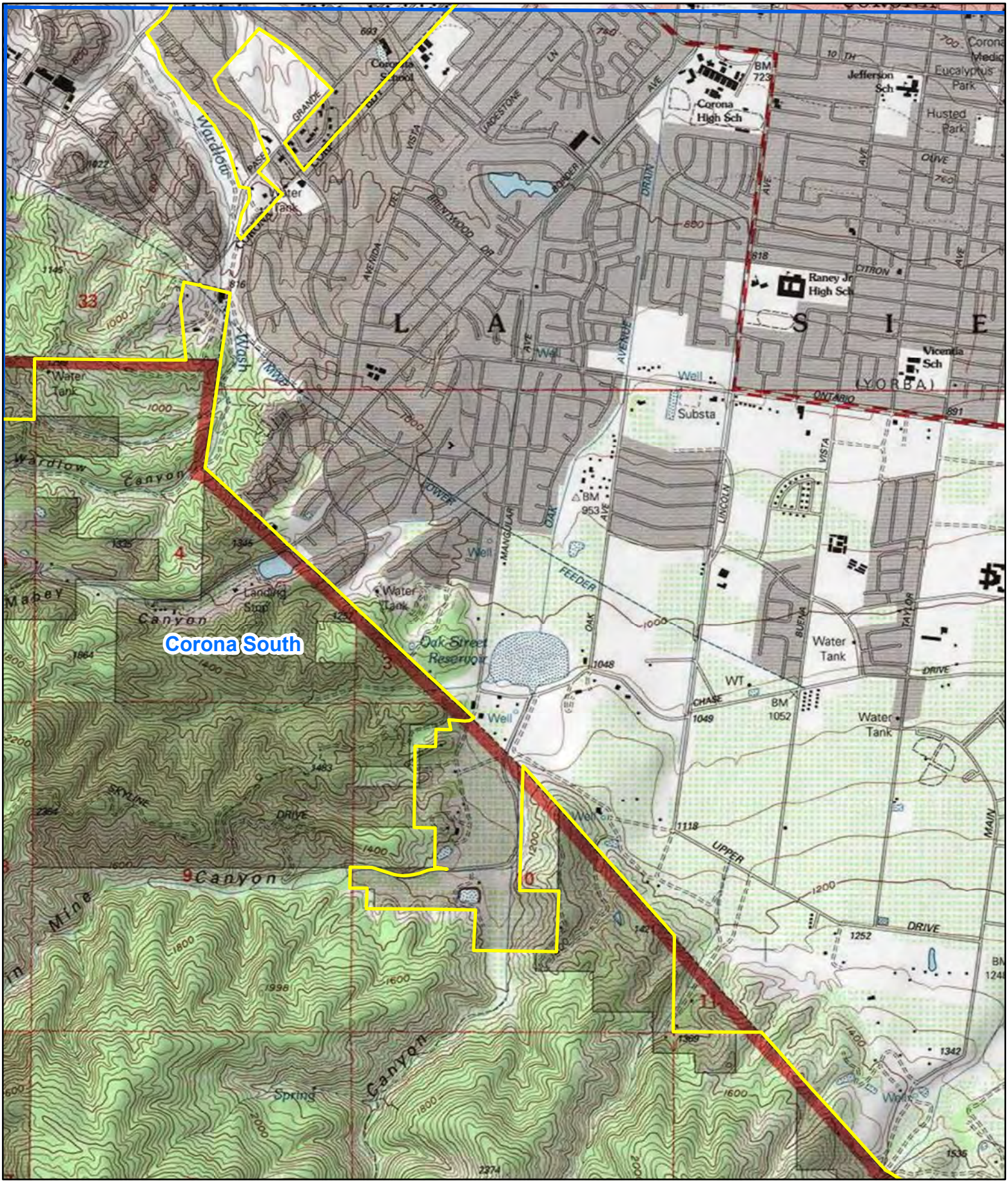
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

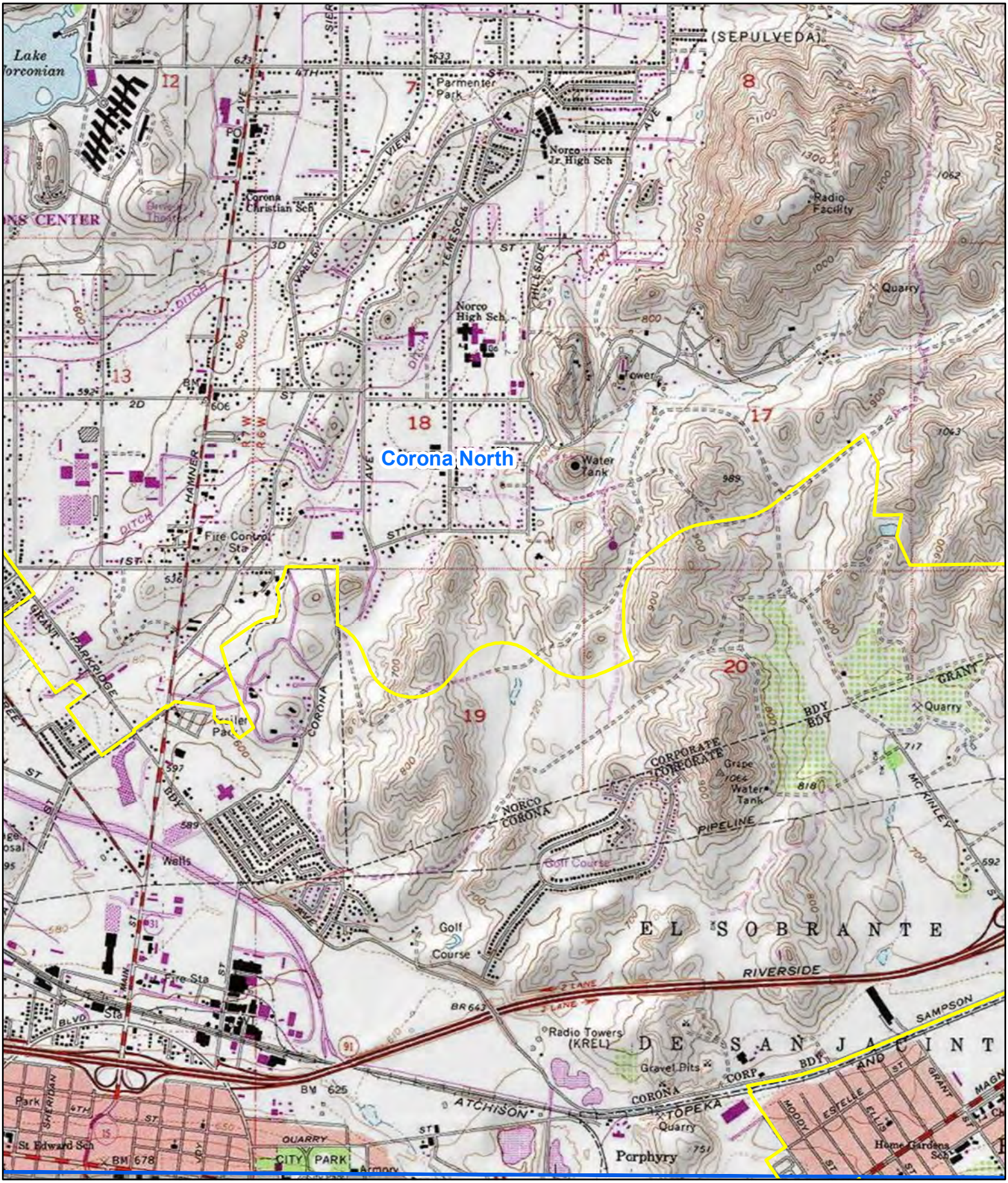
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

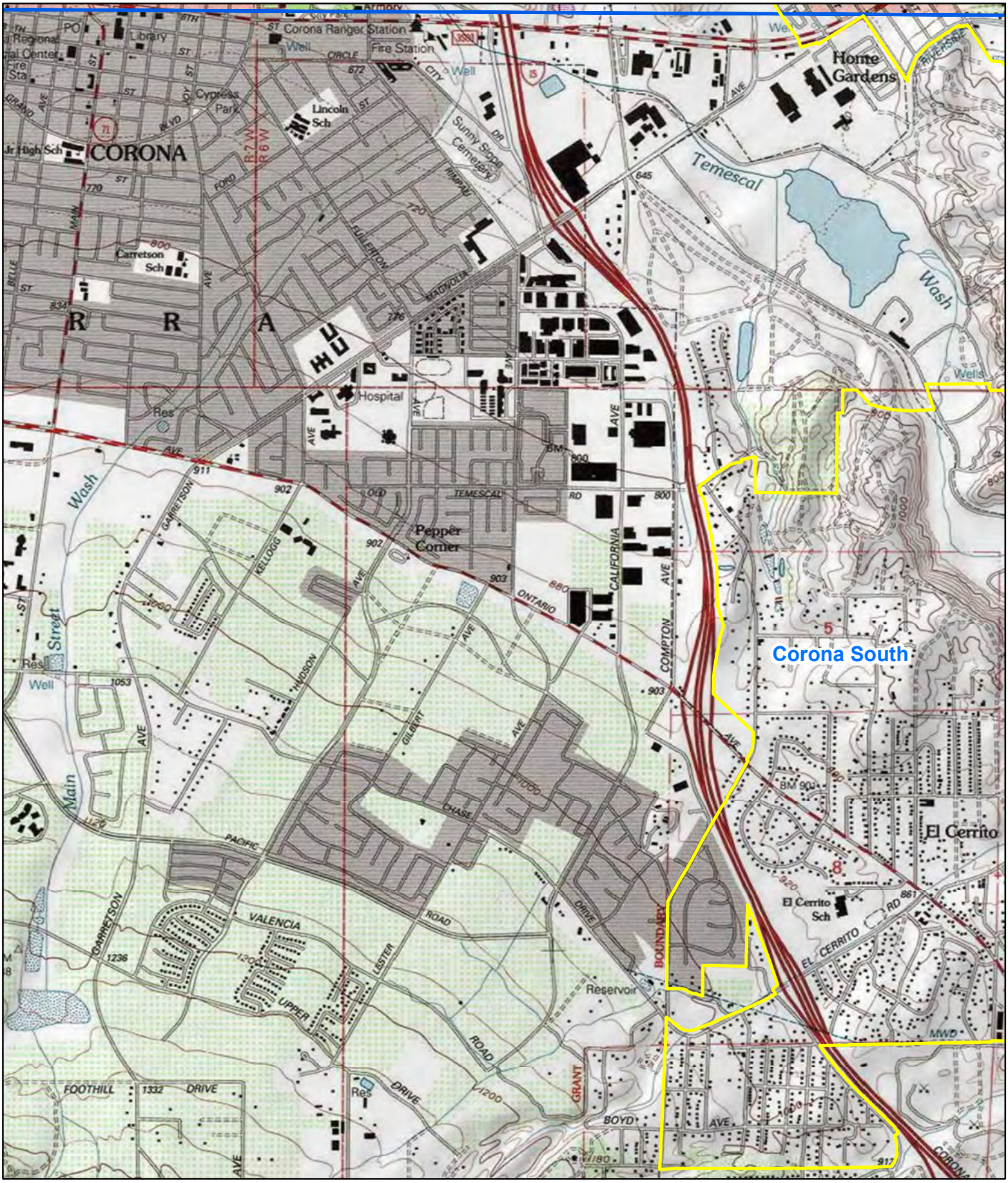


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

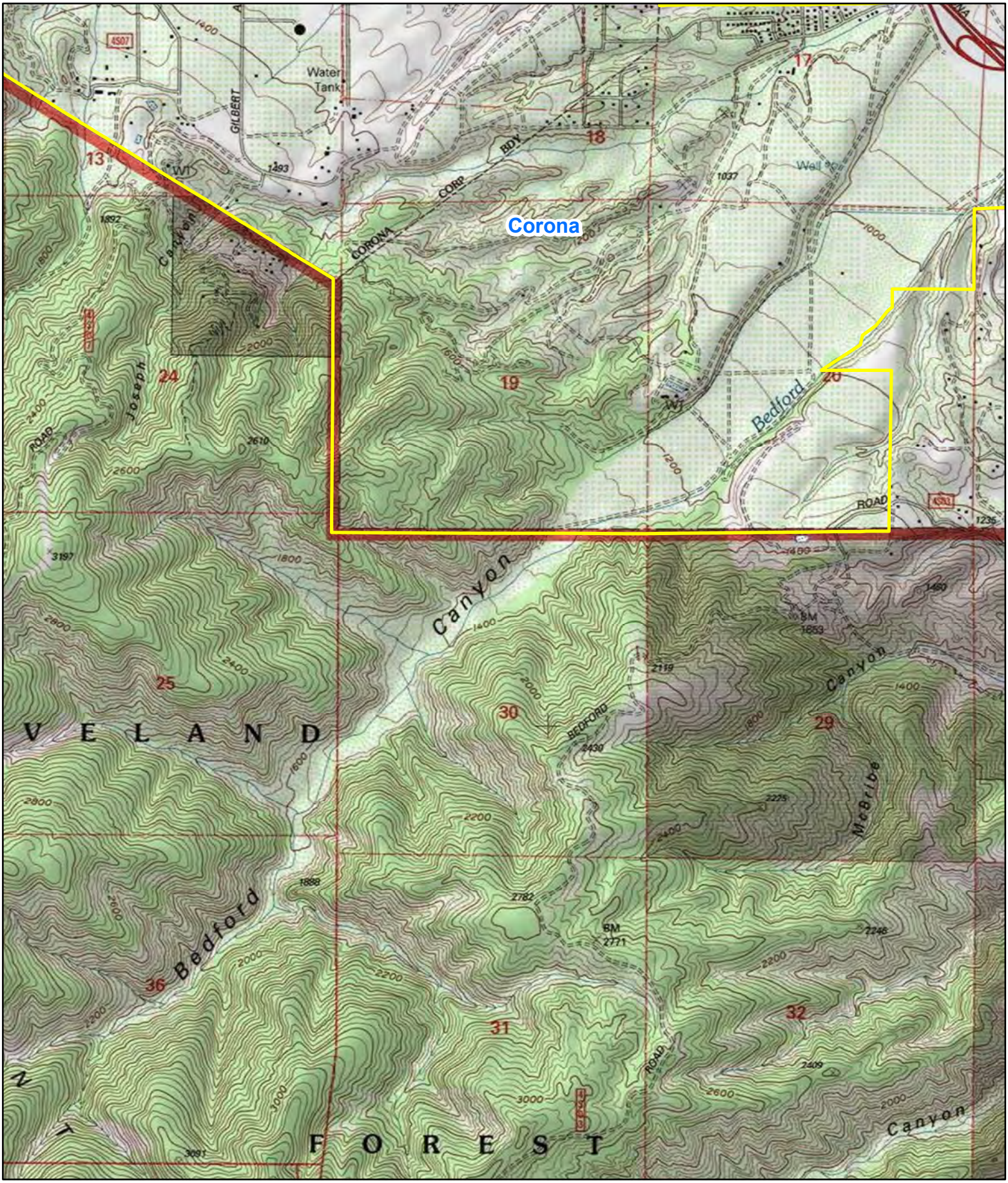
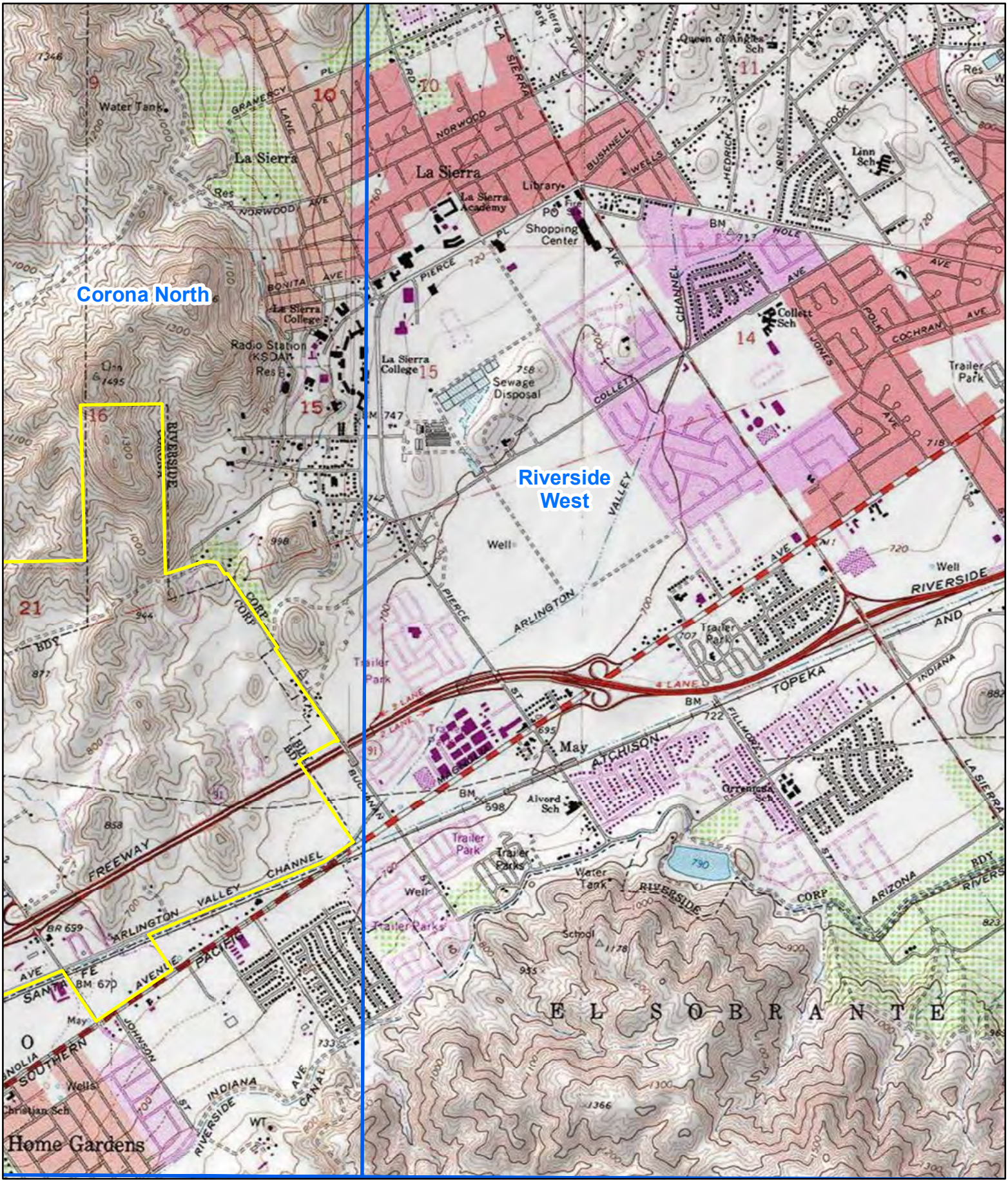


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

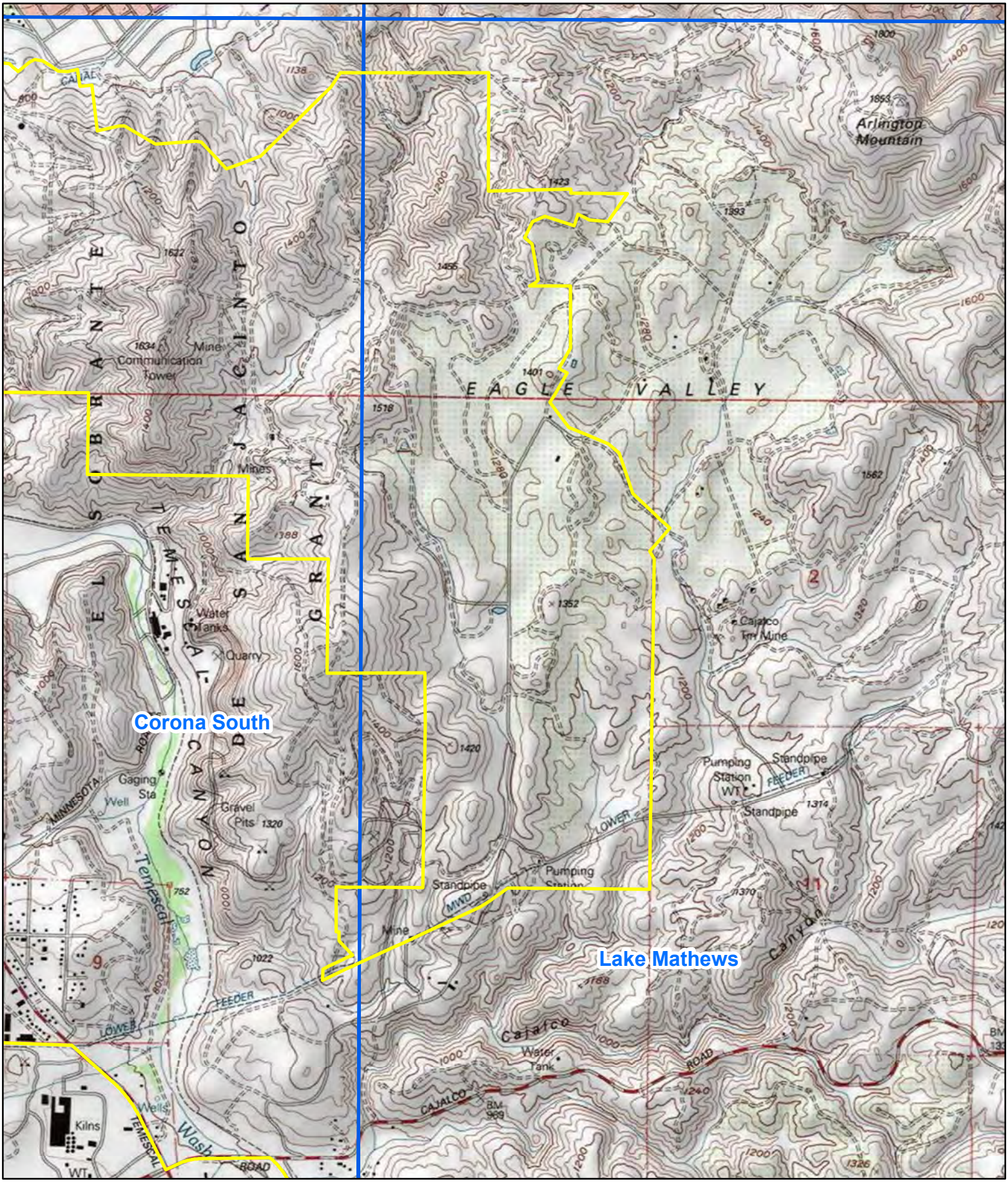
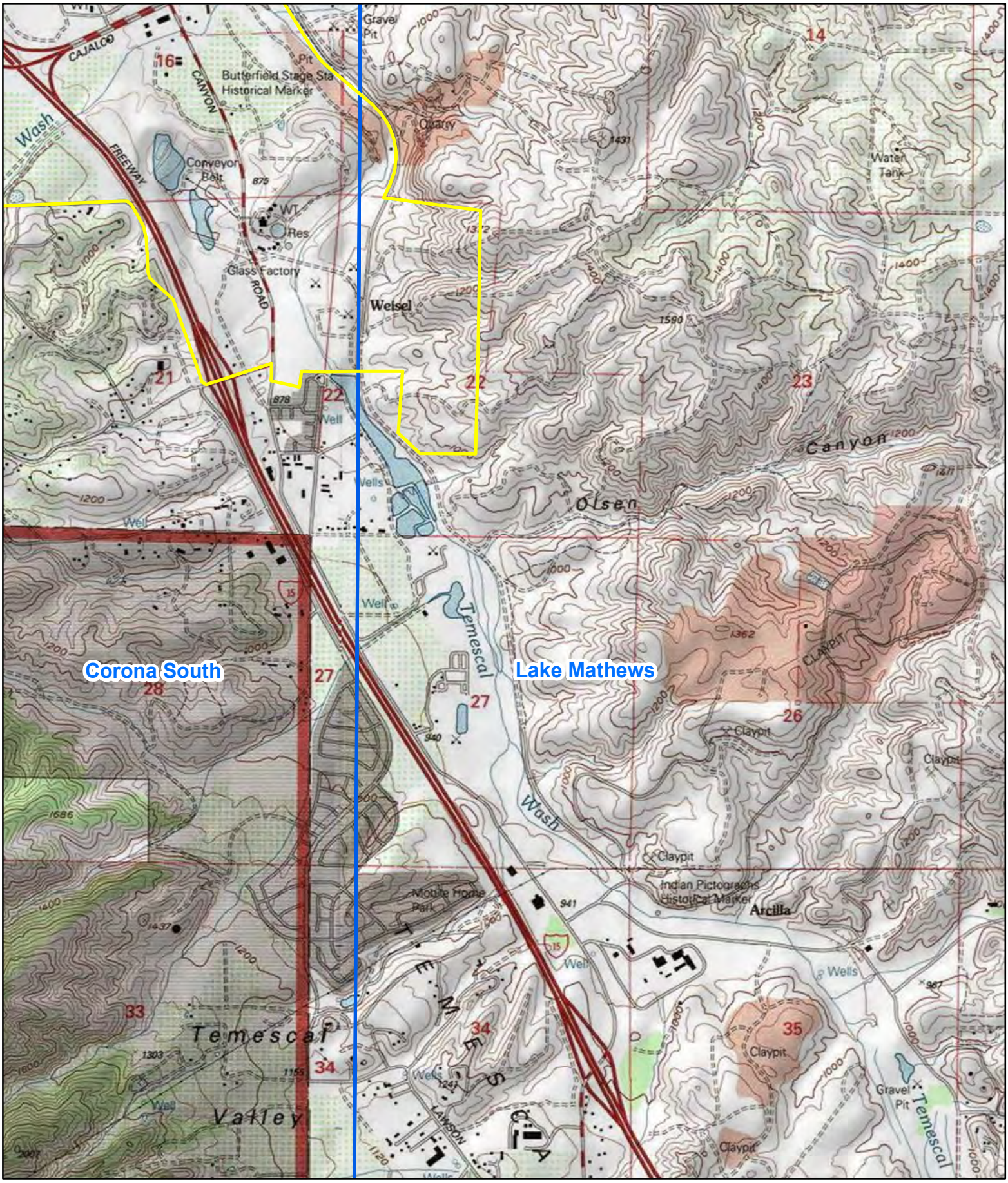


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
Marshall McKay
Wintun

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Joseph Myers
Pomo

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[Vacant]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

April 2, 2020

Shelby Castells
Red Tail Environmental

Via Email to: Shelby@redtailenvironmental.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, City of Corona Reclaimed Water Project, Riverside County

Dear Ms. Castells:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

    - Any report that may contain site forms, site significance, and suggested mitigation measures.

      All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was positive. Please contact the tribes on the attached list for more information.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Tribal Consultation List
Riverside County
4/2/2020

Agua Caliente Band of Cahuilla Indians
Jeff Grubbe, Chairperson
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6800
Fax: (760) 699-6919

Augustine Band of Cahuilla Mission Indians
Amanda Vance, Chairperson
P.O. Box 846 — Cahuilla
Coachella, CA, 92236
Phone: (760) 398 - 4722
Fax: (760) 369-7161
hhaines@augustinetribe.com

Cabazon Band of Mission Indians
Doug Welmas, Chairperson
84-245 Indio Springs Parkway — Cahuilla
Indio, CA, 92203
Phone: (760) 342 - 2593
Fax: (760) 347-7880
jstapp@cabazonindians-nsn.gov

Cahuilla Band of Indians
Daniel Salgado, Chairperson
52701 U.S. Highway 371 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 5549
Fax: (951) 763-2808
Chairman@cahuilla.net

Campo Band of Diegueno Mission Indians
Ralph Goff, Chairperson
36190 Church Road, Suite 1 — Diegueno
Campo, CA, 91906
Phone: (619) 478 - 9046
Fax: (619) 478-5818
rgoff@campo-nsn.gov

Ewiiaapaayp Band of Kumeyaay Indians
Robert Pinto, Chairperson
4054 Willows Road — Diegueno
Alpine, CA, 91901
Phone: (619) 445 - 6315
Fax: (619) 445-9126
wmicklin@leaningrock.net

Ewiiaapaayp Band of Kumeyaay Indians
Michael Garcia, Vice Chairperson
4054 Willows Road — Diegueno
Alpine, CA, 91901
Phone: (619) 445 - 6315
Fax: (619) 445-9126
michaelg@leaningrock.net

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393 — Gabrieleno
Covina, CA, 91723
Phone: (626) 926 - 4131
admin@gabrielenoindians.org

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 — Gabrieleno
San Gabriel, CA, 91778
Phone: (626) 483 - 3564
Fax: (626) 286-1262
GTTribalcouncil@aol.com

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 — Gabrielino
Los Angeles, CA, 90012
Phone: (951) 807 - 0479
sgoad@gabrielino-tongva.com

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Chairperson
P.O. Box 490 — Gabrielino
Bellflower, CA, 90707
Phone: (562) 761 - 6417
Fax: (562) 761-6417
gtongva@gmail.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed City of Corona Reclaimed Water Project, Riverside County.

Gabrielino-Tongva Tribe
Charles Alvarez,
23454 Vanowen Street — Gabrielino
West Hills, CA, 91307
Phone: (310) 403 - 6048
roadkingcharles@aol.com

Jamul Indian Village
Erica Pinto, Chairperson
P.O. Box 612 — Diegueno
Jamul, CA, 91935
Phone: (619) 669 - 4785
Fax: (619) 669-4817
epinto@jiv-nsn.gov

Jamul Indian Village
Lisa Cumper, Tribal Historic Preservation Officer
P.O. Box 612 — Diegueno
Jamul, CA, 91935
Phone: (619) 669 - 4855
lcumper@jiv-nsn.gov

Juaneno Band of Mission Indians Acjachemen Nation - Belardes
Matias Belardes, Chairperson
32161 Avenida Los Amigos — Juaneno
San Juan Capisttrano, CA, 92675
Phone: (949) 293 - 8522
kaamalam@gmail.com

La Jolla Band of Luiseno Indians
Fred Nelson, Chairperson
22000 Highway 76 — Luiseno
Pauma Valley, CA, 92061
Phone: (760) 742 - 3771

La Posta Band of Diegueno Mission Indians
Javaughn Miller, Tribal Administrator
8 Crestwood Road — Diegueno
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
jmiller@LPtribe.net

La Posta Band of Diegueno Mission Indians
Gwendolyn Parada, Chairperson
8 Crestwood Road — Diegueno
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
LP13boots@aol.com

Los Coyotes Band of Cahuilla and Cupeño Indians
Shane Chapparosa, Chairperson
P.O. Box 189 — Cahuilla
Warner Springs, CA, 92086-0189
Phone: (760) 782 - 0711
Fax: (760) 782-0712

Manzanita Band of Kumeyaay Nation
Angela Elliott Santos, Chairperson
P.O. Box 1302 — Diegueno
Boulevard, CA, 91905
Phone: (619) 766 - 4930
Fax: (619) 766-4957

Mesa Grande Band of Diegueno Mission Indians
Michael Linton, Chairperson
P.O Box 270 — Diegueno
Santa Ysabel, CA, 92070
Phone: (760) 782 - 3818
Fax: (760) 782-9092
mesagrandeband@msn.com

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Rroad — Cahuilla
Banning, CA, 92220 — Serrano
Phone: (951) 849 - 8807
Fax: (951) 922-8146
dtorres@morongo-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed City of Corona Reclaimed Water Project, Riverside County.

Pala Band of Mission Indians
Shasta Gaughen, Tribal Historic Preservation Officer
PMB 50, 35008 Pala Temecula Rd.
Pala, CA, 92059
Phone: (760) 891 - 3515
Fax: (760) 742-3189
sgaughen@palatribe.com
Cupeno
Luiseno

Pauma Band of Luiseno Indians
Temet Aguilar, Chairperson
P.O. Box 369
Pauma Valley, CA, 92061
Phone: (760) 742 - 1289
Fax: (760) 742-3422
bennaecalac@aol.com
Luiseno

Pechanga Band of Luiseno Indians
Mark Macarro, Chairperson
P.O. Box 1477
Temecula, CA, 92593
Phone: (951) 770 - 6000
Fax: (951) 695-1778
epreston@pechanga-nsn.gov
Luiseno

Quechan Tribe of the Fort Yuma Reservation
Jill McCormick, Historic Preservation Officer
P.O. Box 1899
Yuma, AZ, 85366
Phone: (760) 572 - 2423
historicpreservation@quechantribe.com
Quechan

Ramona Band of Cahuilla
Joseph Hamilton, Chairperson
P.O. Box 391670
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
admin@ramona-nsn.gov
Cahuilla

Rincon Band of Luiseno Indians
Cheryl Madrigal, Tribal Historic Preservation Officer
One Government Center Lane
Valley Center, CA, 92082
Phone: (760) 297 - 2635
crd@rincon-nsn.gov
Luiseno

Rincon Band of Luiseno Indians
Bo Mazzetti, Chairperson
One Government Center Lane
Valley Center, CA, 92082
Phone: (760) 749 - 1051
Fax: (760) 749-5144
bomazzetti@aol.com
Luiseno

San Fernando Band of Mission Indians
Donna Yocum, Chairperson
P.O. Box 221838
Newhall, CA, 91322
Phone: (503) 539 - 0933
Fax: (503) 574-3308
ddyocum@comcast.net
Kitanemuk
Vanyume
Tataviam

San Luis Rey Band of Mission Indians
San Luis Rey, Tribal Council
1889 Sunset Drive
Vista, CA, 92081
Phone: (760) 724 - 8505
Fax: (760) 724-2172
cjmojado@slrmissionindians.org
Luiseno

San Pasqual Band of Diegueno Mission Indians
Allen Lawson, Chairperson
P.O. Box 365
Valley Center, CA, 92082
Phone: (760) 749 - 3200
Fax: (760) 749-3876
allenl@sanpasqualtribe.org
Diegueno

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed City of Corona Reclaimed Water Project, Riverside County.

Santa Rosa Band of Cahuilla Indians
Steven Estrada, Chairperson
P.O. Box 391820 Cahuilla
Anza, CA, 92539
Phone: (951) 659 - 2700
Fax: (951) 659-2228
mflaxbeard@santarosacahuilla-nsn.gov

Soboba Band of Luiseno Indians
Scott Cozart, Chairperson
P. O. Box 487 Cahuilla
San Jacinto, CA, 92583 Luiseno
Phone: (951) 654 - 2765
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

Sycuan Band of the Kumeyaay Nation
Cody Martinez, Chairperson
1 Kwaaypaay Court Kumeyaay
El Cajon, CA, 92019
Phone: (619) 445 - 2613
Fax: (619) 445-1927
ssilva@sycuan-nsn.gov

Torres-Martinez Desert Cahuilla Indians
Thomas Tortez, Chairperson
P.O. Box 1160 Cahuilla
Thermal, CA, 92274
Phone: (760) 397 - 0300
Fax: (760) 397-8146
tmchair@torresmartinez.org

Viejas Band of Kumeyaay Indians
John Christman, Chairperson
1 Viejas Grade Road Diegueno
Alpine, CA, 91901
Phone: (619) 445 - 3810
Fax: (619) 445-5337

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed City of Corona Reclaimed Water Project, Riverside County.

RED TAIL ENVIRONMENTAL

April 6, 2020

Angela Elliott Santos
Chairperson
Manzanita Band of Kumeyaay Nation
PO Box 1302, Boulevard, CA, 91905
619-766-4930

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Ms. Elliott Santos,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

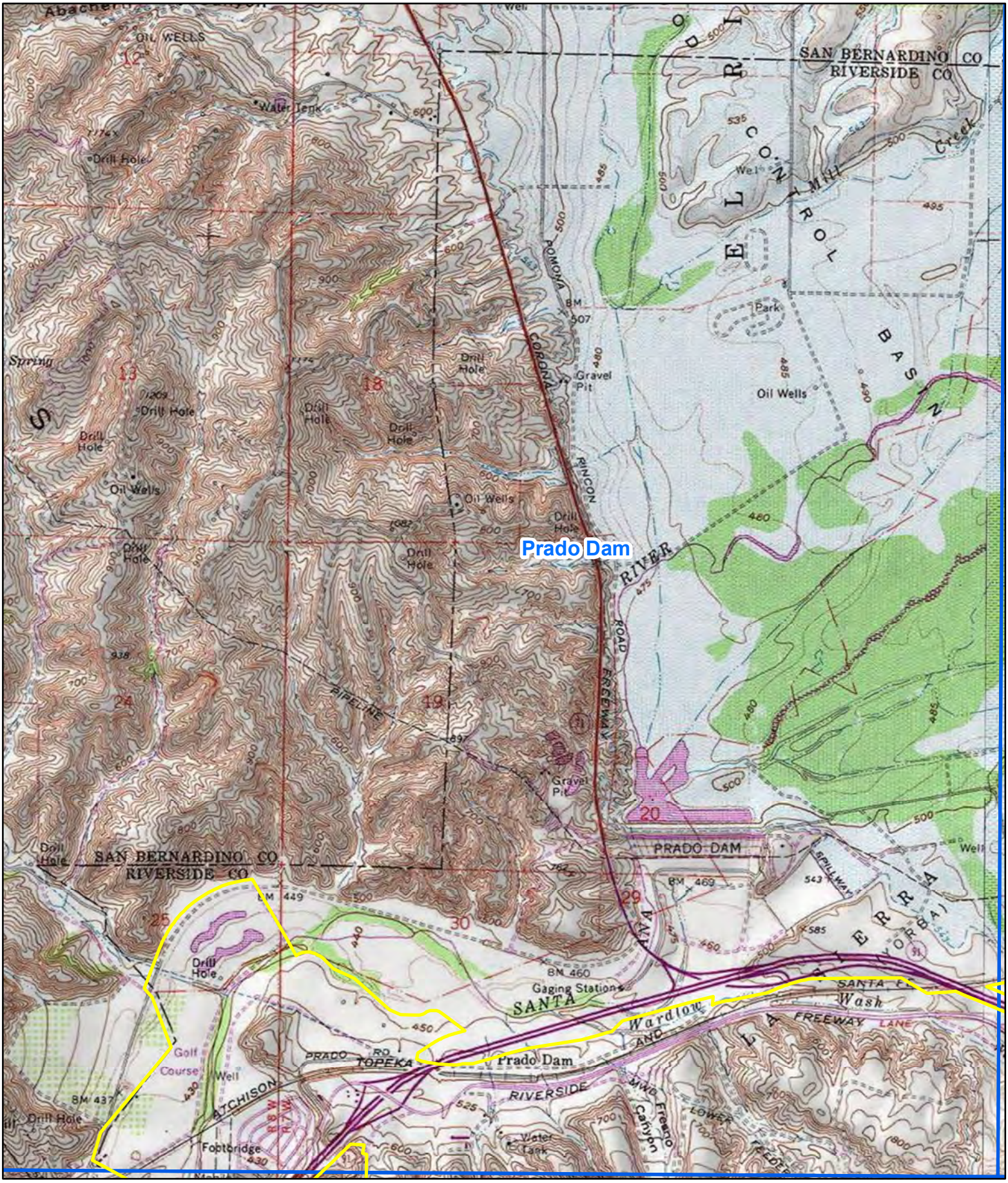


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

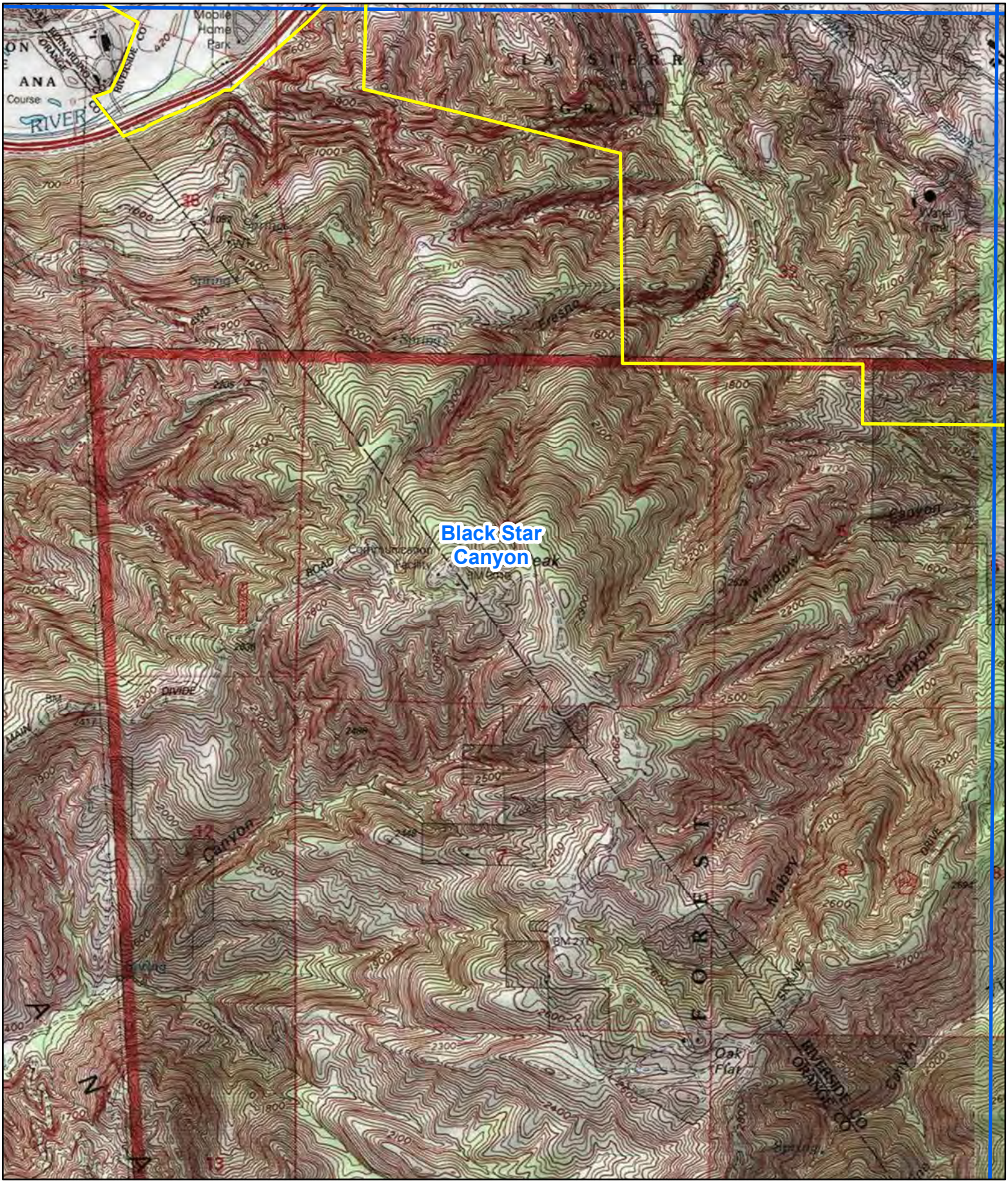
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

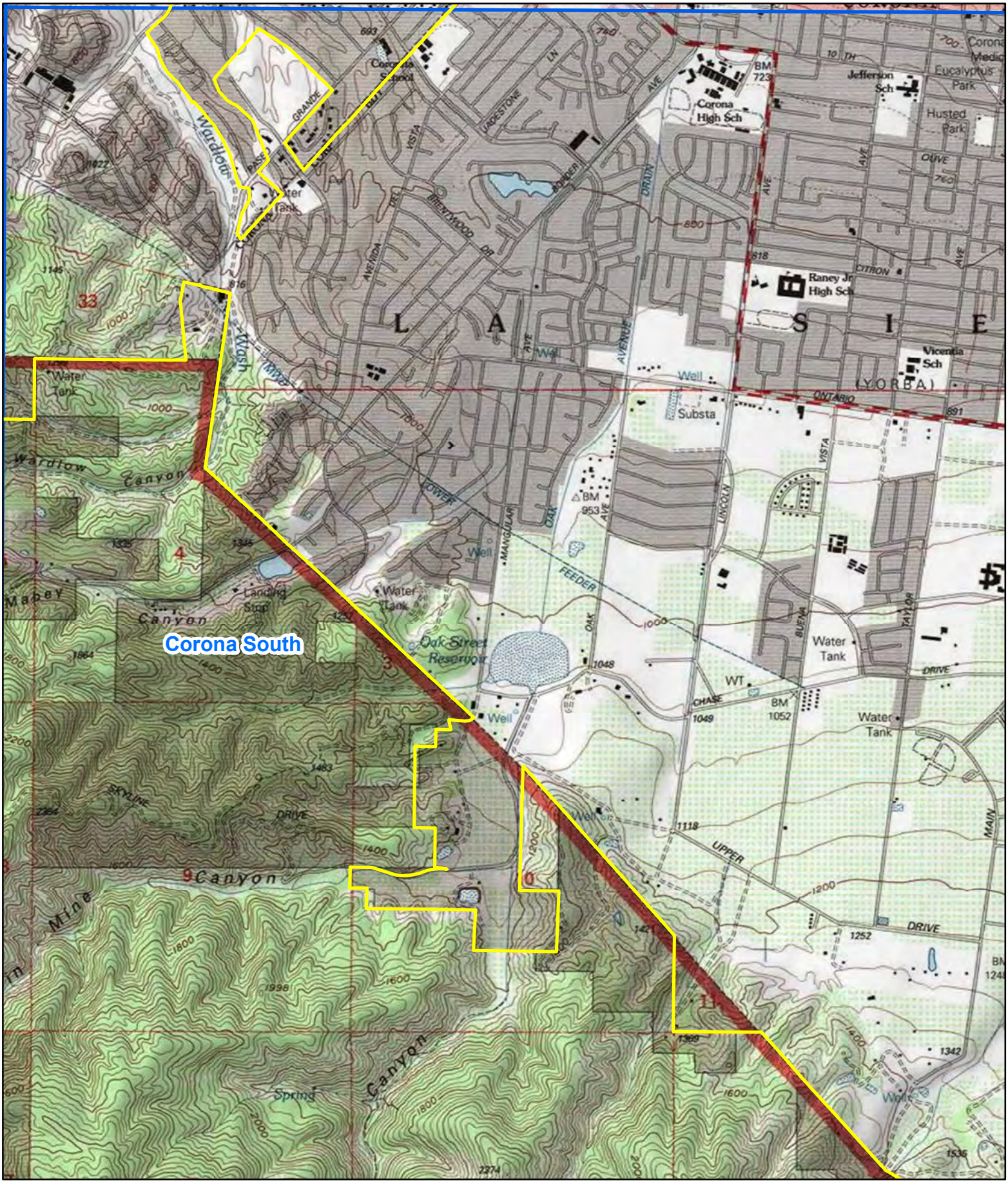
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

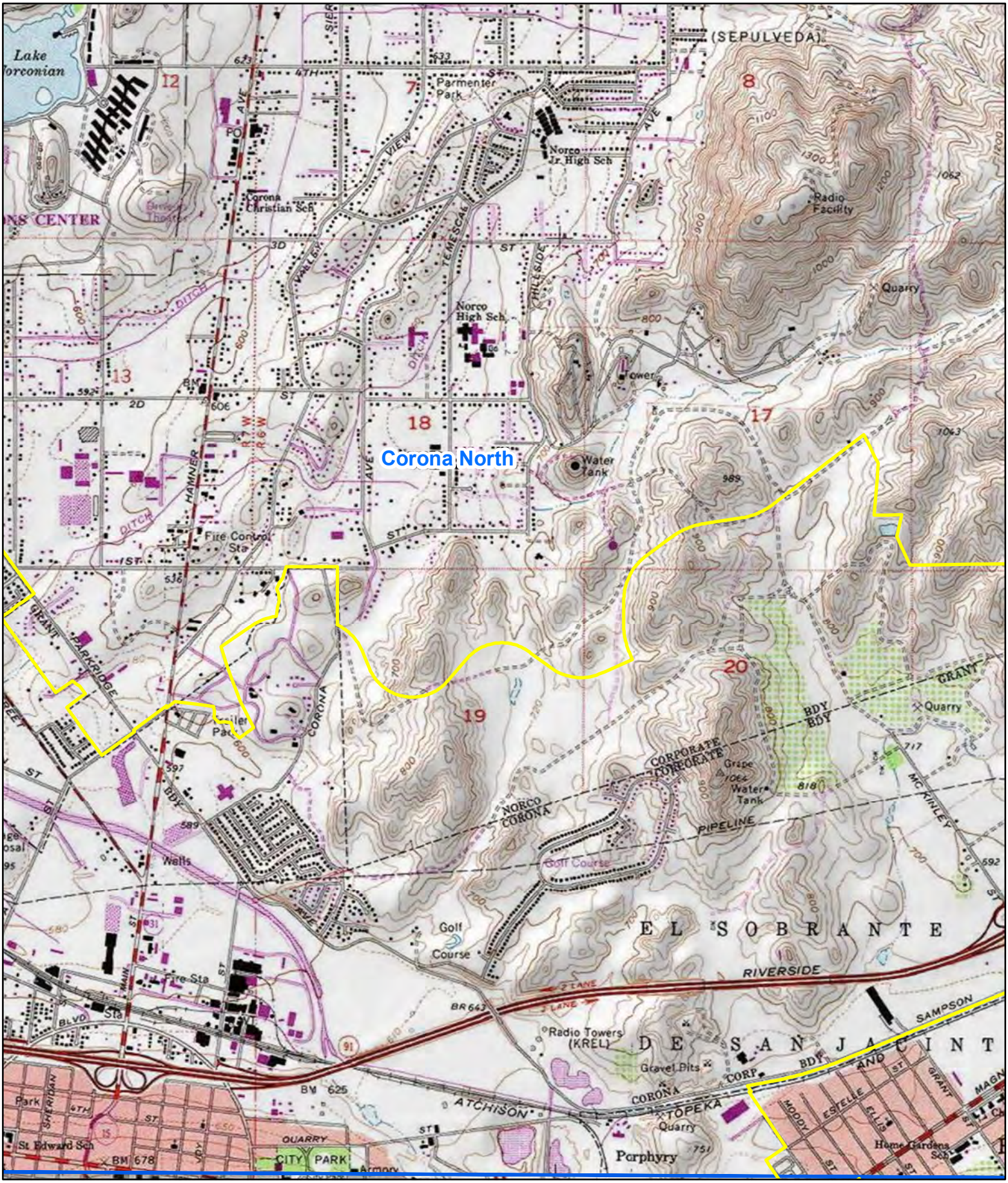
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

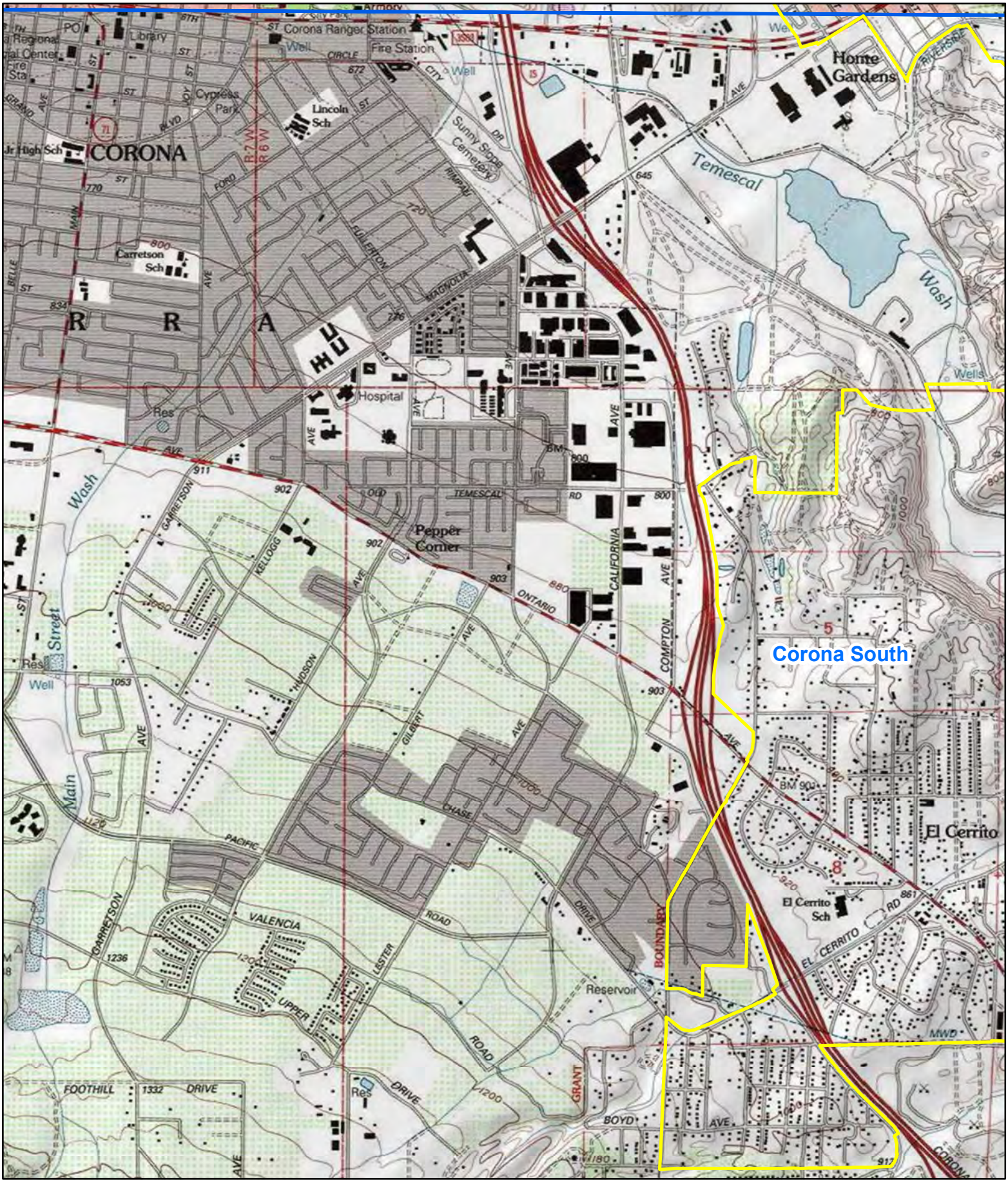


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

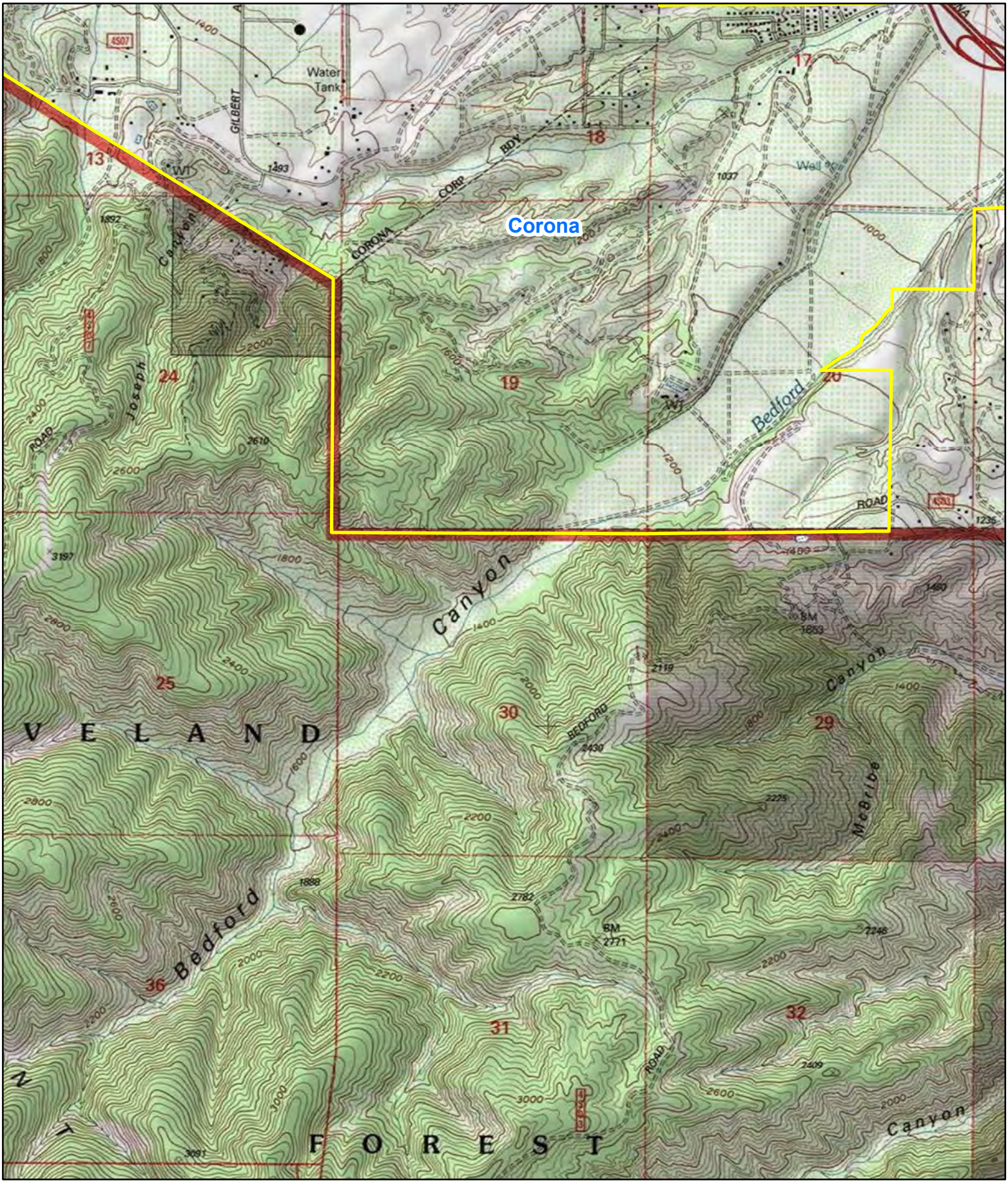
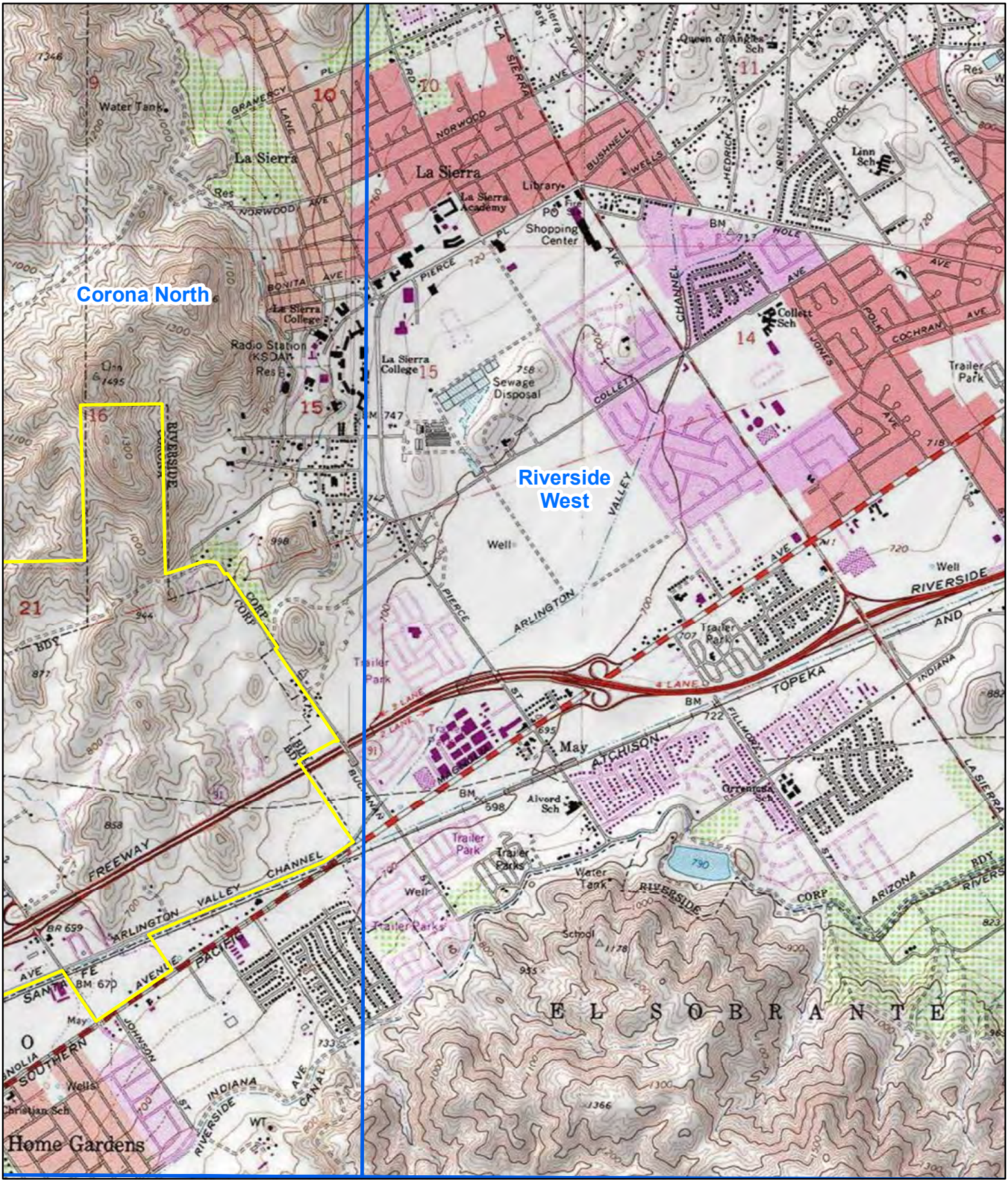


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

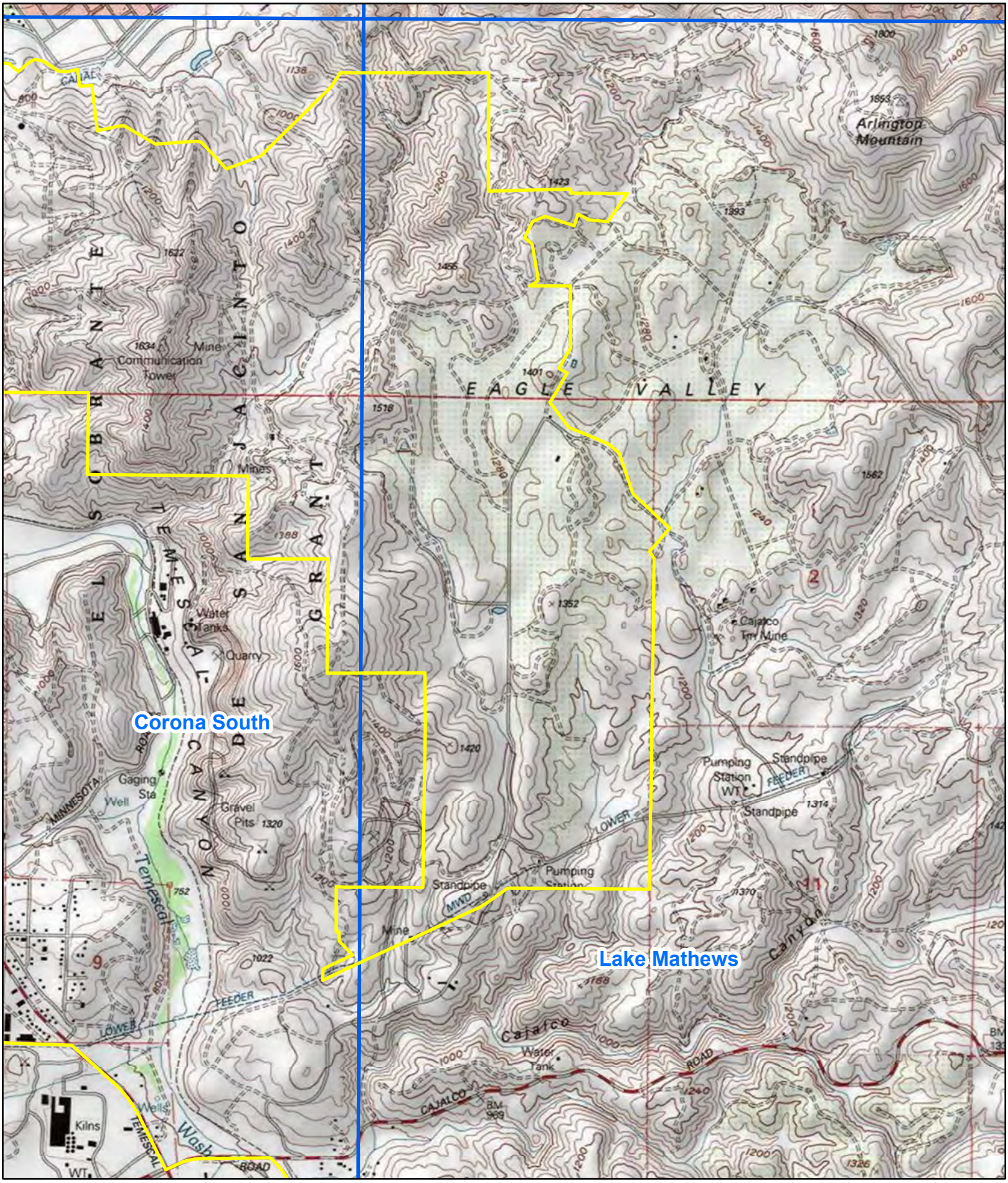
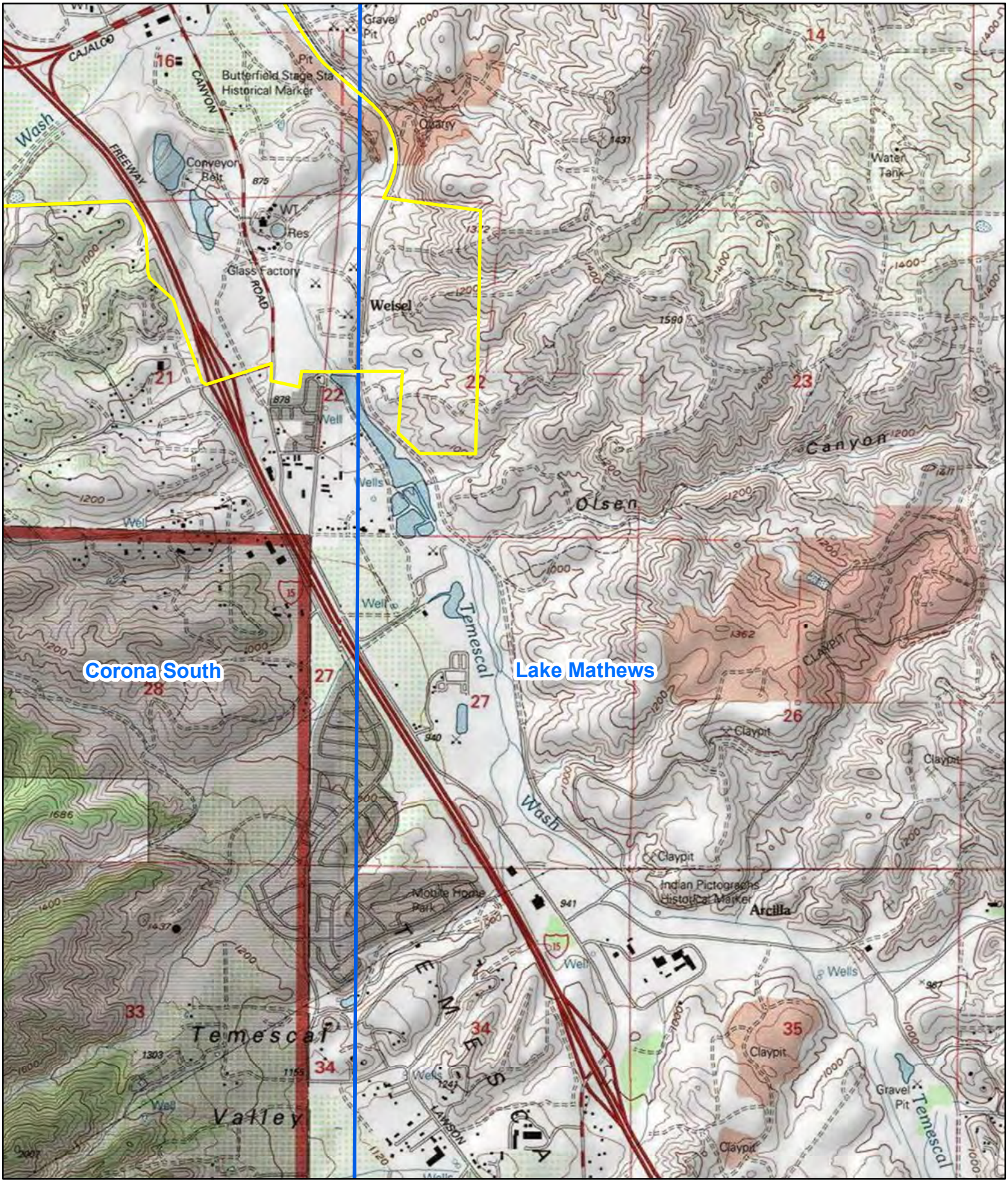


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Allen Lawson
Chairperson
San Pasqual Band of Diegueno Mission Indians
PO Box 365, Valley Center, CA, 92082
760-749-3200
allenl@sanpasqualtribe.org

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Lawson,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

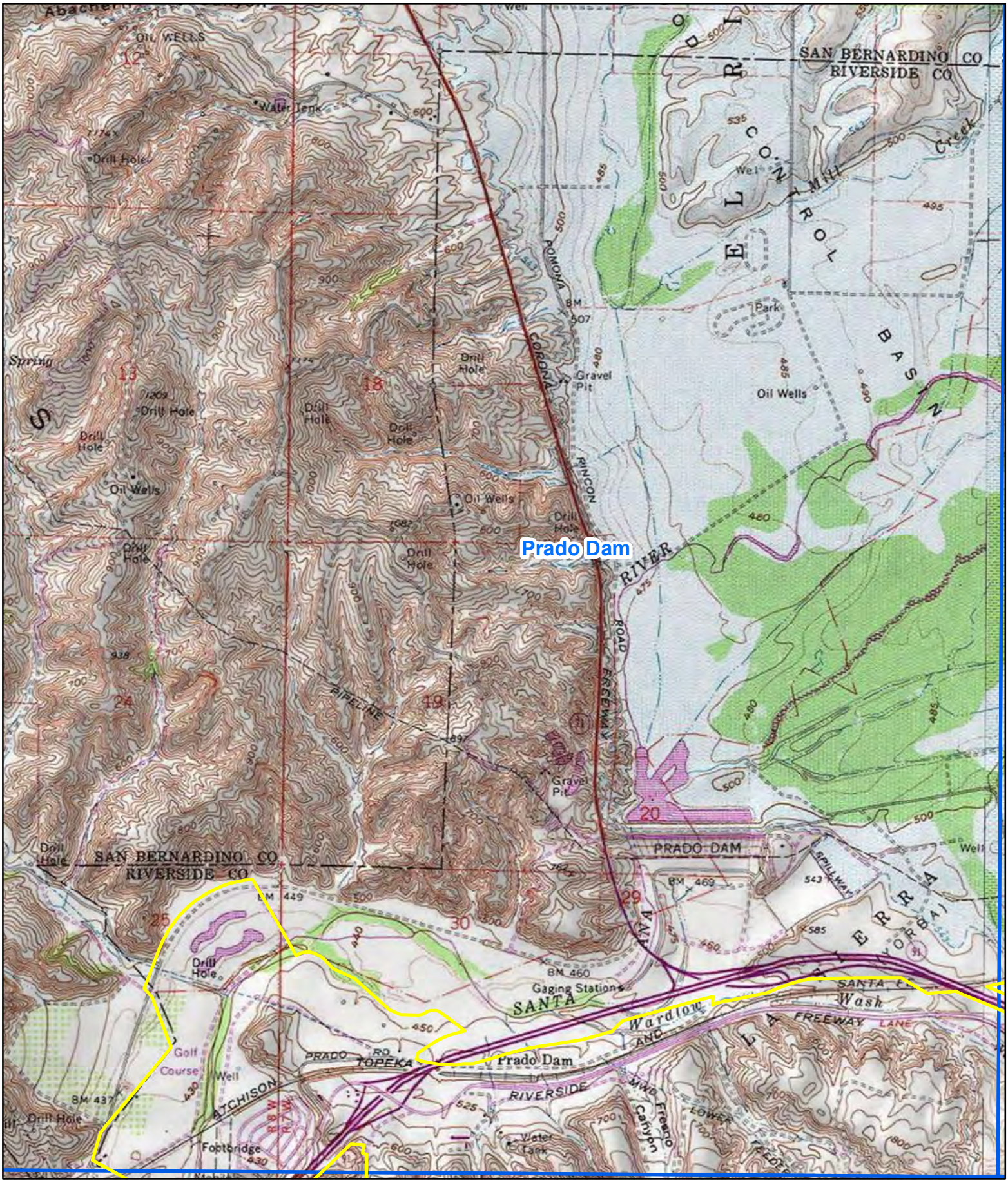


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

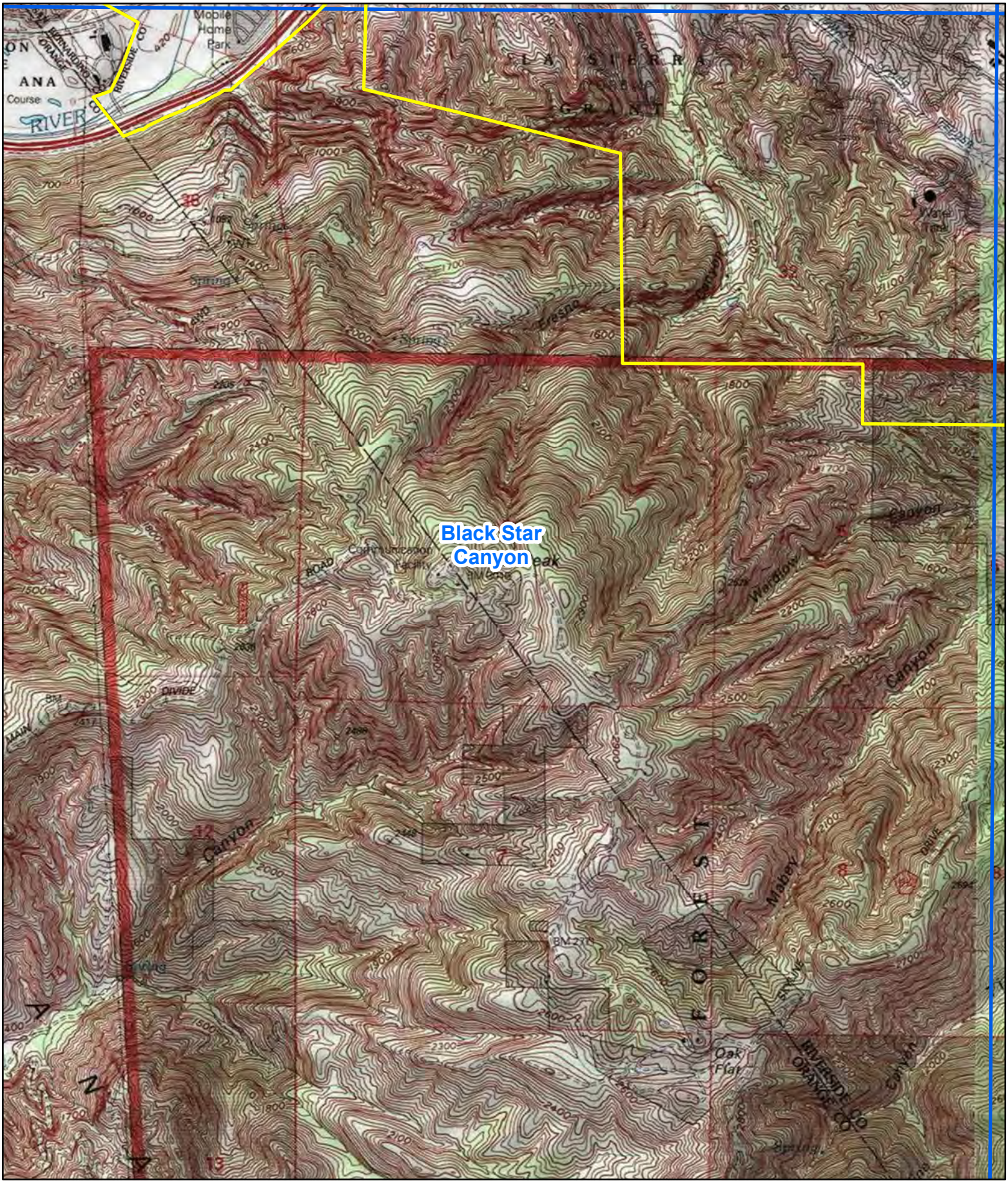
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

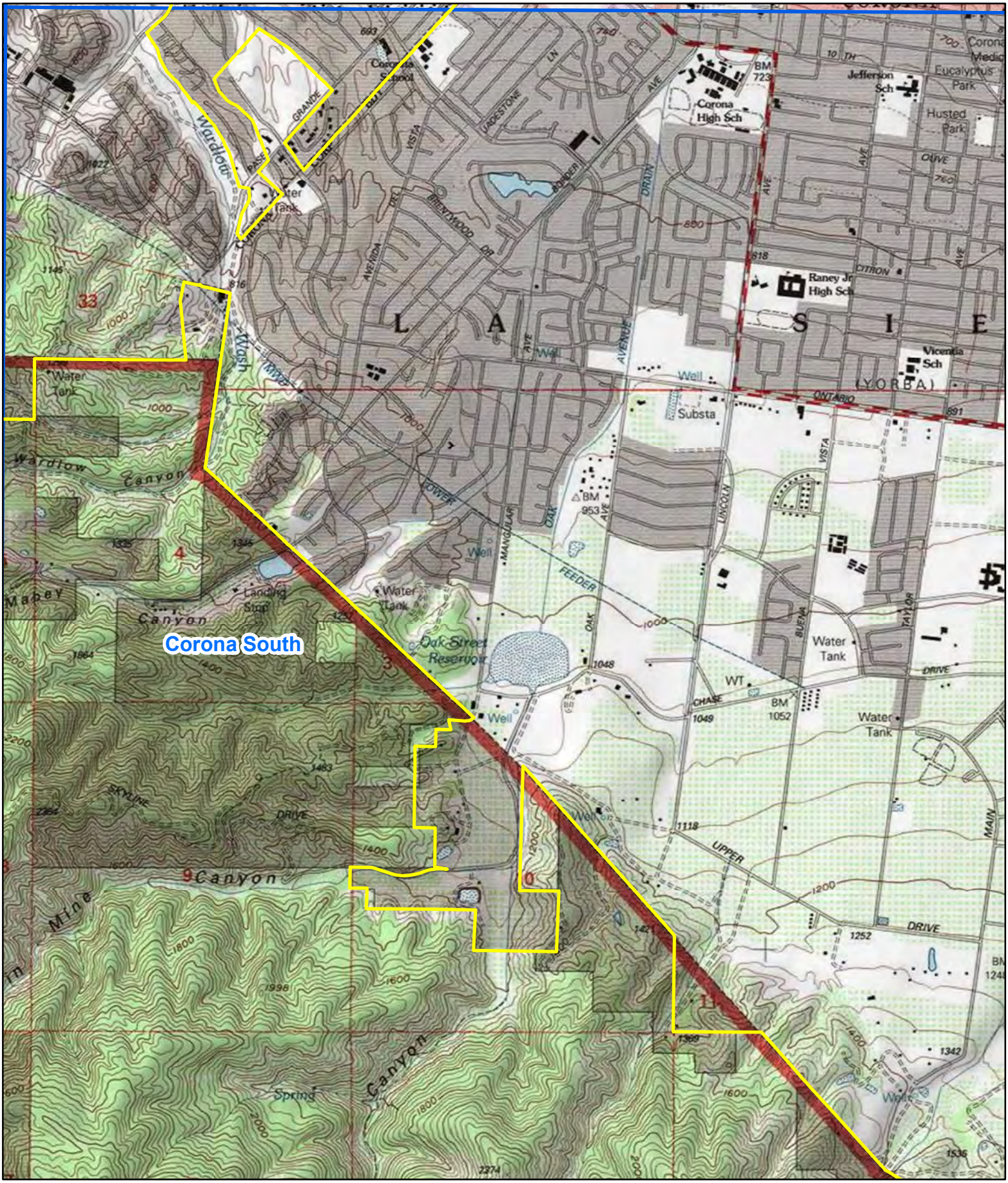
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

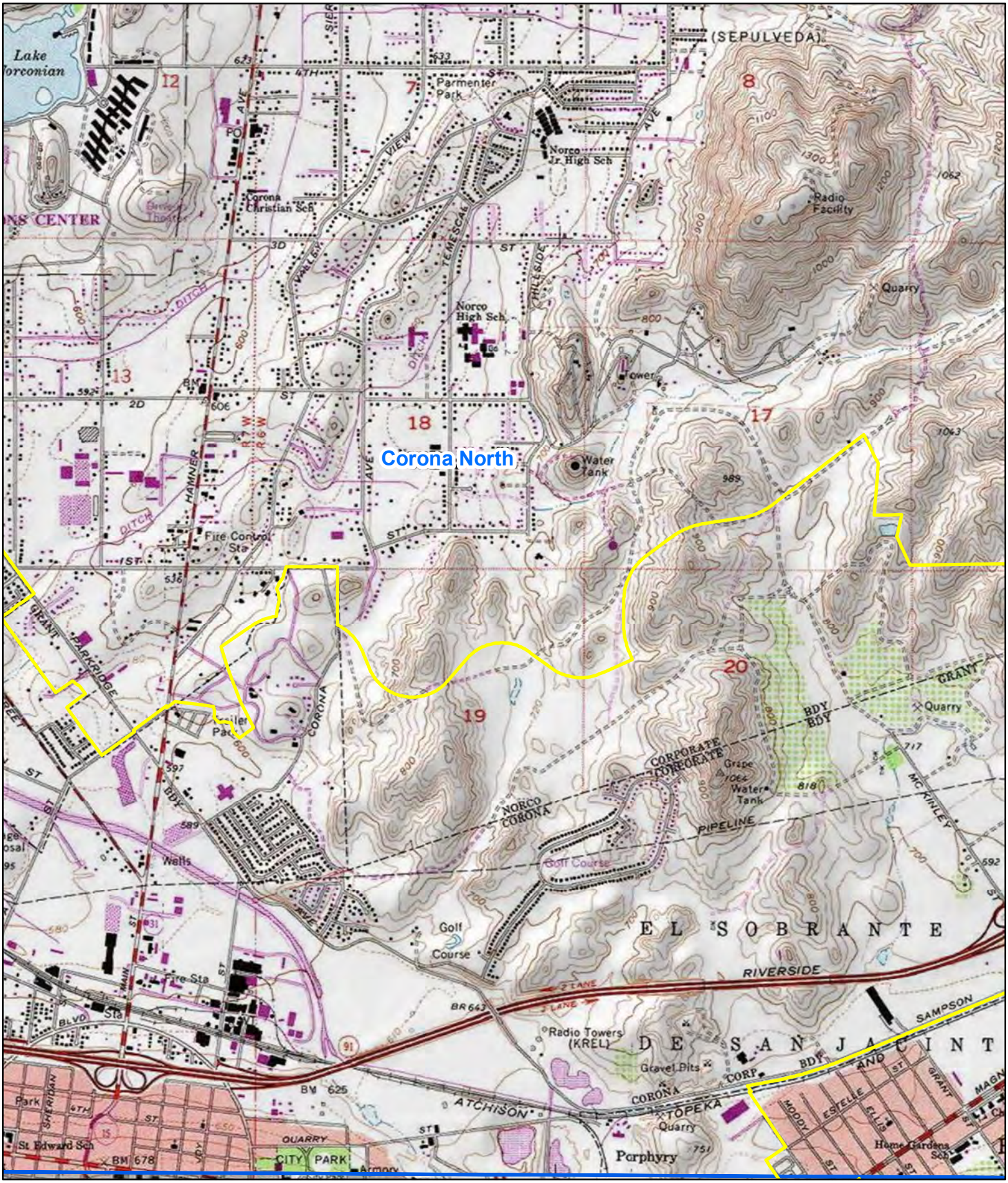
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

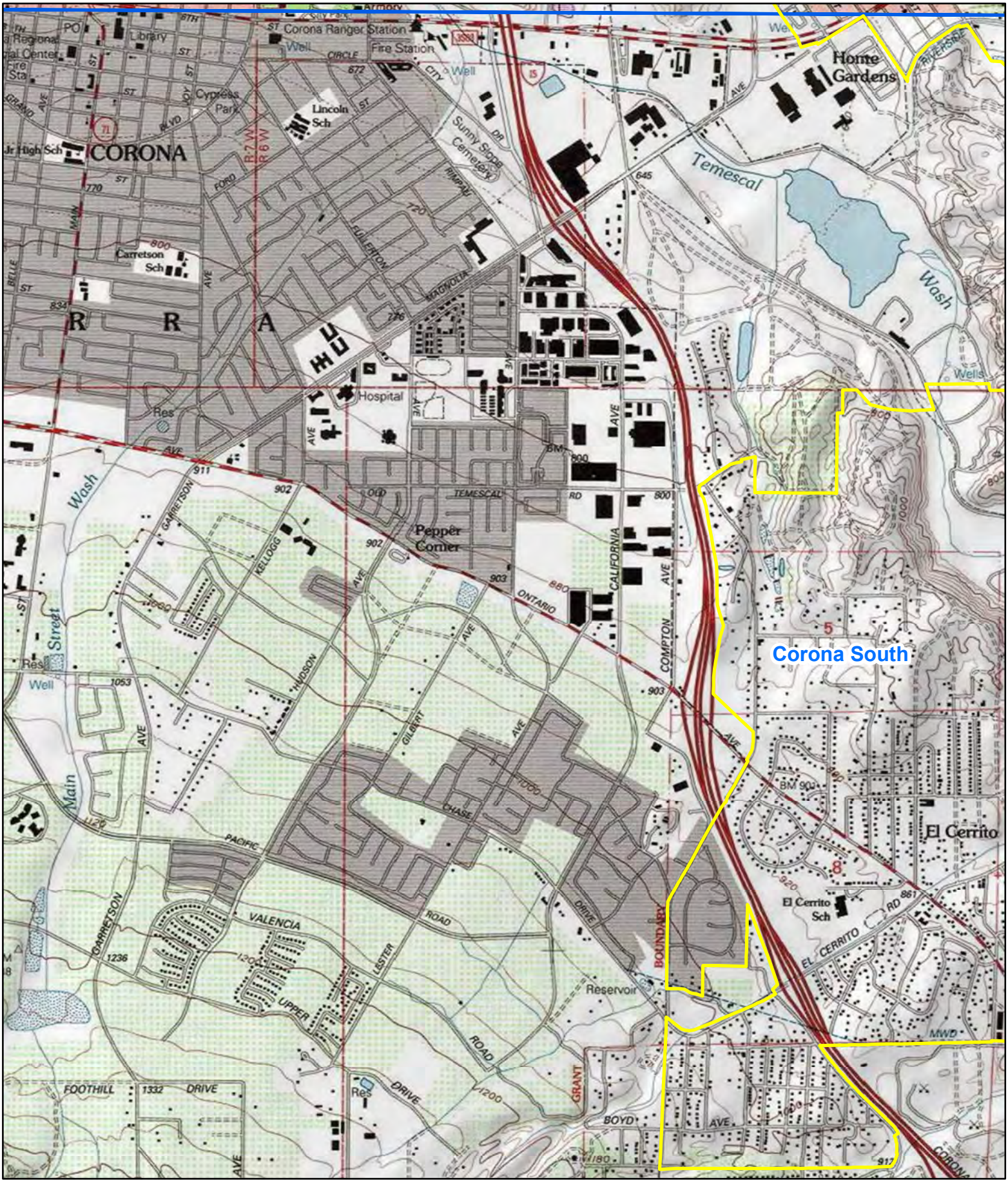


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

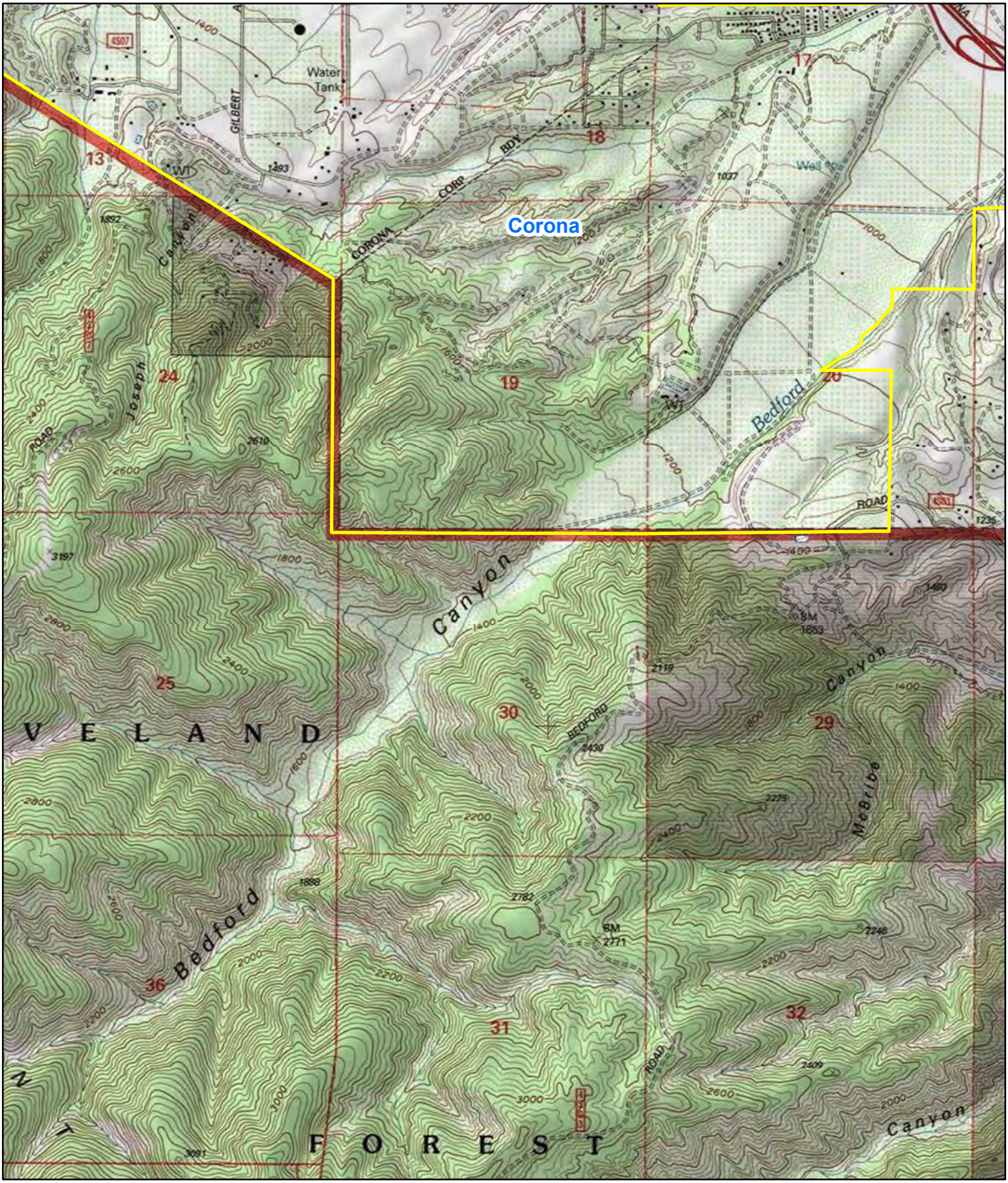
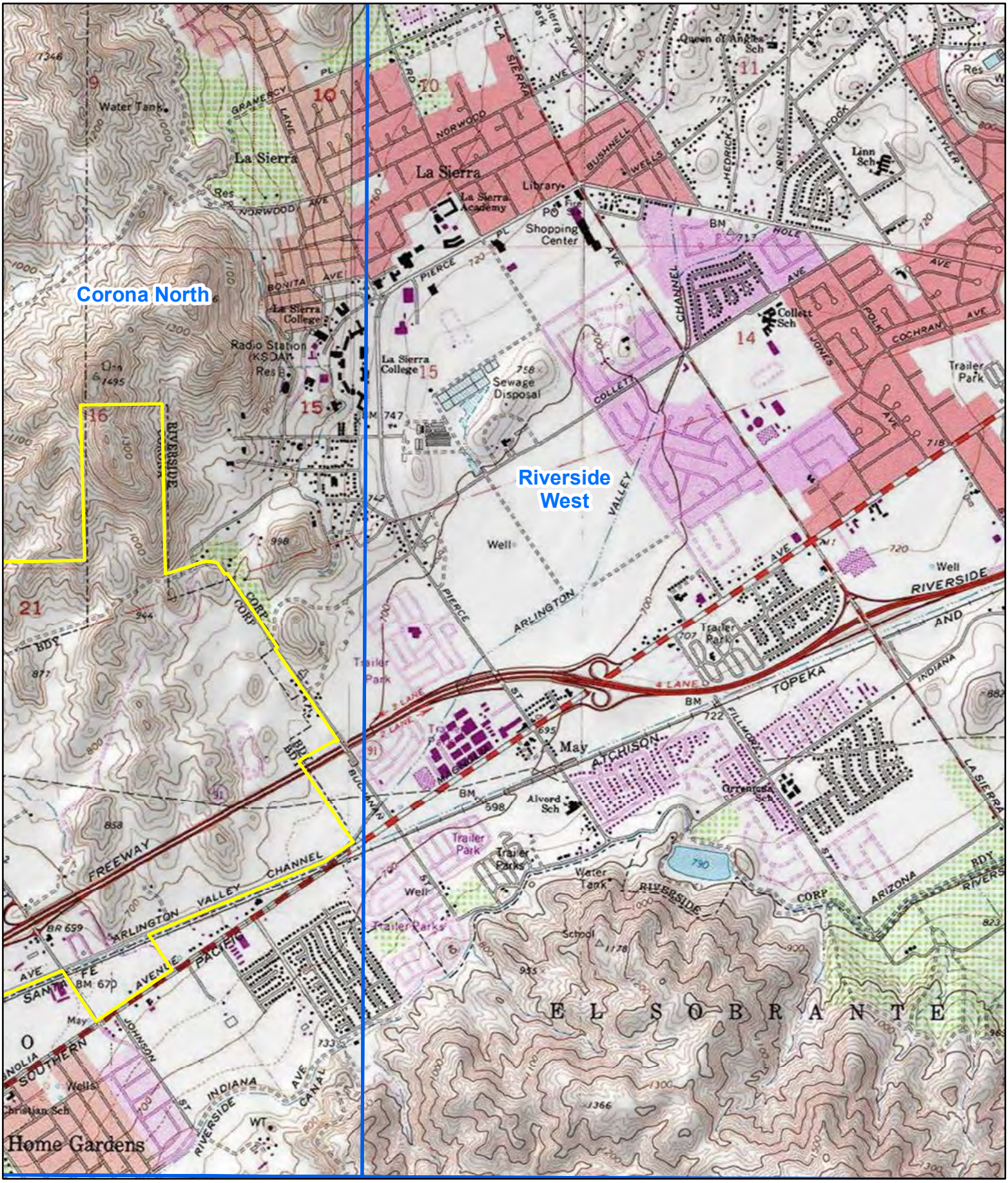


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

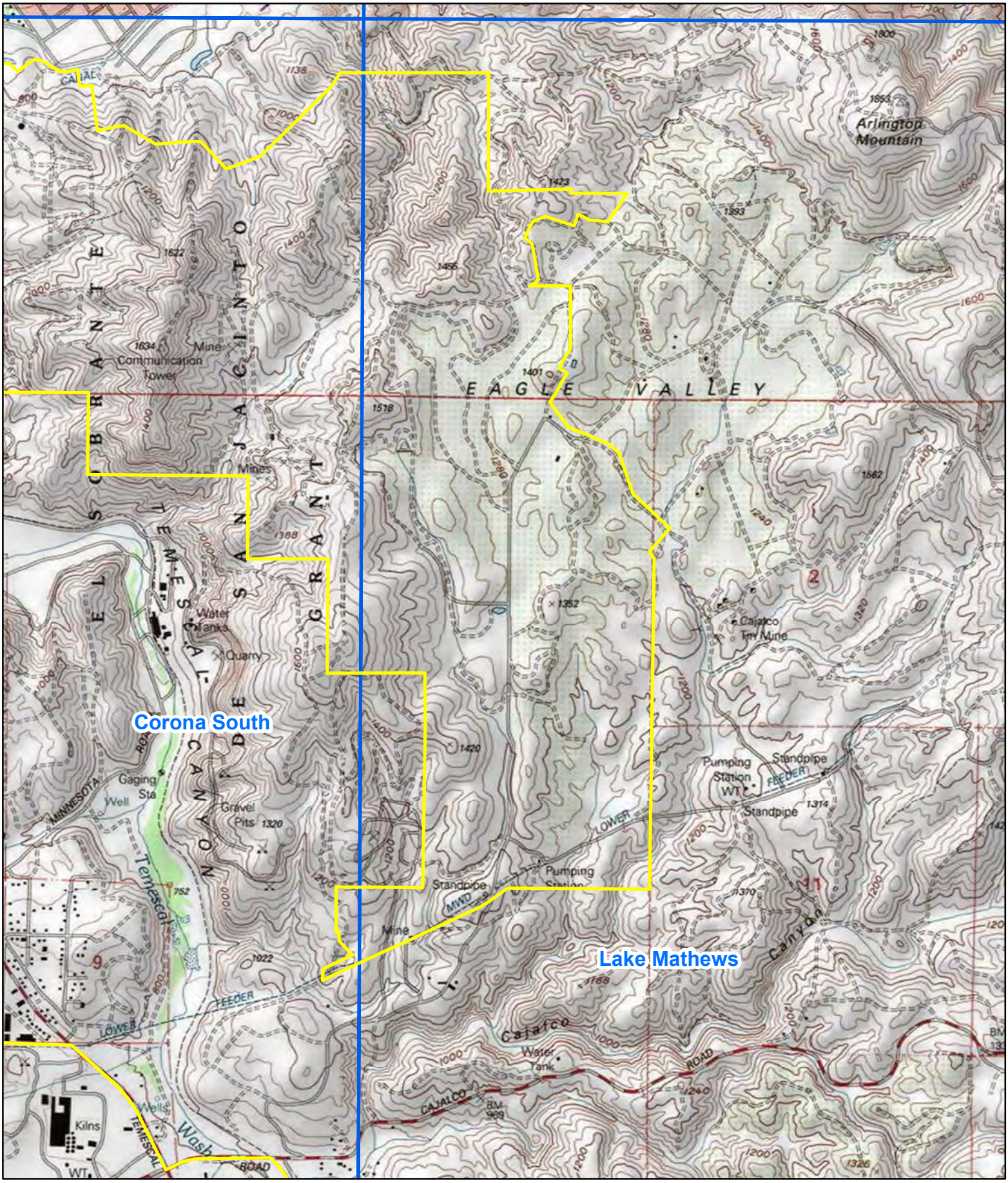
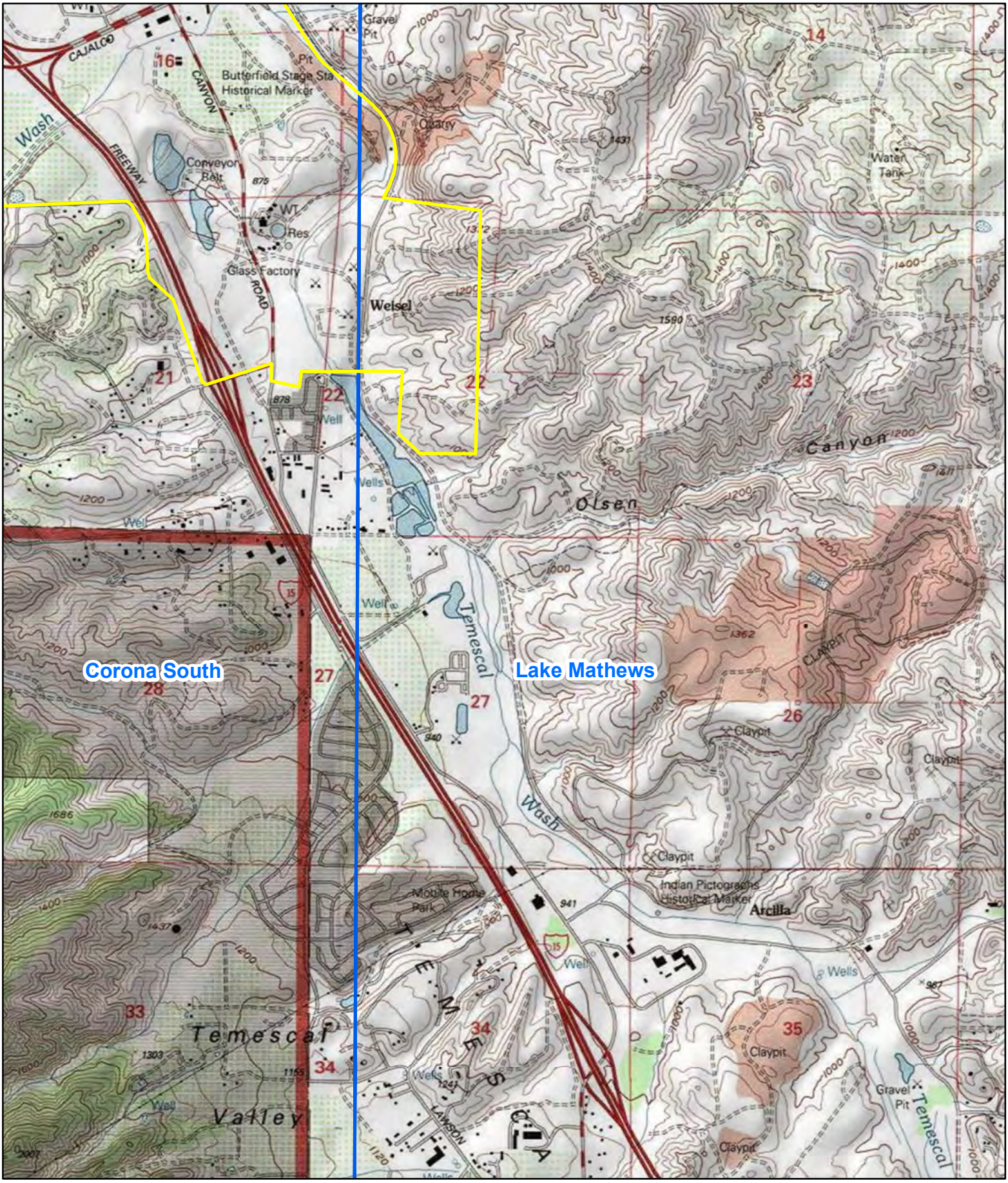


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Anthony Morales
Chairperson
Gabrieleno/Tongva San Bagriel Band of Mission Indians
PO Box 693, San Gabriel, CA, 91778
626-483-3564
GTTribalcouncil@aol.com

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Morales,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

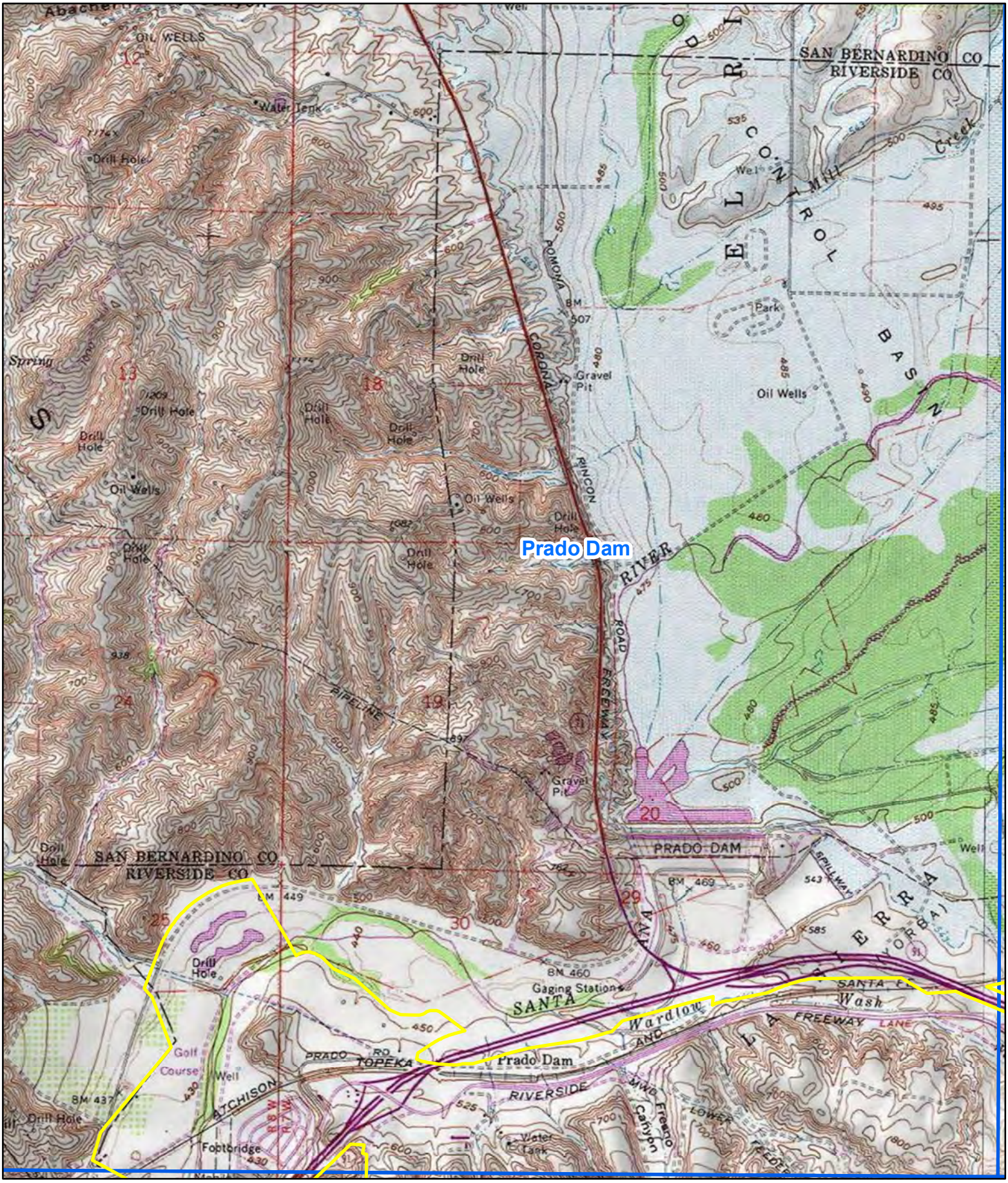


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

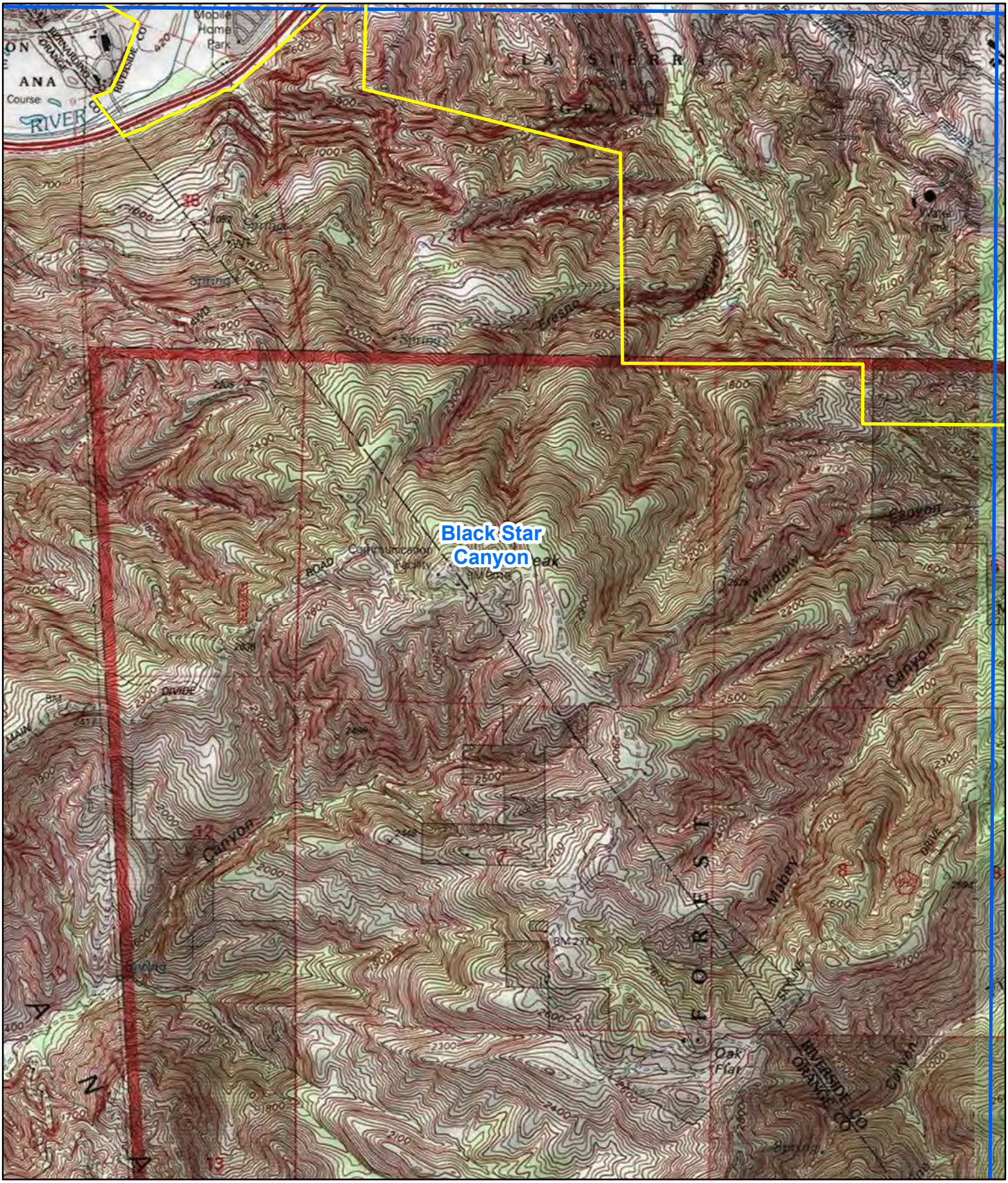
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

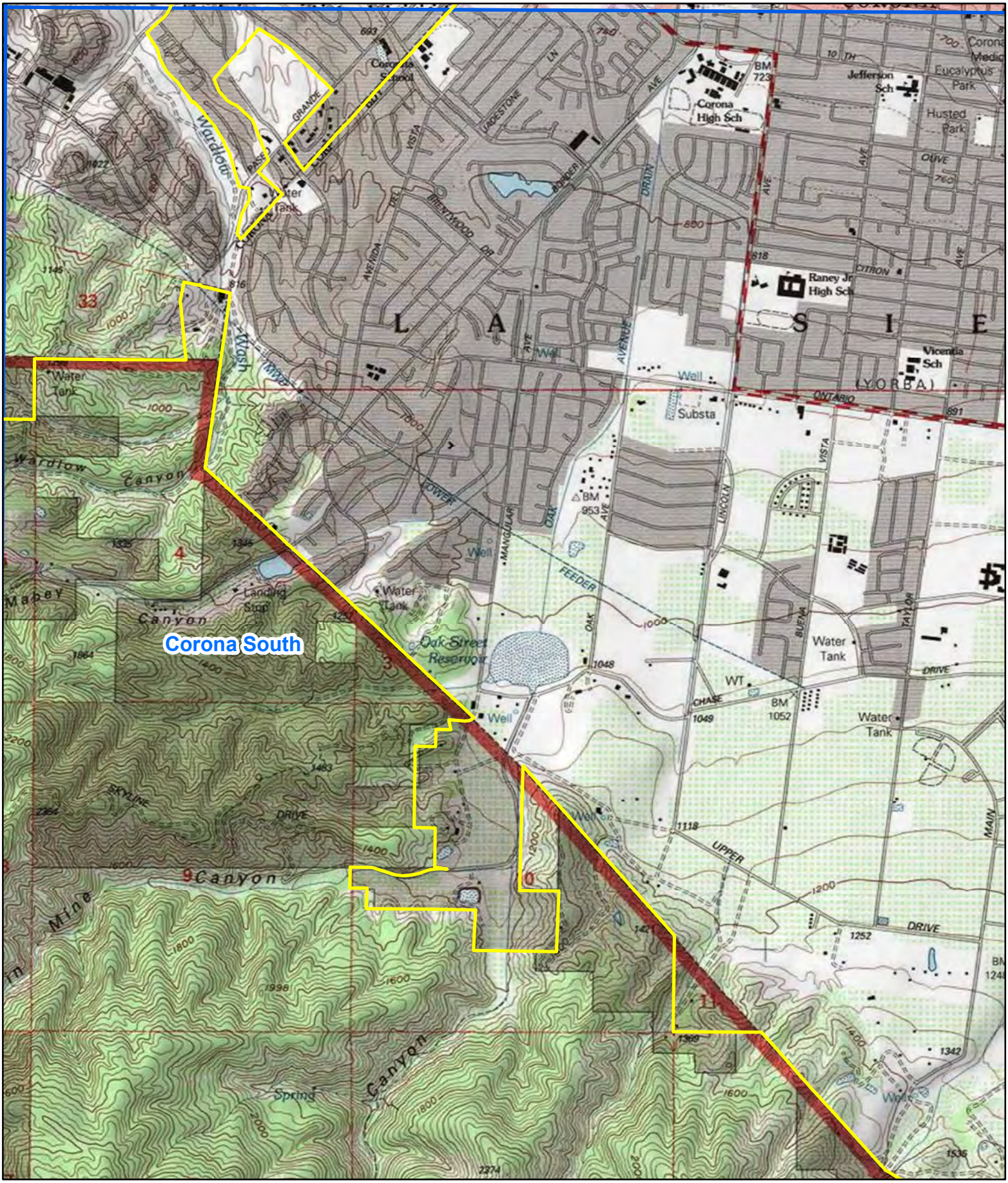
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

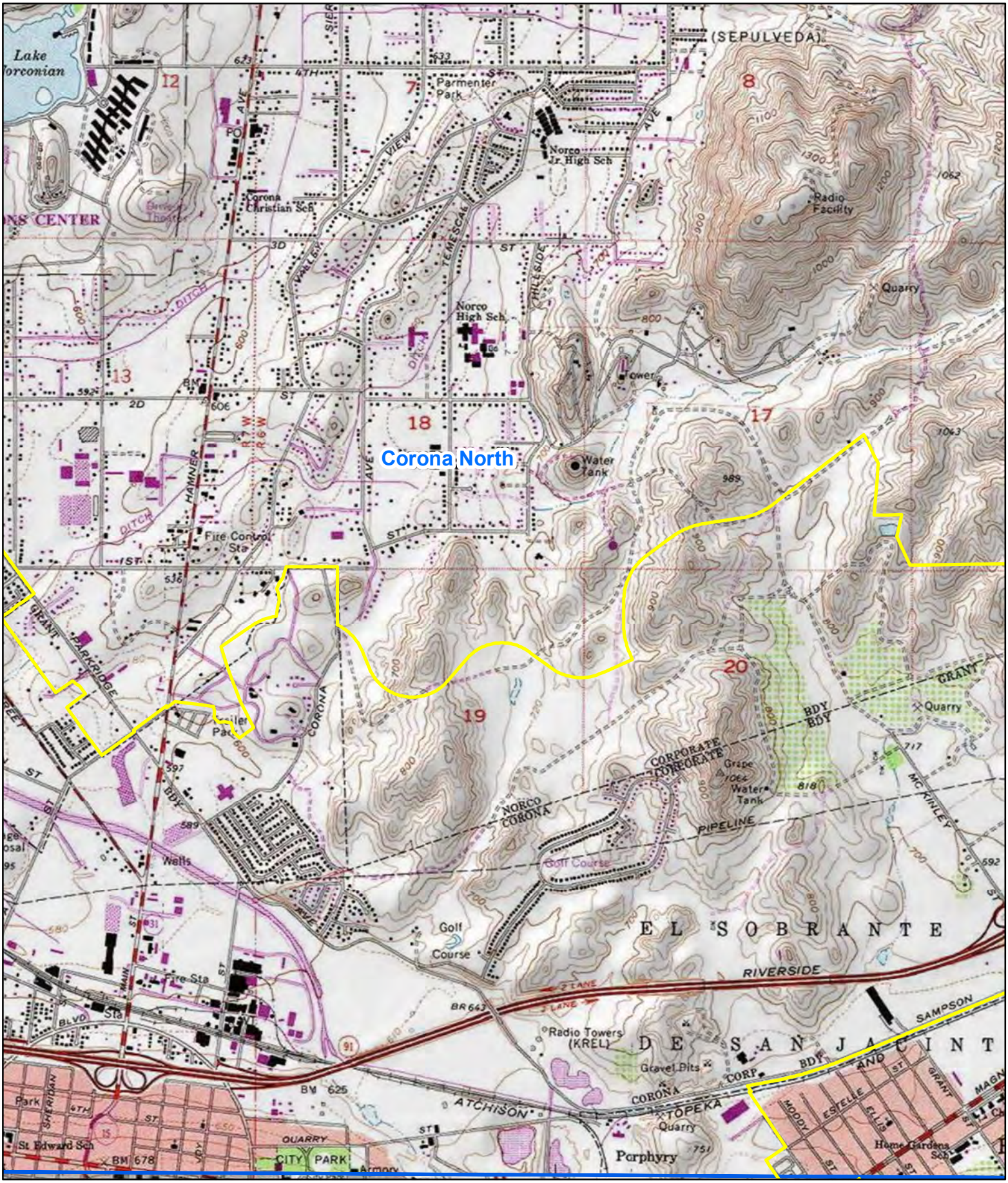
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

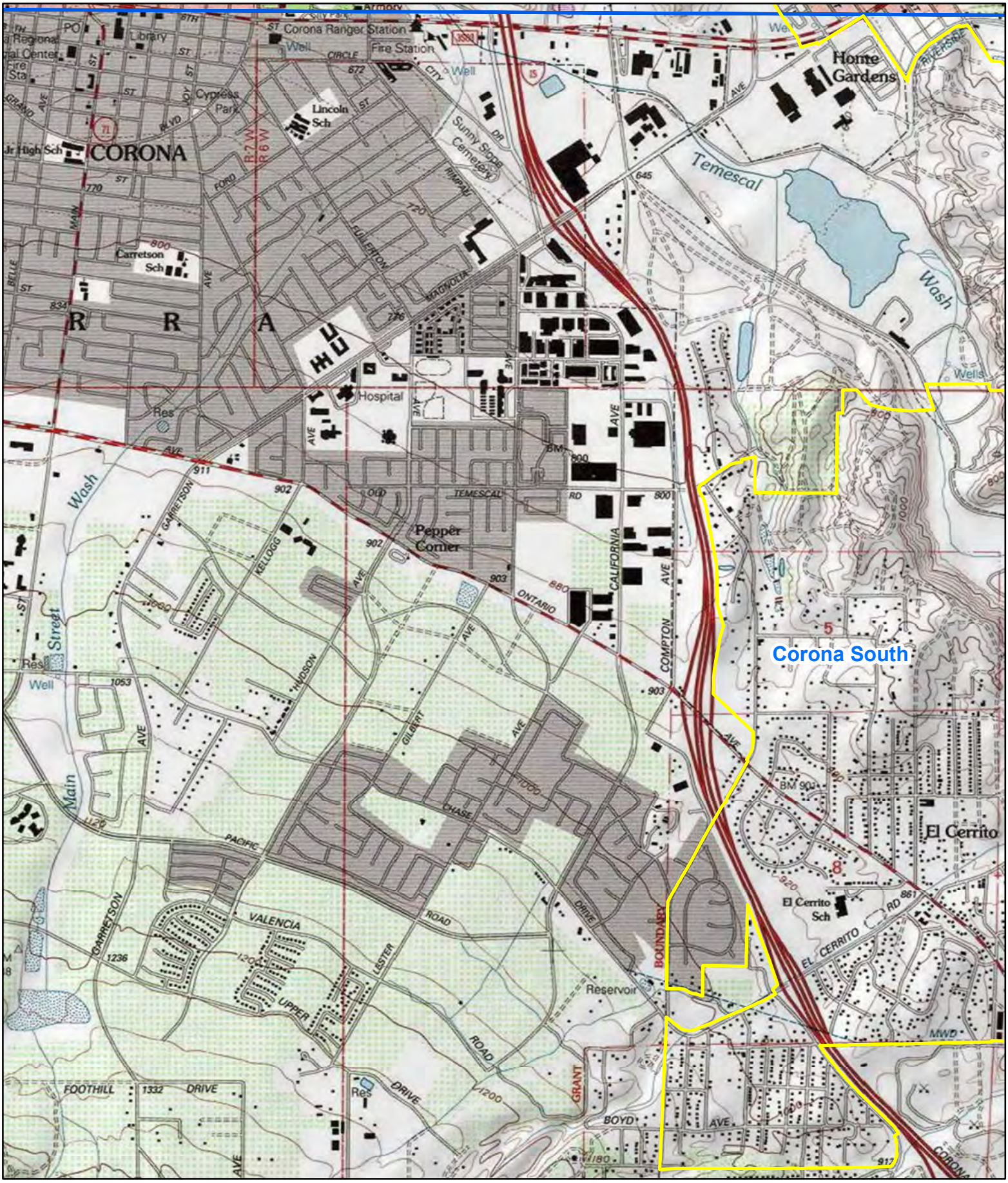


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

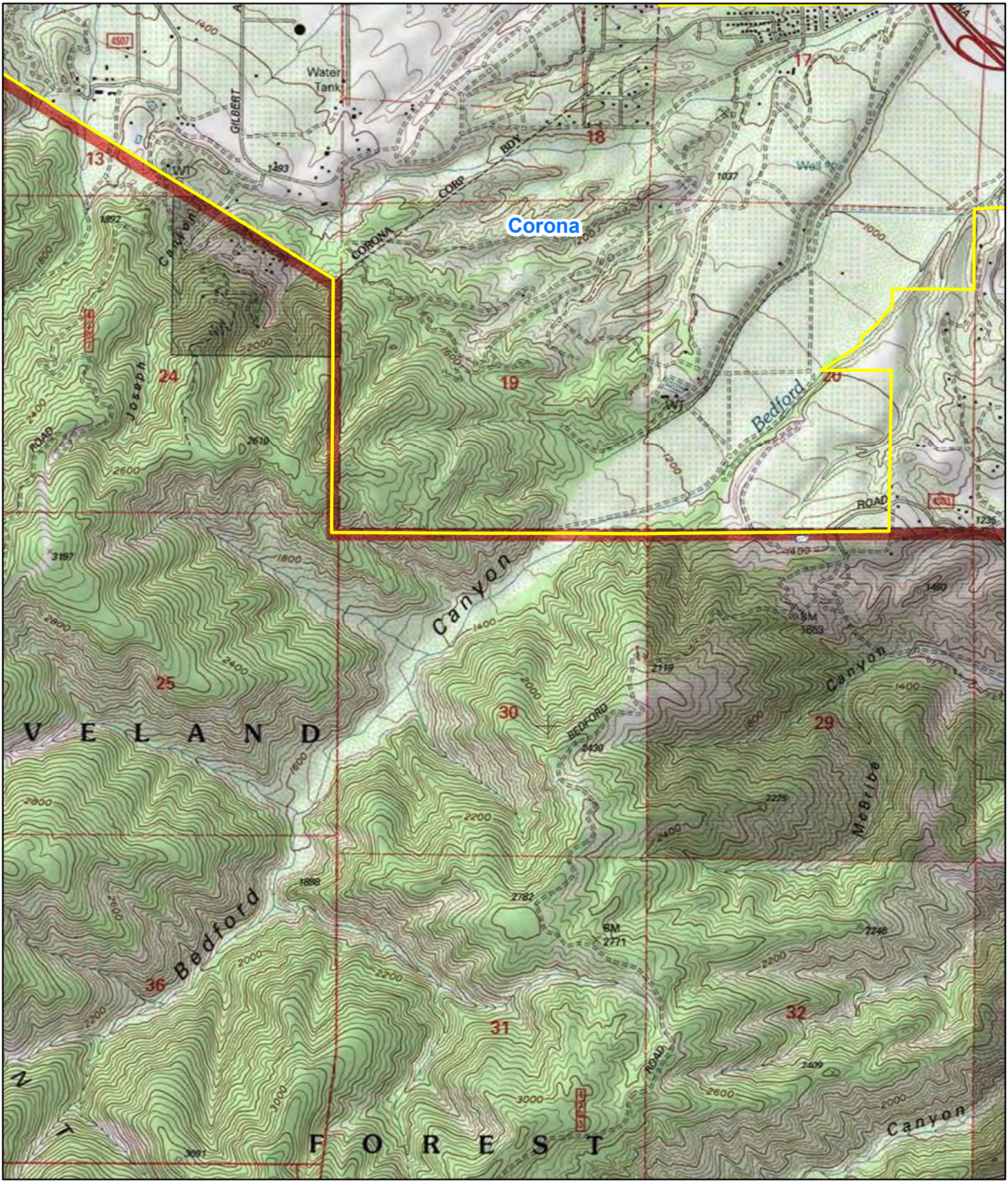
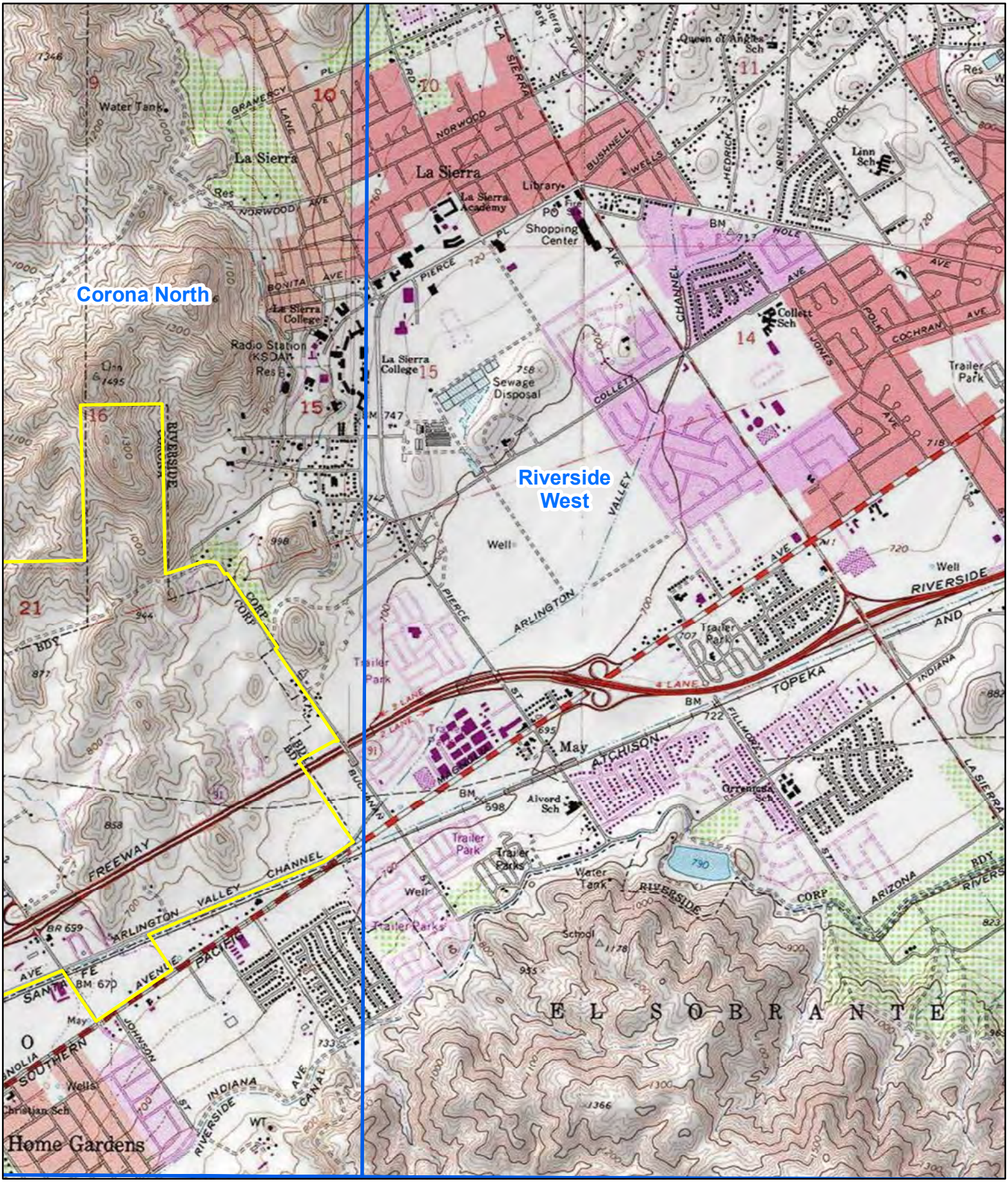


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

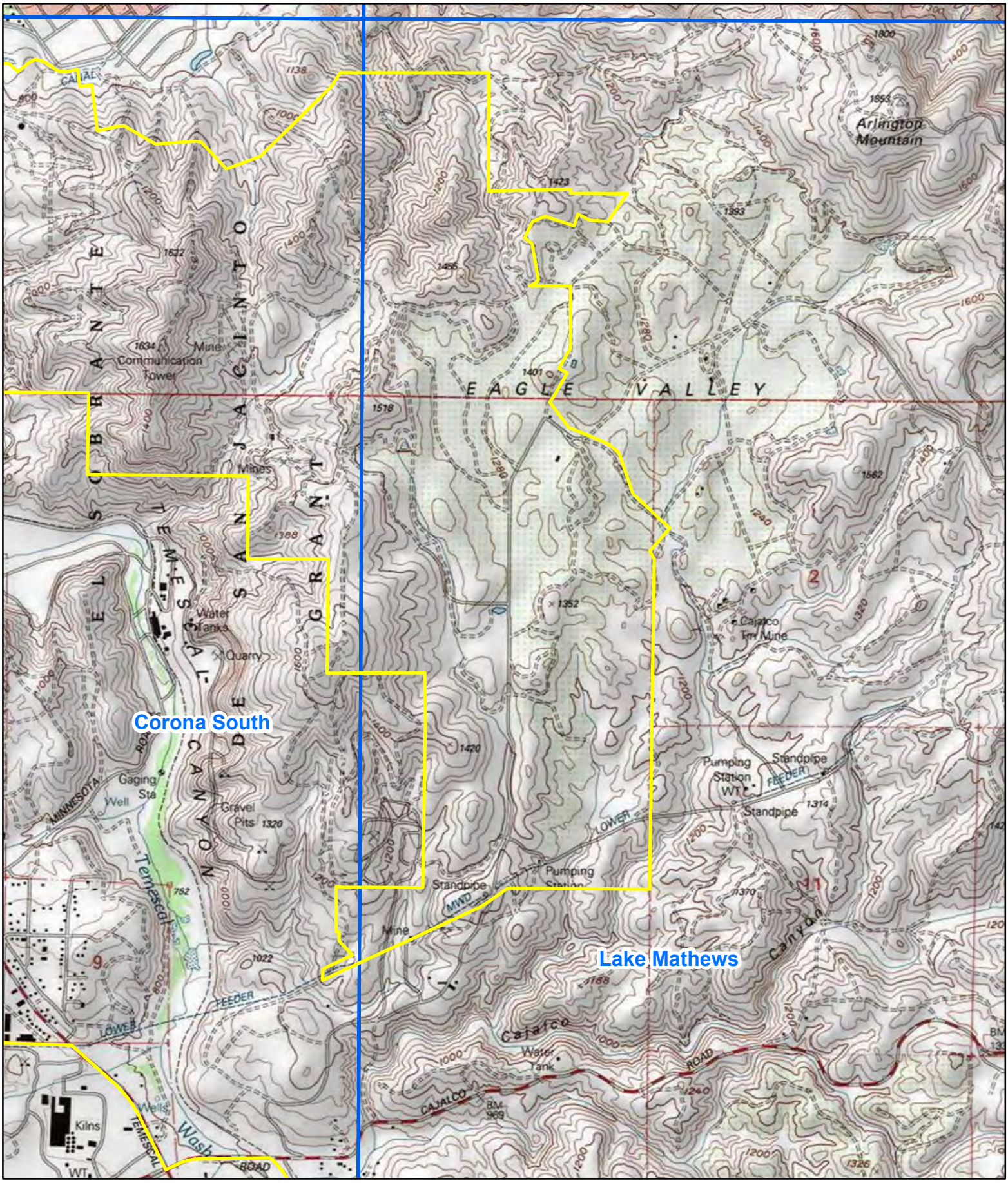
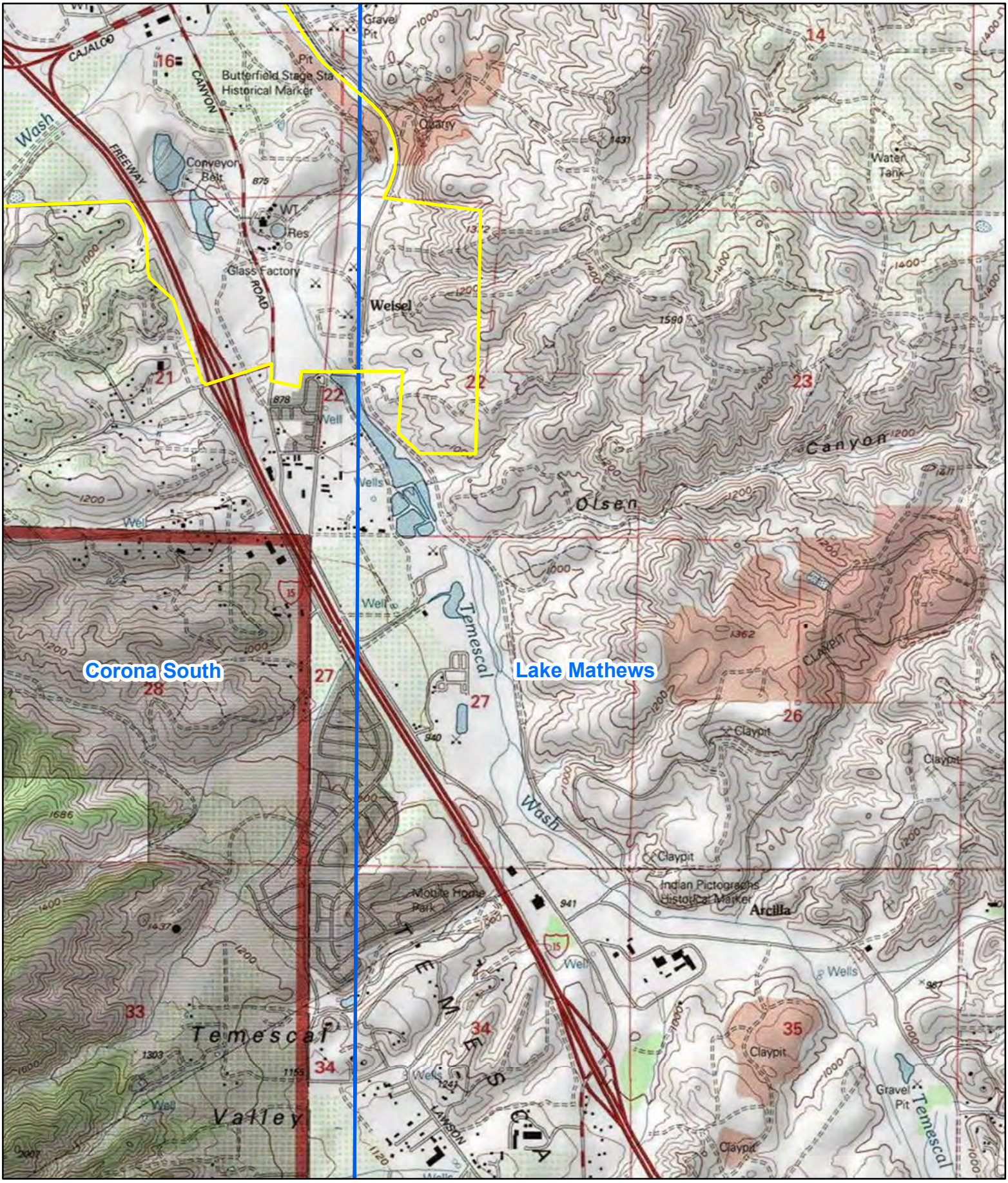


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Andrew Salas
Chairperson
Gabrieleno Band of Mission Indians - Kizh Nation
PO Box 393, Covina, CA, 91723
626-926-4131
admin@gabrielenoindians.org

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Salas,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

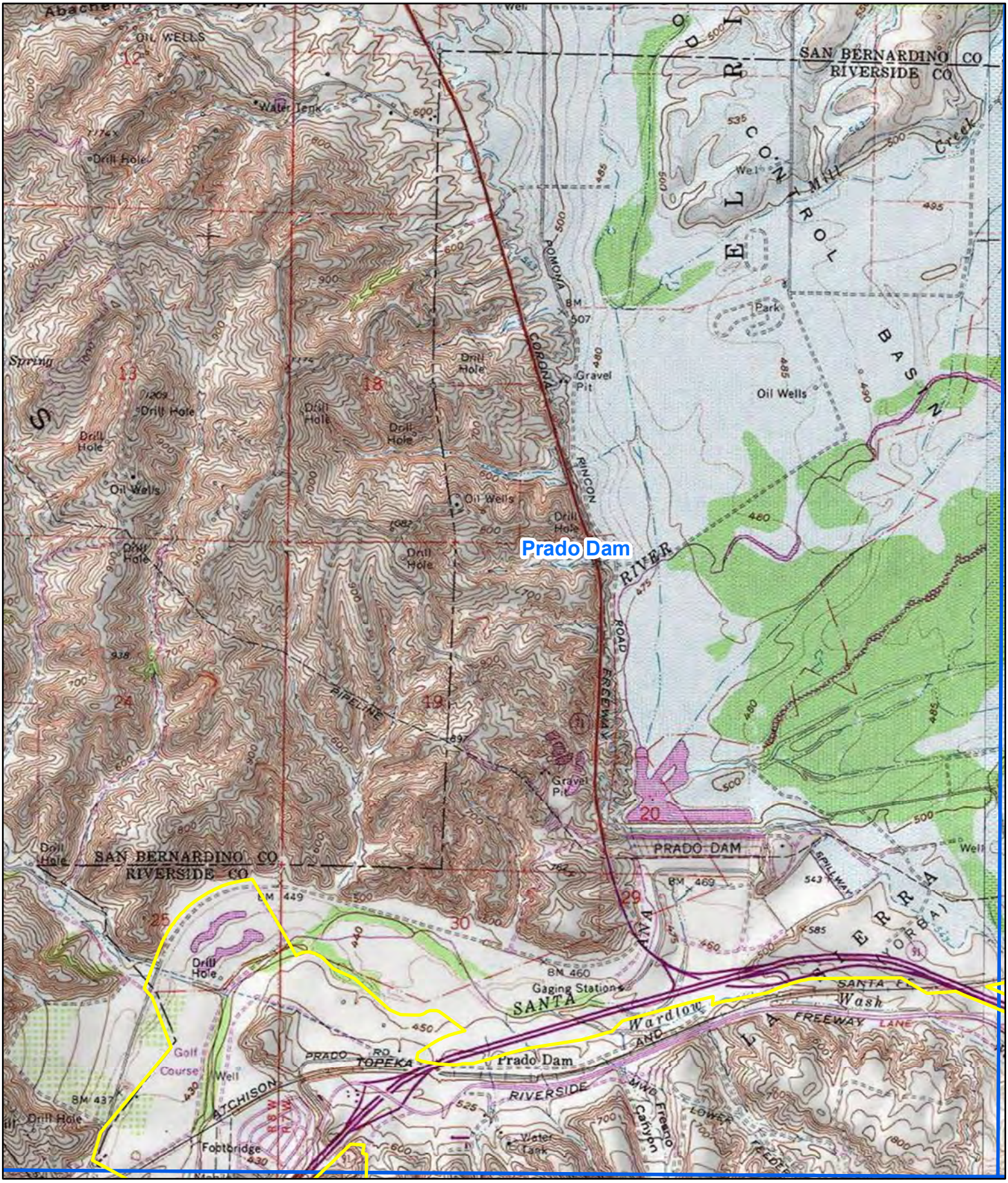


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

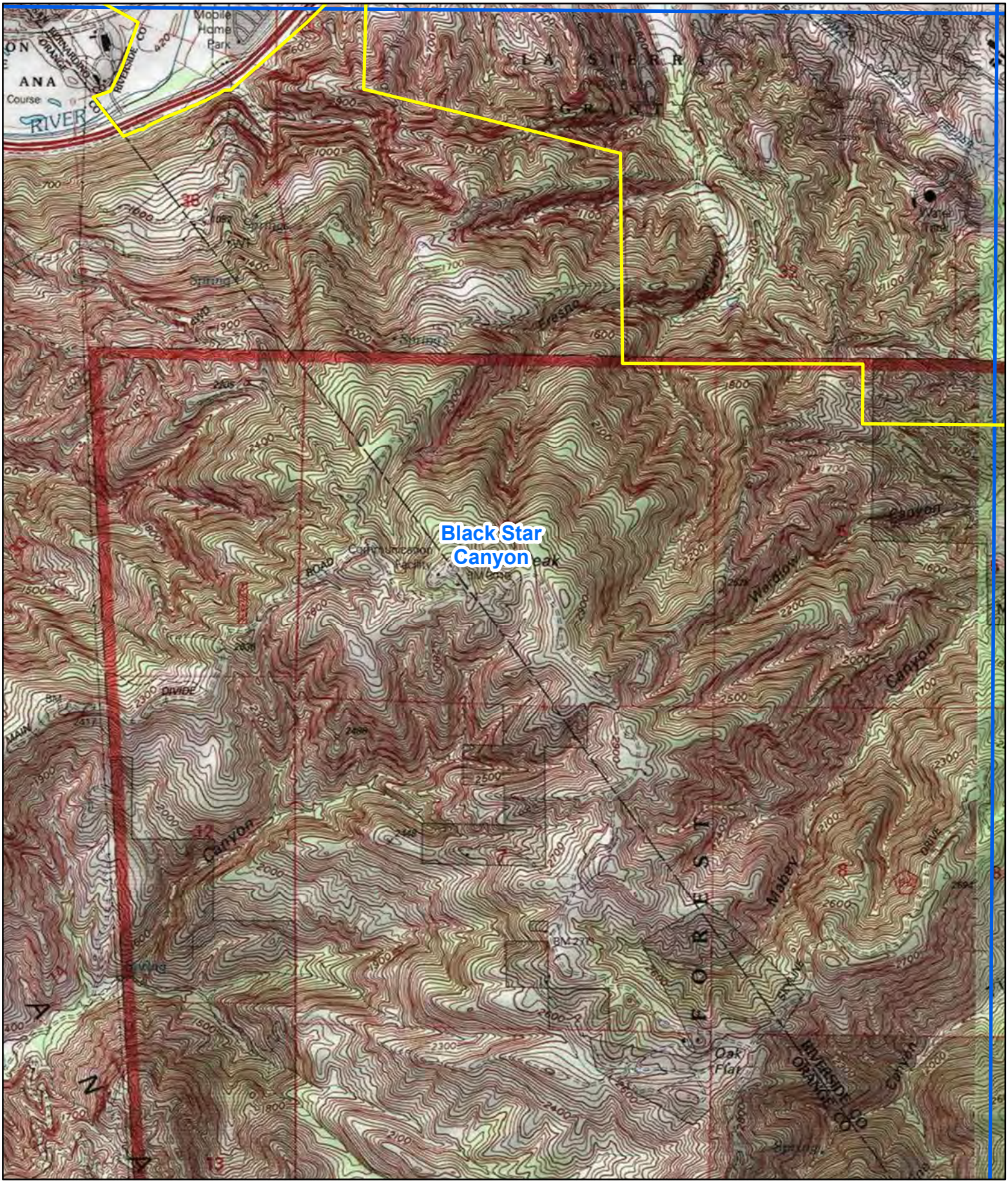
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

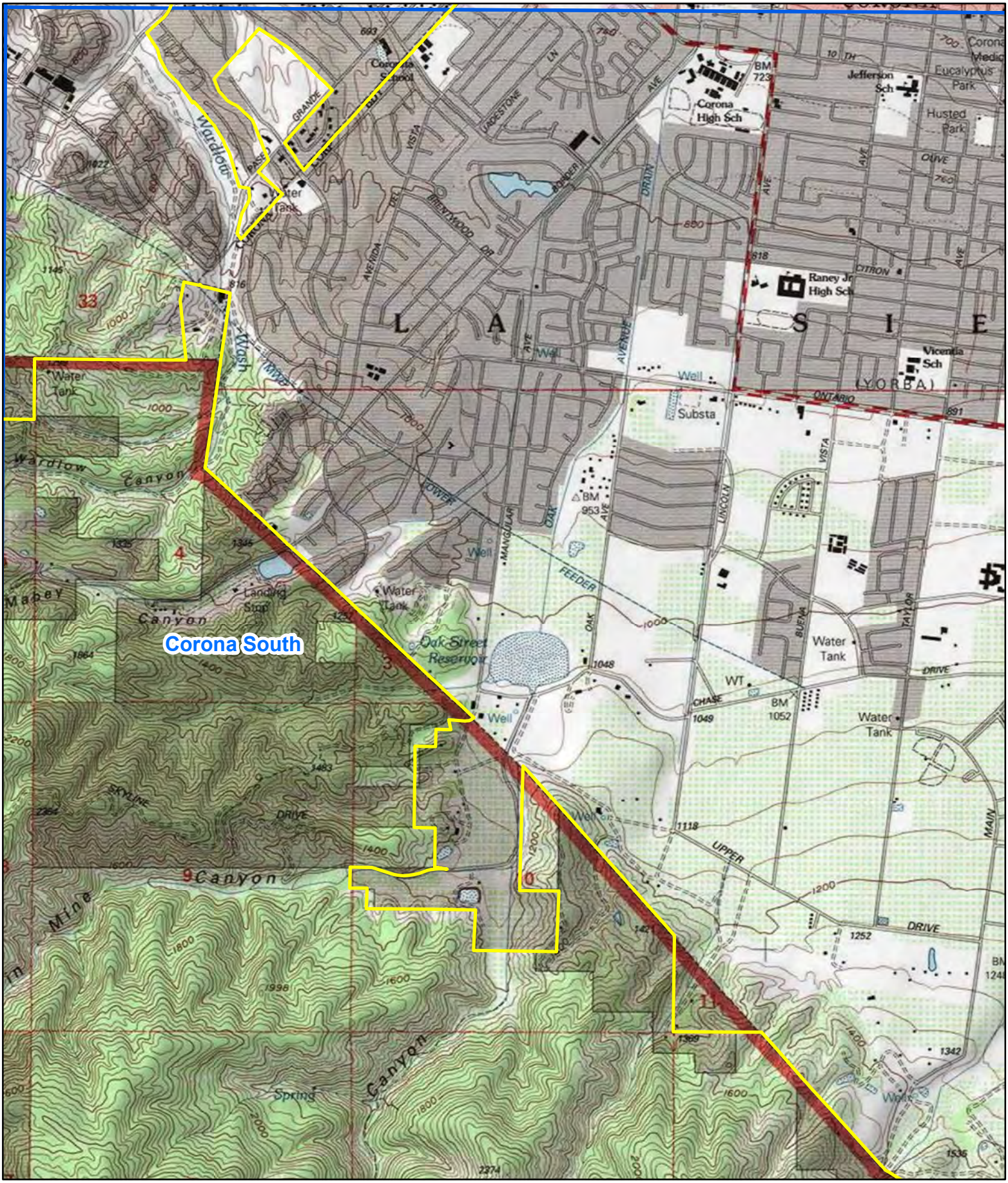
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

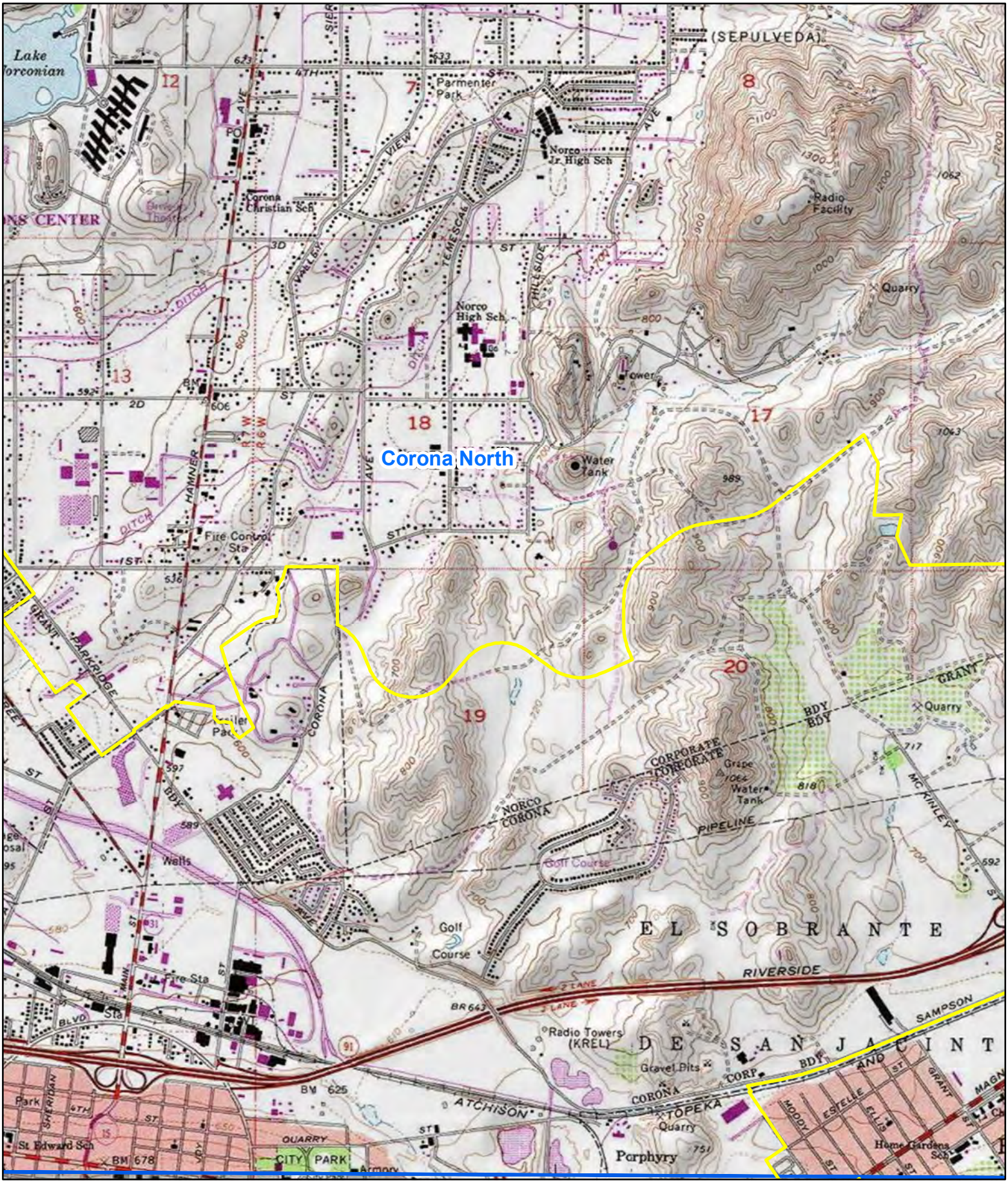
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

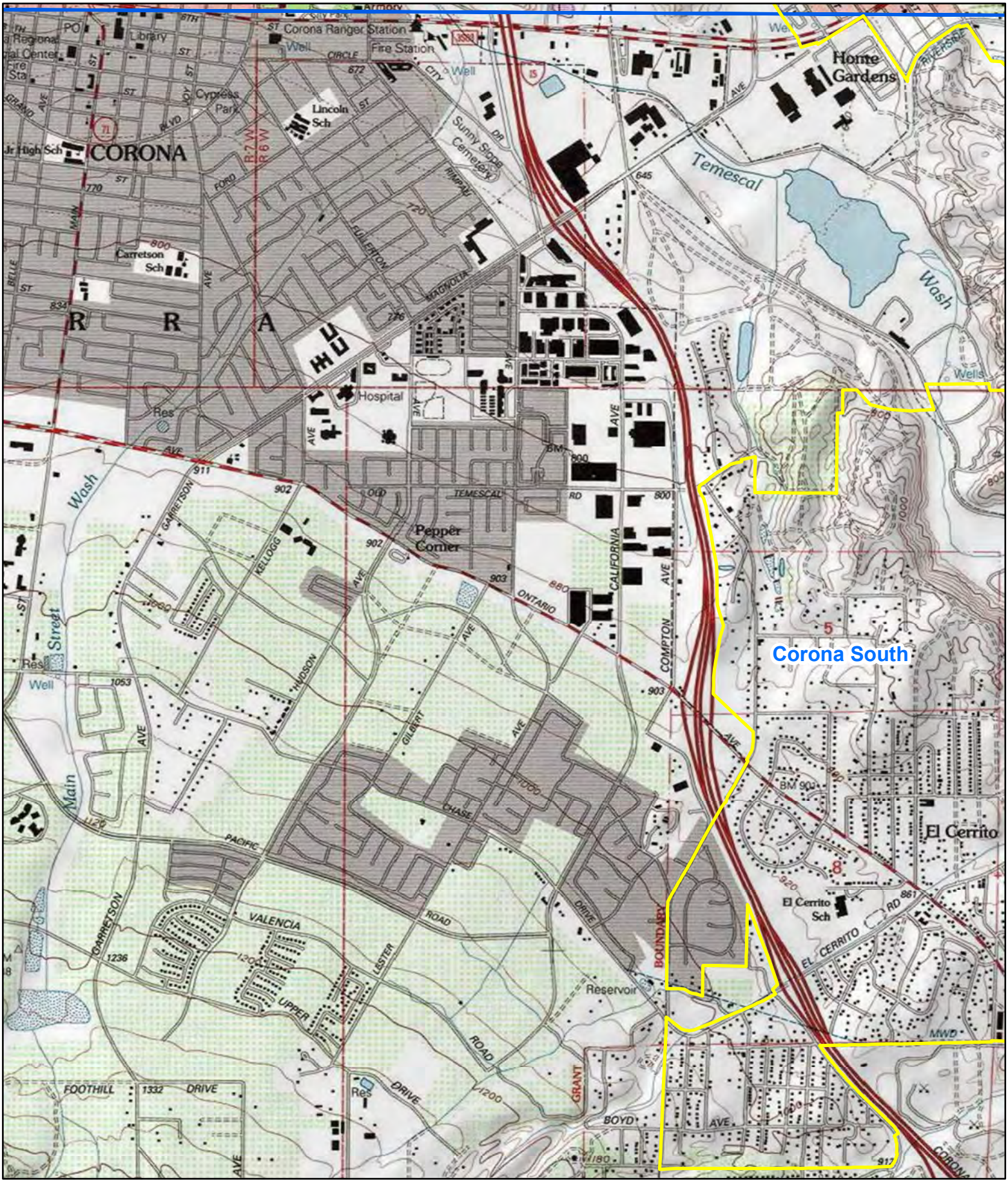


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

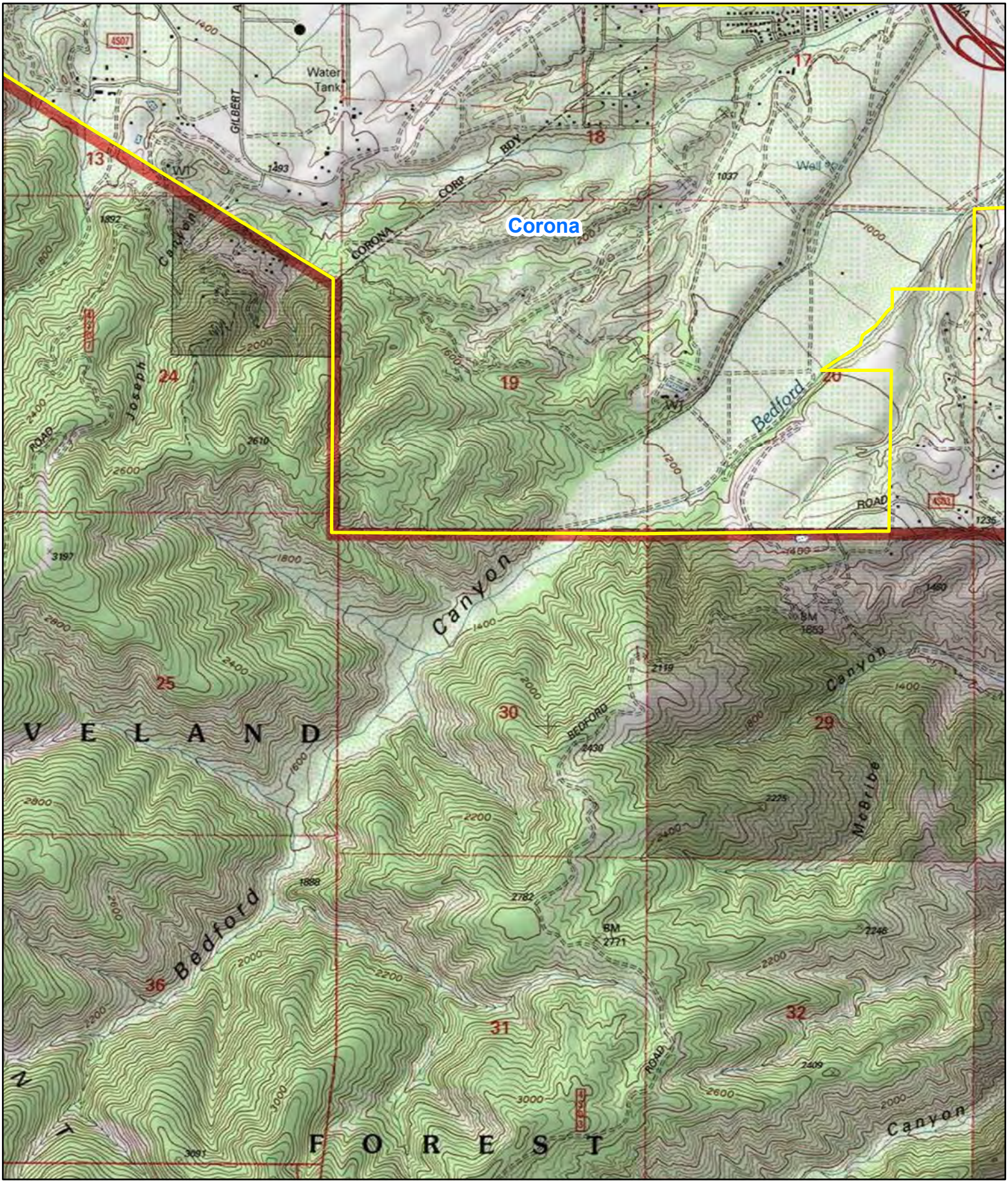
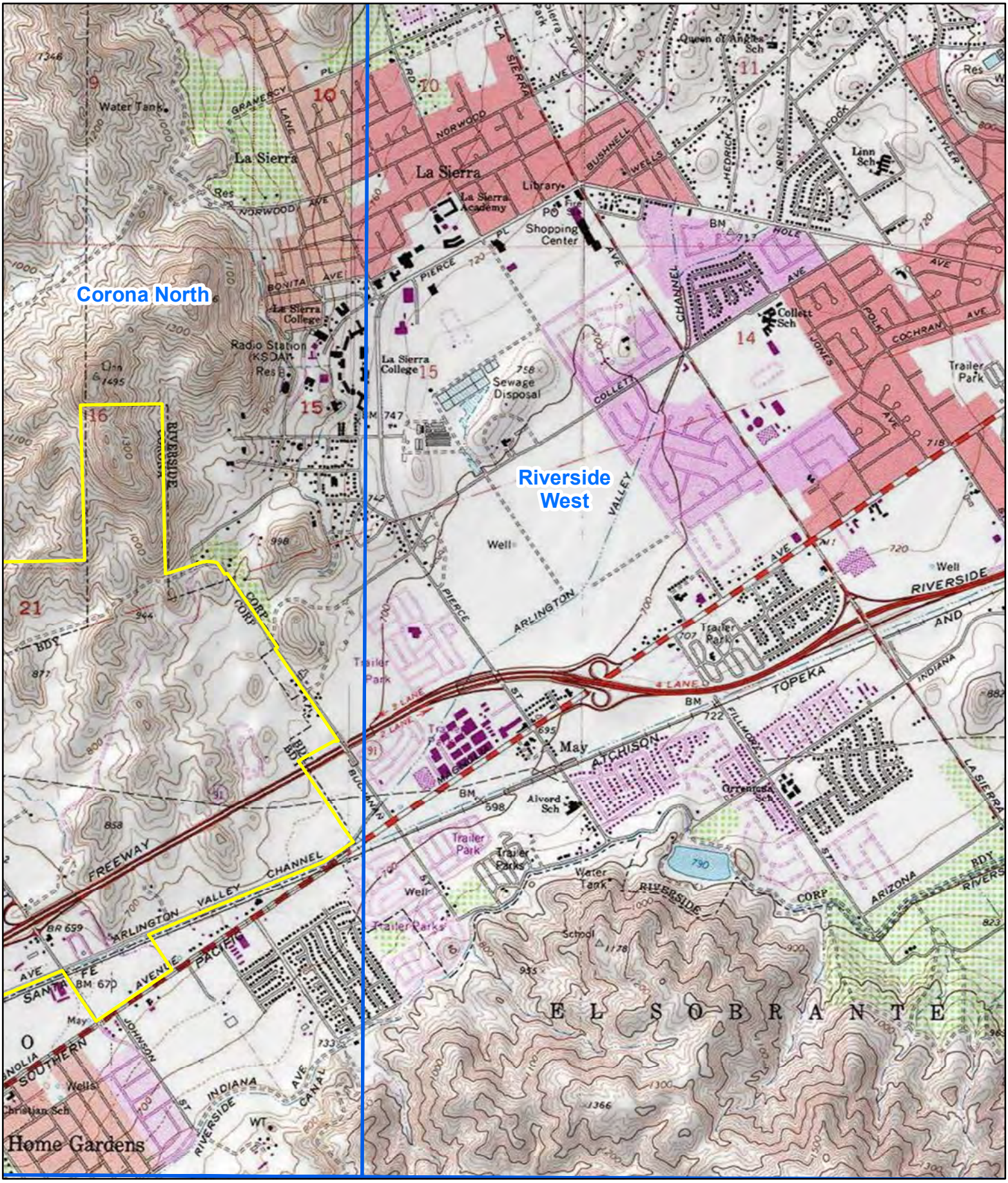


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

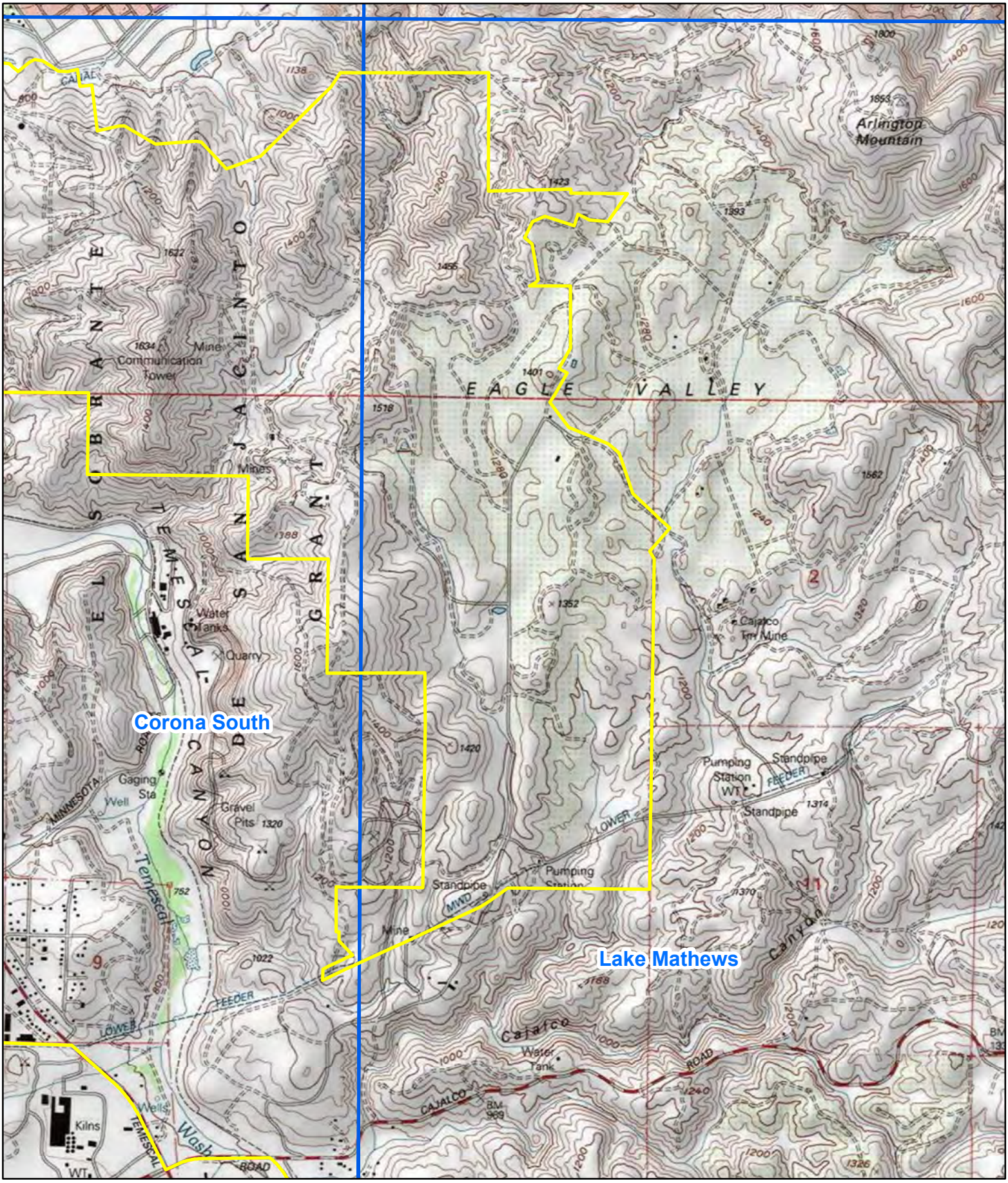
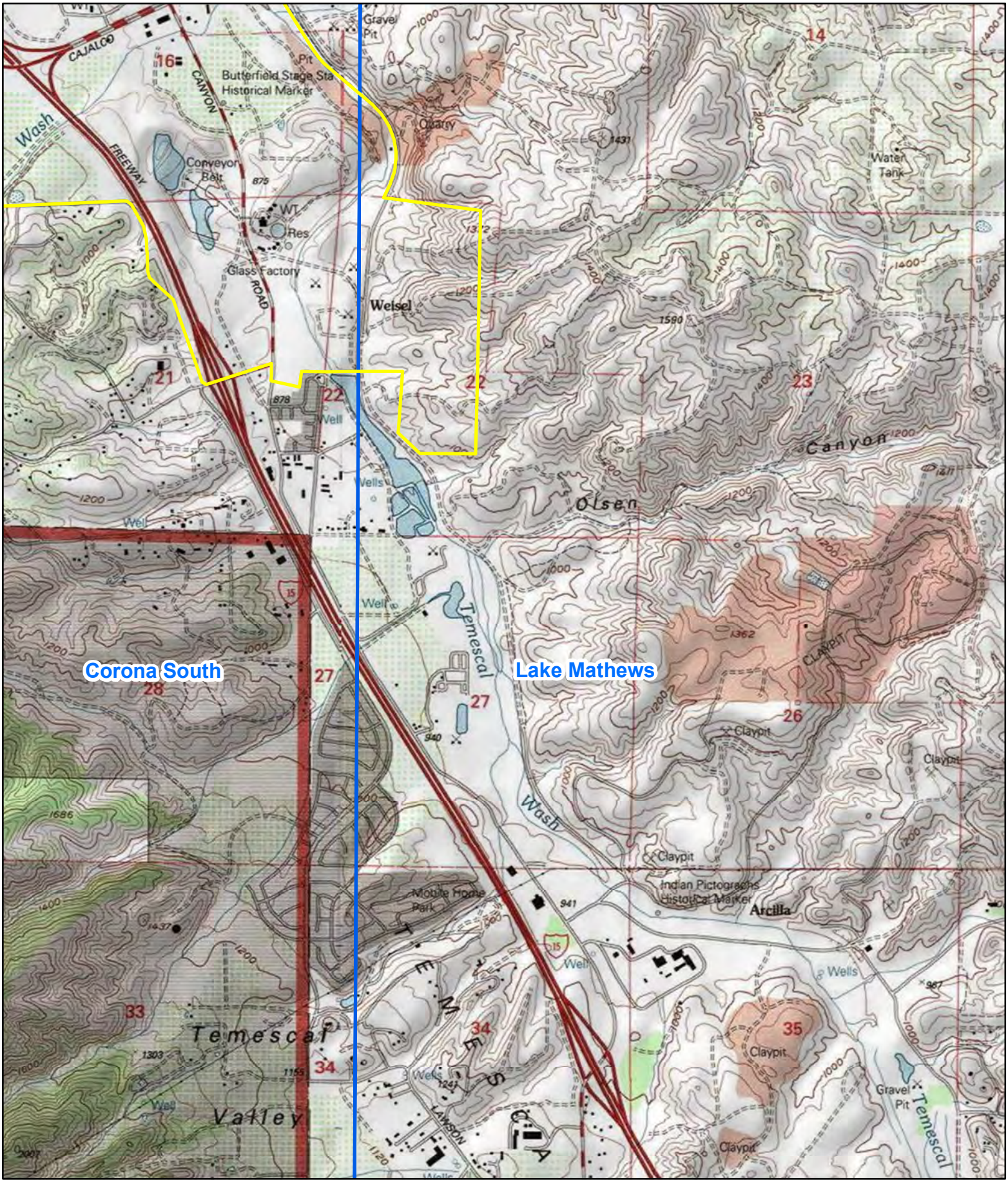


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Amanda Vance
Chairperson
Augustine Band of Cahuilla Mission Indians
PO Box 846, Coachella, CA, 92236
760-398-4722
hhaines@augustinetribe.com

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Ms. Vance,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

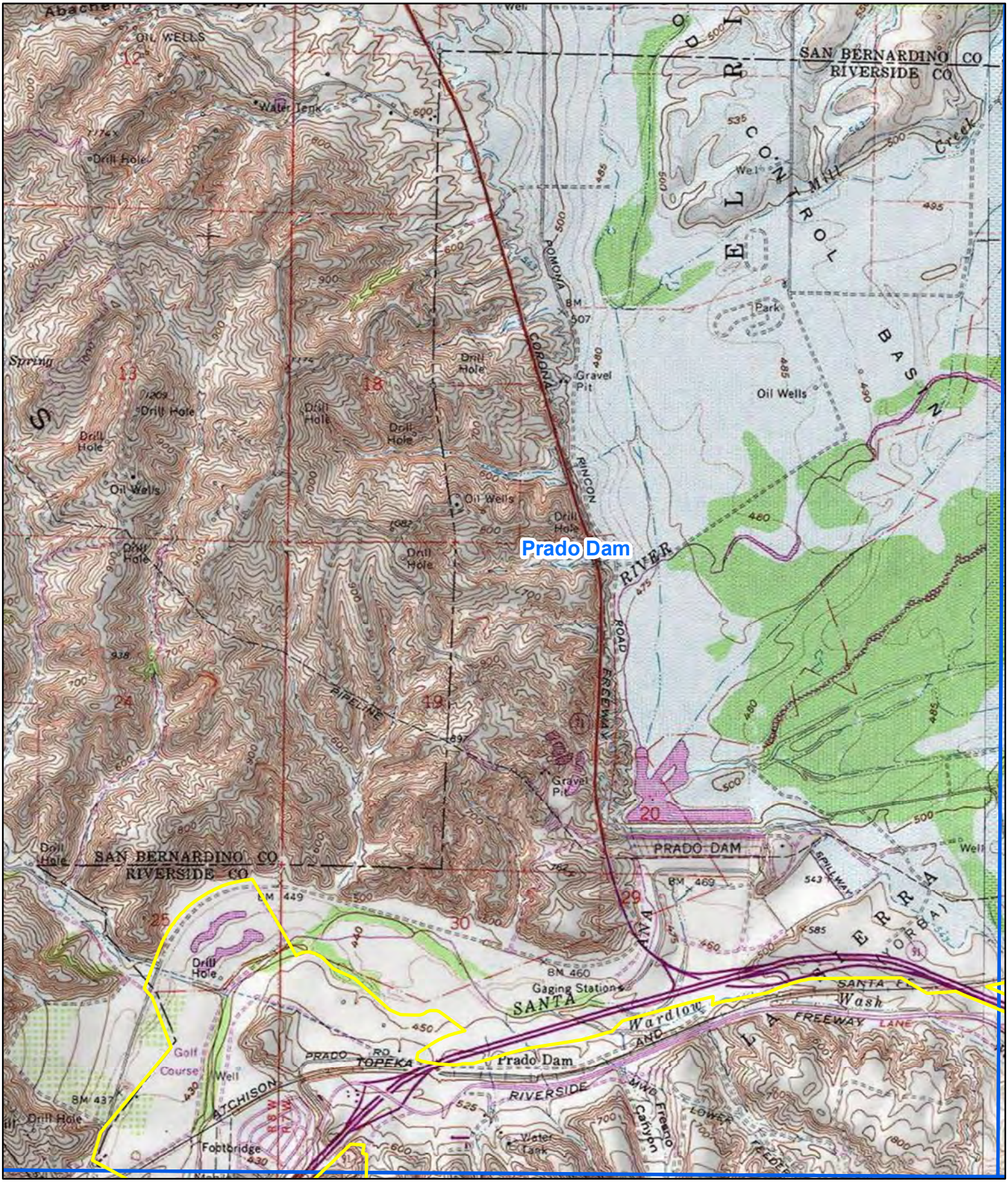


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

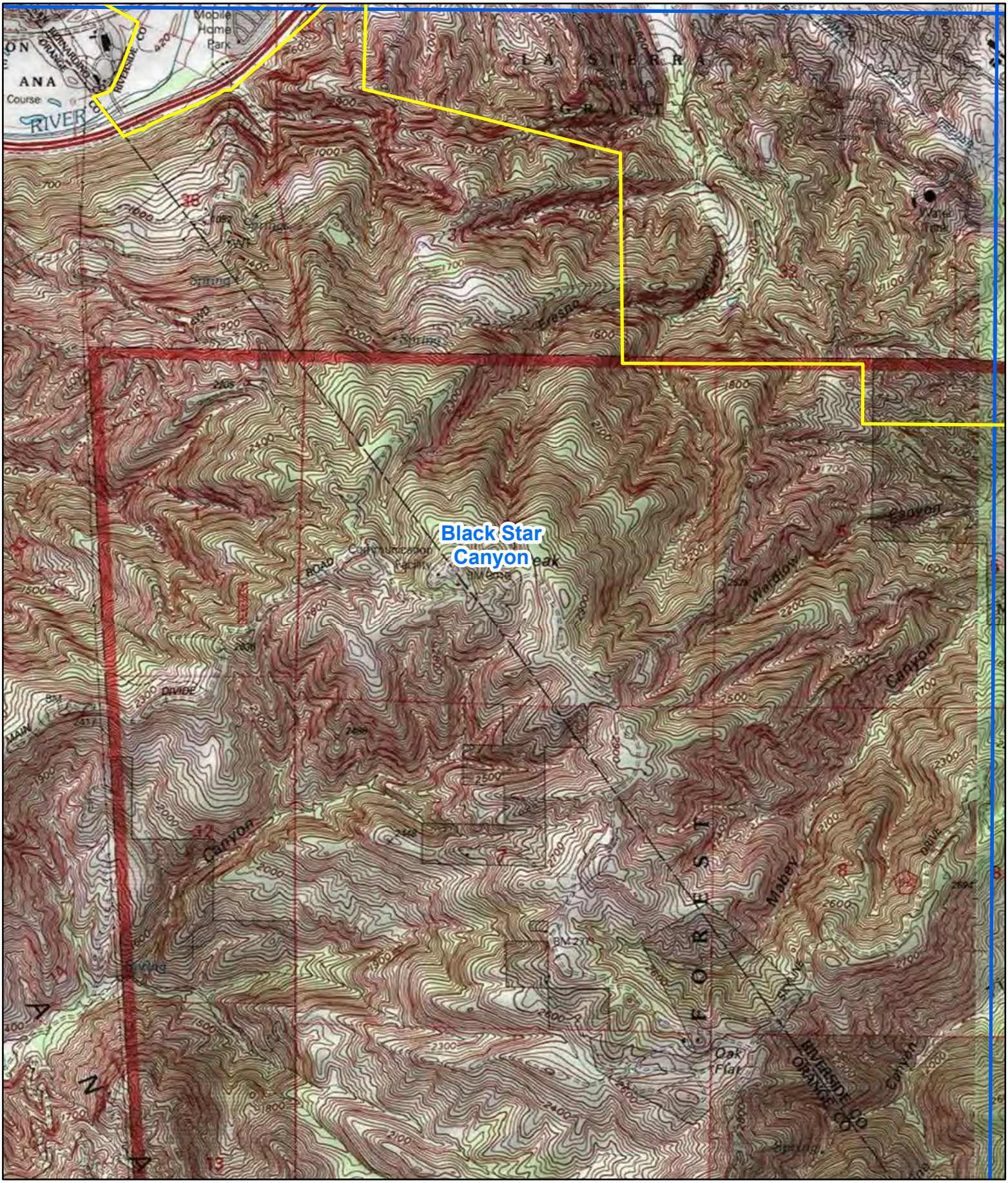
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

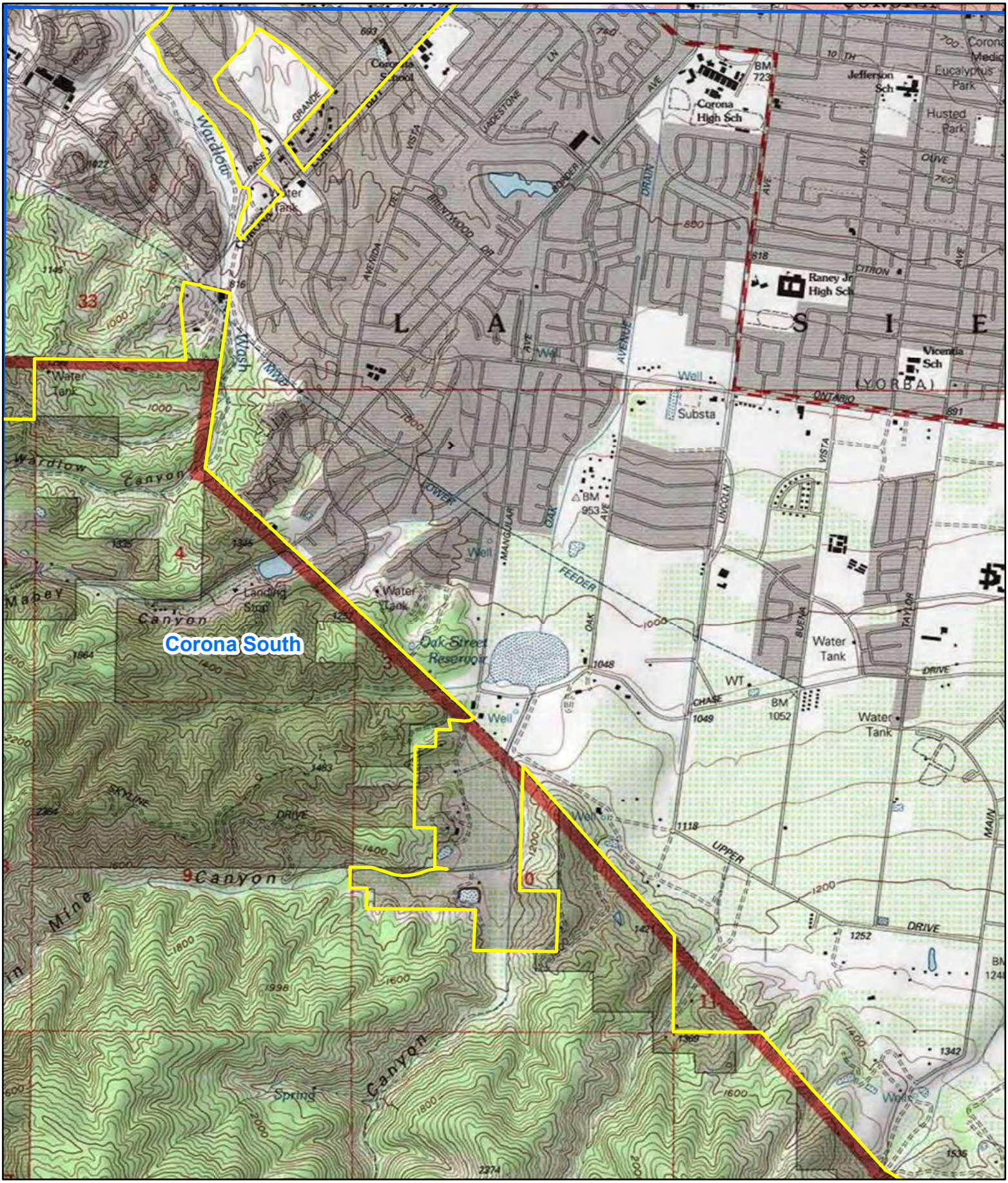
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

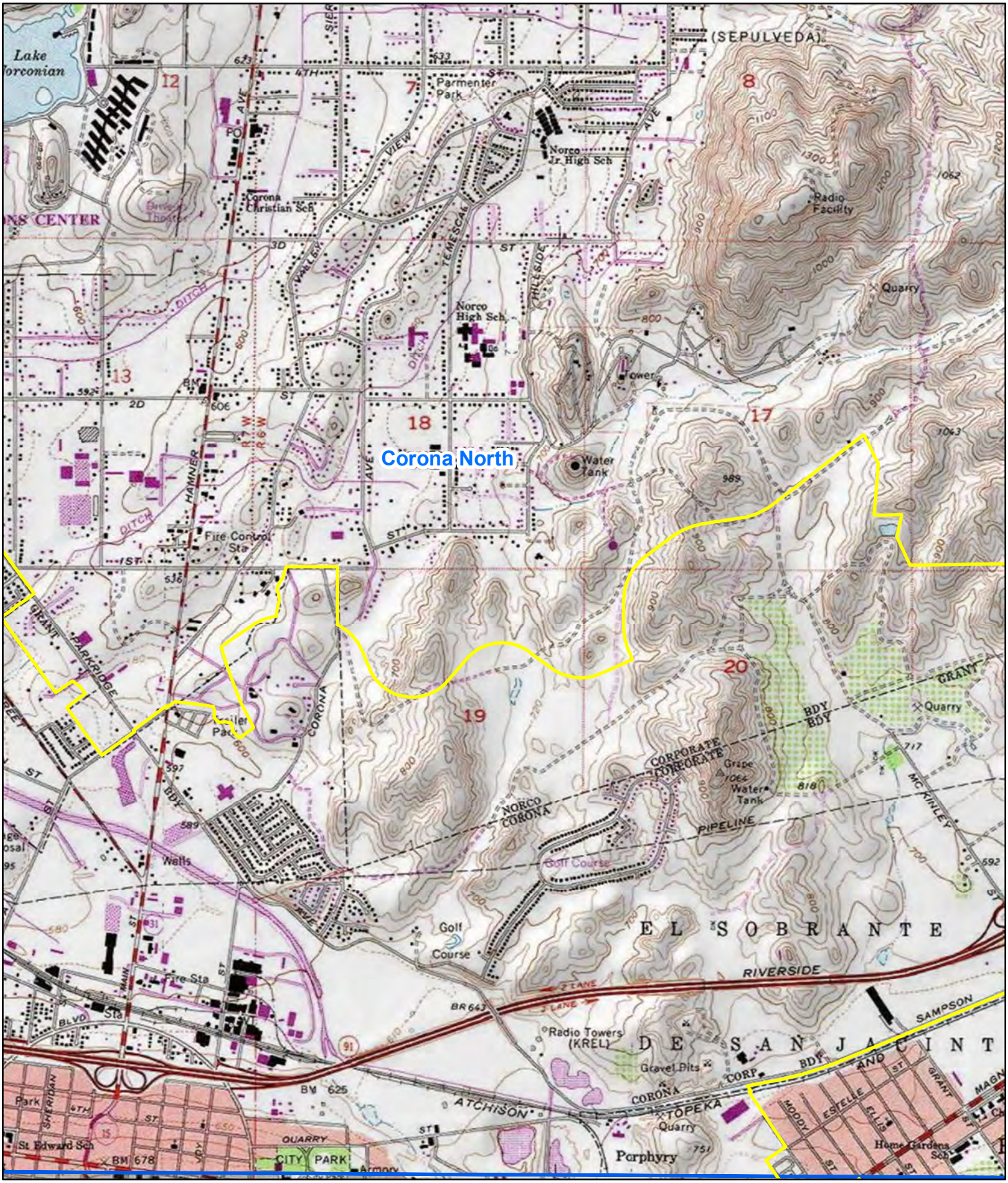
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

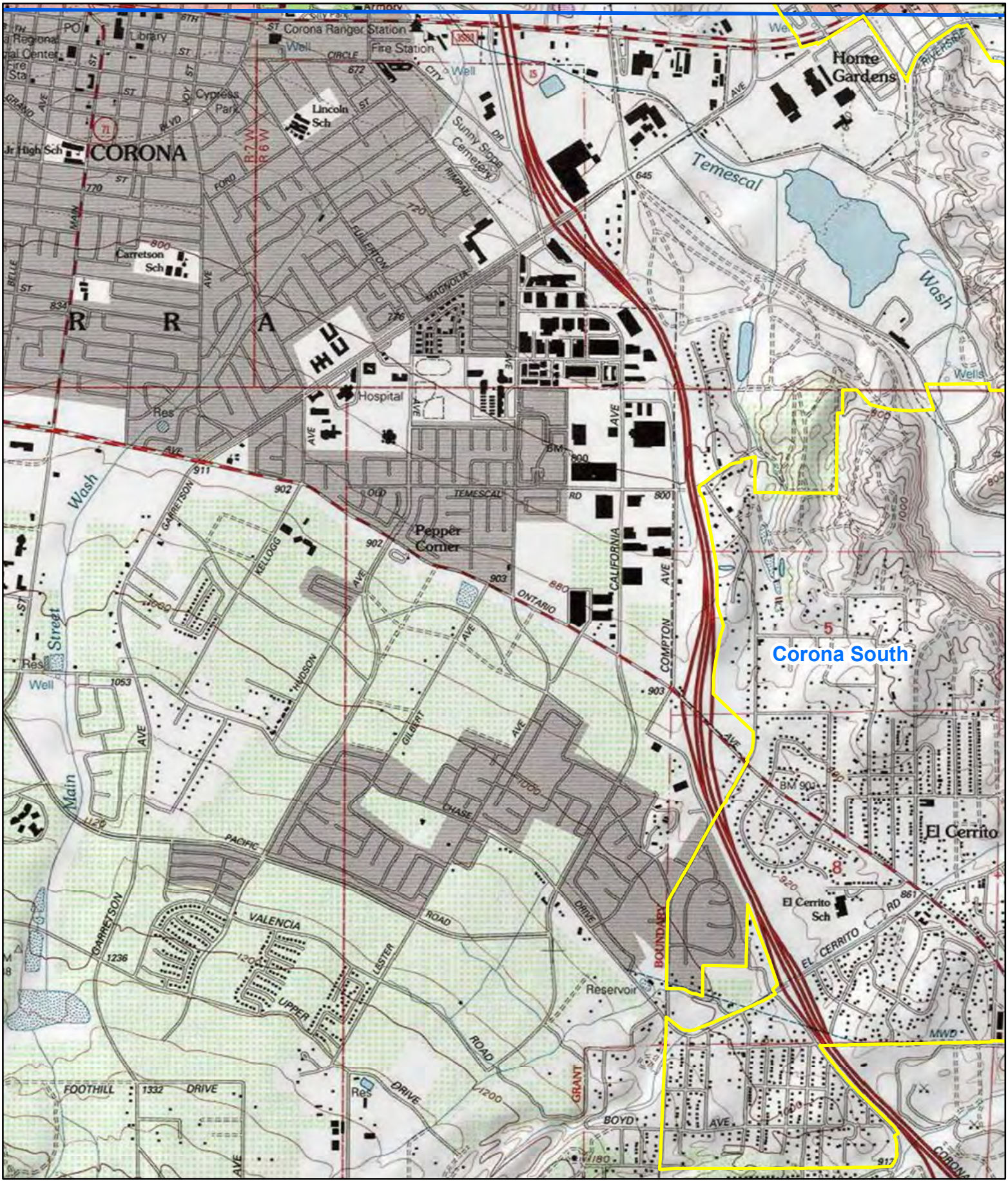


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

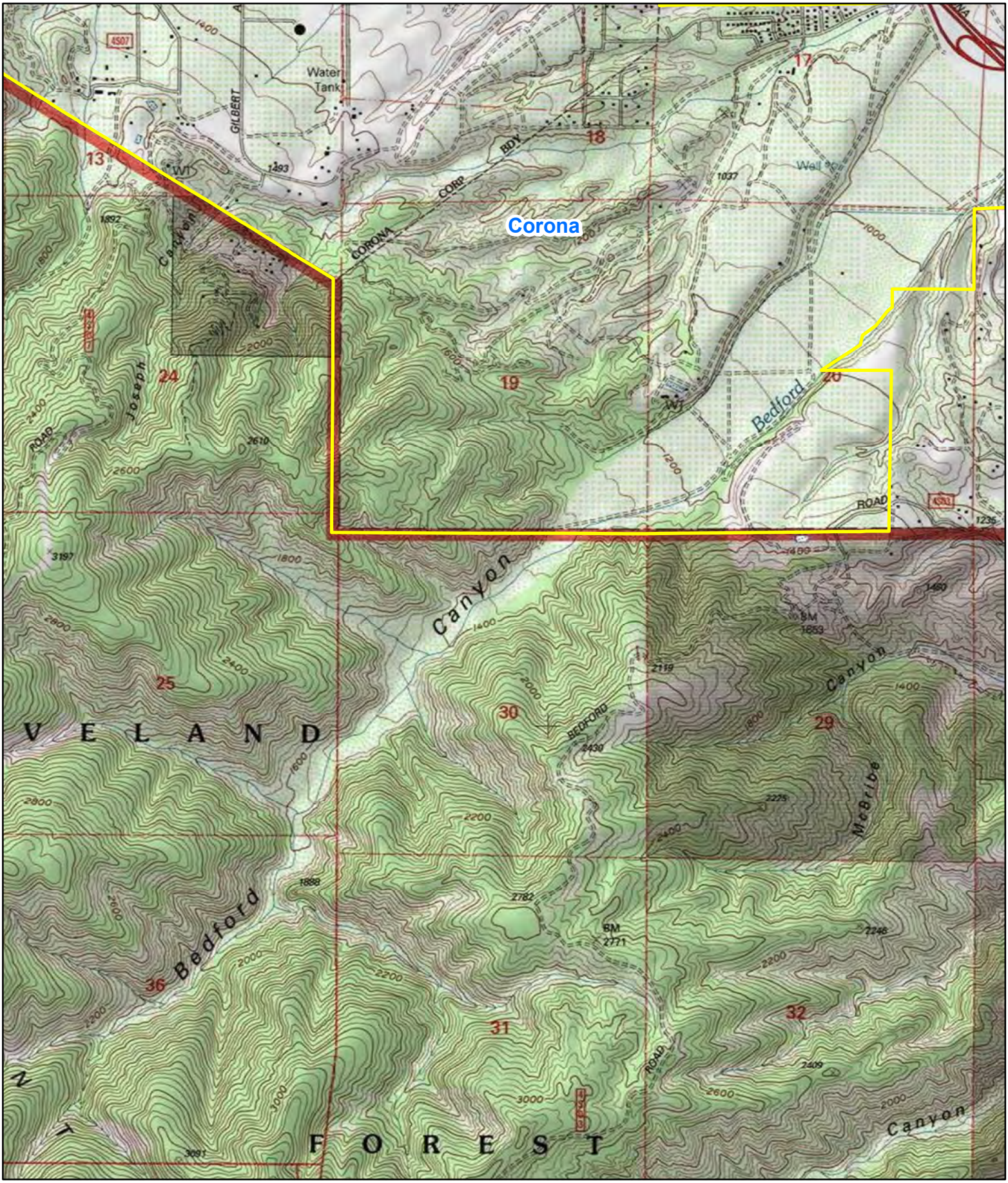
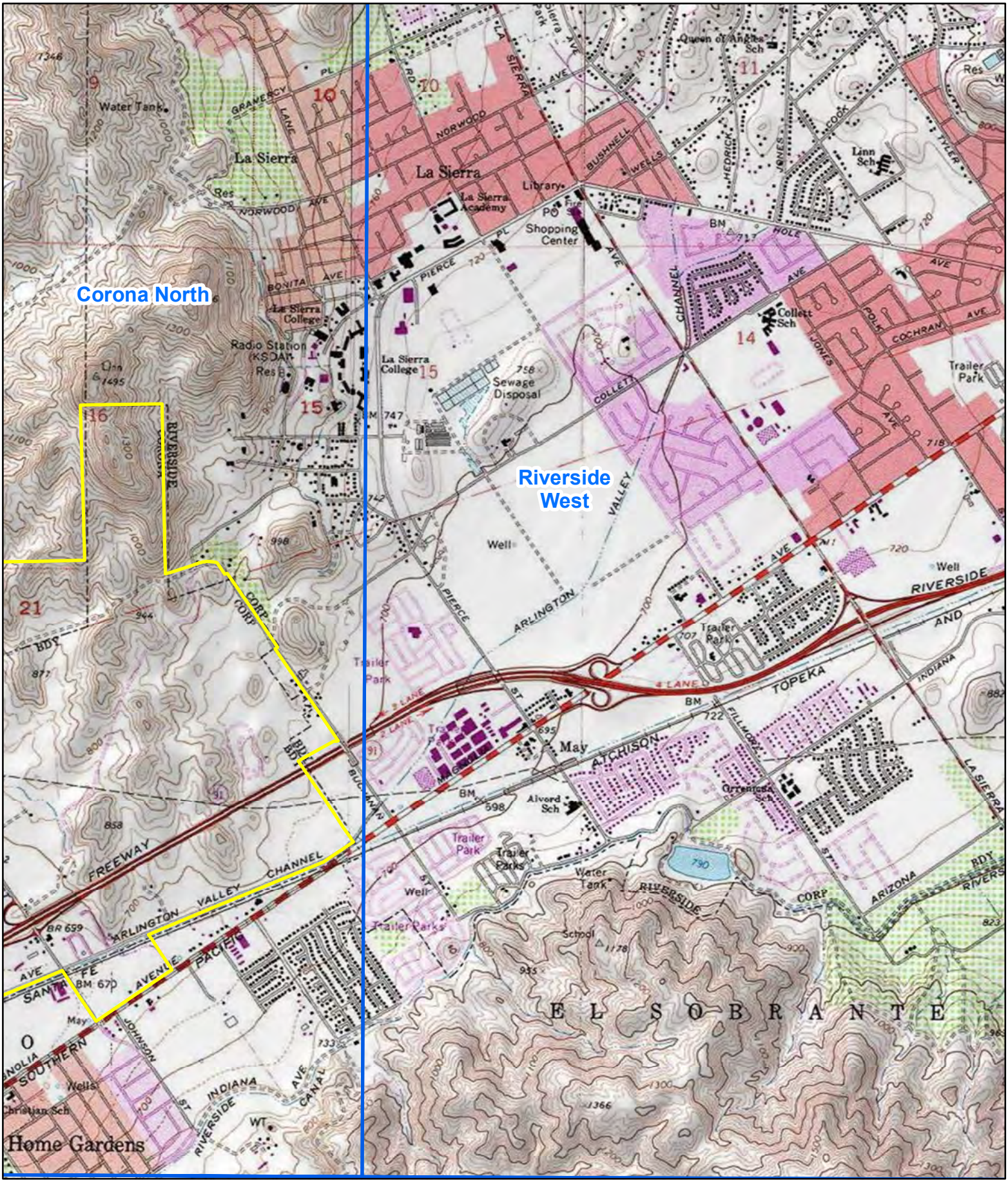


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

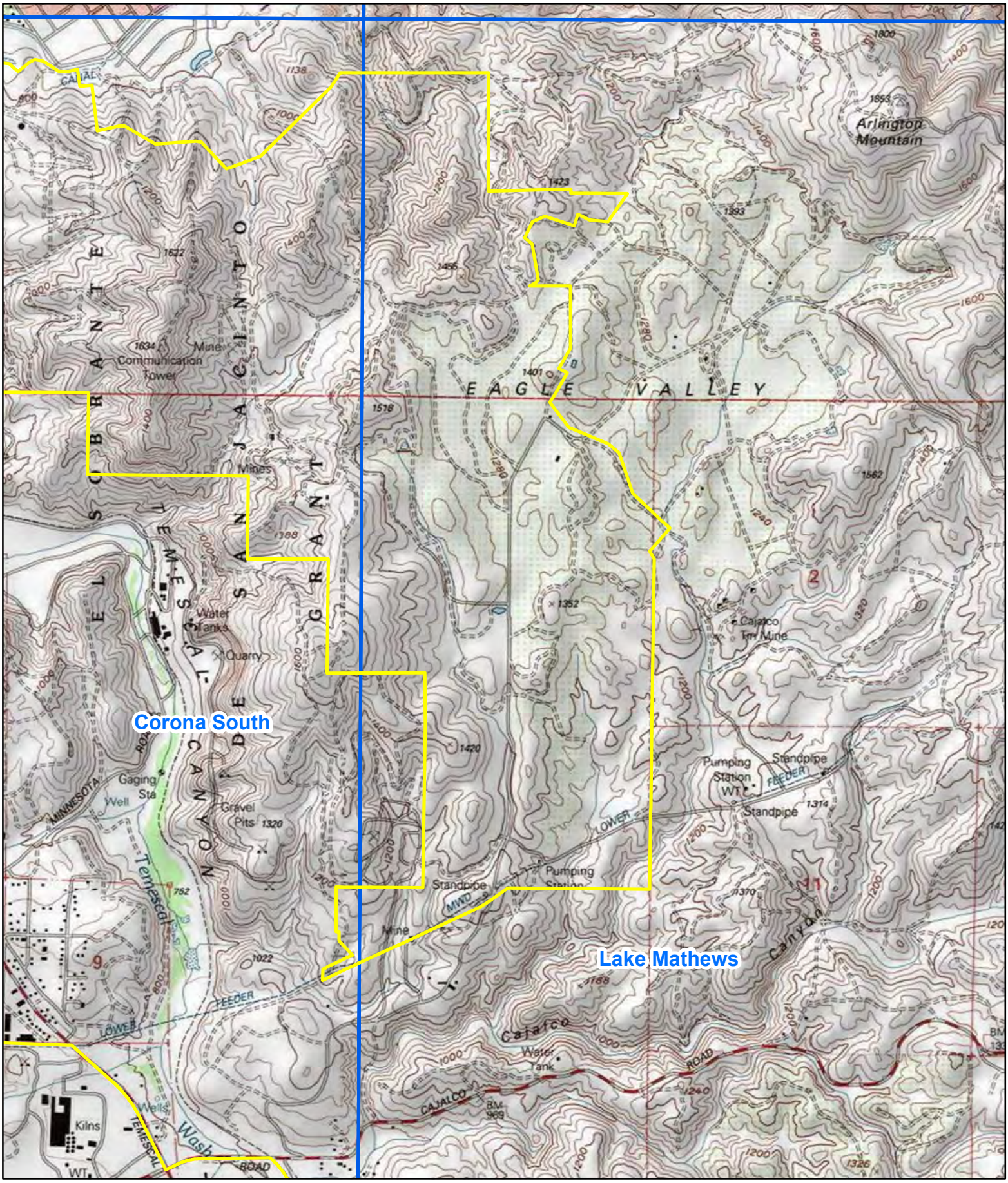
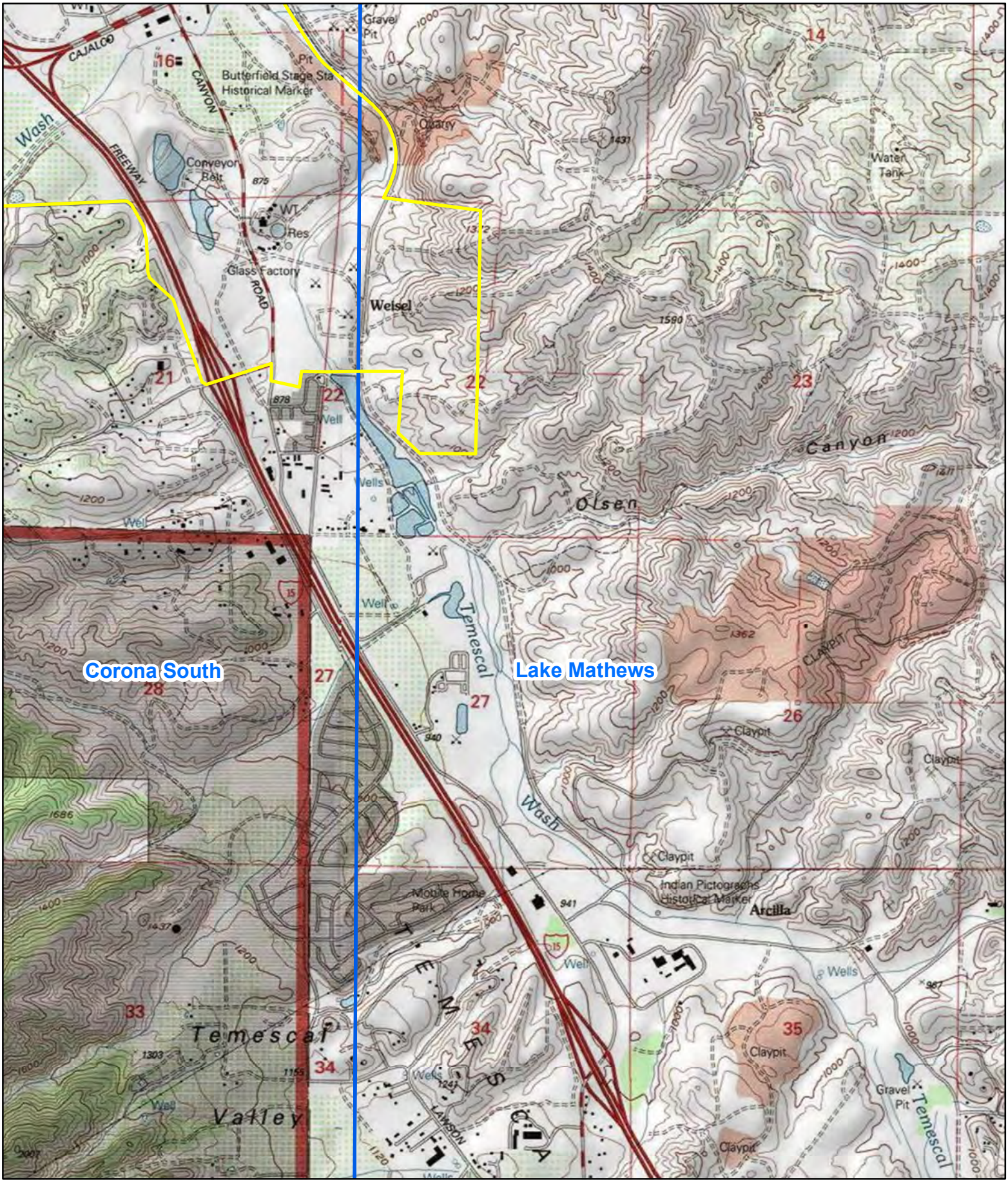


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Bo Mazzetti
Chairperson
Rincon Band of Luiseno Indians
One Government Center Land, Valley Center, CA, 92082
760-749-1051
bomazzetti@aol.com

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Mazzetti,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

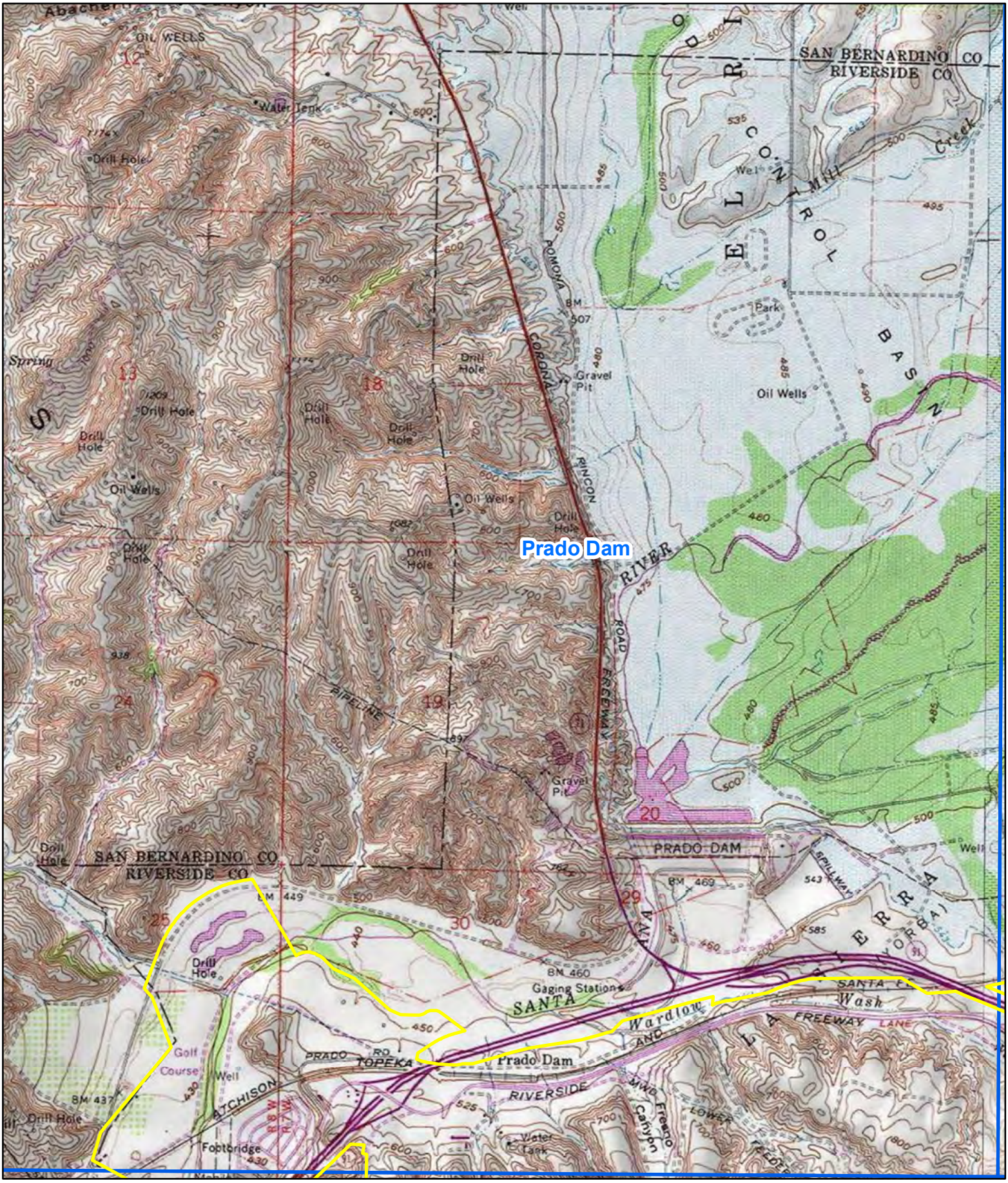


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

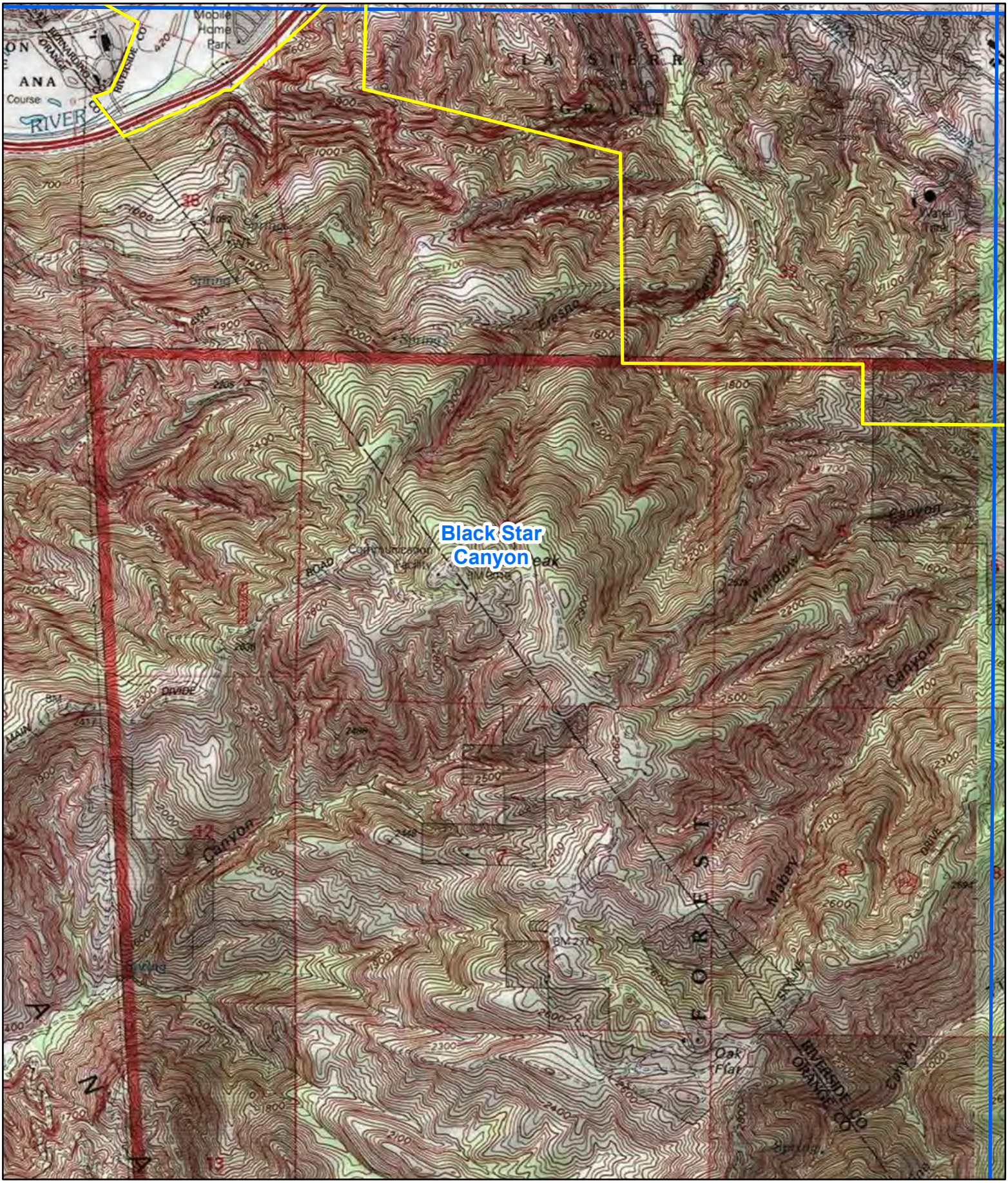
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

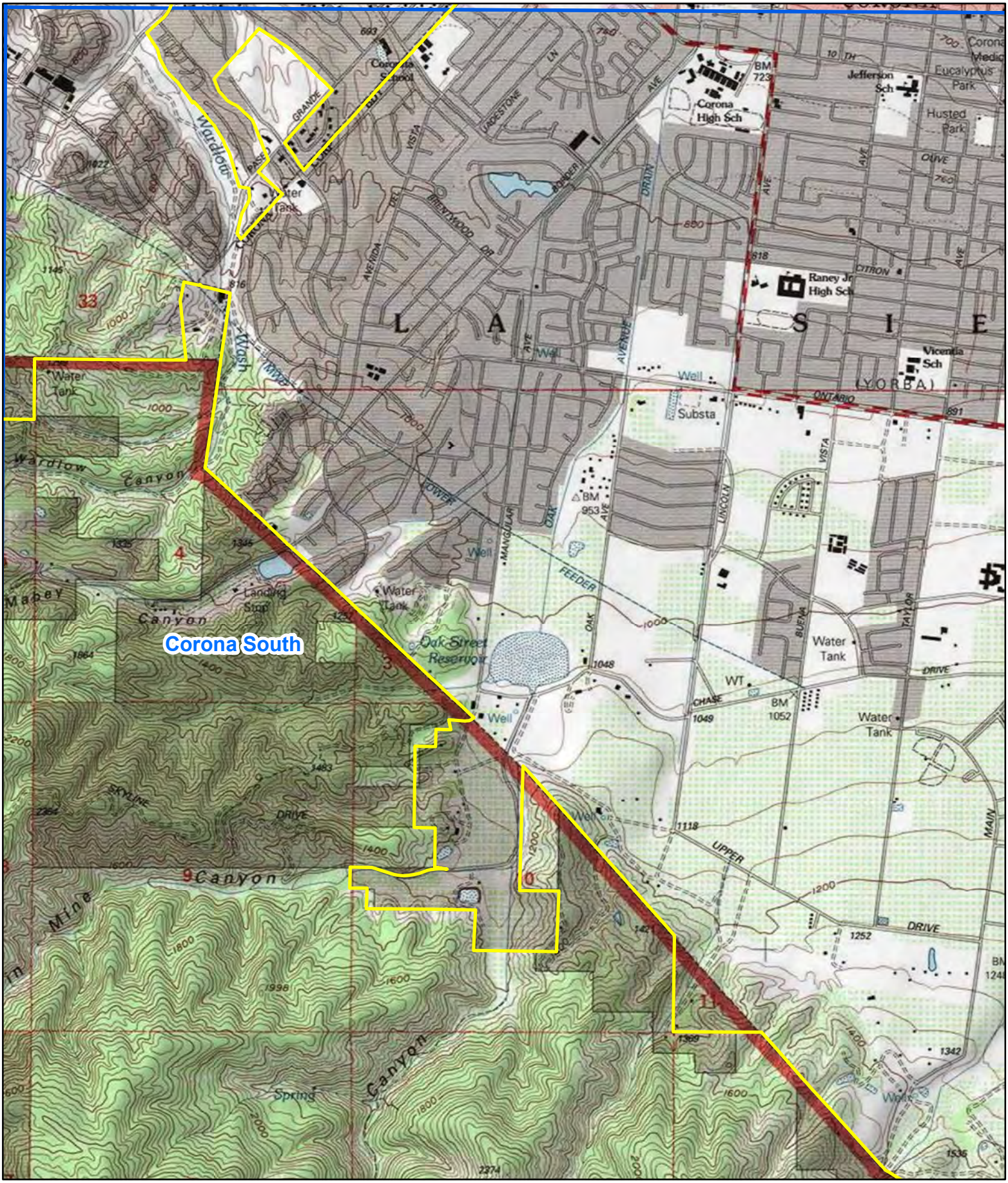
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

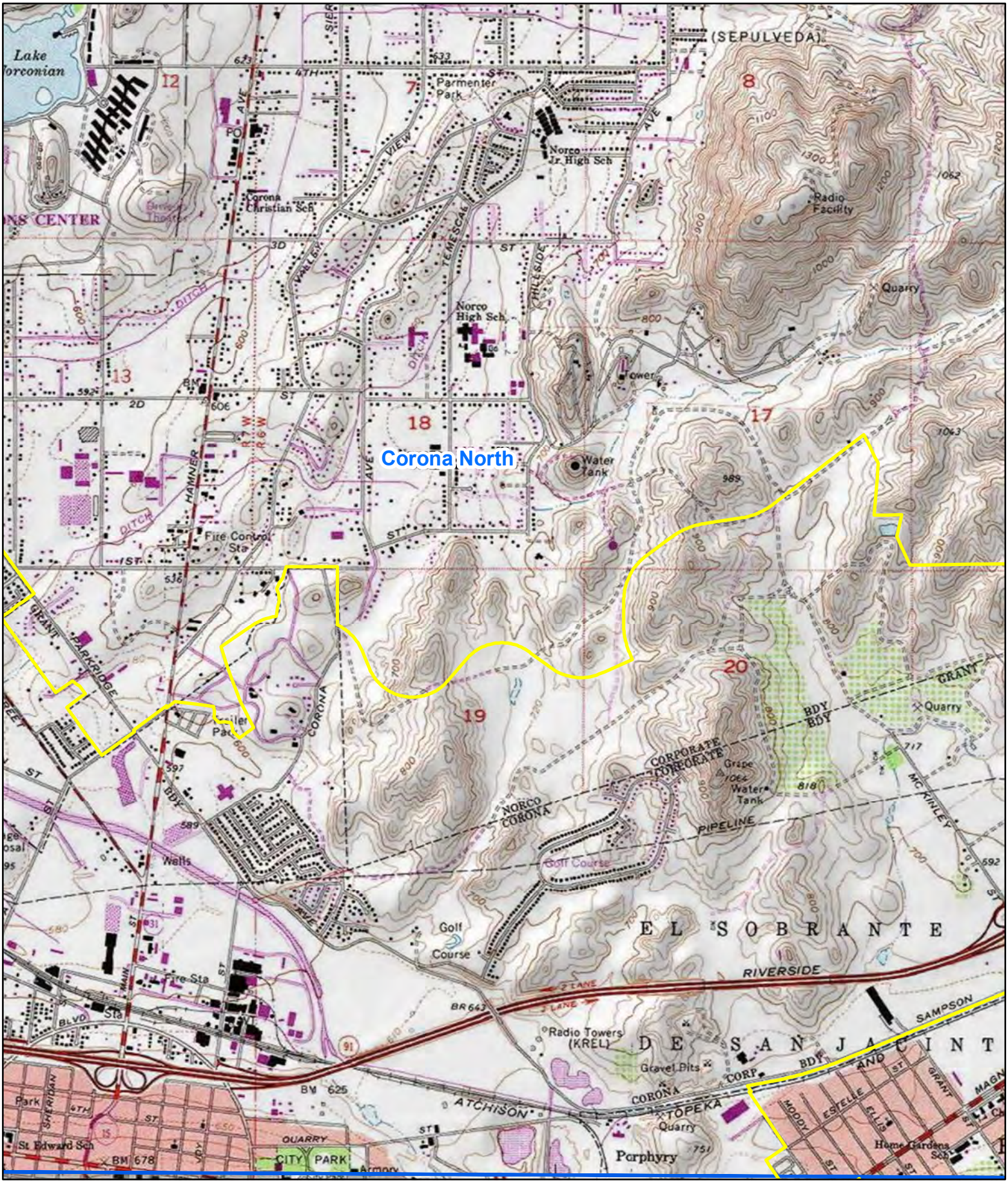
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

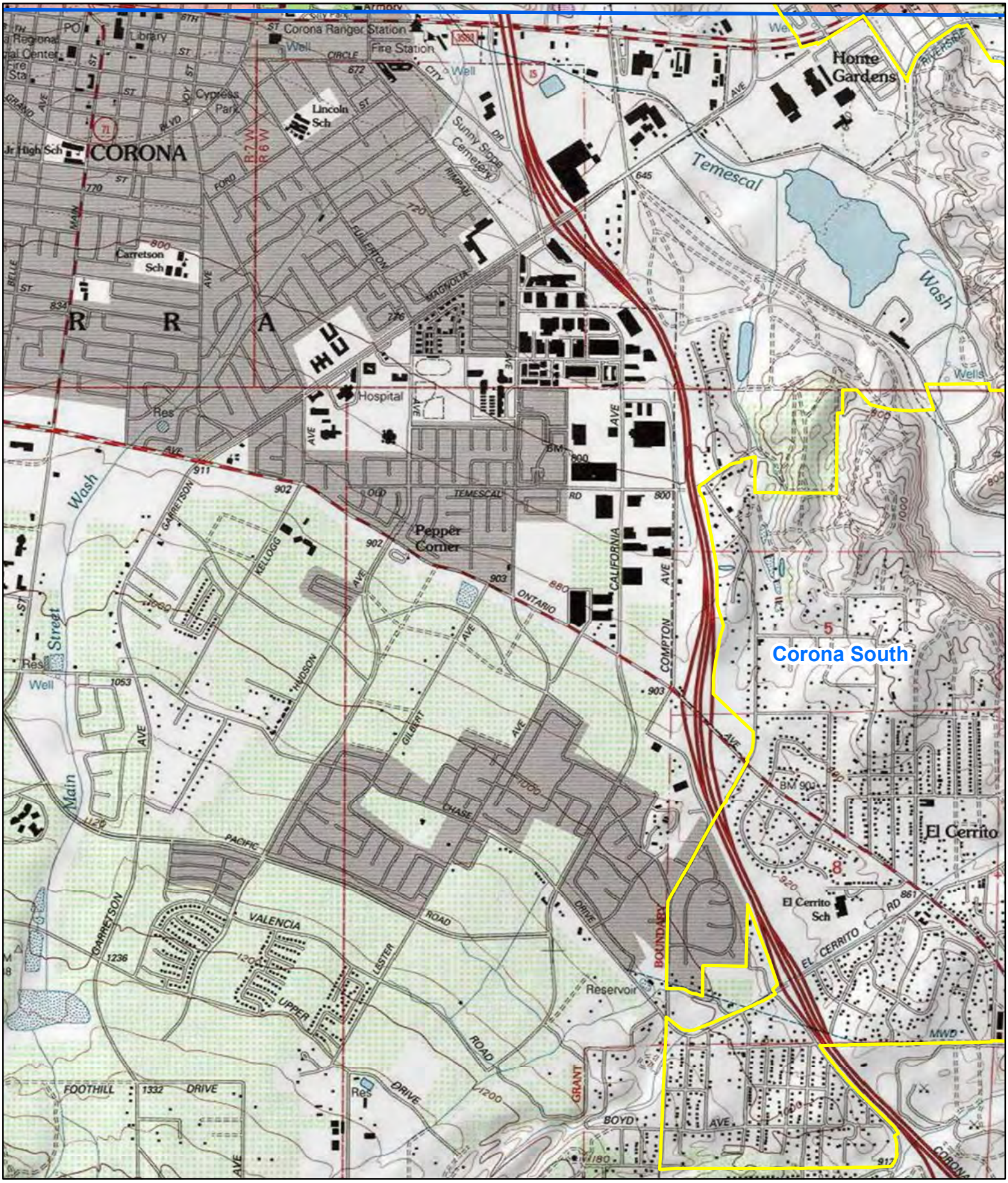


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

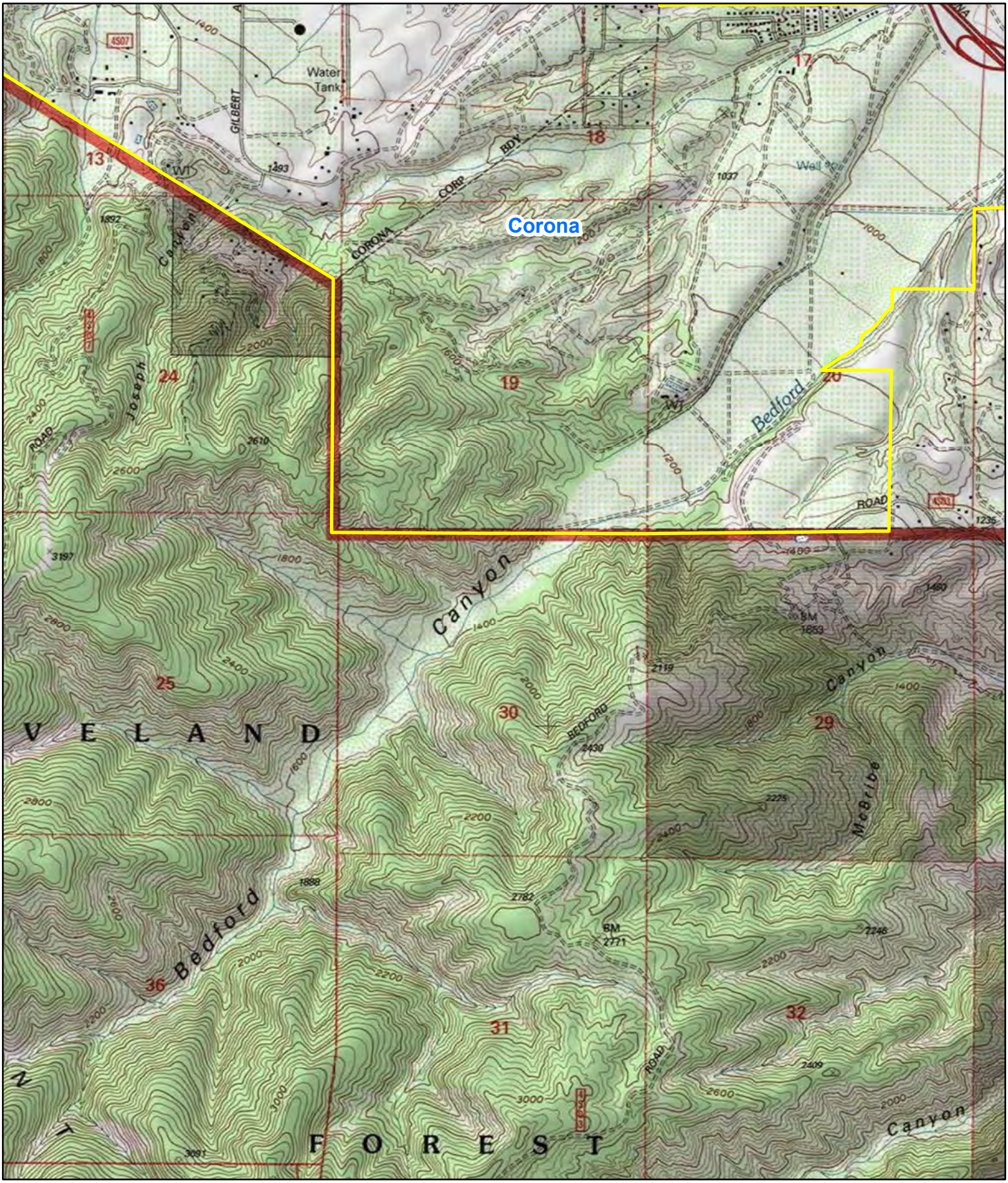
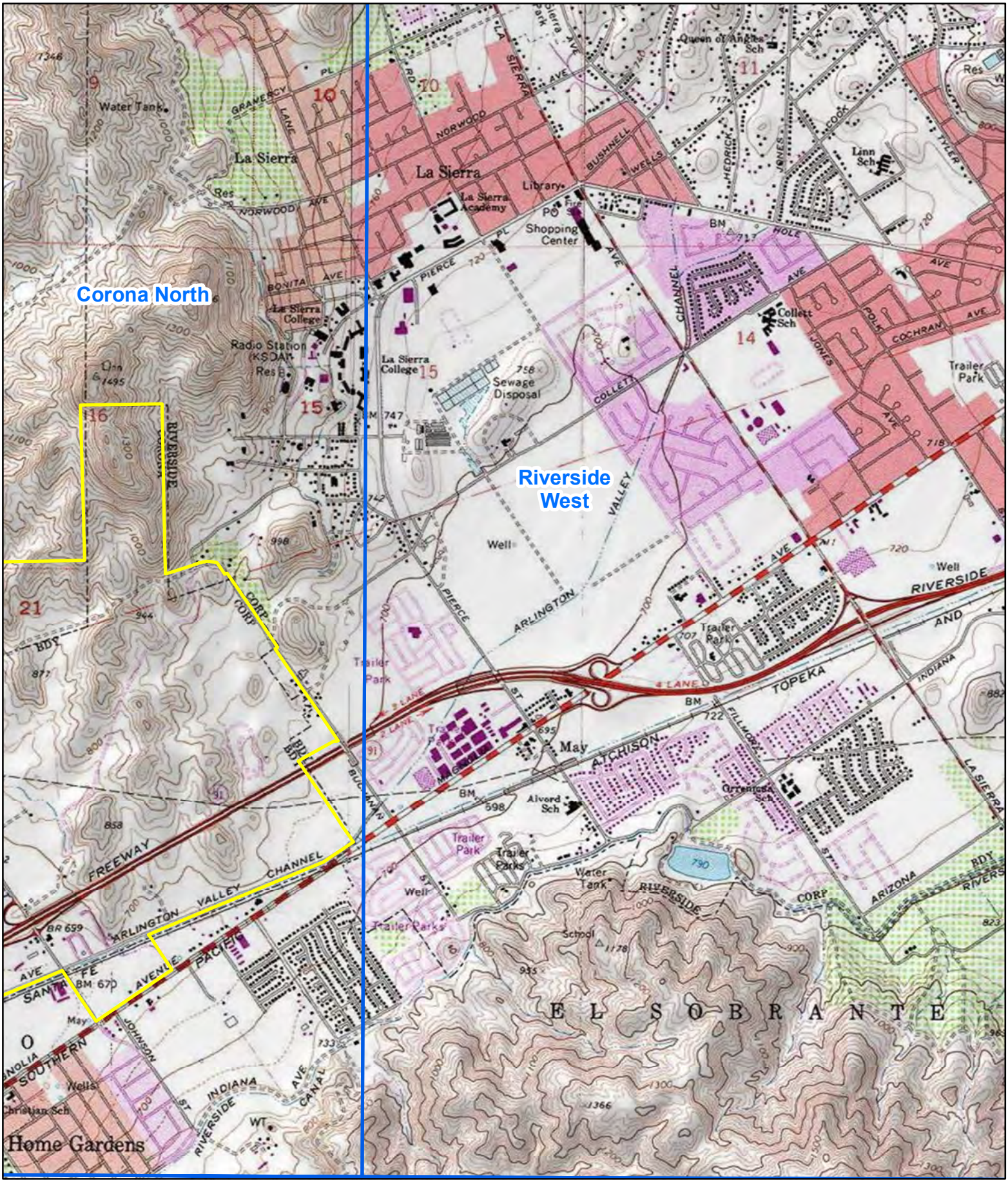


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

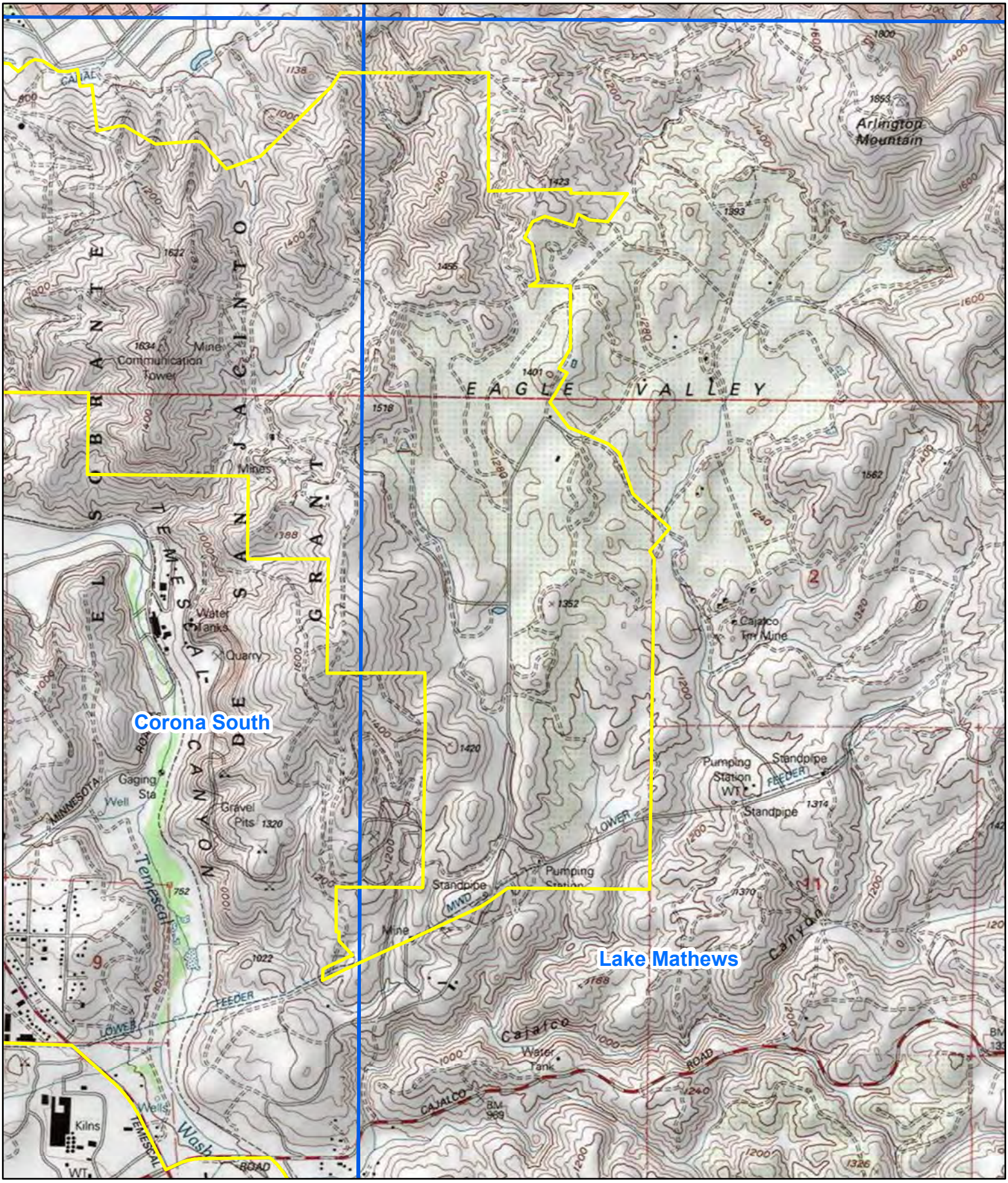
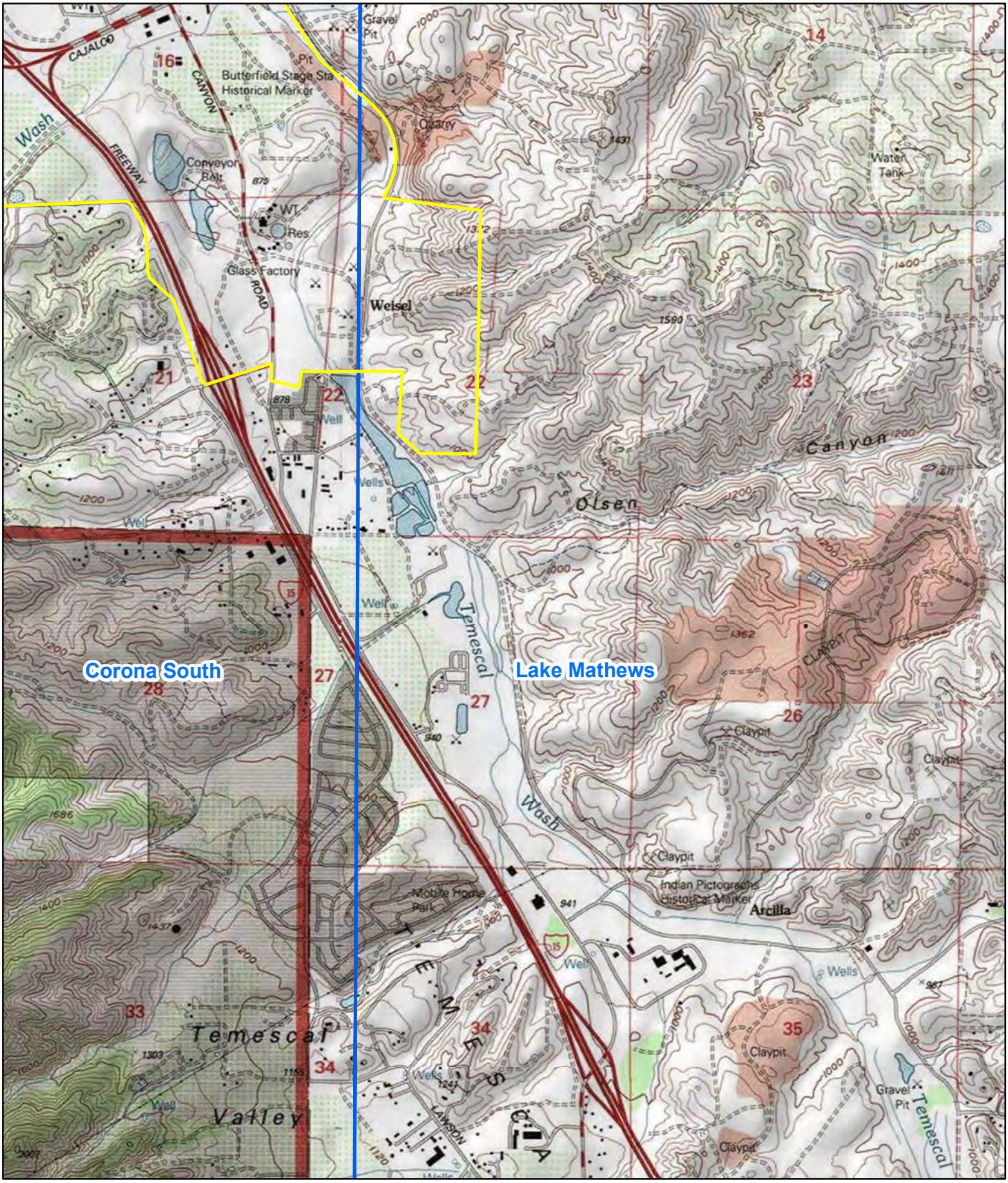


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Charles Alvarez

Gabrielino-Tongva Tribe
23454 Vanowen Street, West Hills, CA, 91307
310-403-6048
roadkingcharles@aol.com

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Alvarez,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

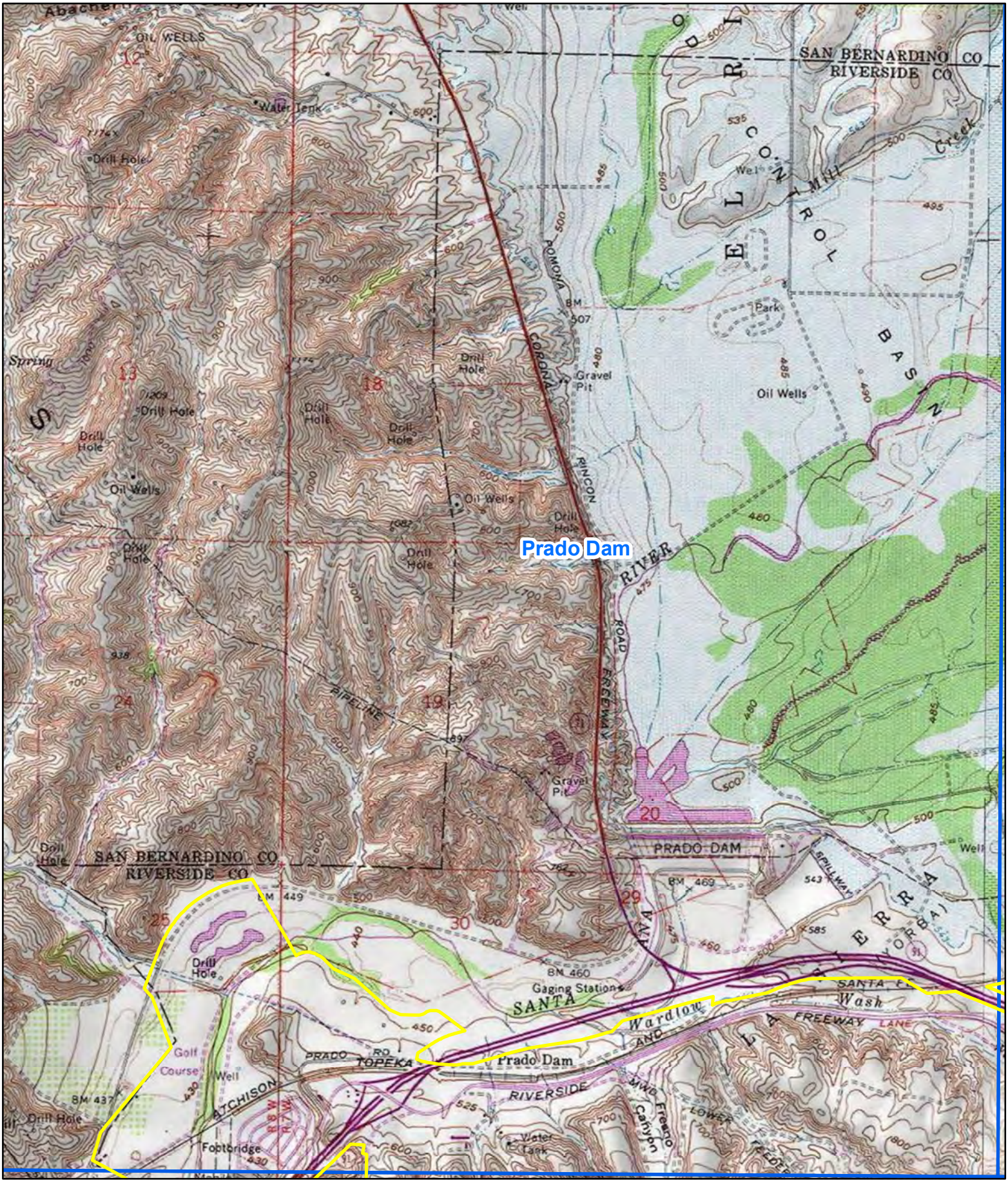


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

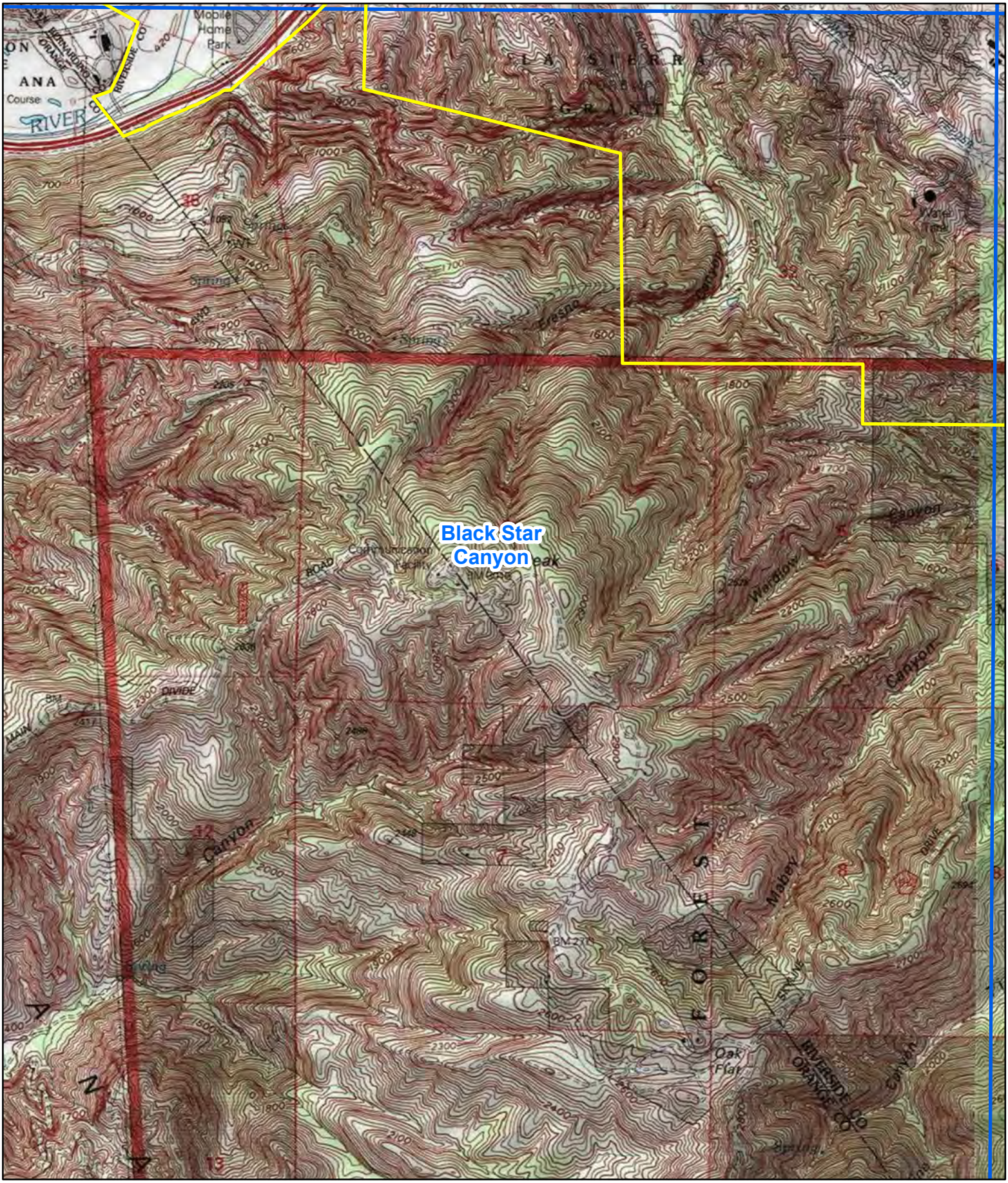
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

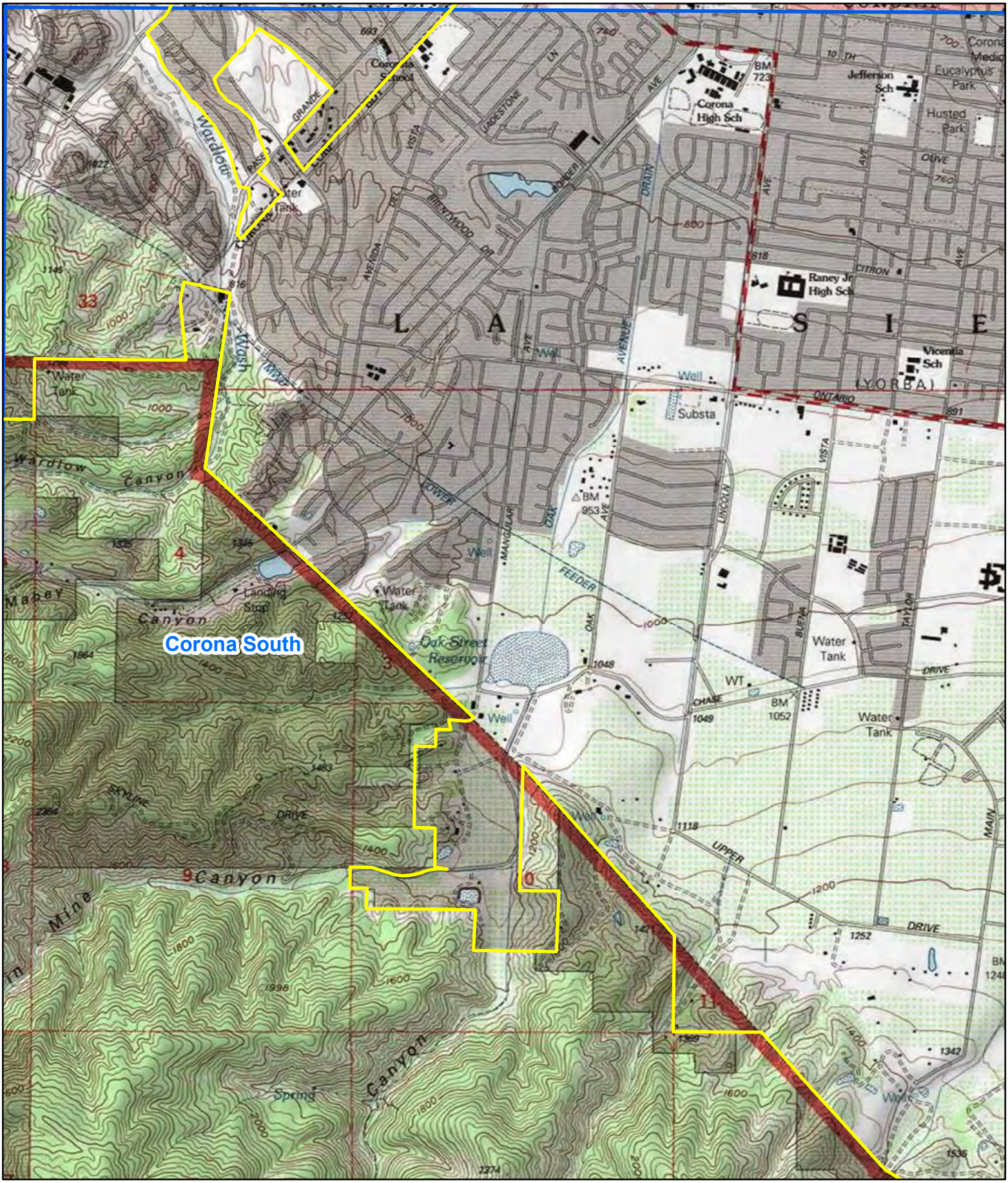
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

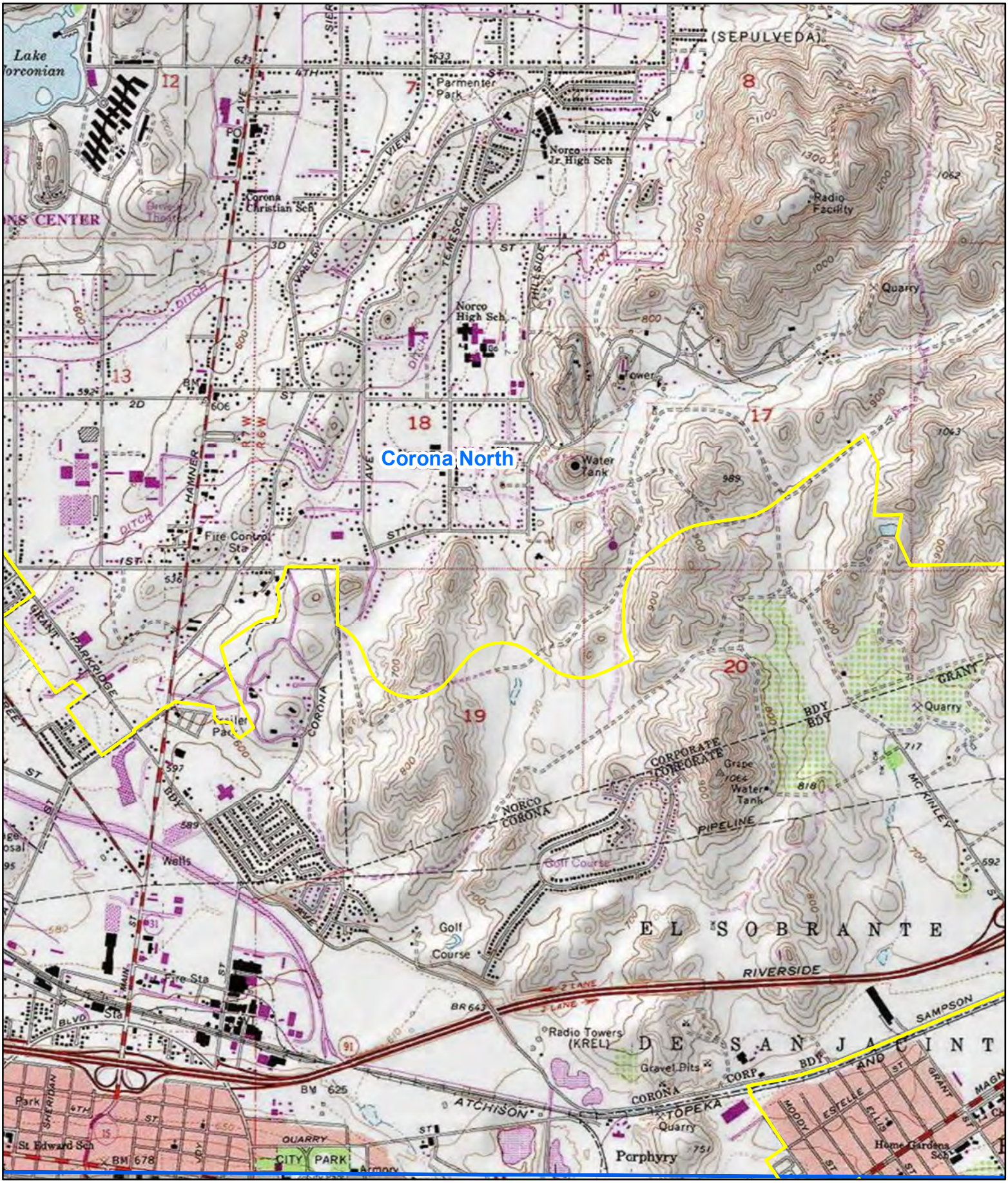
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

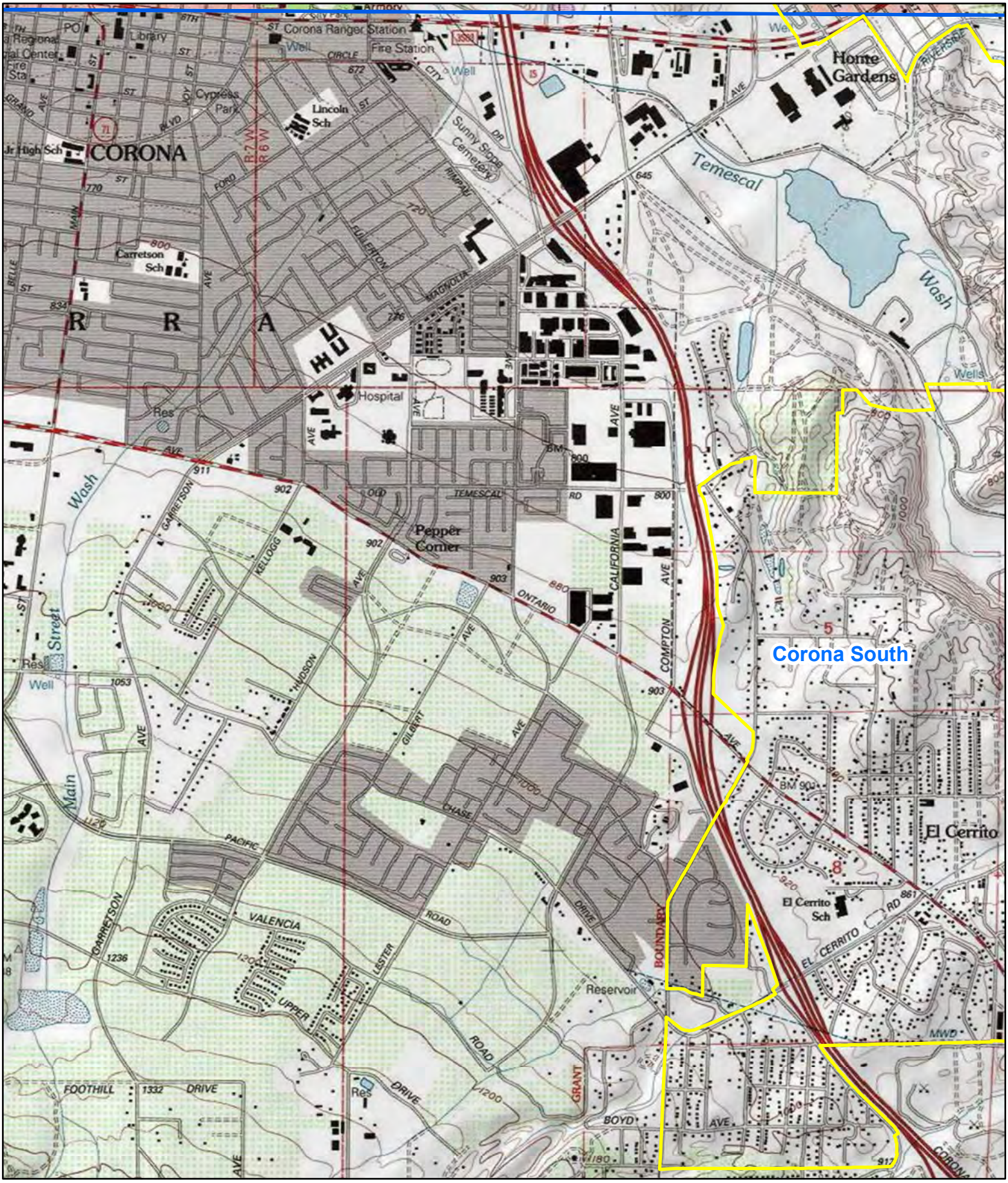


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

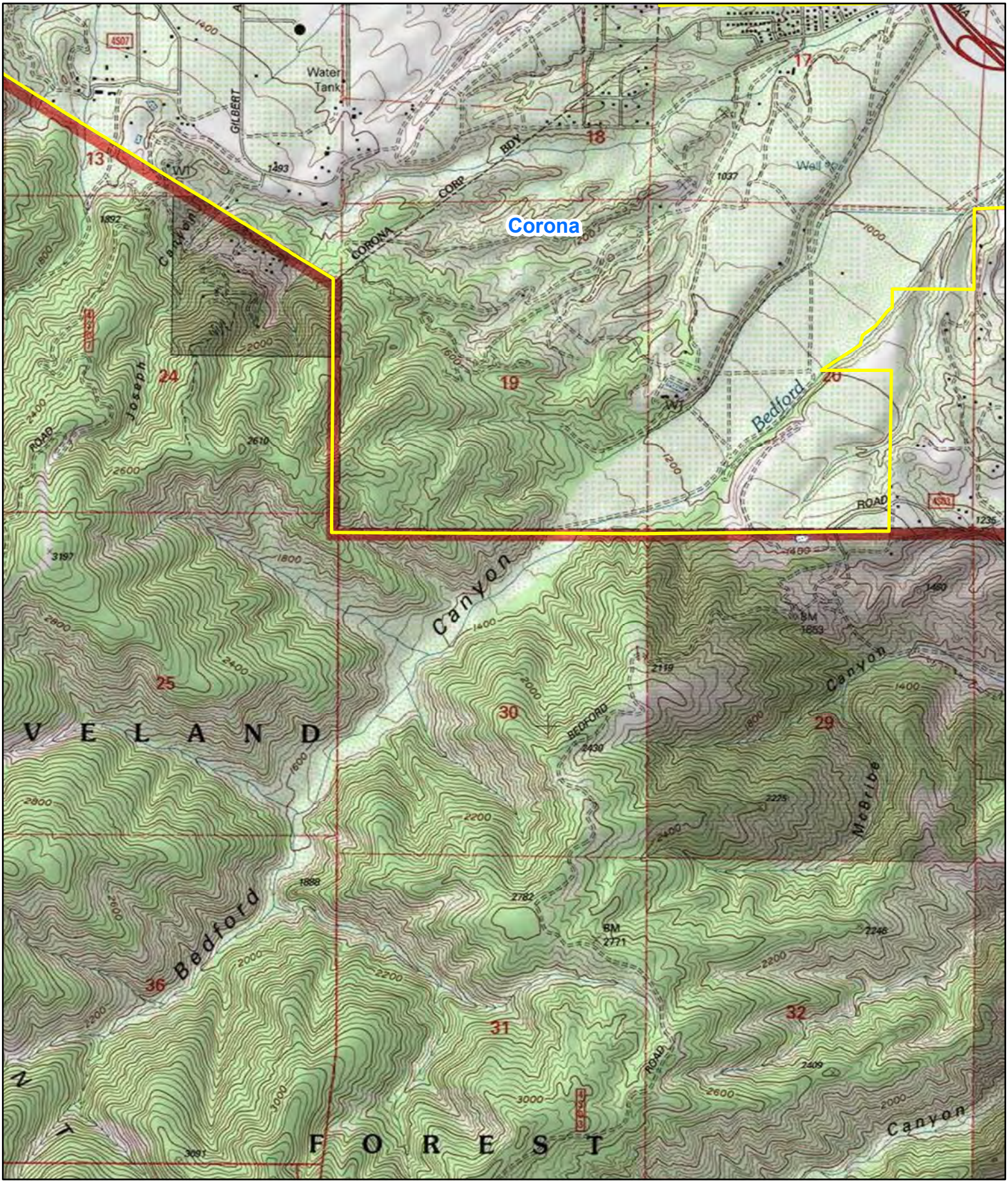
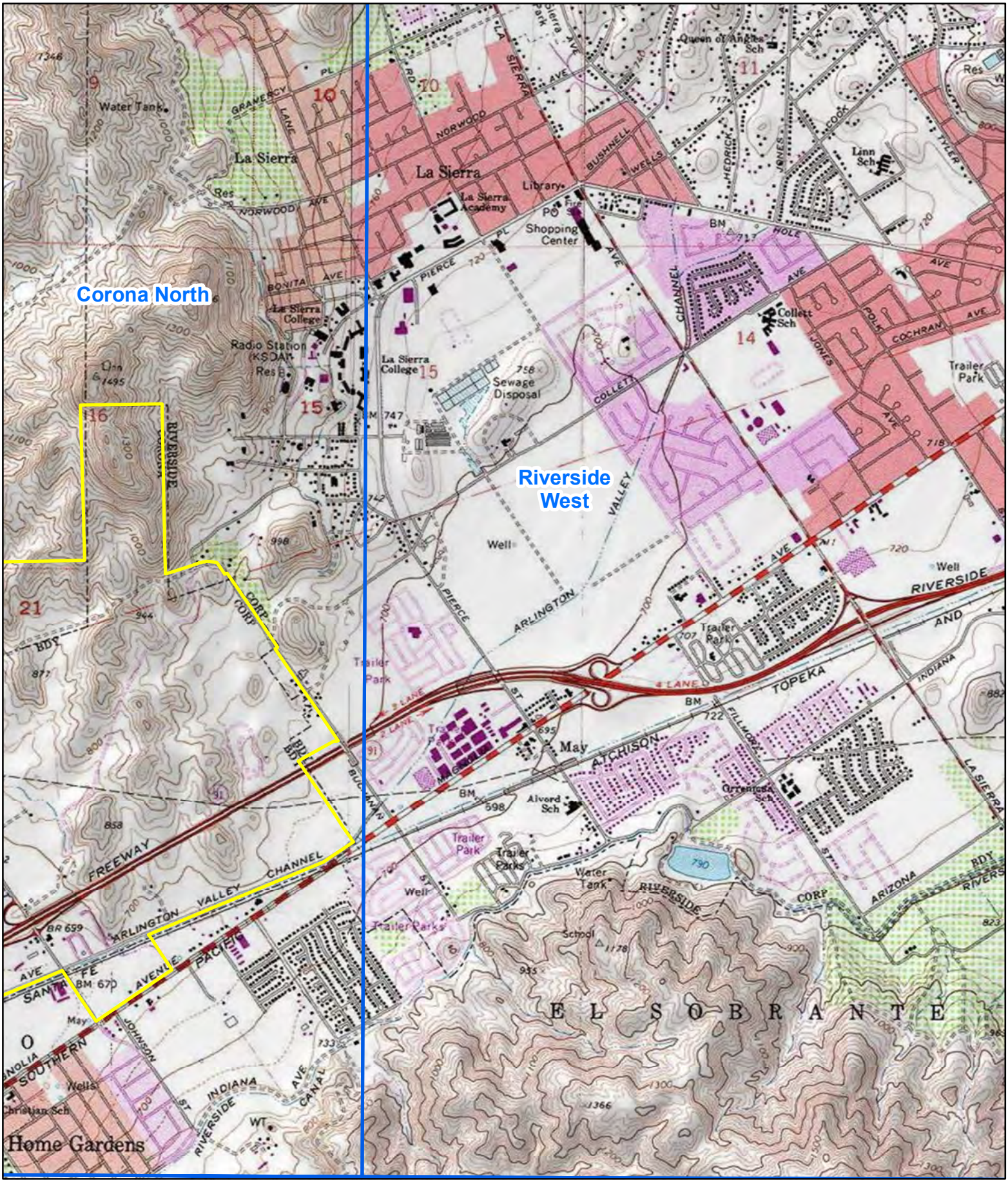


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

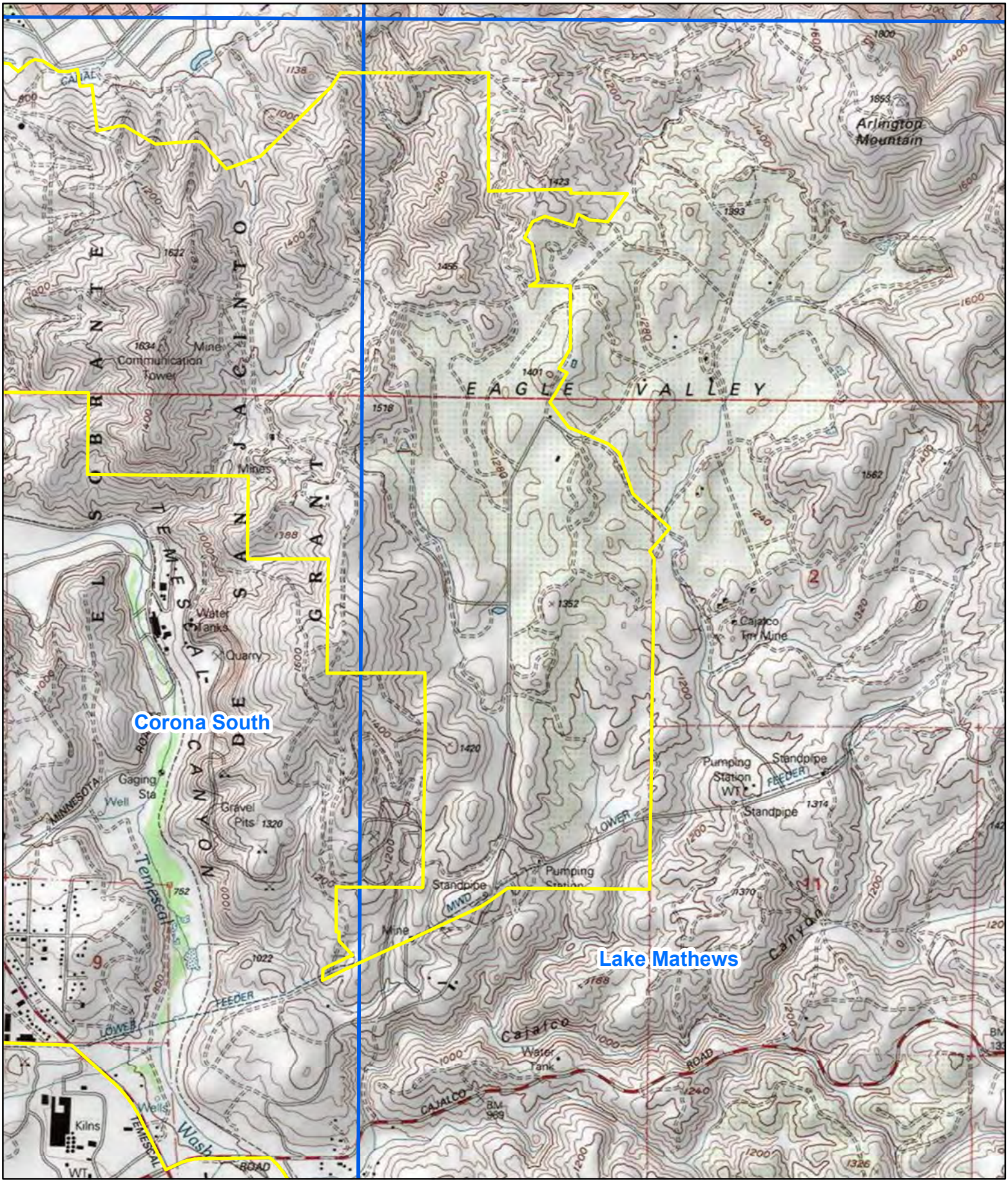
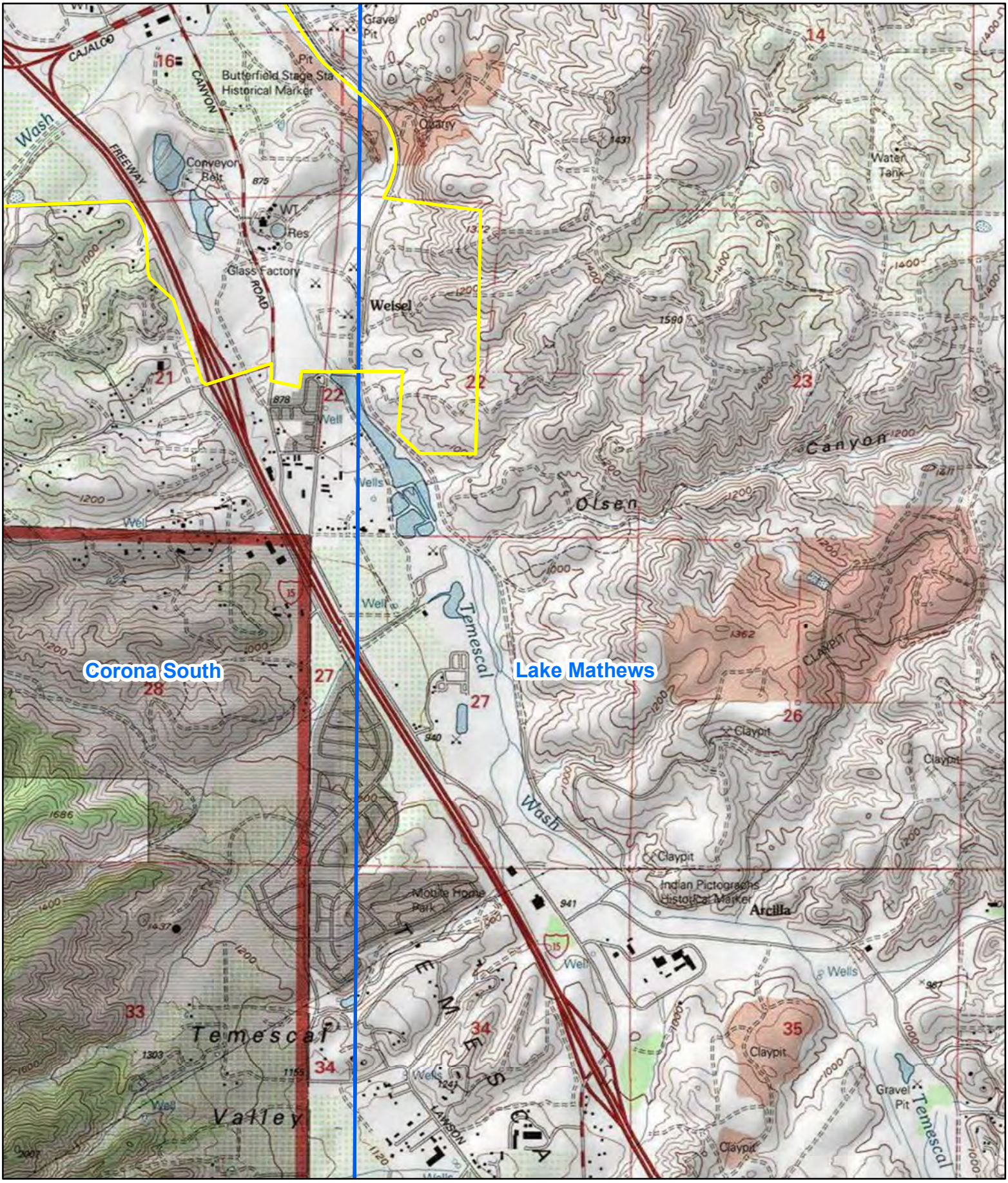


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Cheryl Madrigal
Tribal Historic Preservation Officer
Rincon Band of Luiseno Indians
One Government Center Land, Valley Center, CA, 92082
760-297-2635
crd@rincon-nsn.gov

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Ms. Madrigal,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

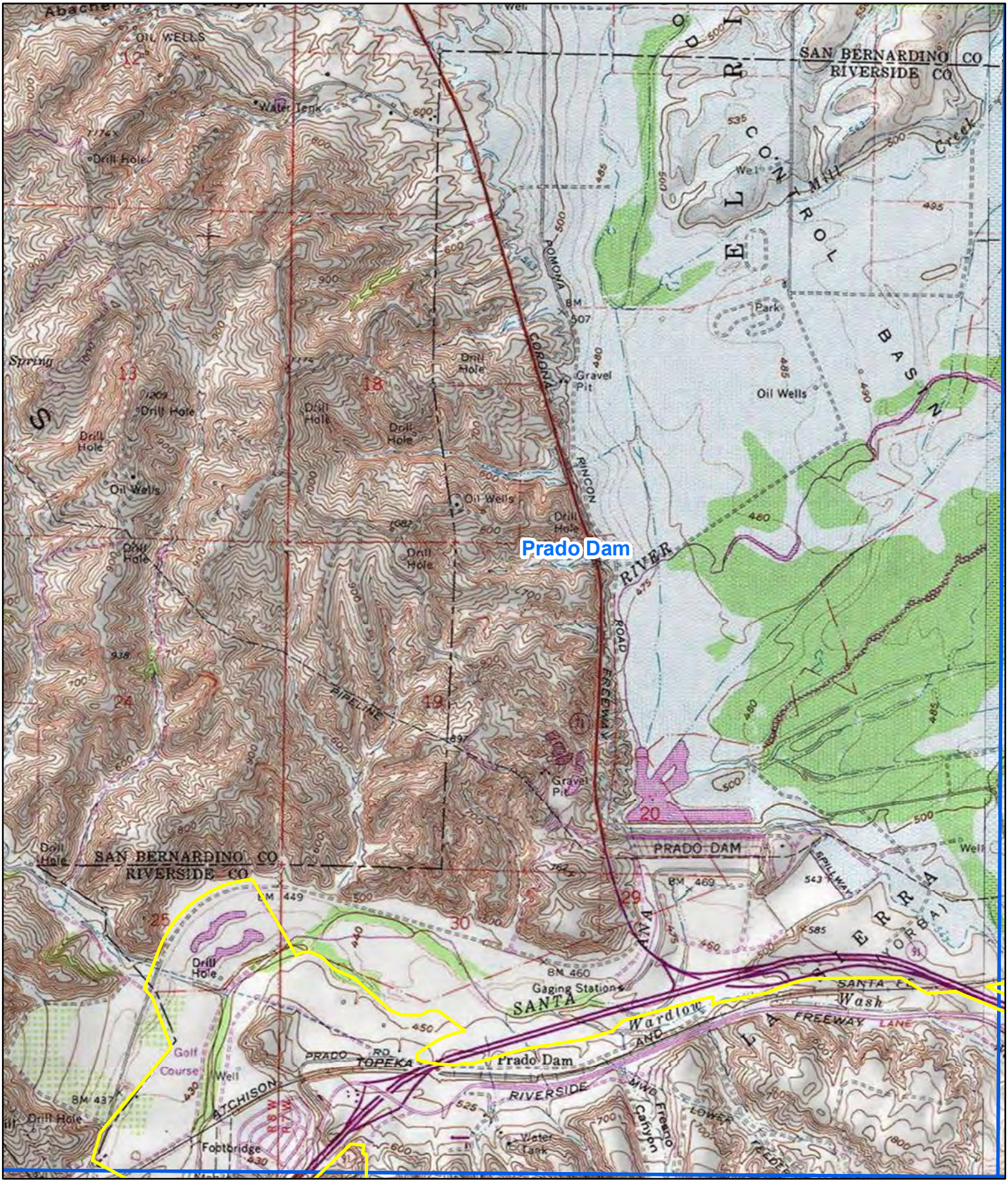


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

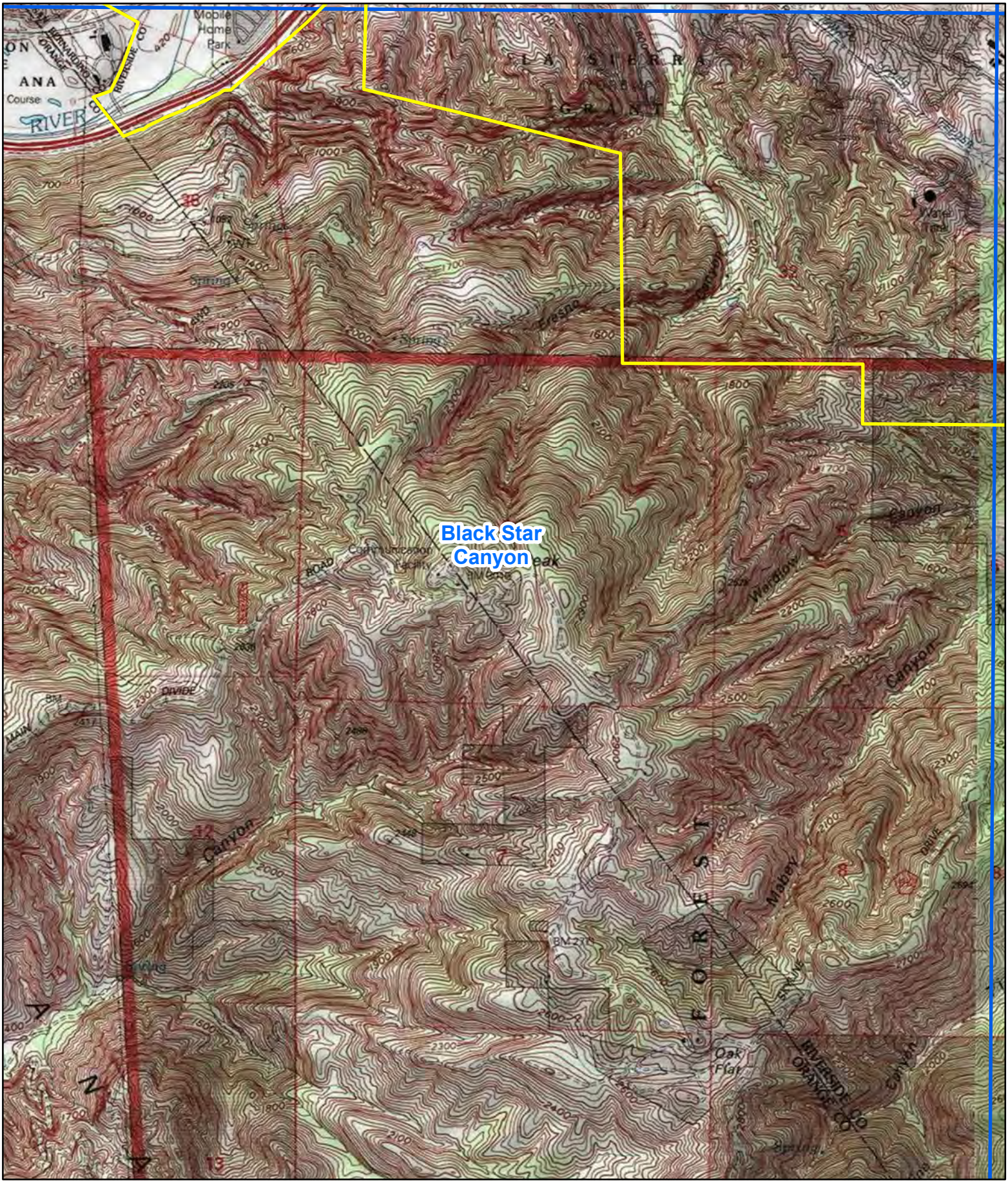
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

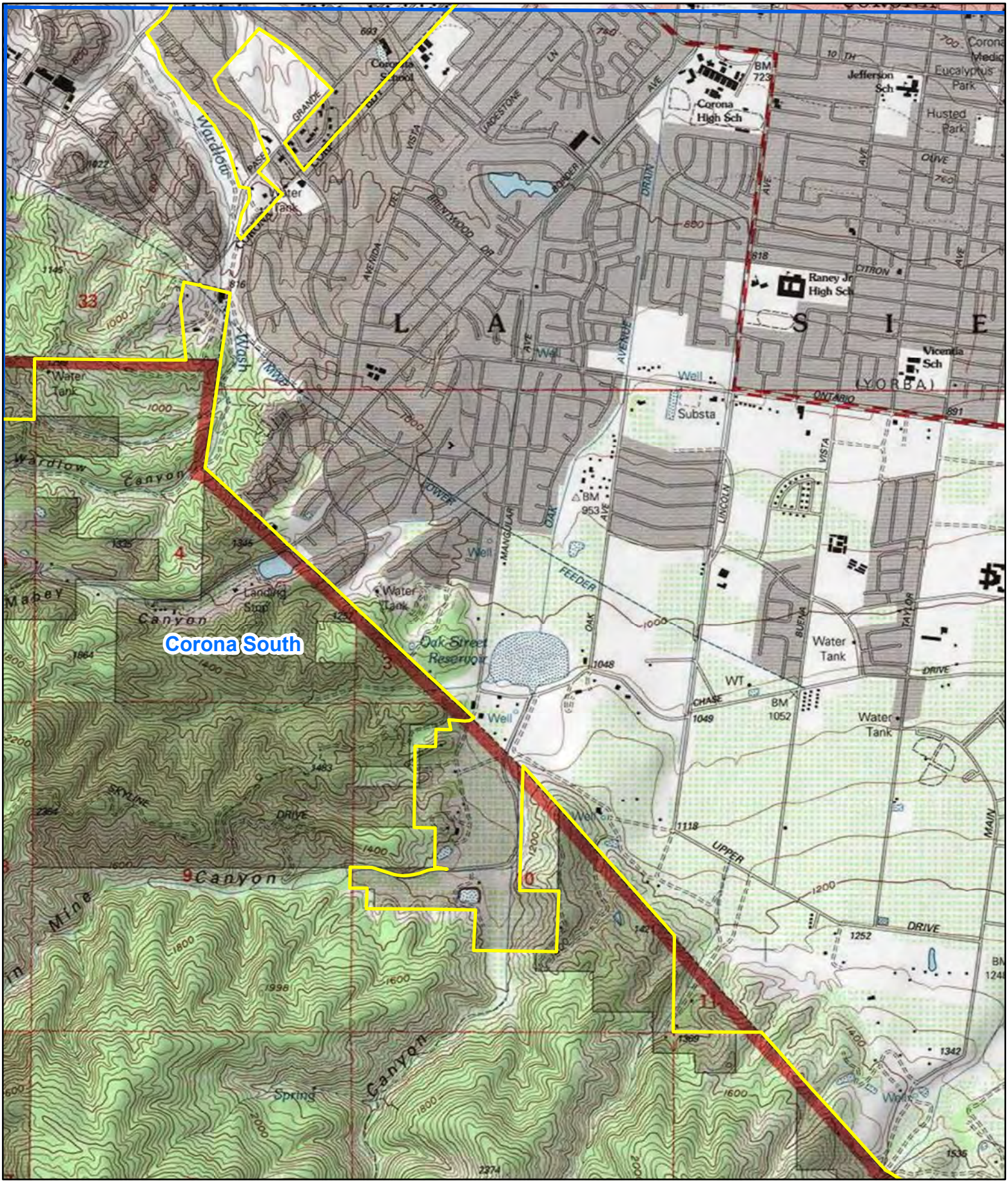
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

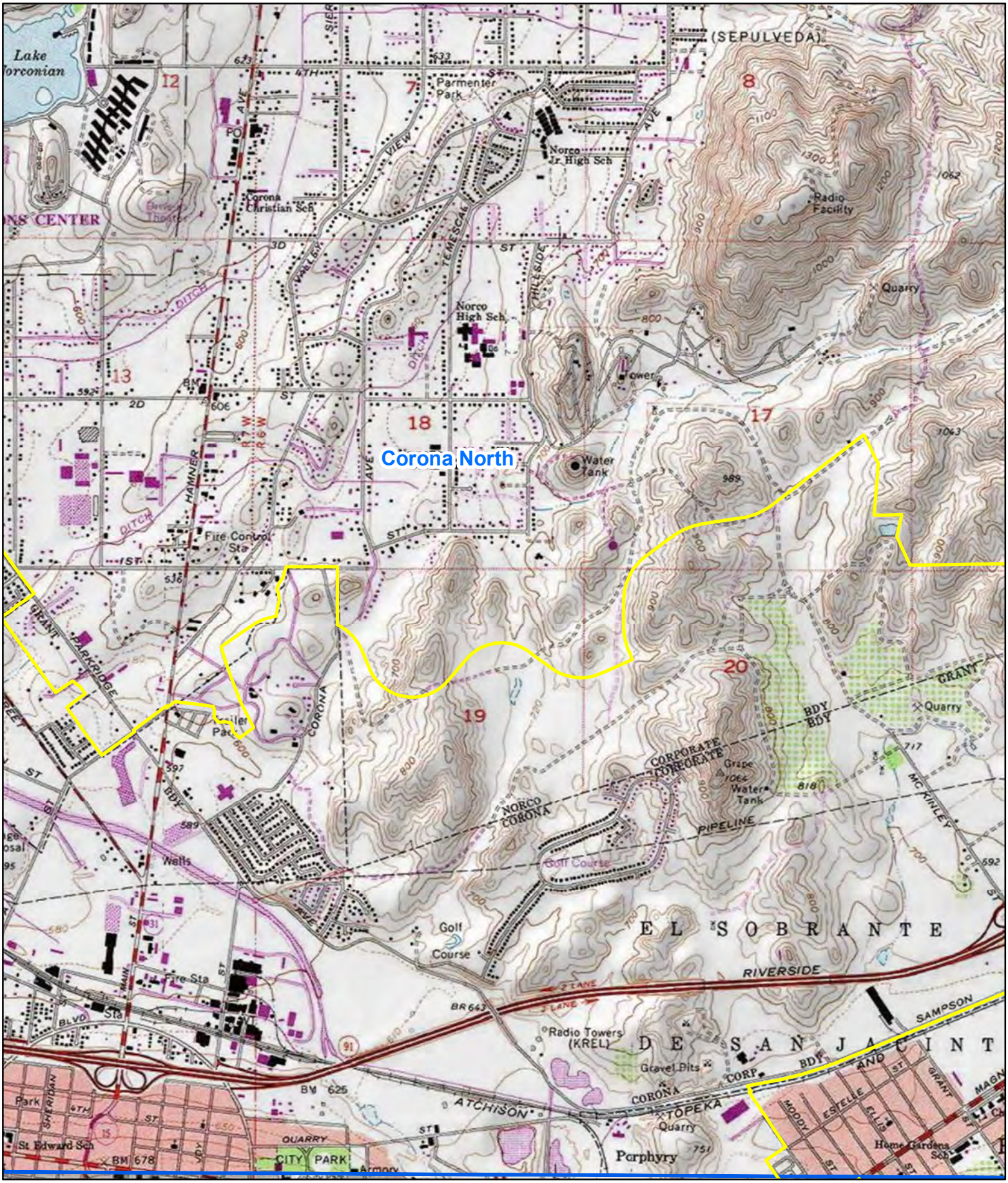
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

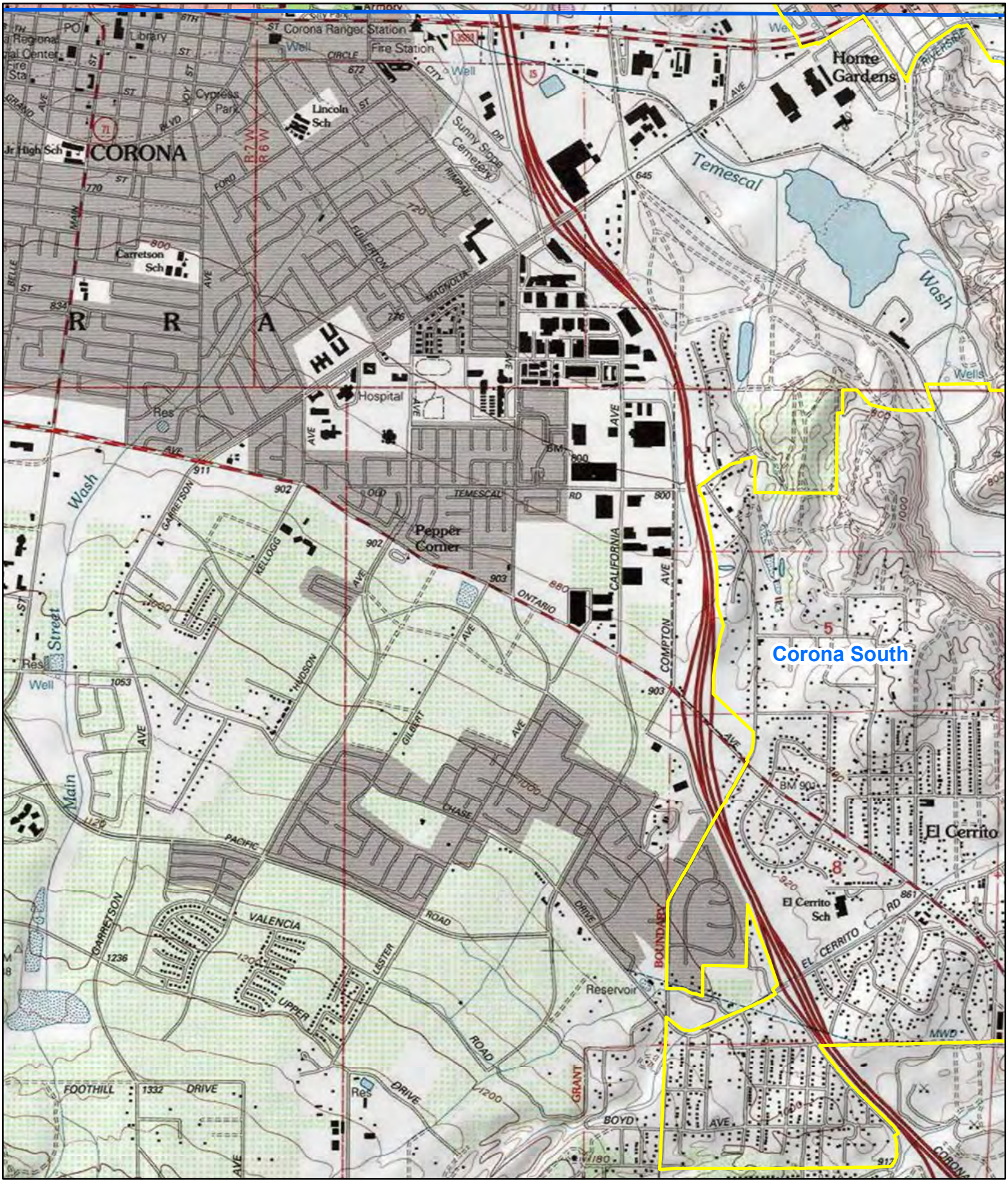


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

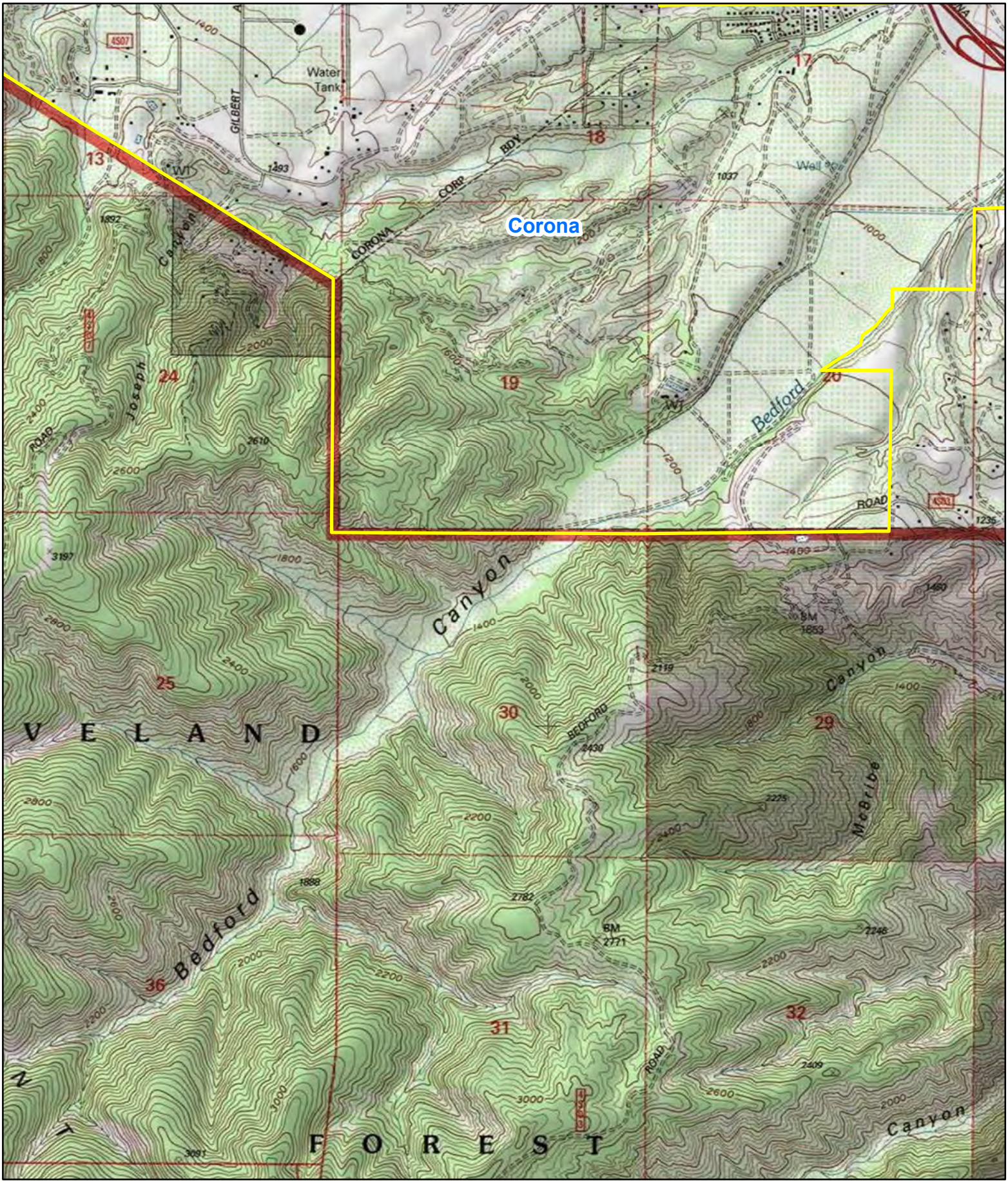
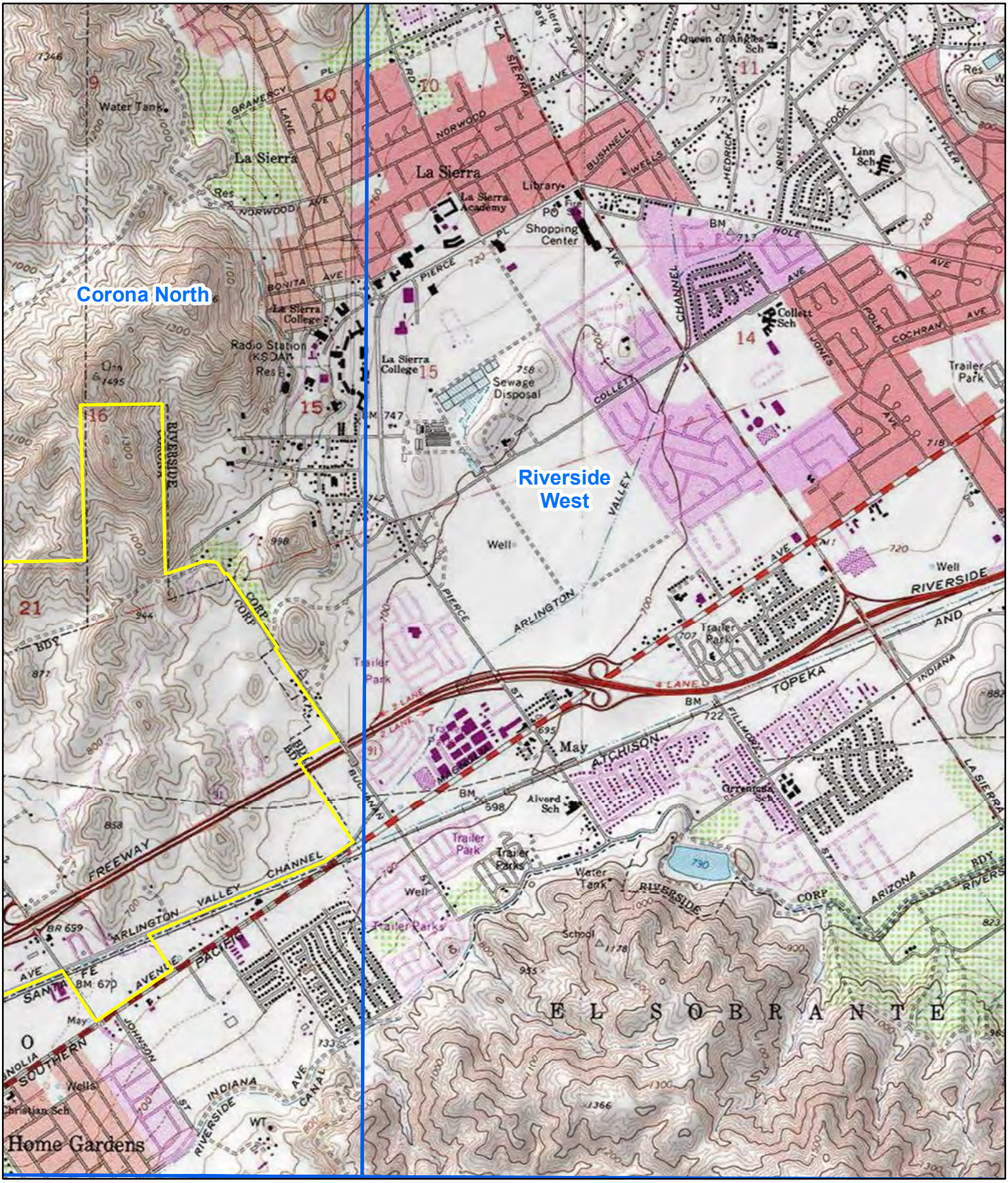


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

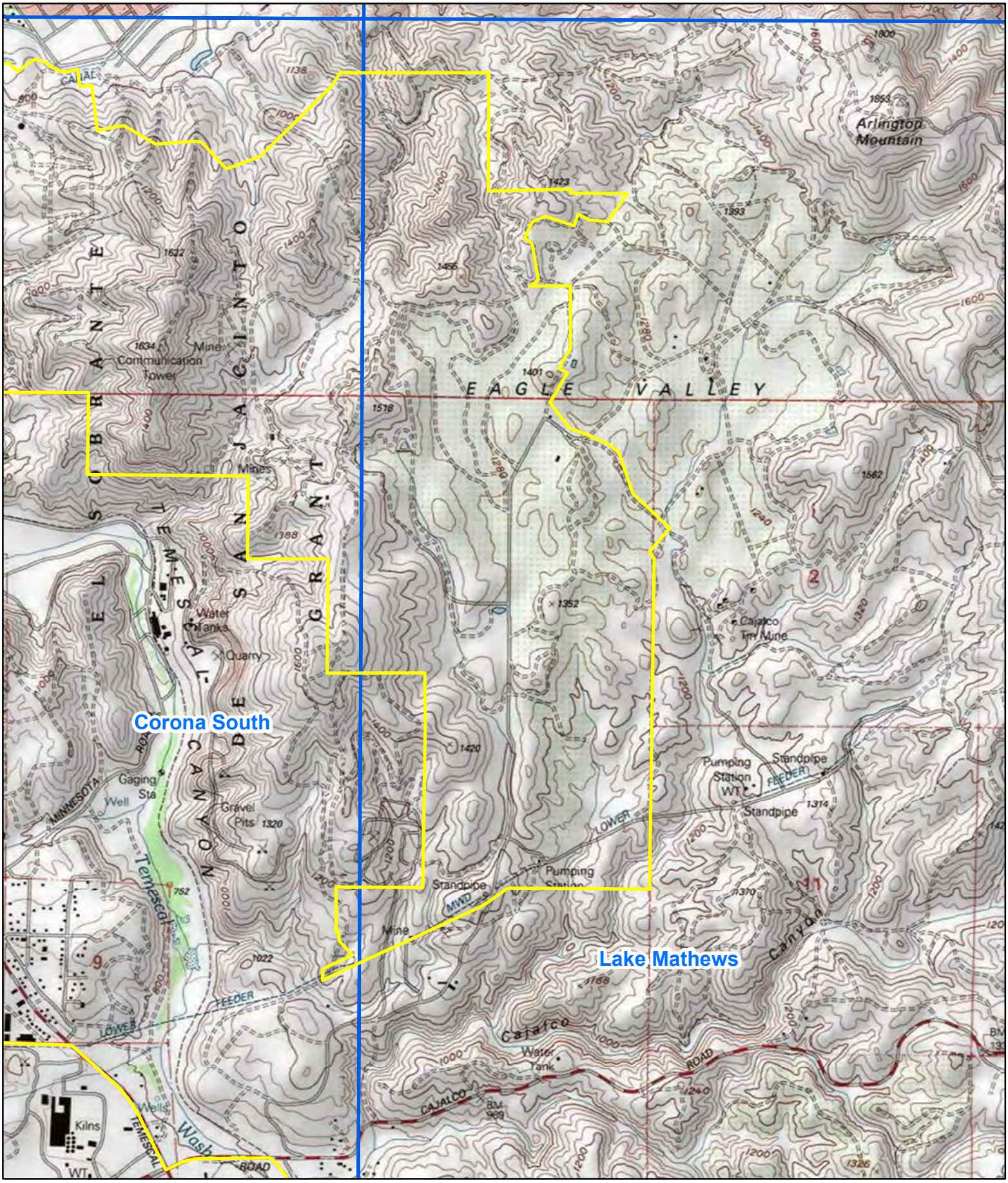
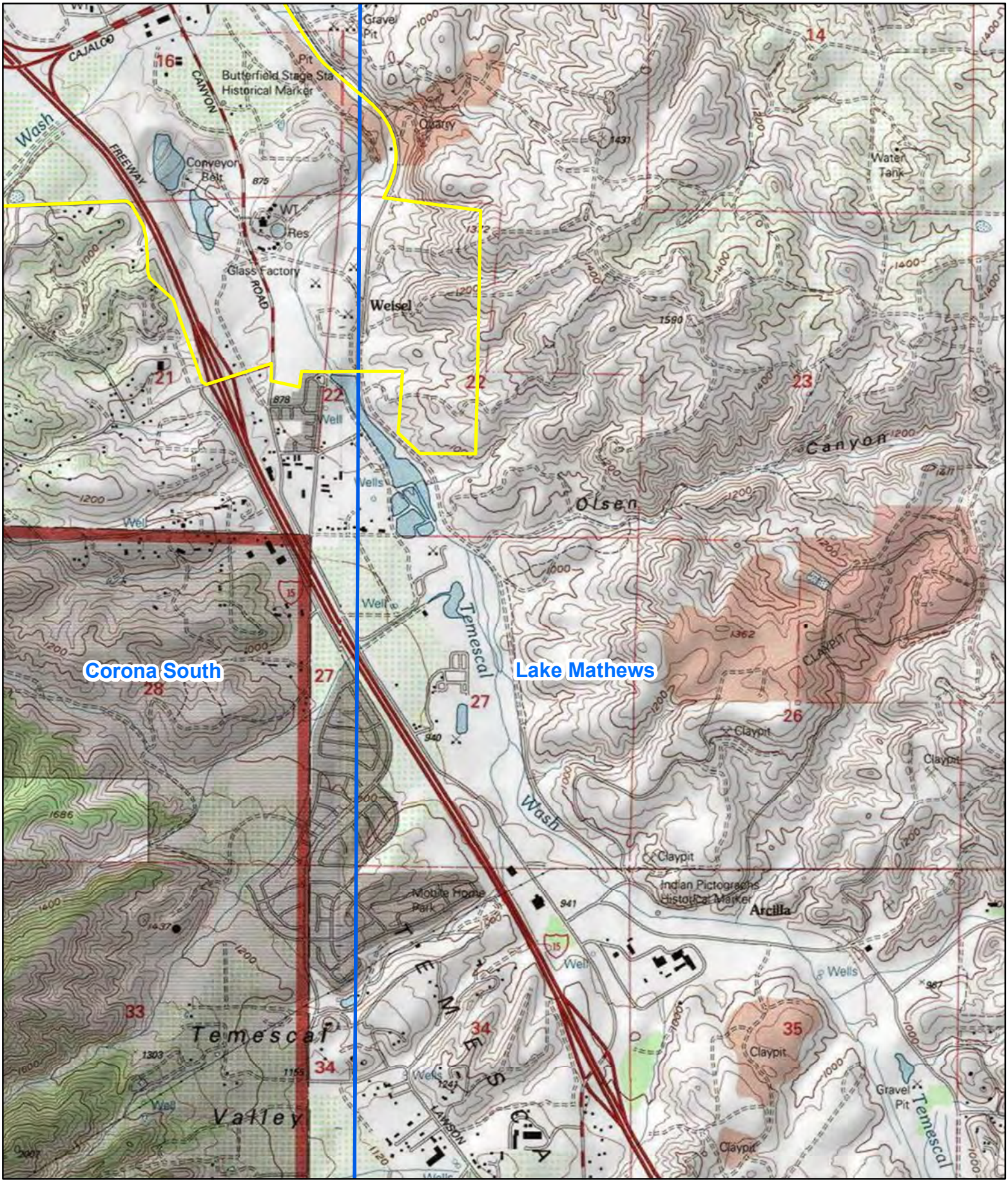


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Cody Martinez
Chairperson
Sycuan Band of the Kumeyaay Nation
1 Kwaaypaay Court, El Cajon, CA, 92019
619-445-2613
ssilva@sycuan-nsn.gov

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Martinez,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

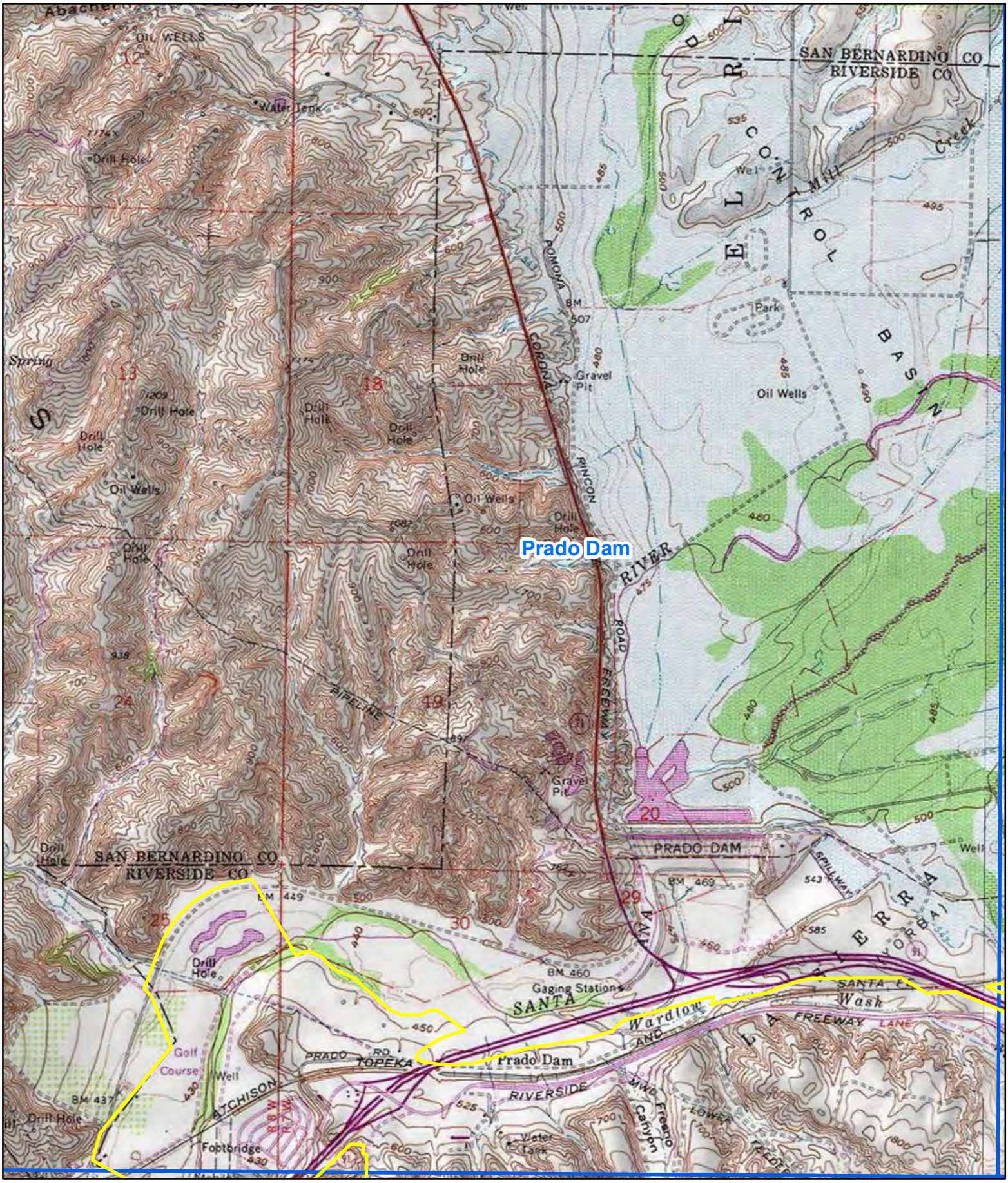


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

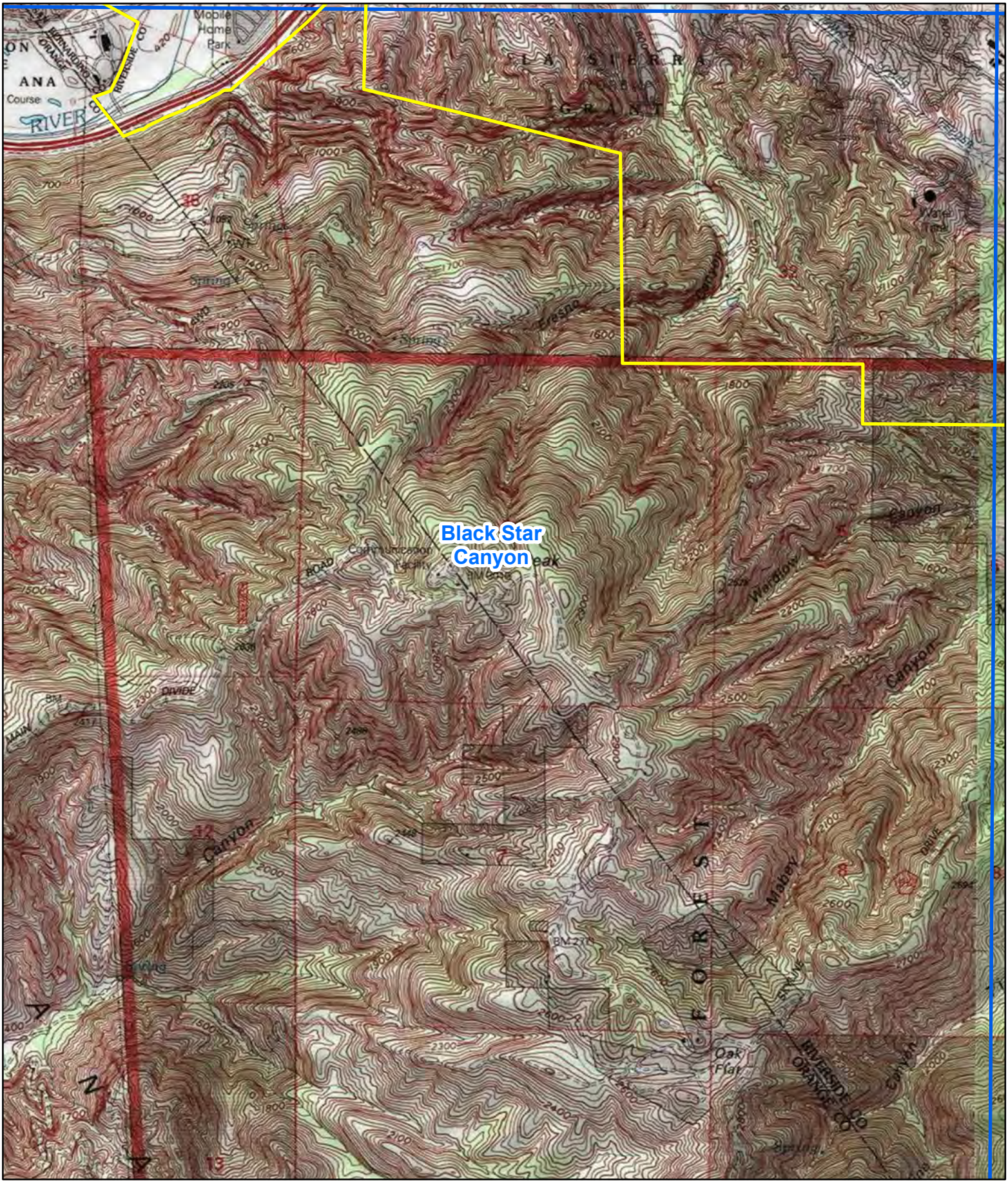
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

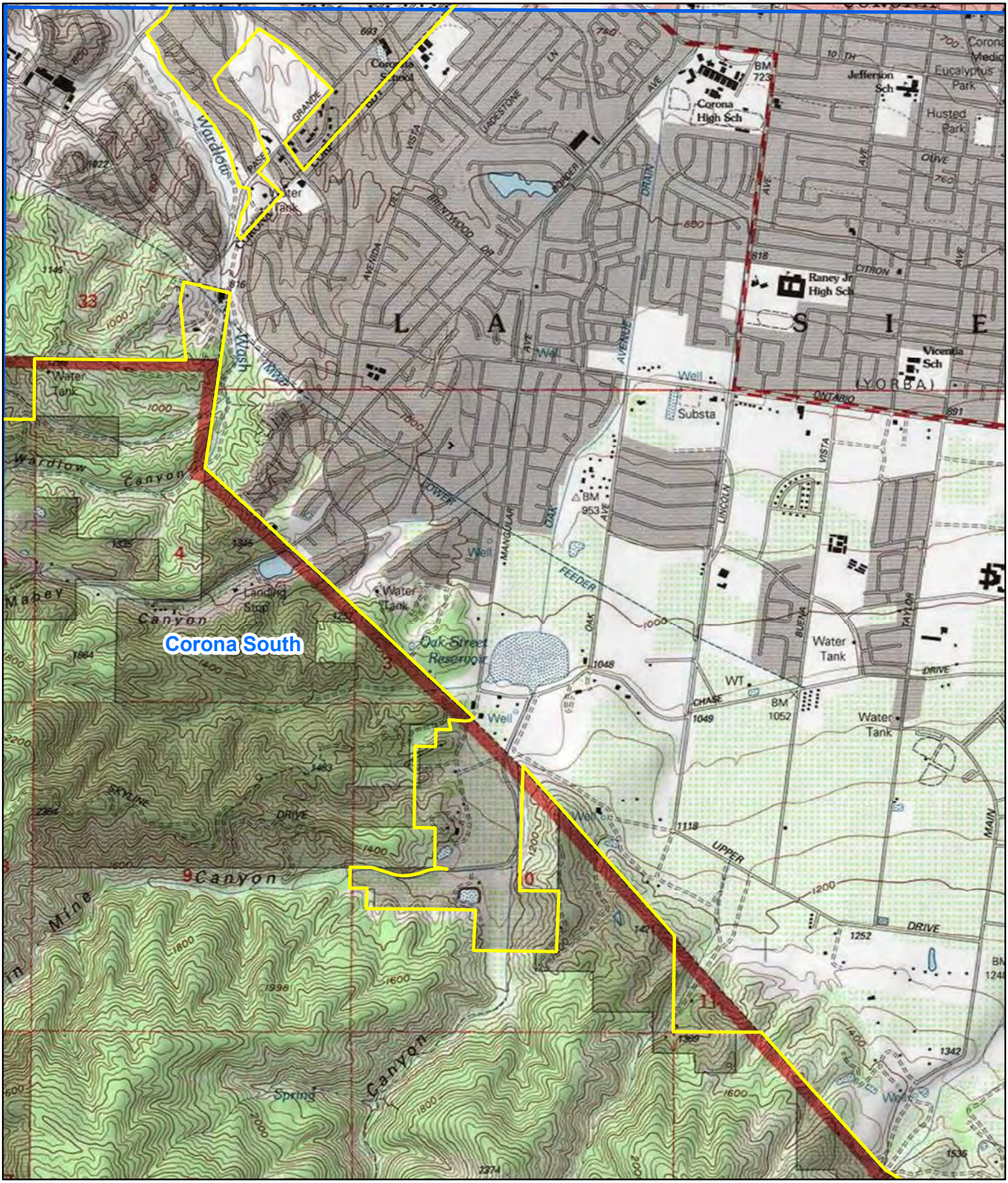
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

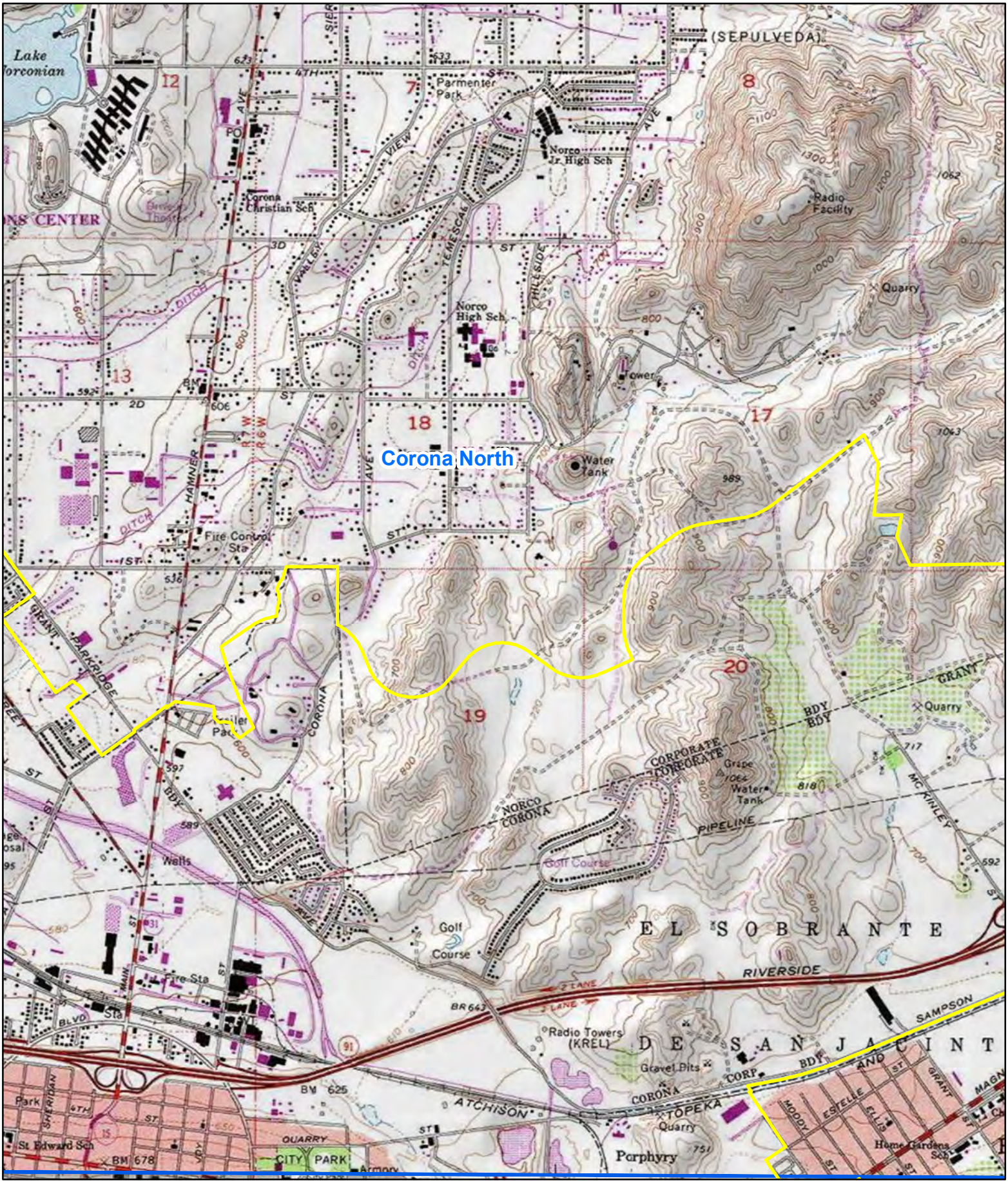
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

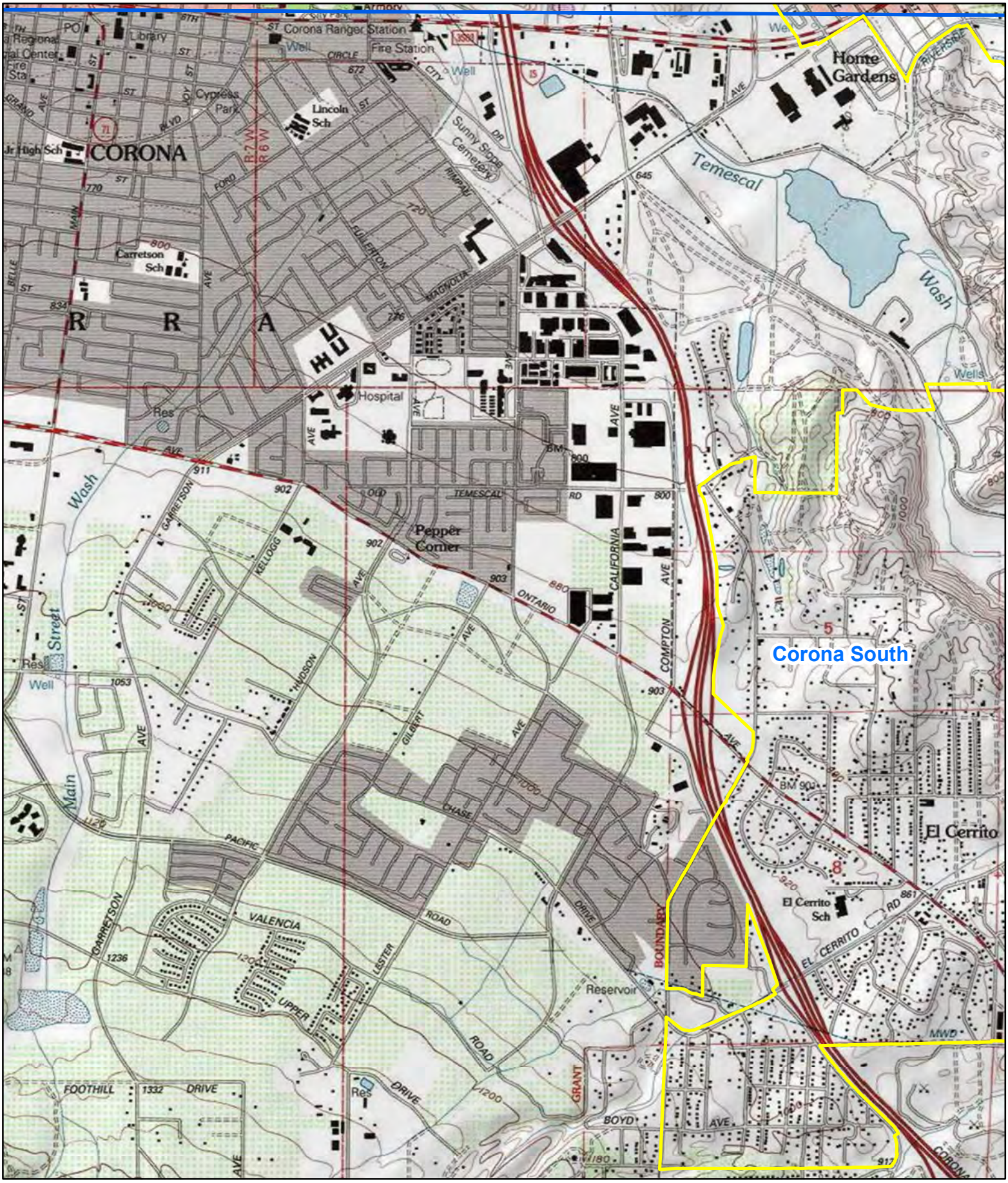


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

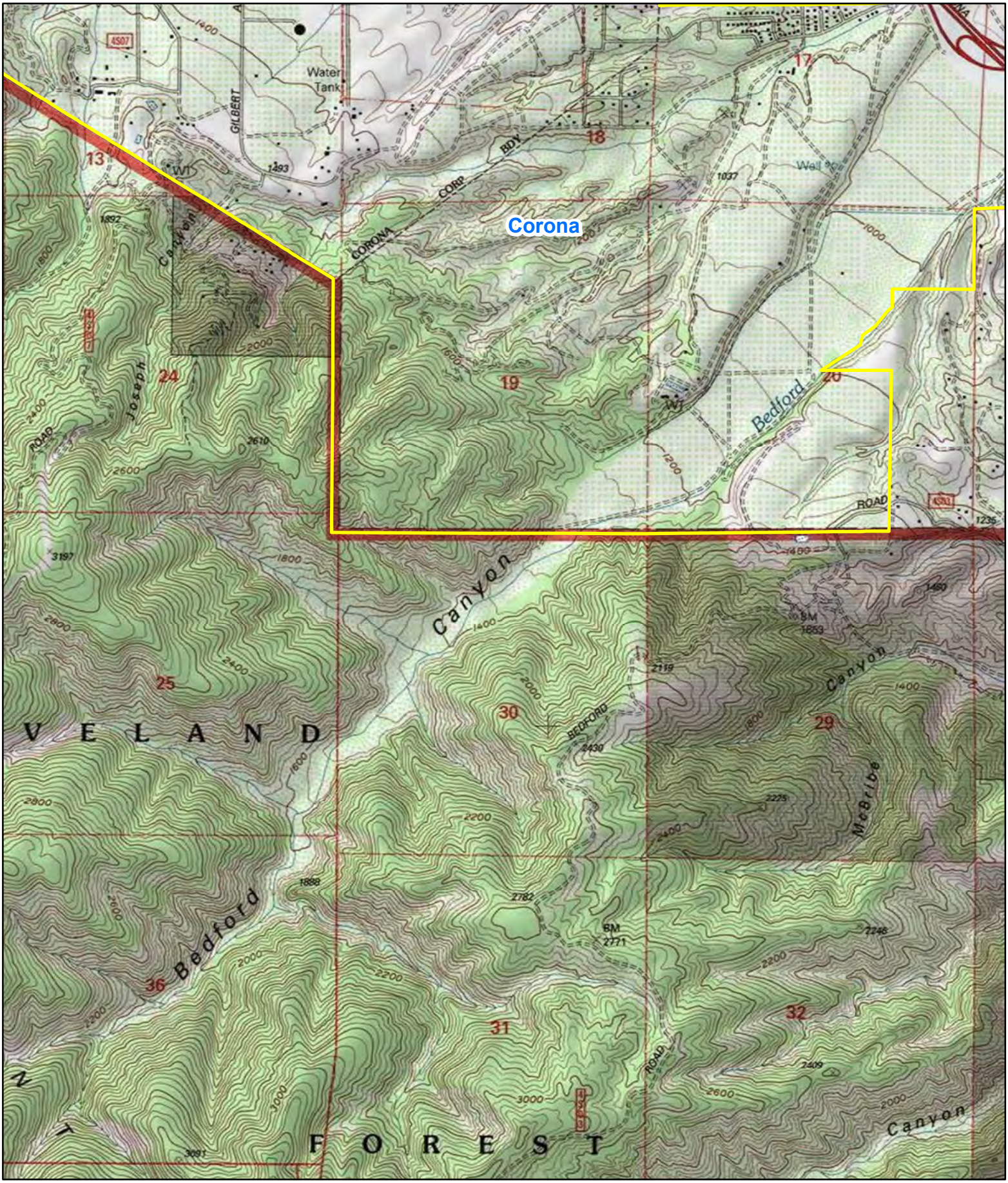
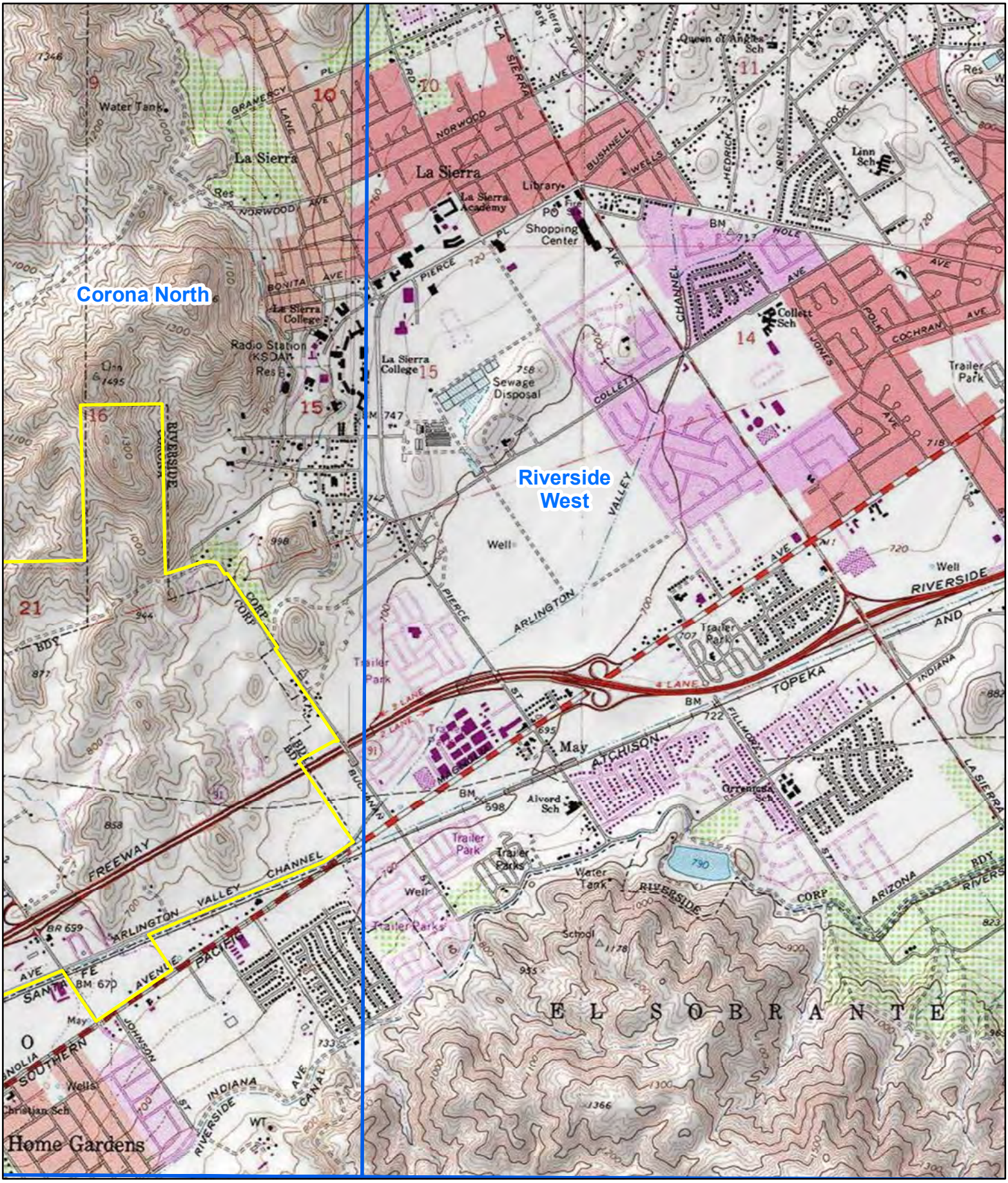


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

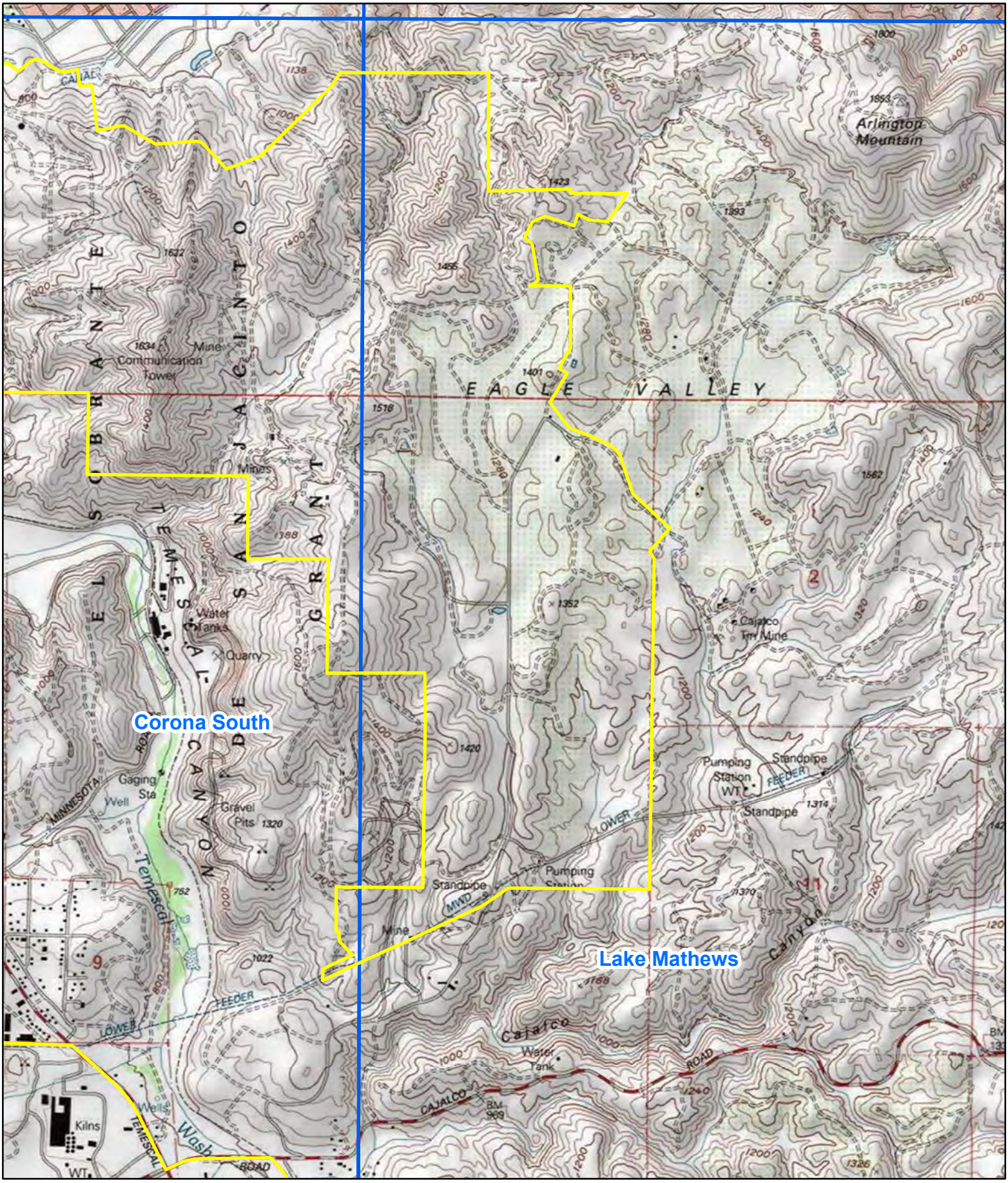
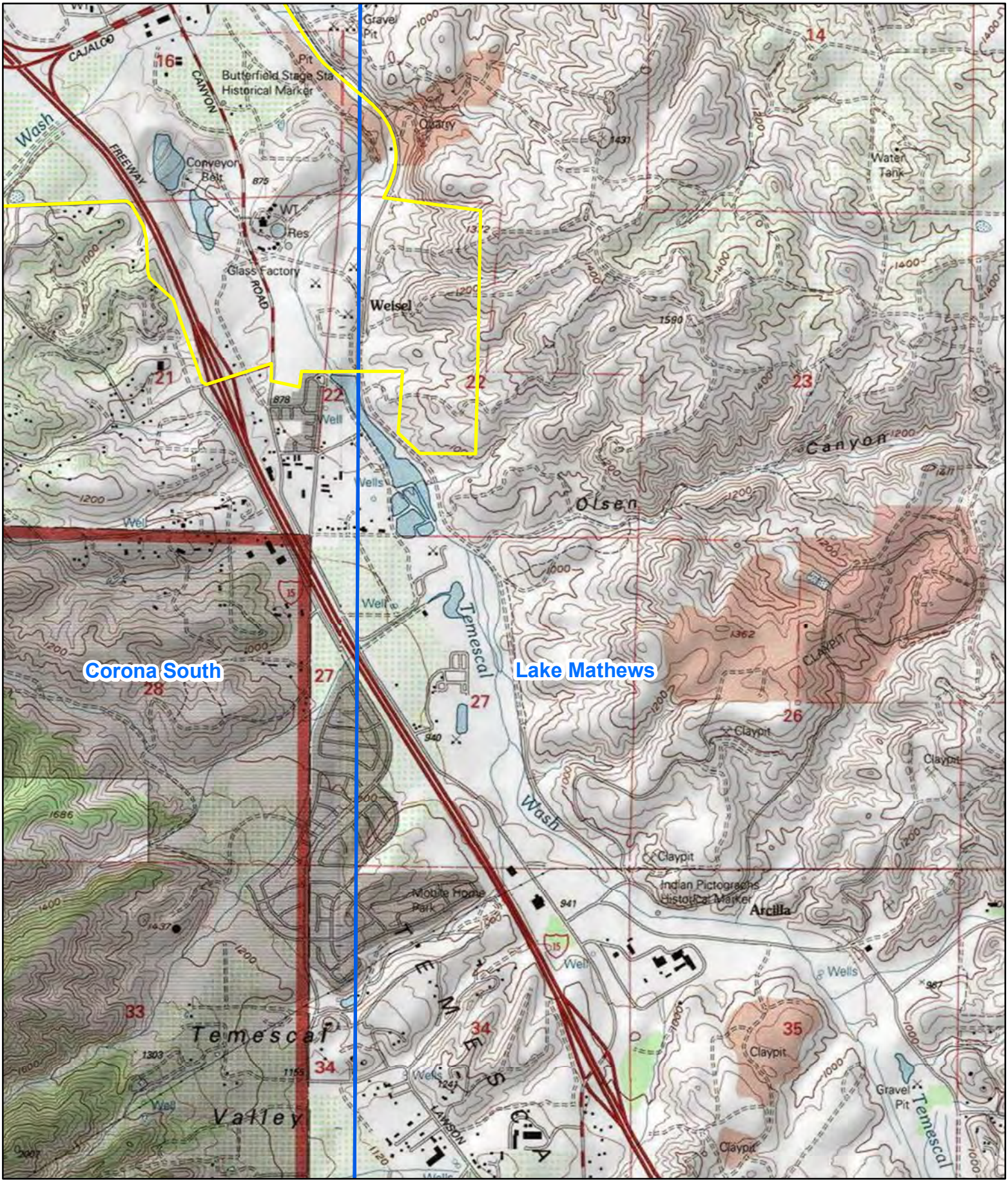


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Daniel Salgado
Chairperson
Cahuilla Band of Indians
52701 US Highway 371, Anza, CA, 92539
951-763-5549
chairman@cahuilla.net

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Salgado,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

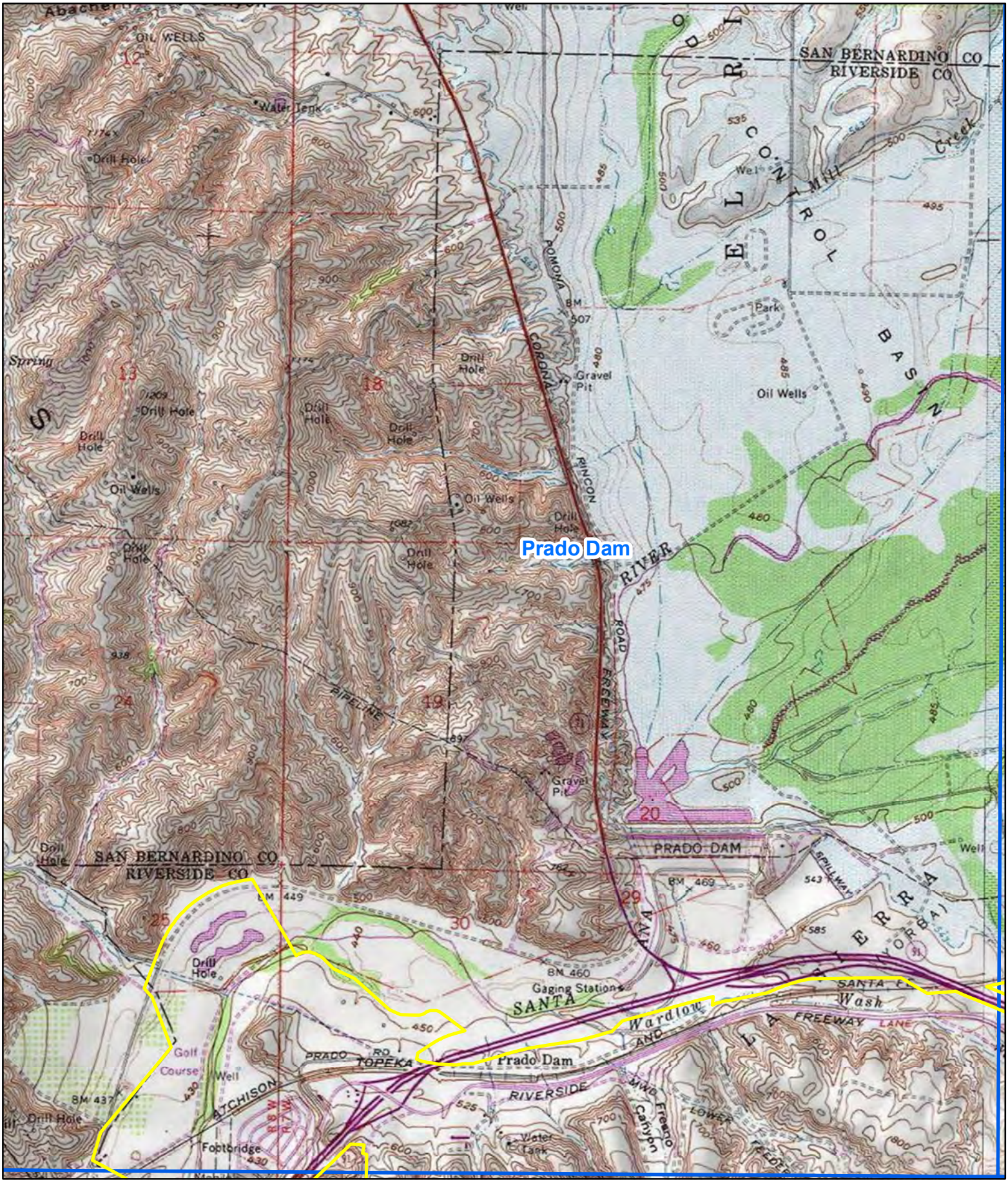


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

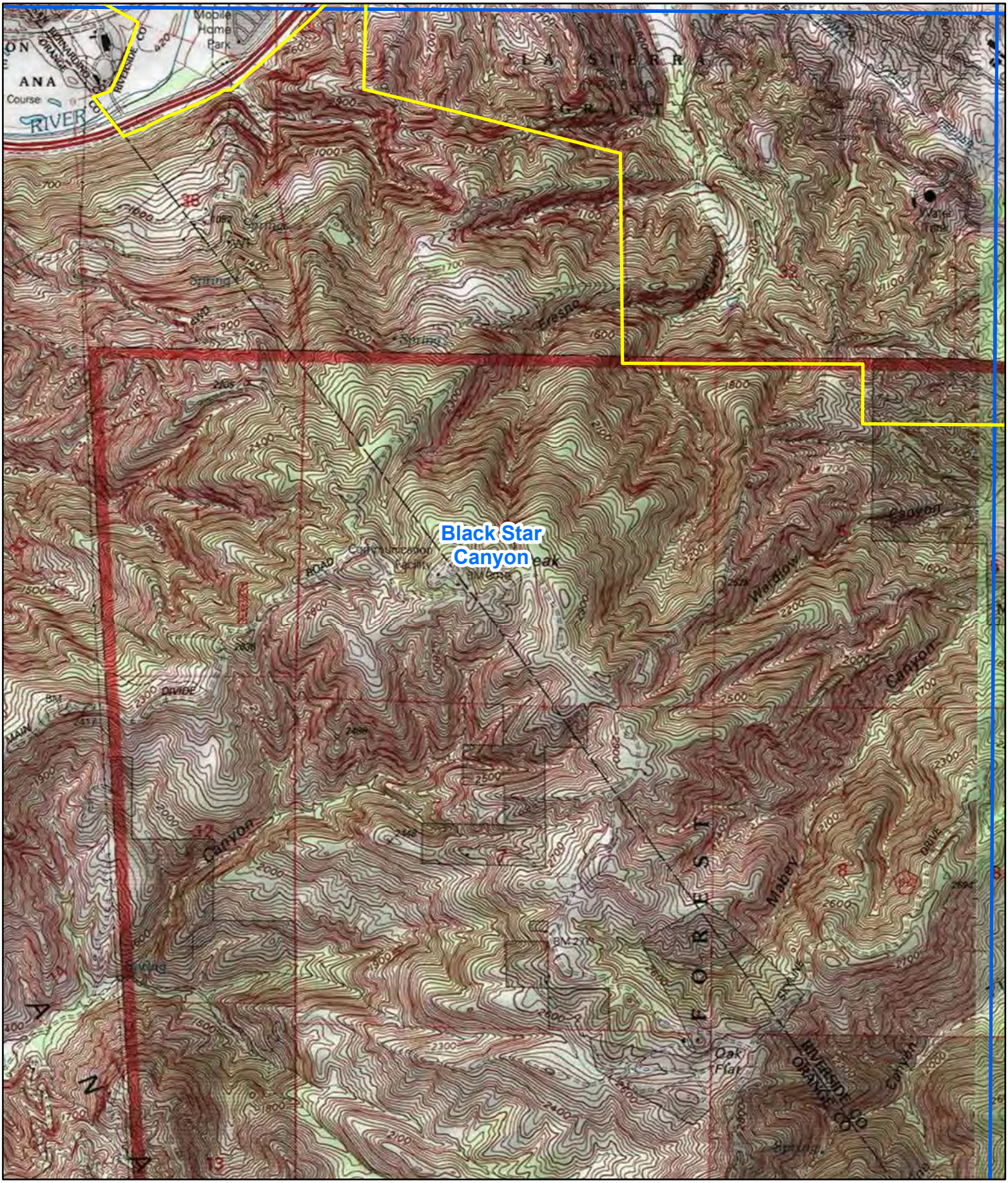
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

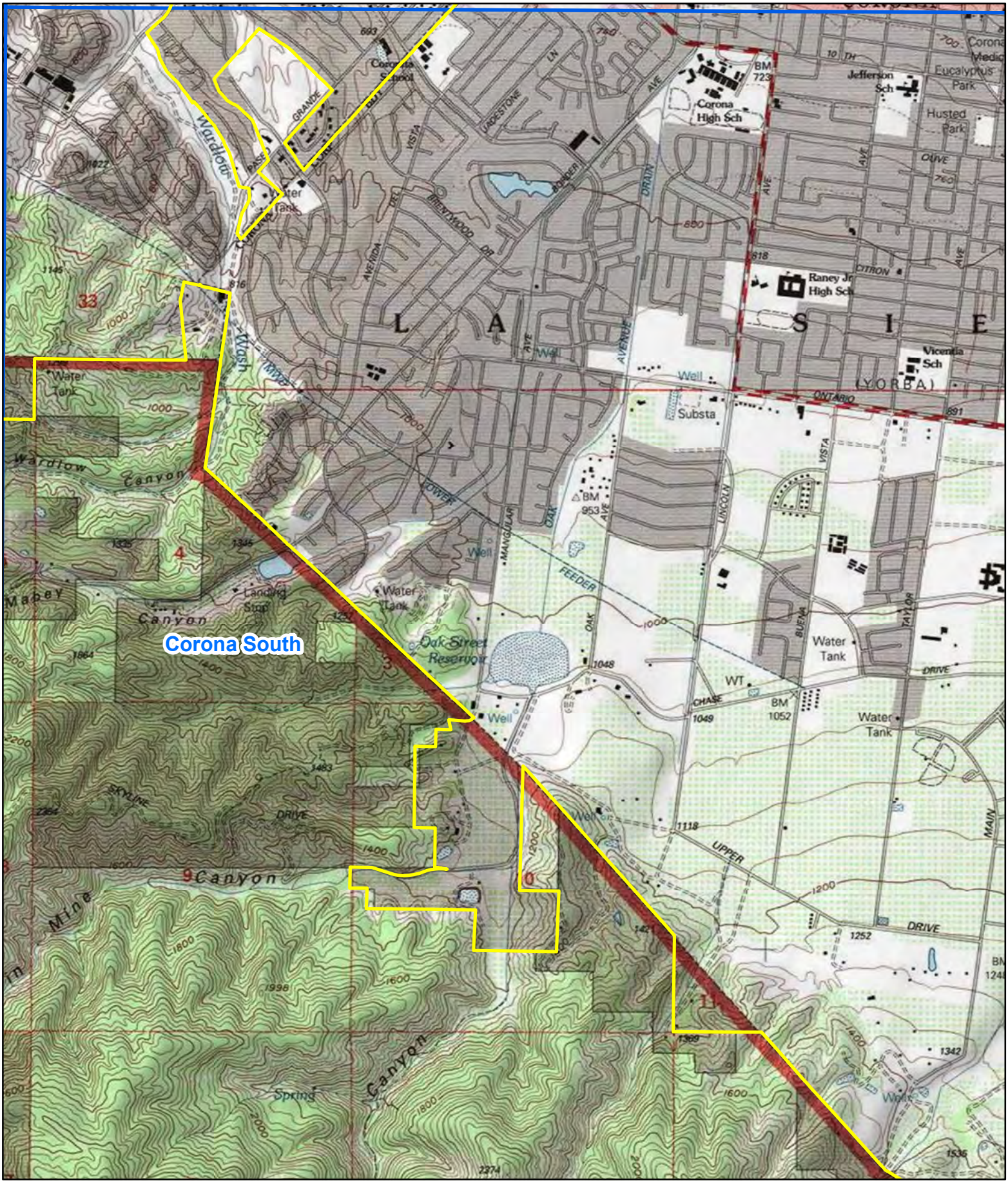
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

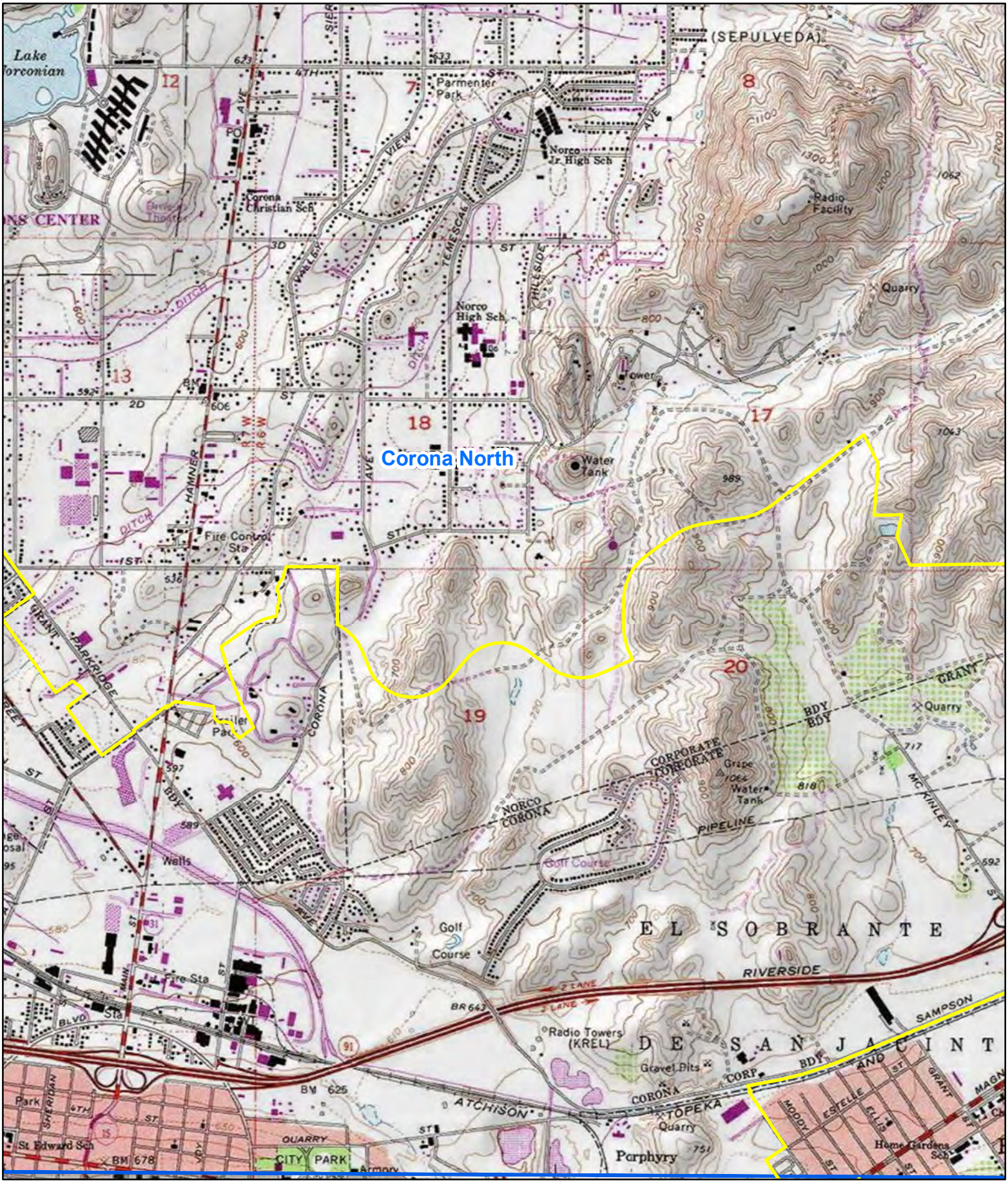
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

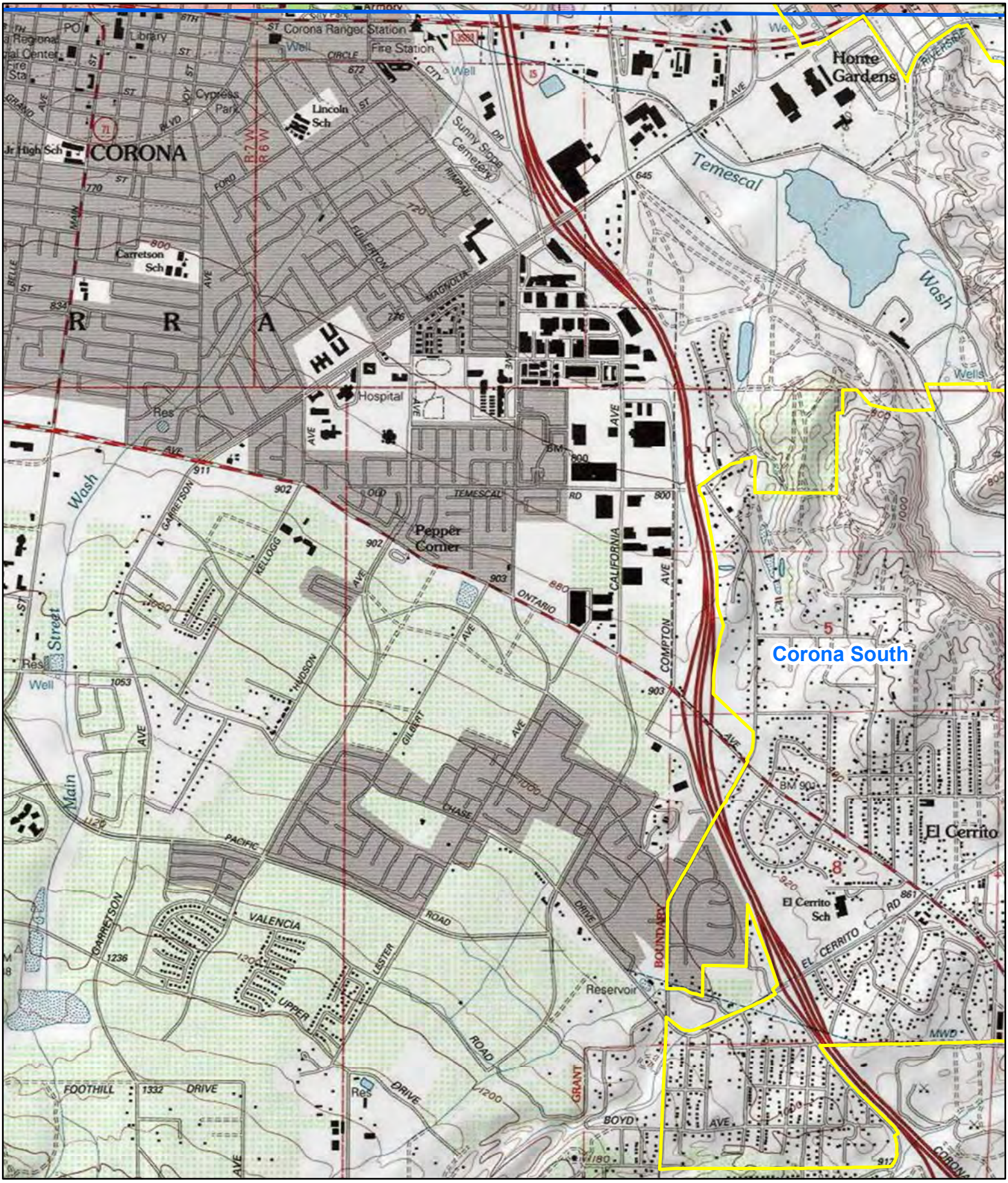


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

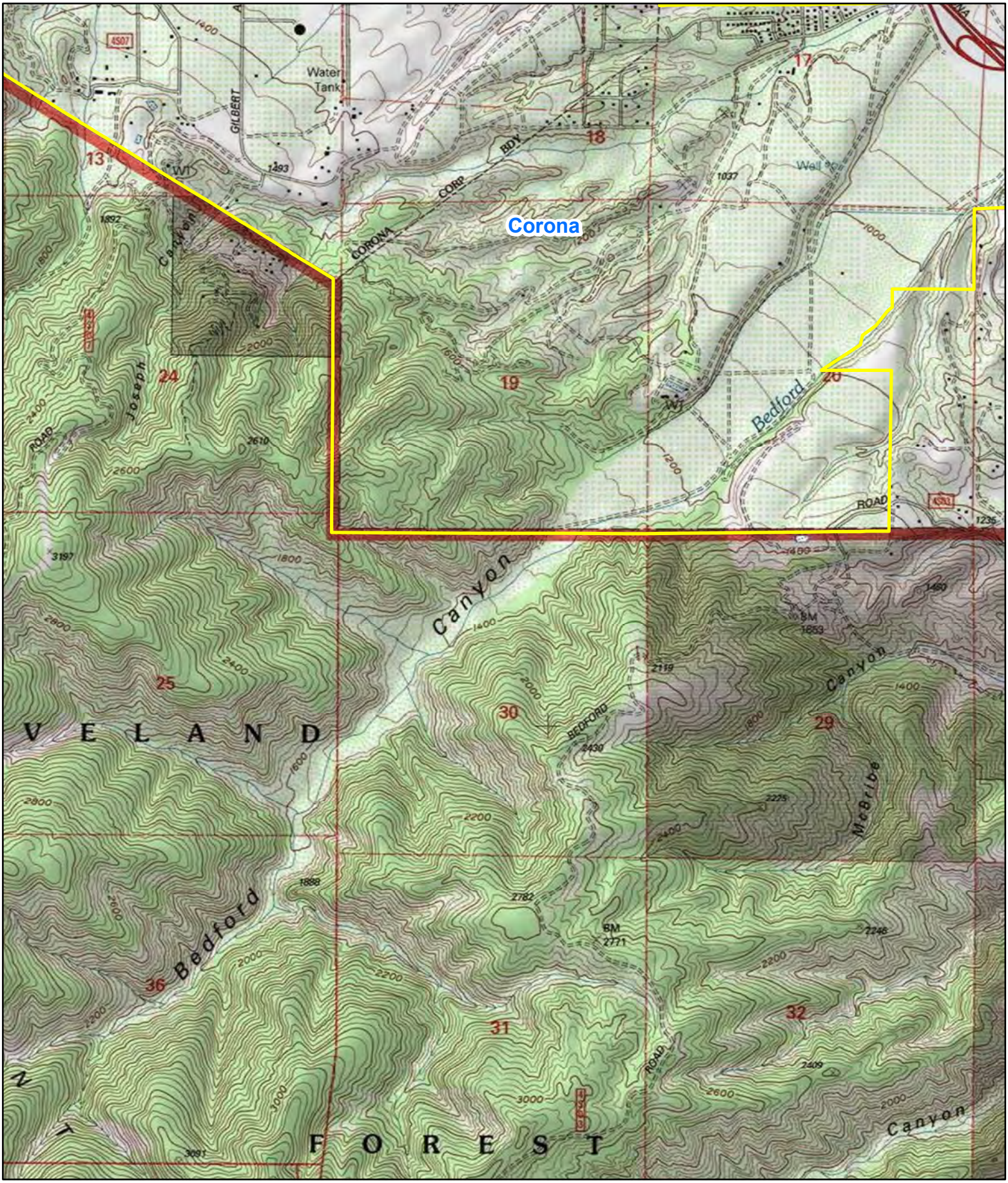
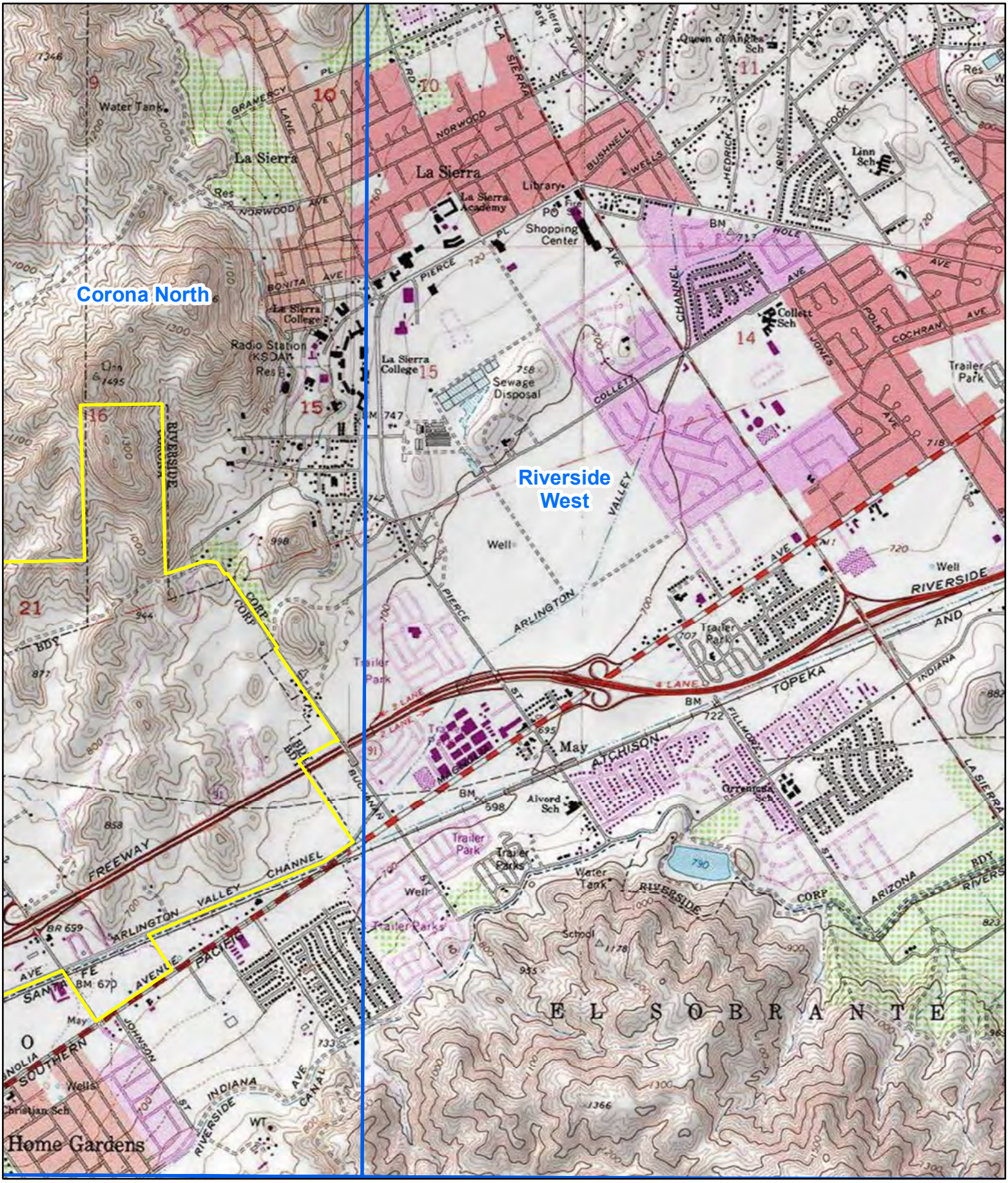


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

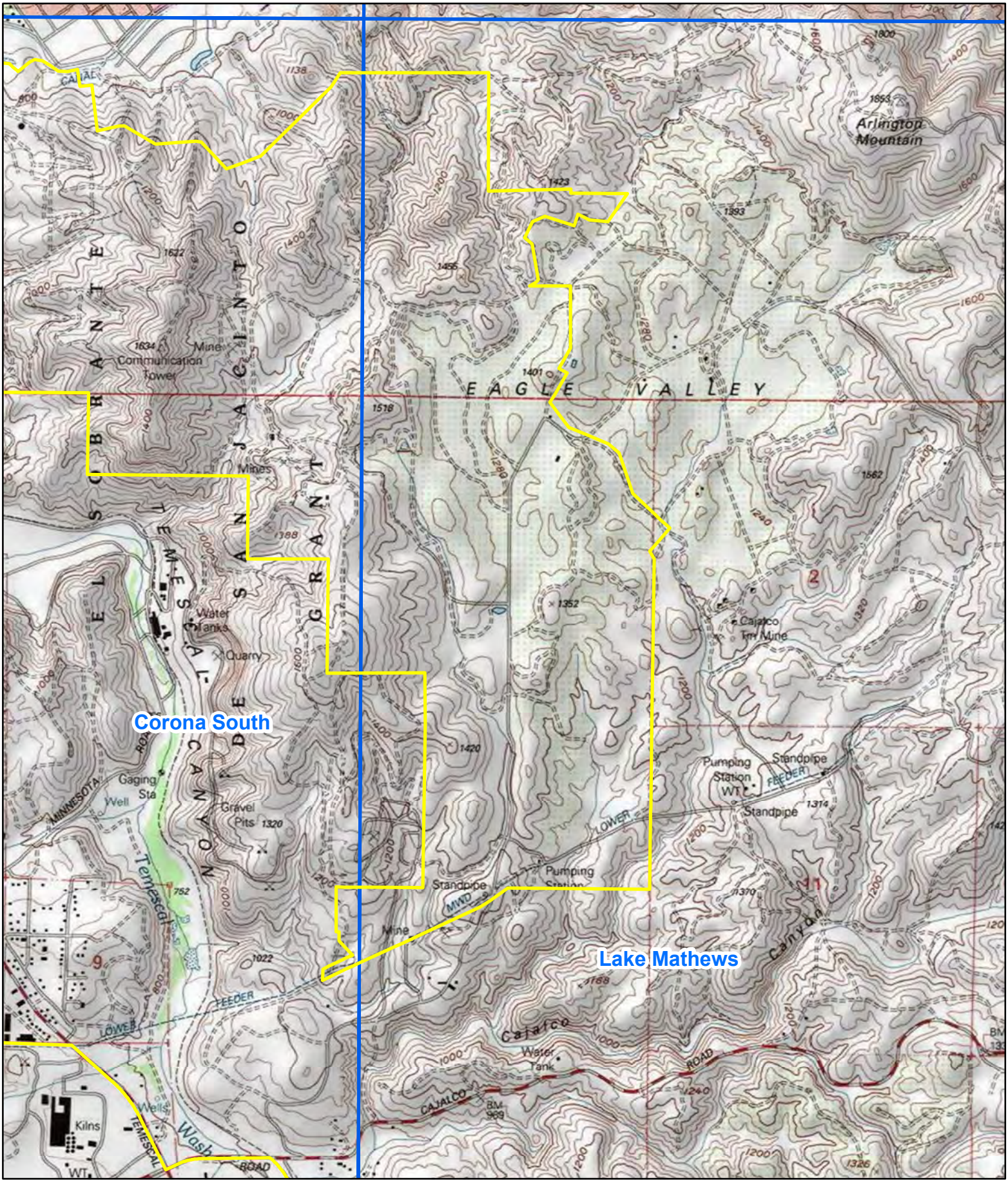
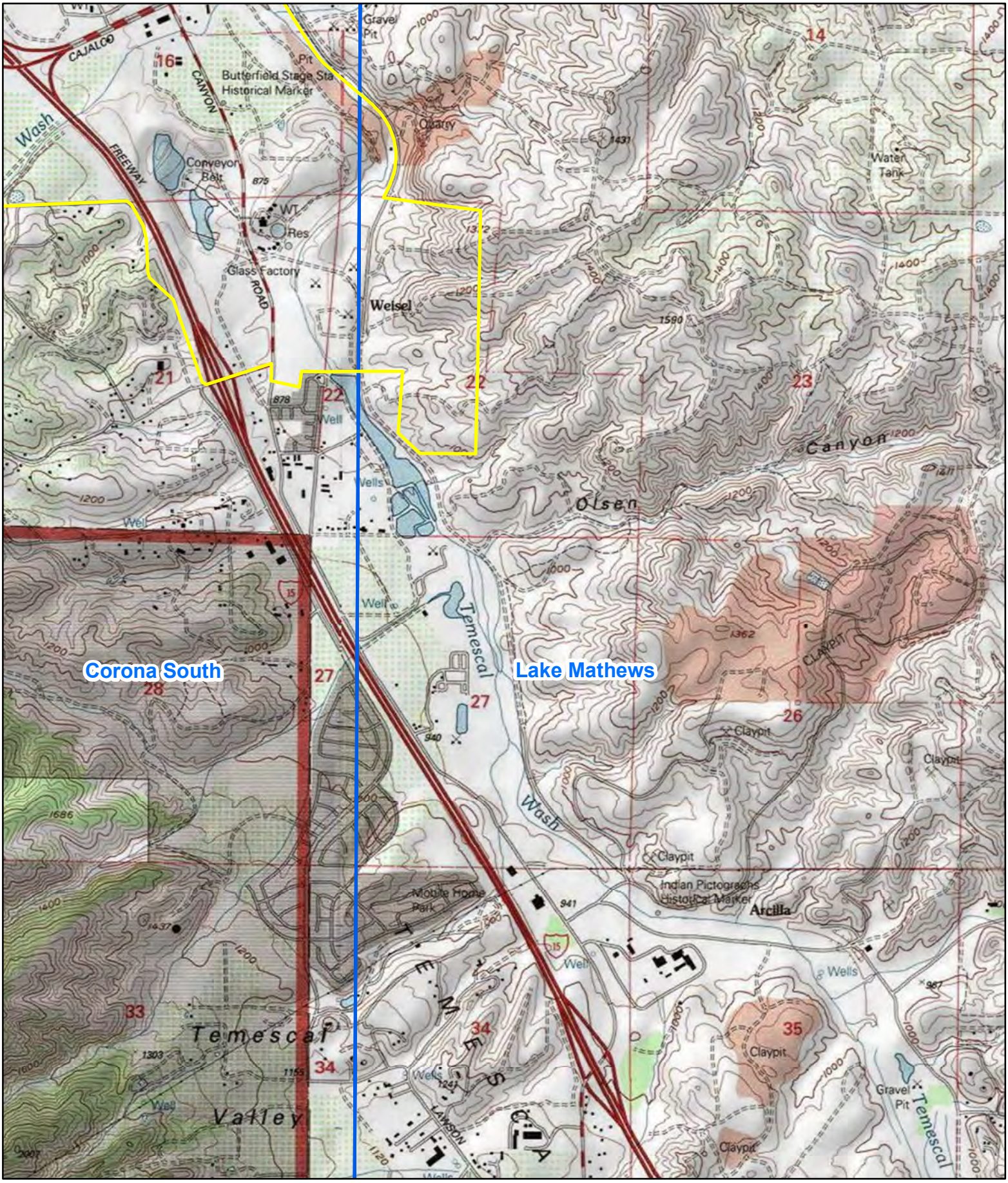


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Doug Welmas
Chairperson
Cabazon Band of Mission Indians
84-245 Indio Springs Parkway, Indio, CA, 92203
760-342-2593
jstapp@cabazonindians-nsn.gov

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Welmas,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

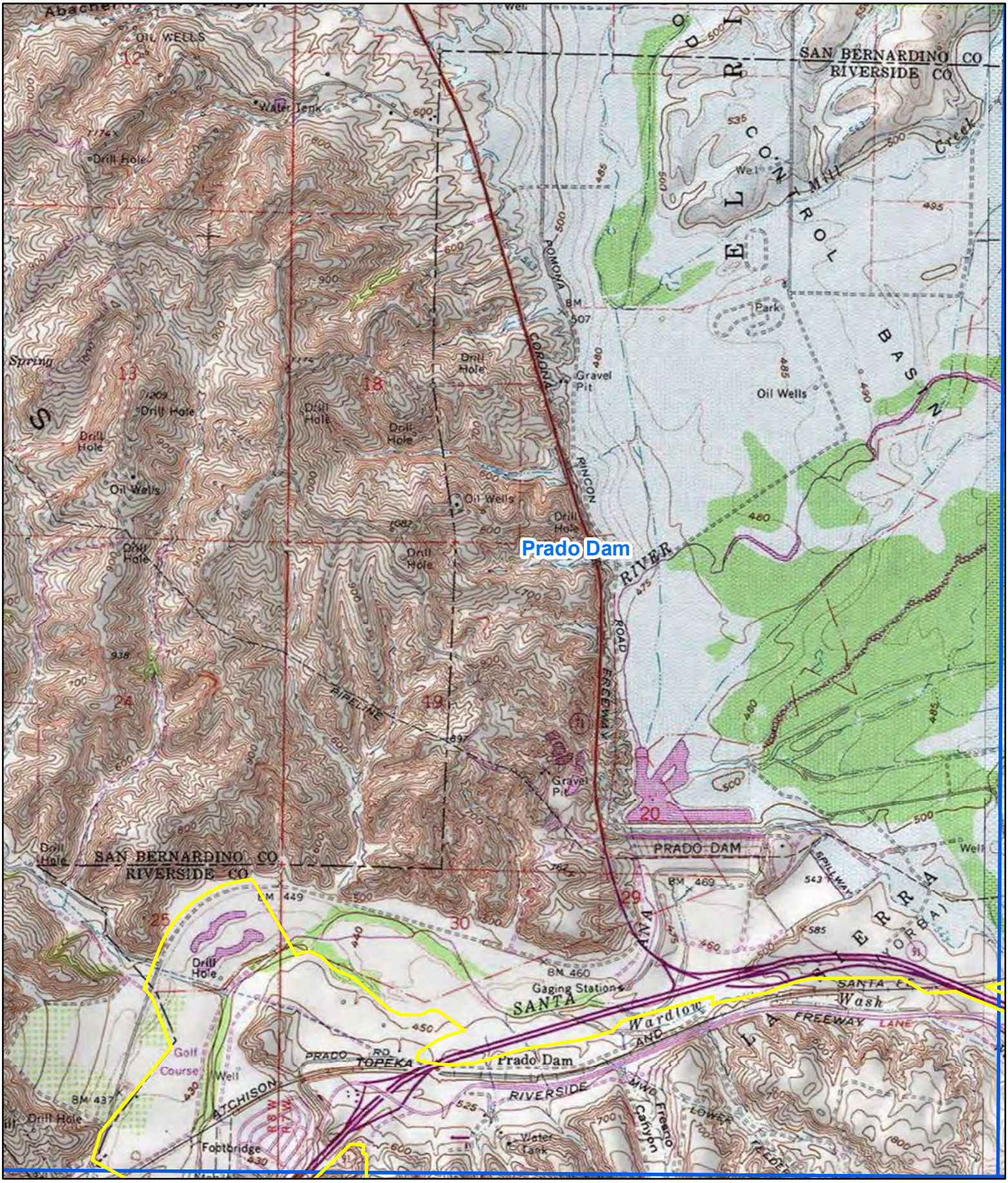


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

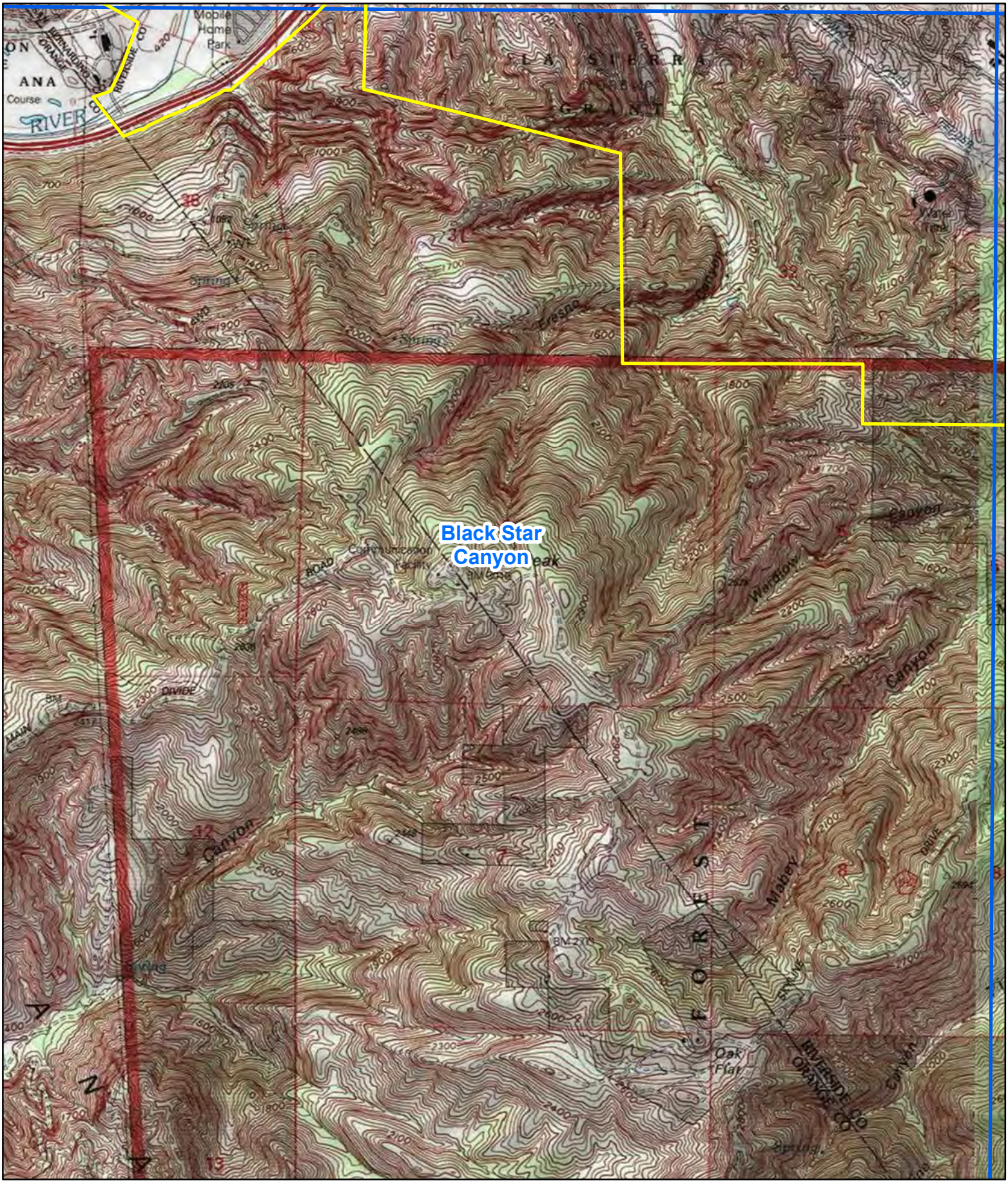
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

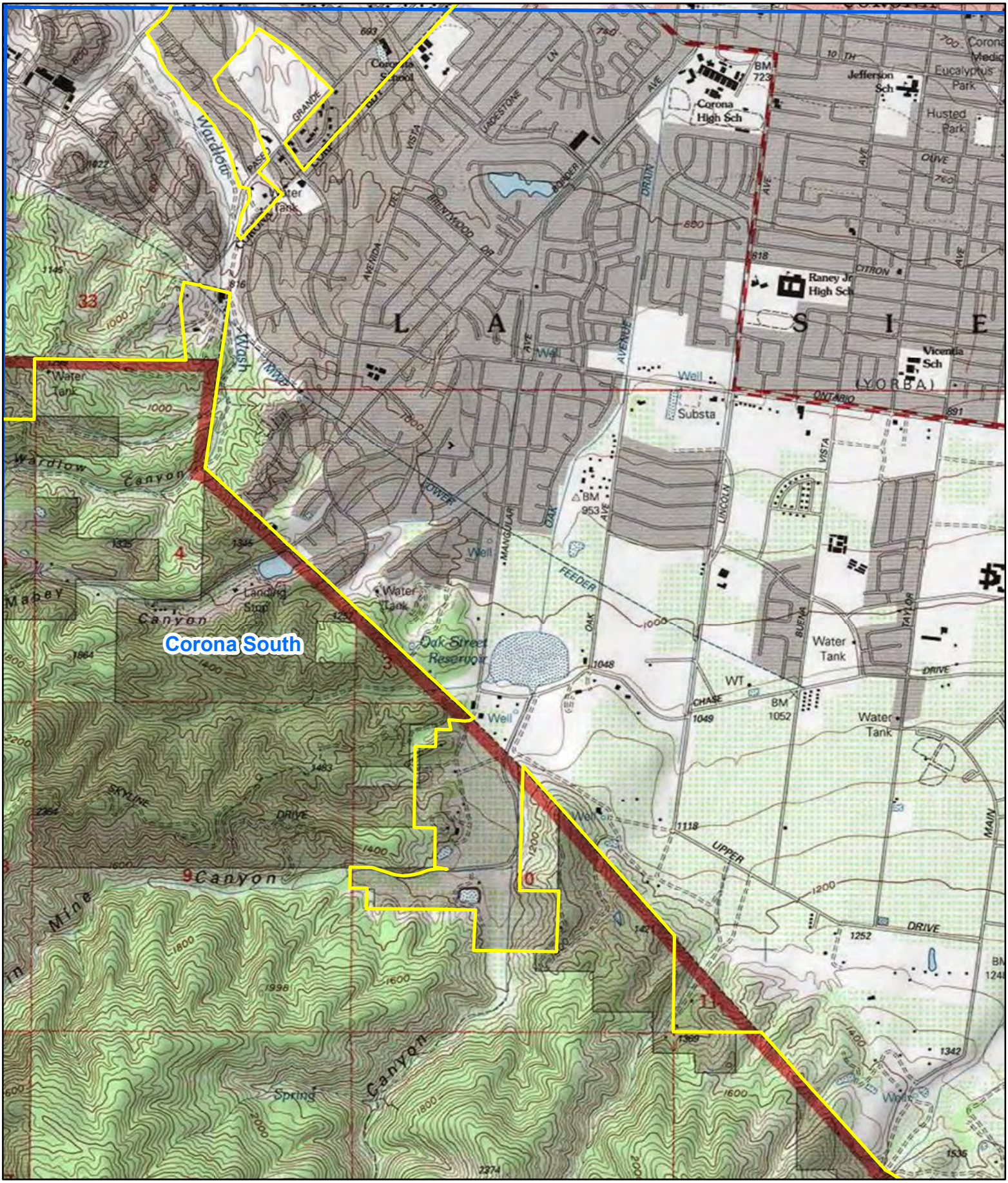
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

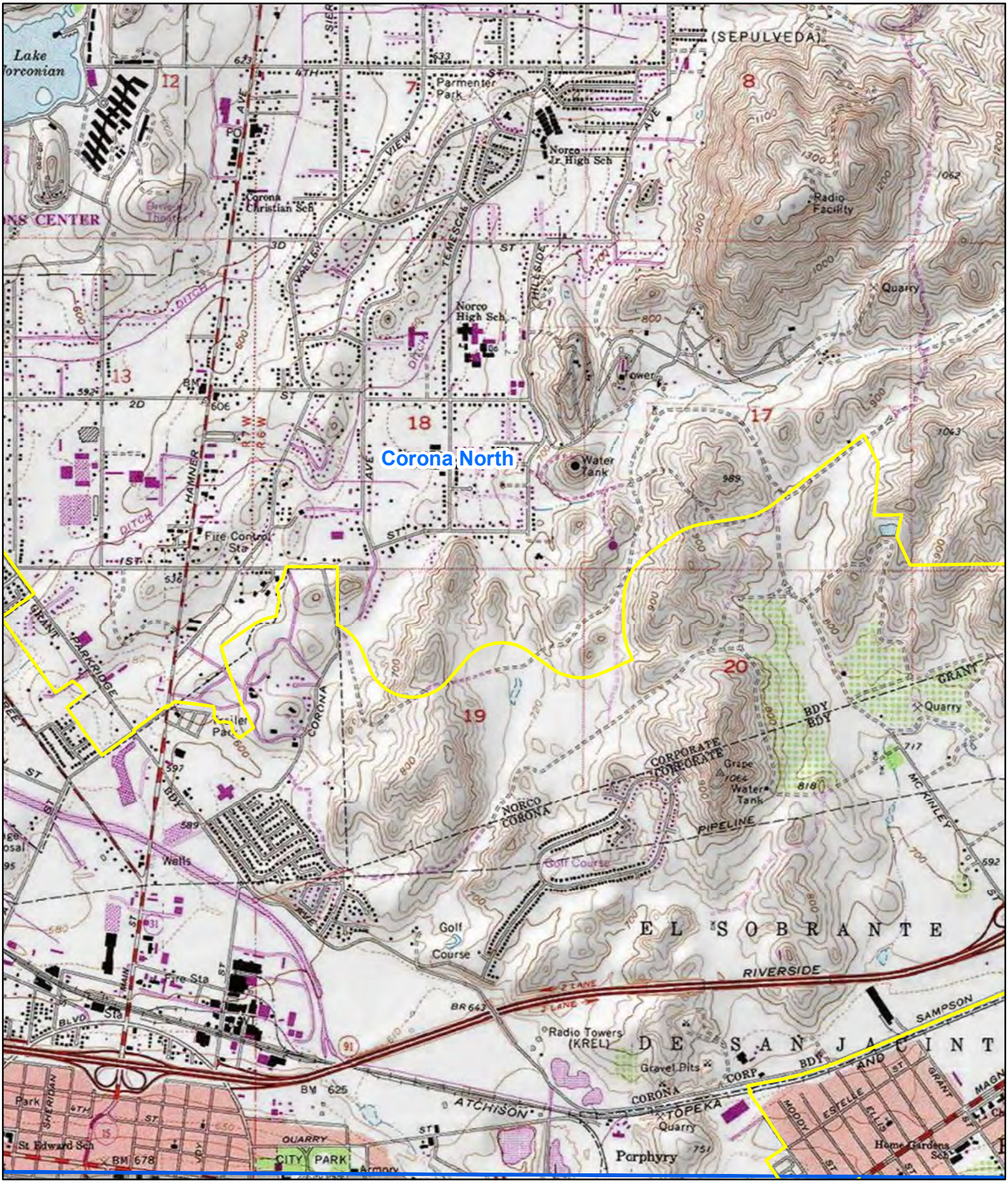
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

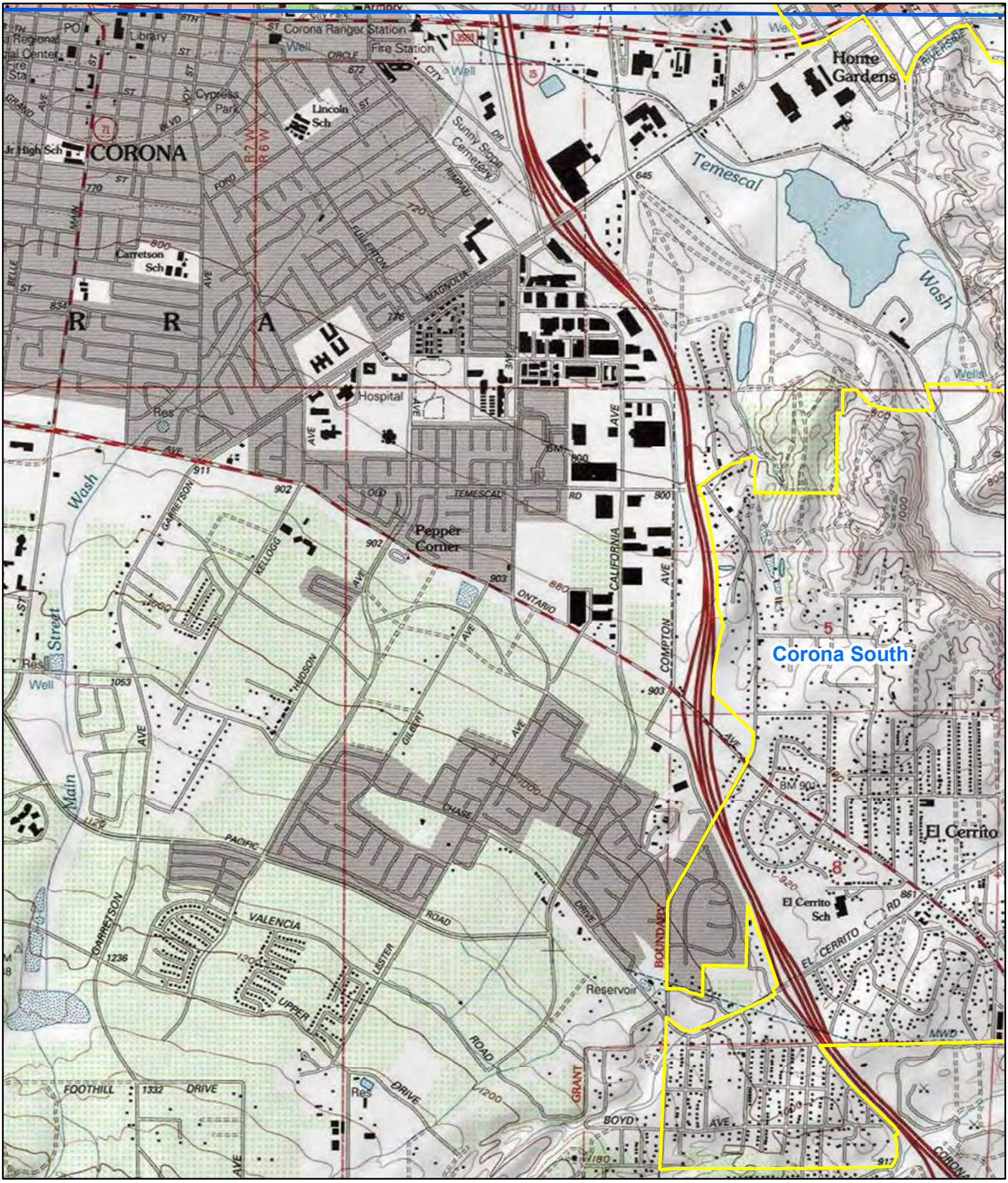


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

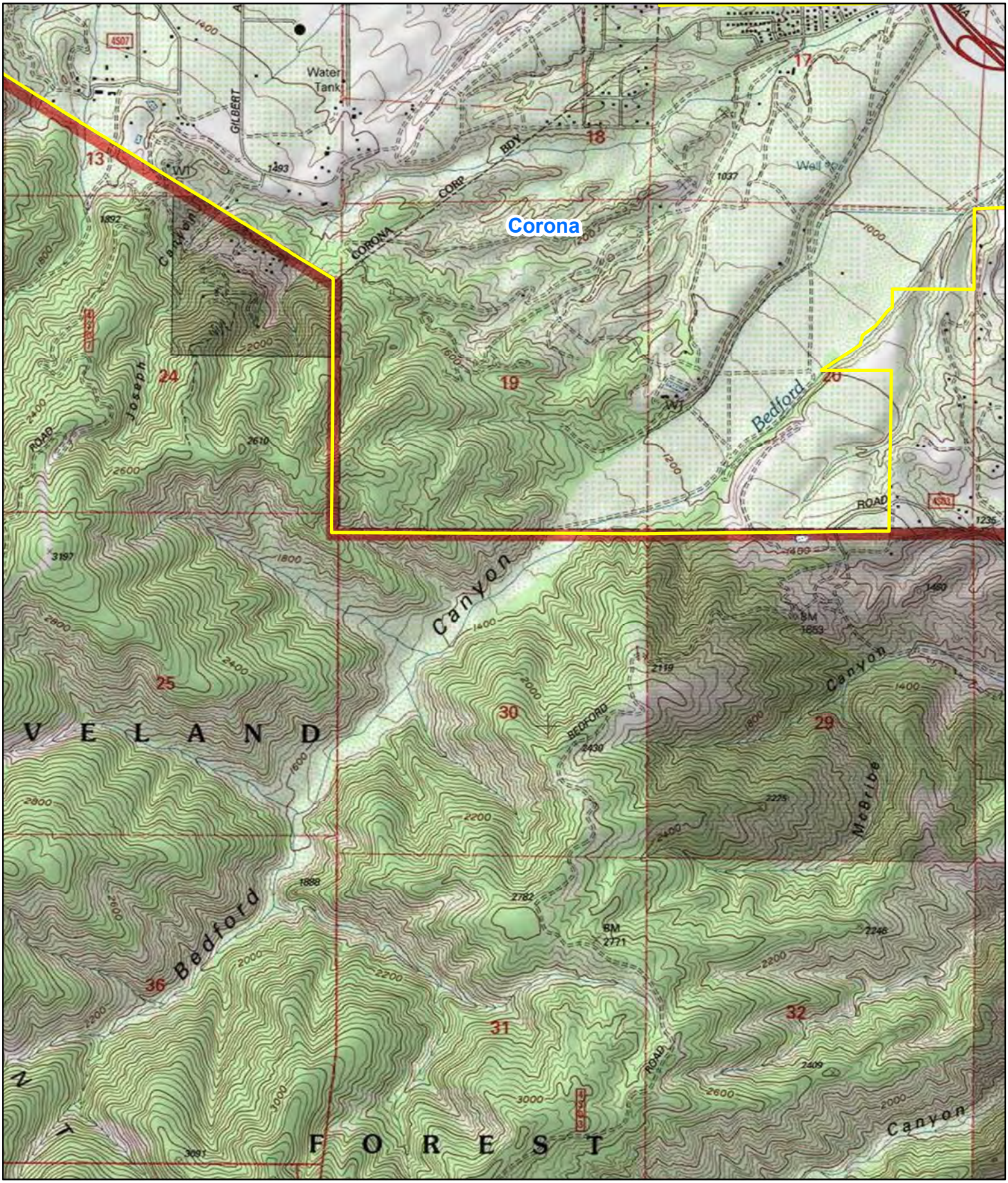
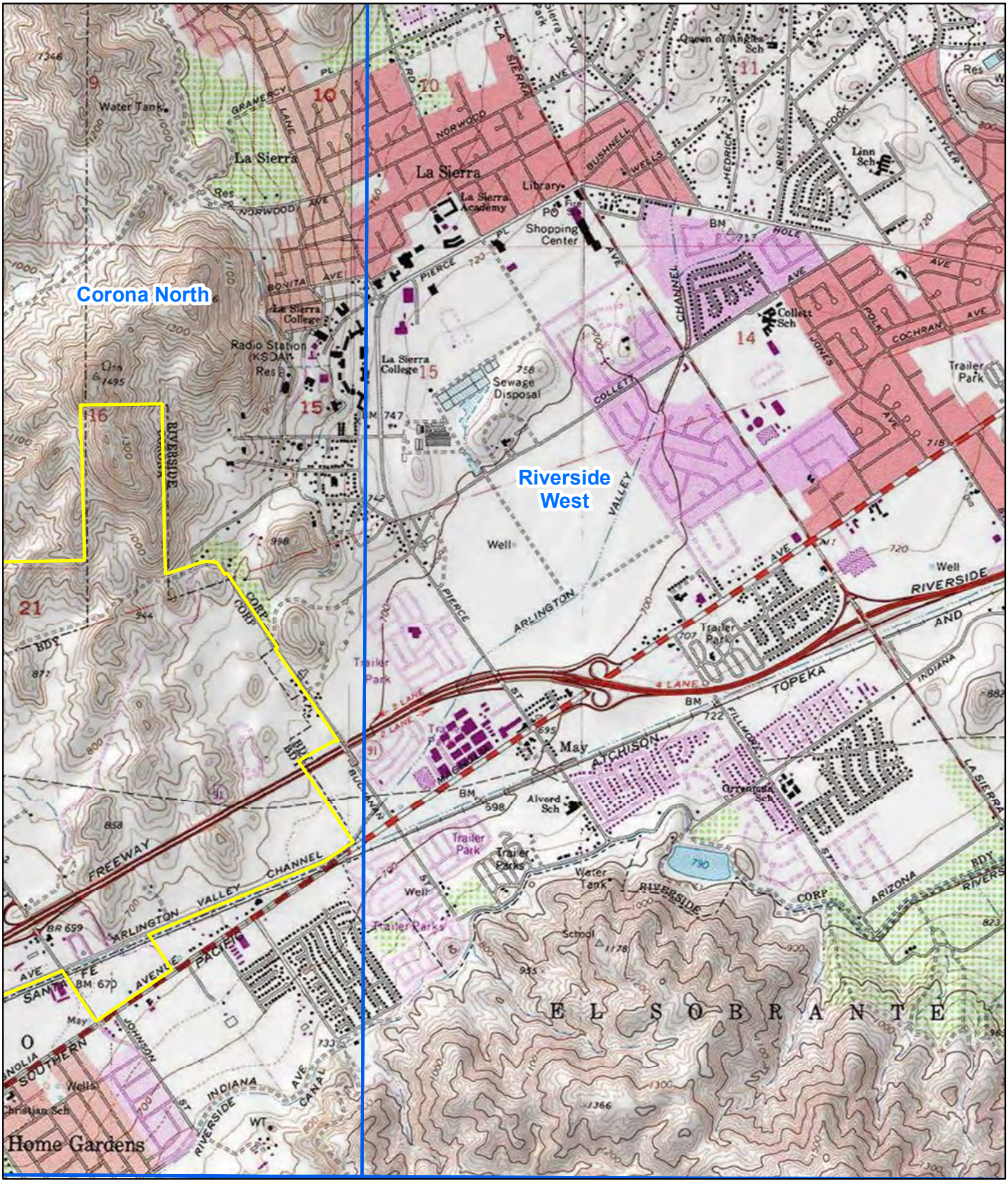


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

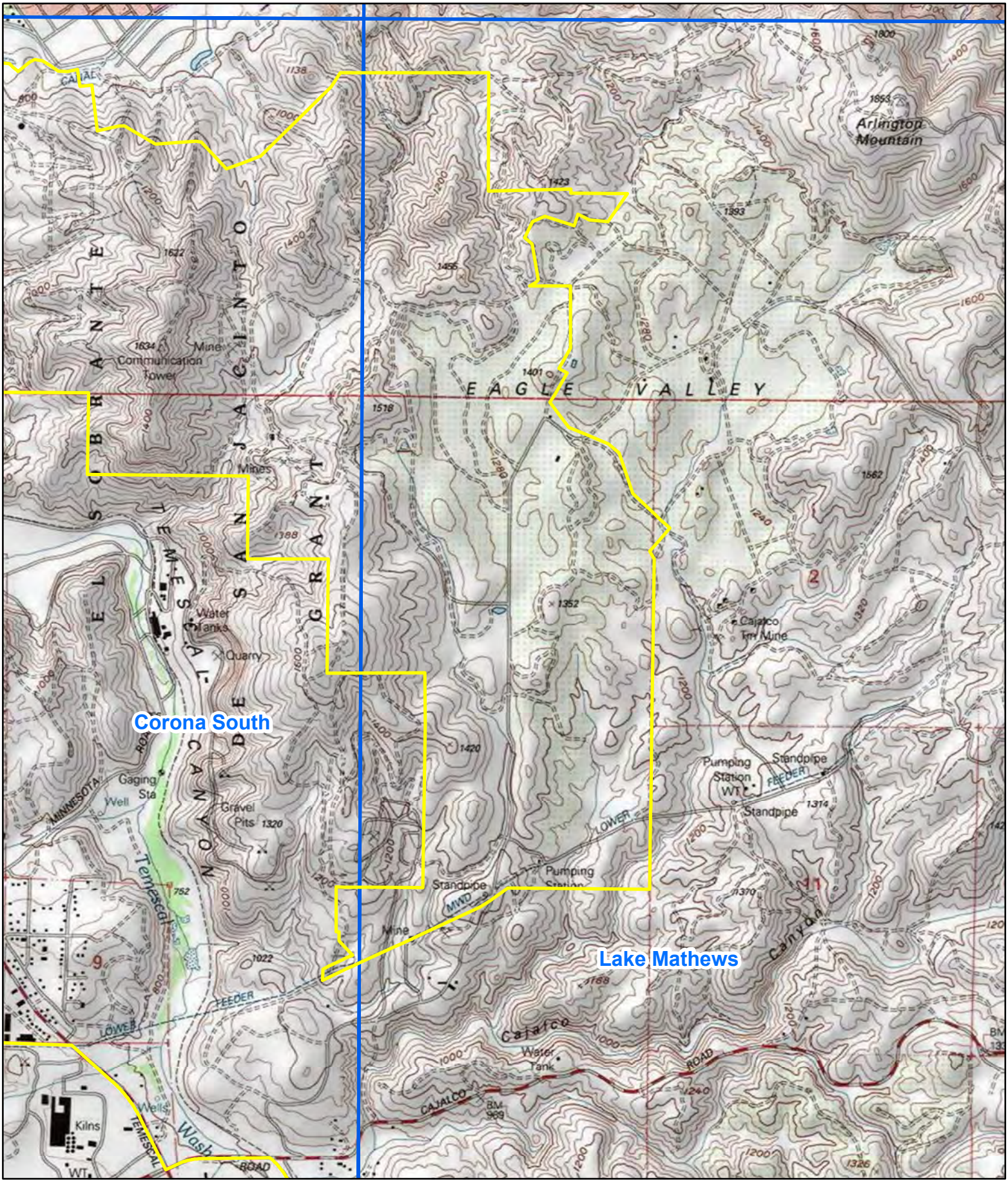
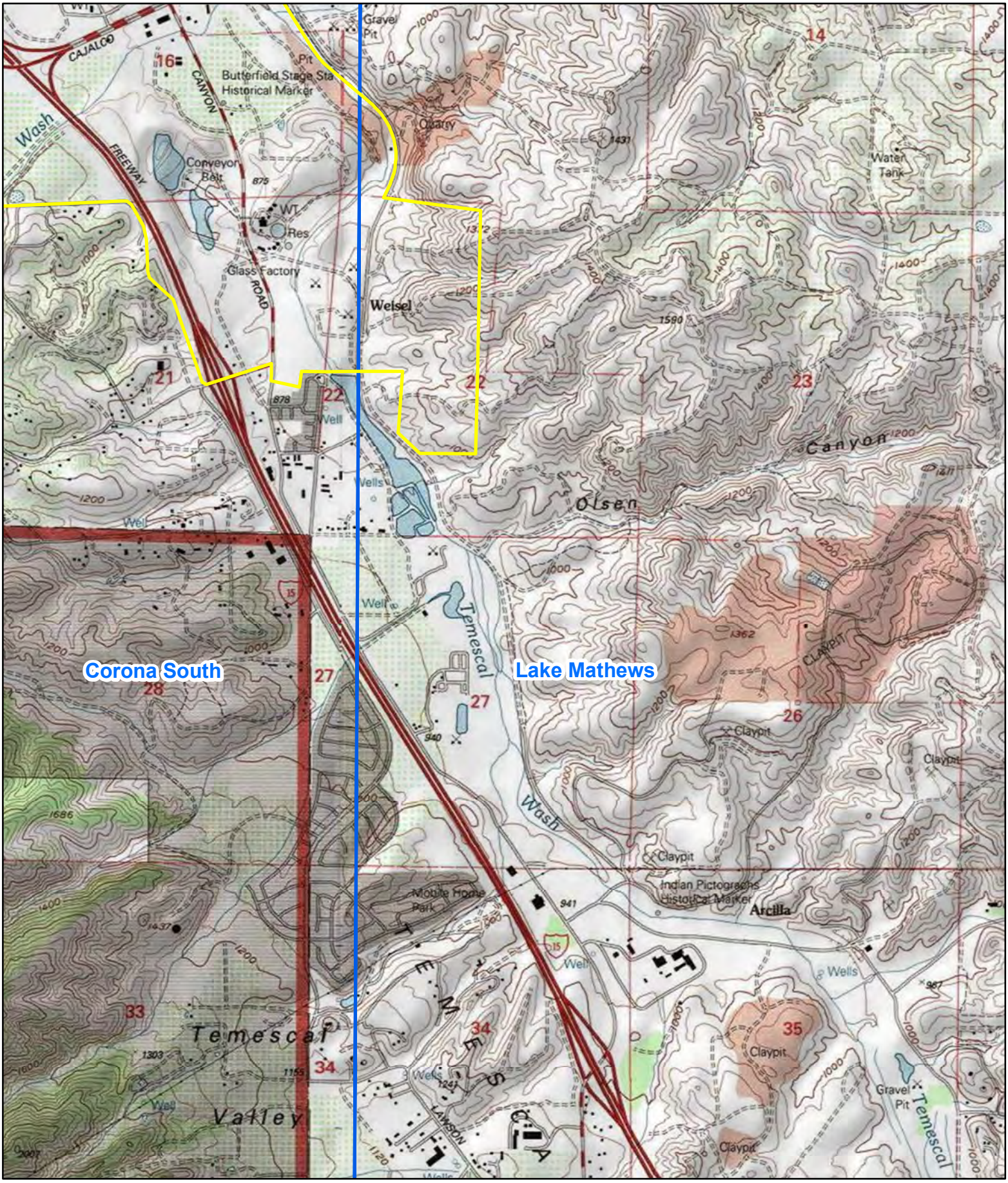


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Donna Yocum
Chairperson
San Fernando Band of Mission Indians
PO Box 221838, Newhall, CA, 91322
503-539-0933
ddyocum@comcast.net

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Ms. Yocum,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

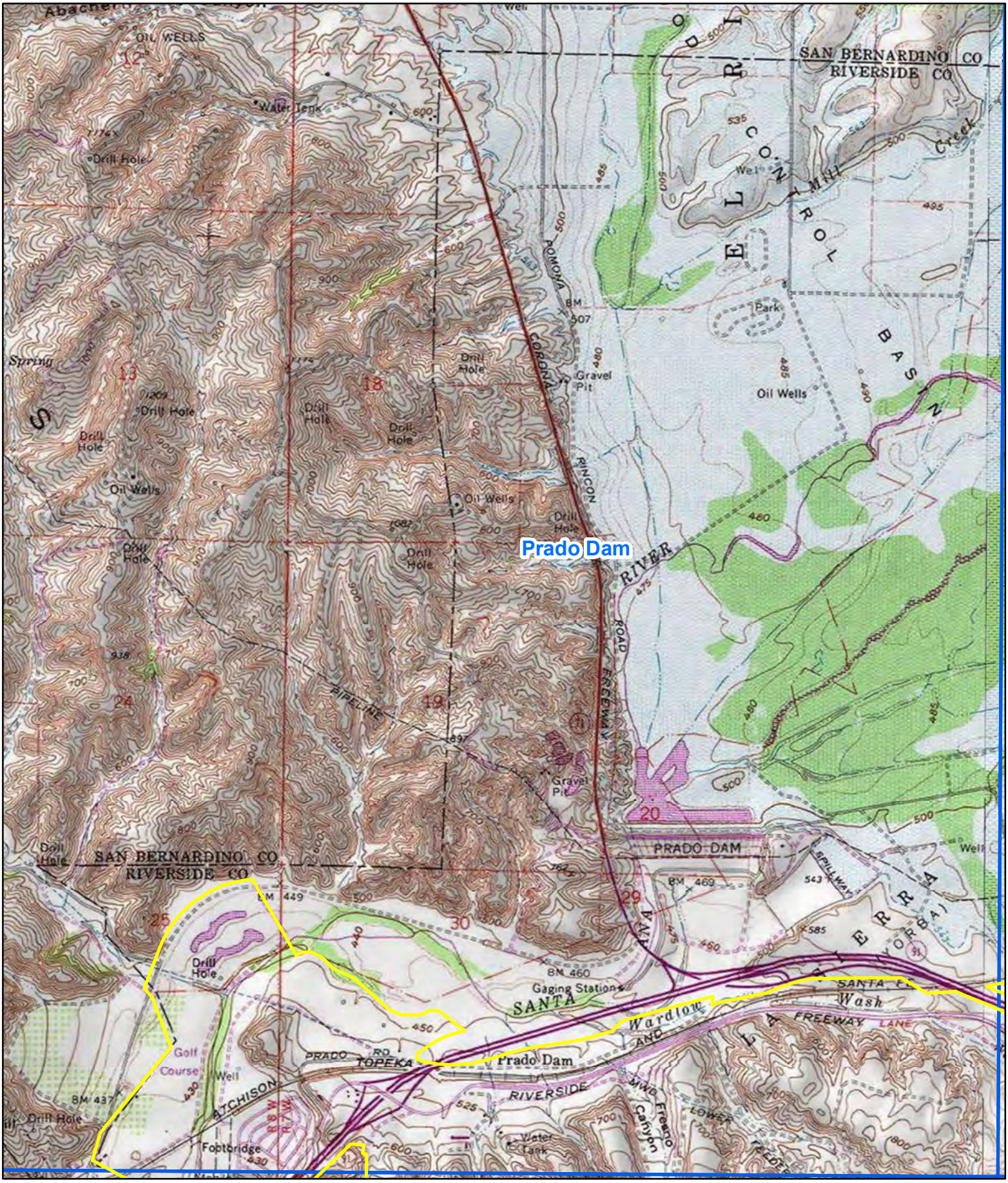


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

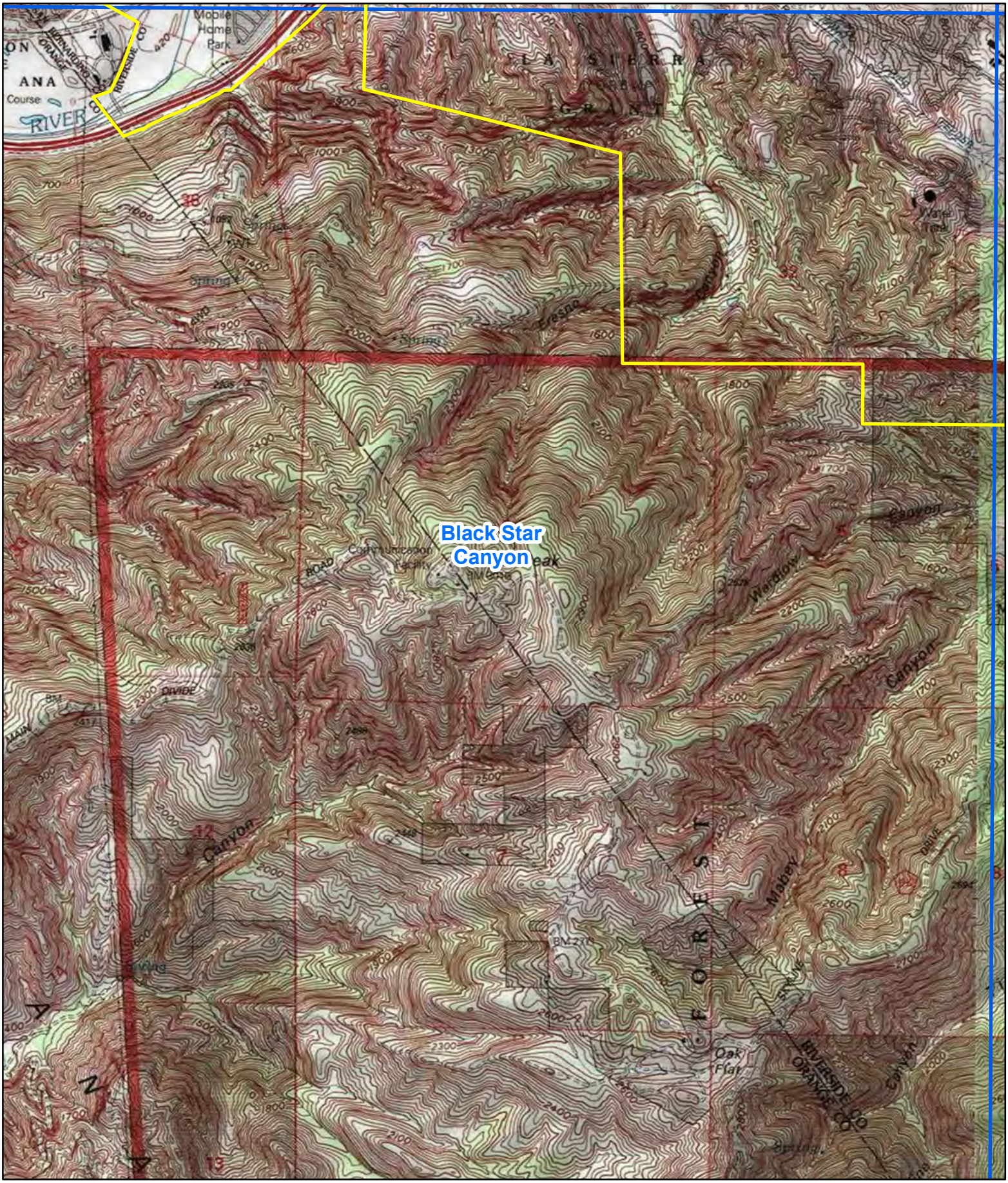
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

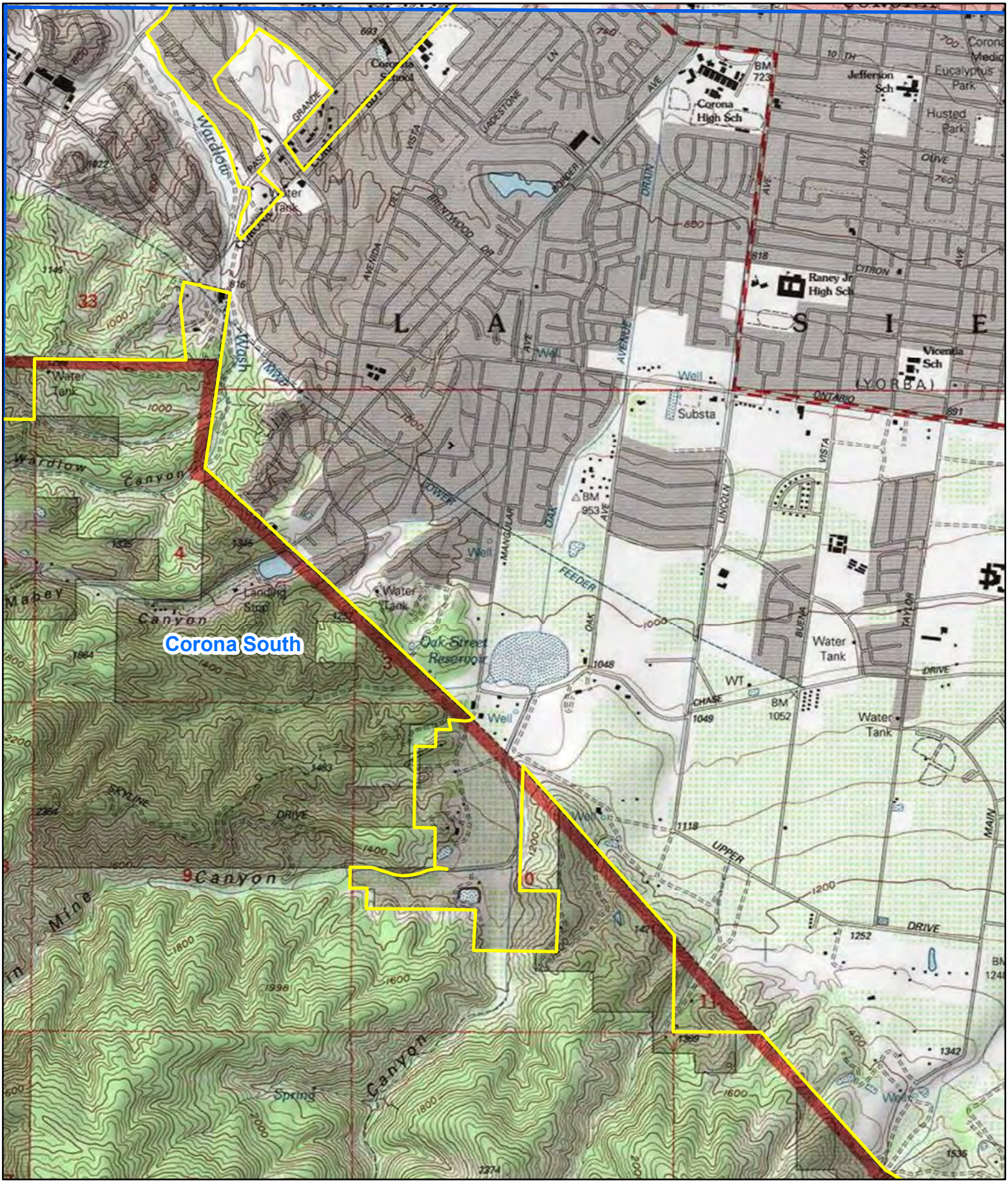
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

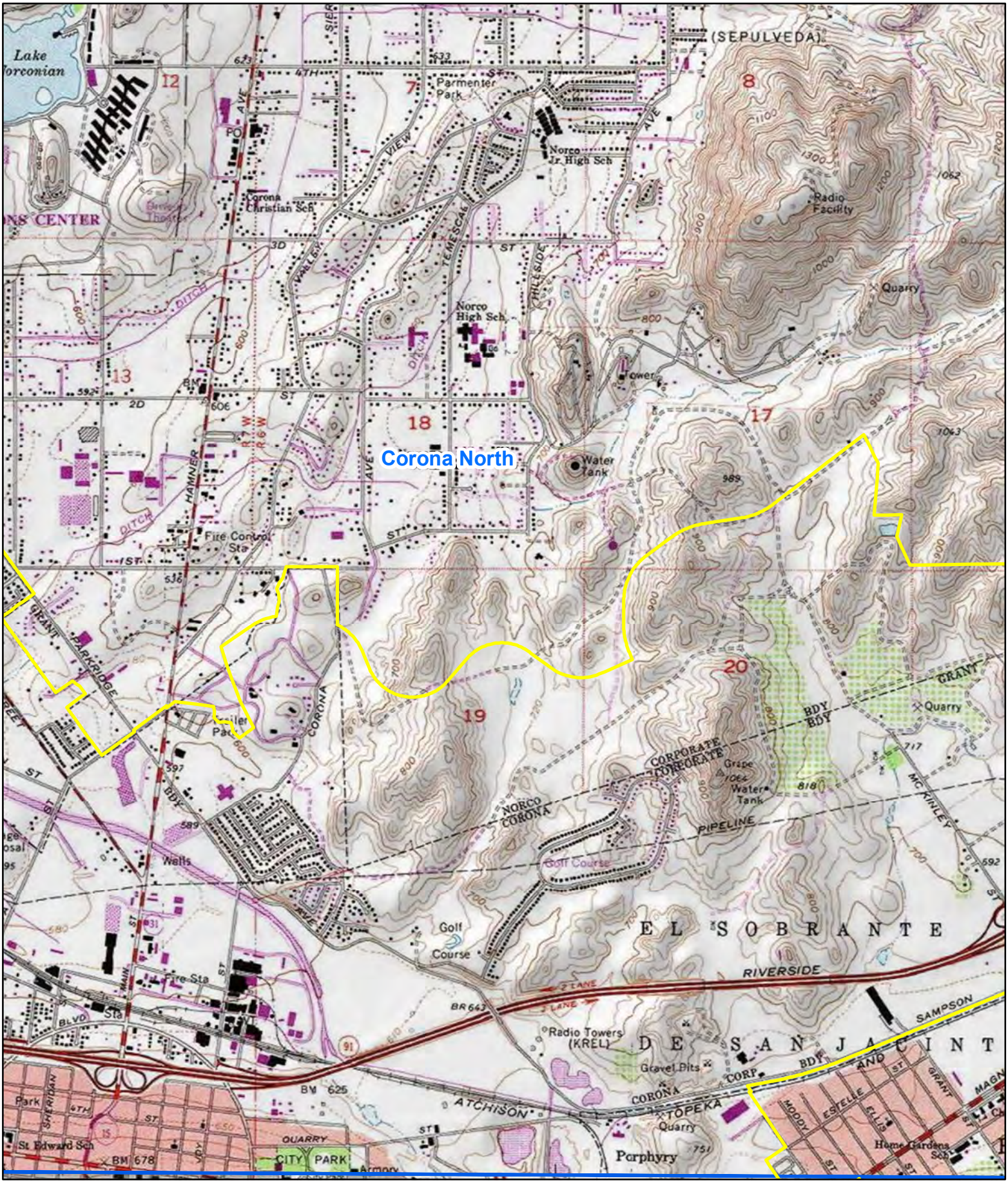
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

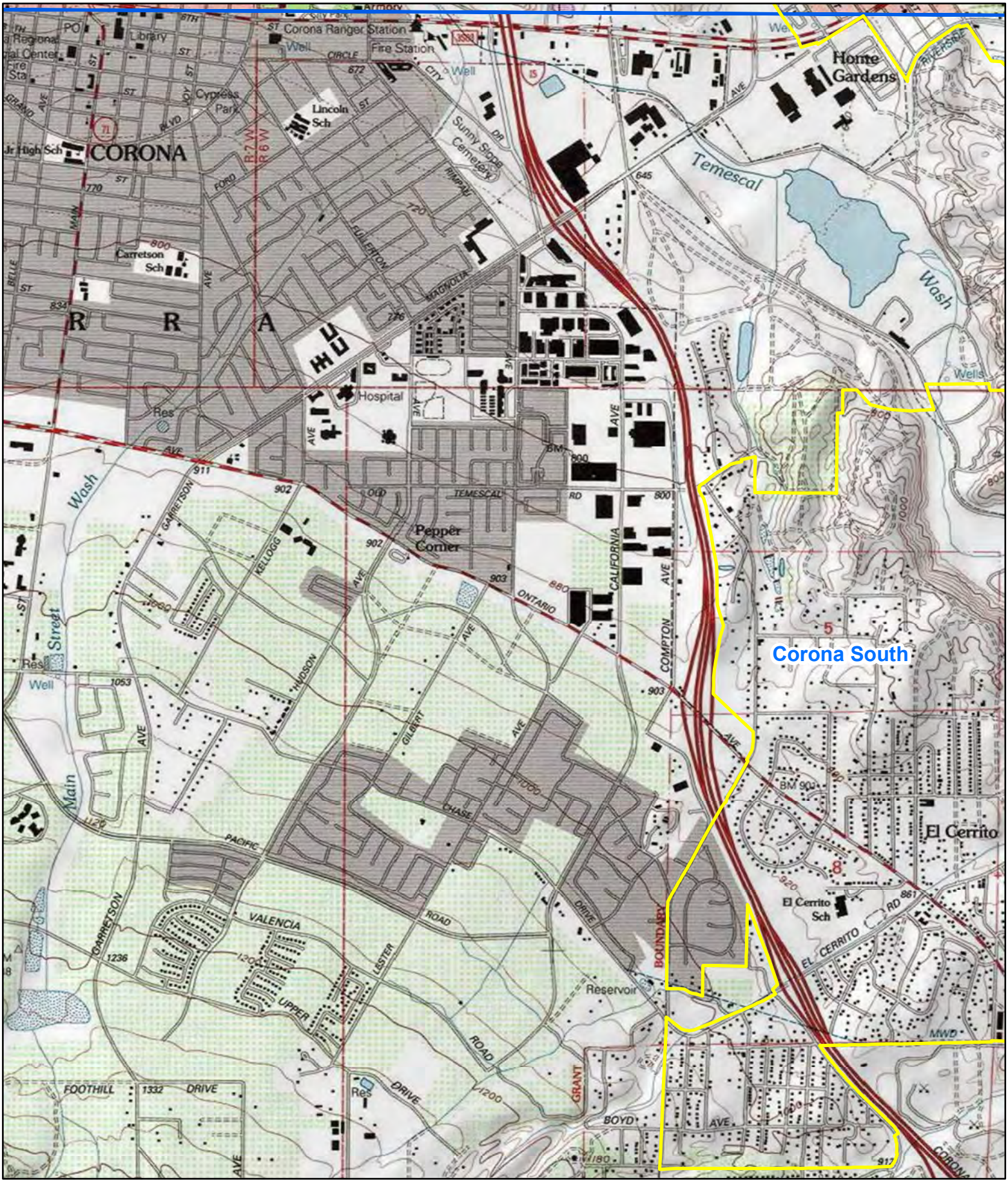


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

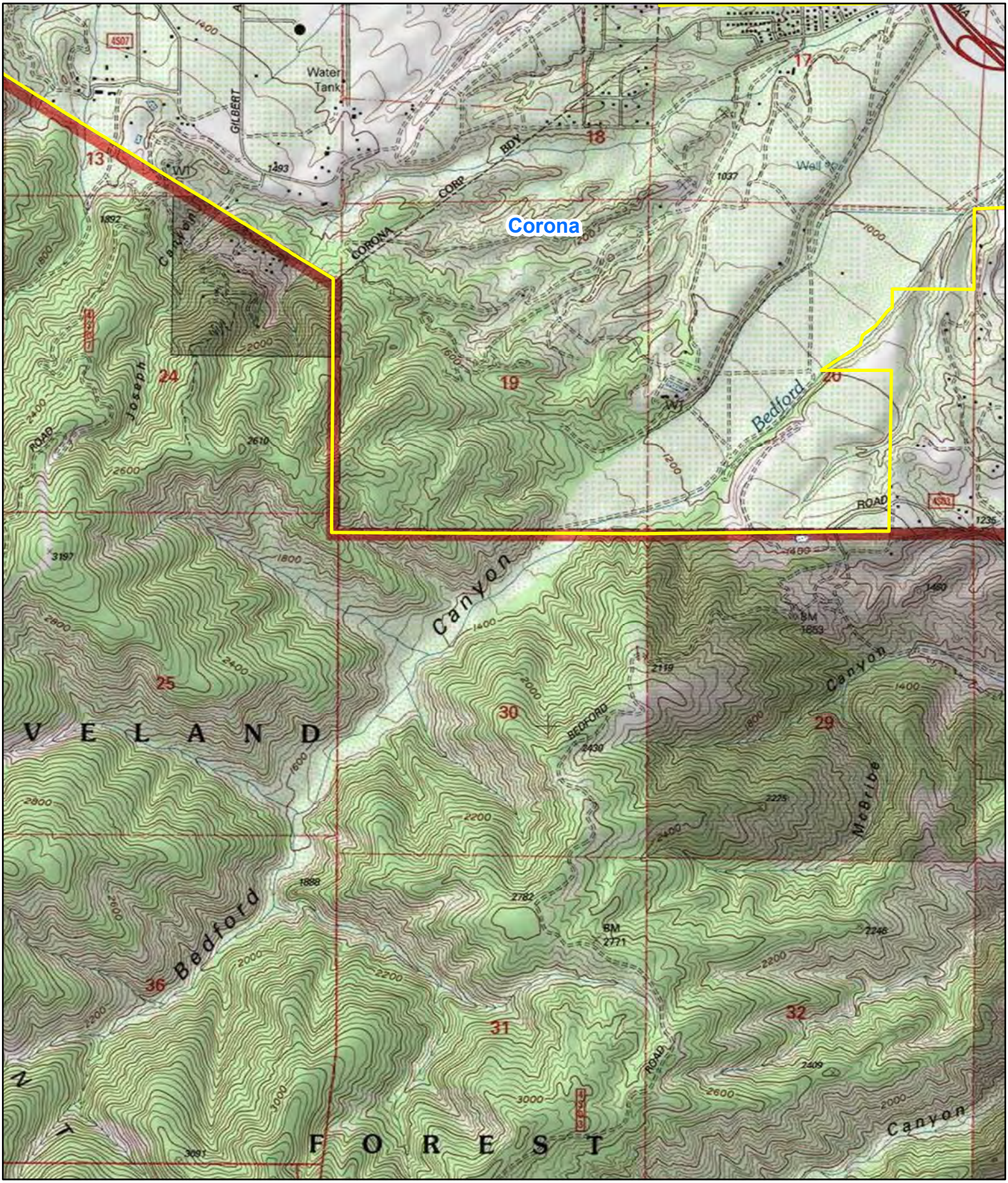
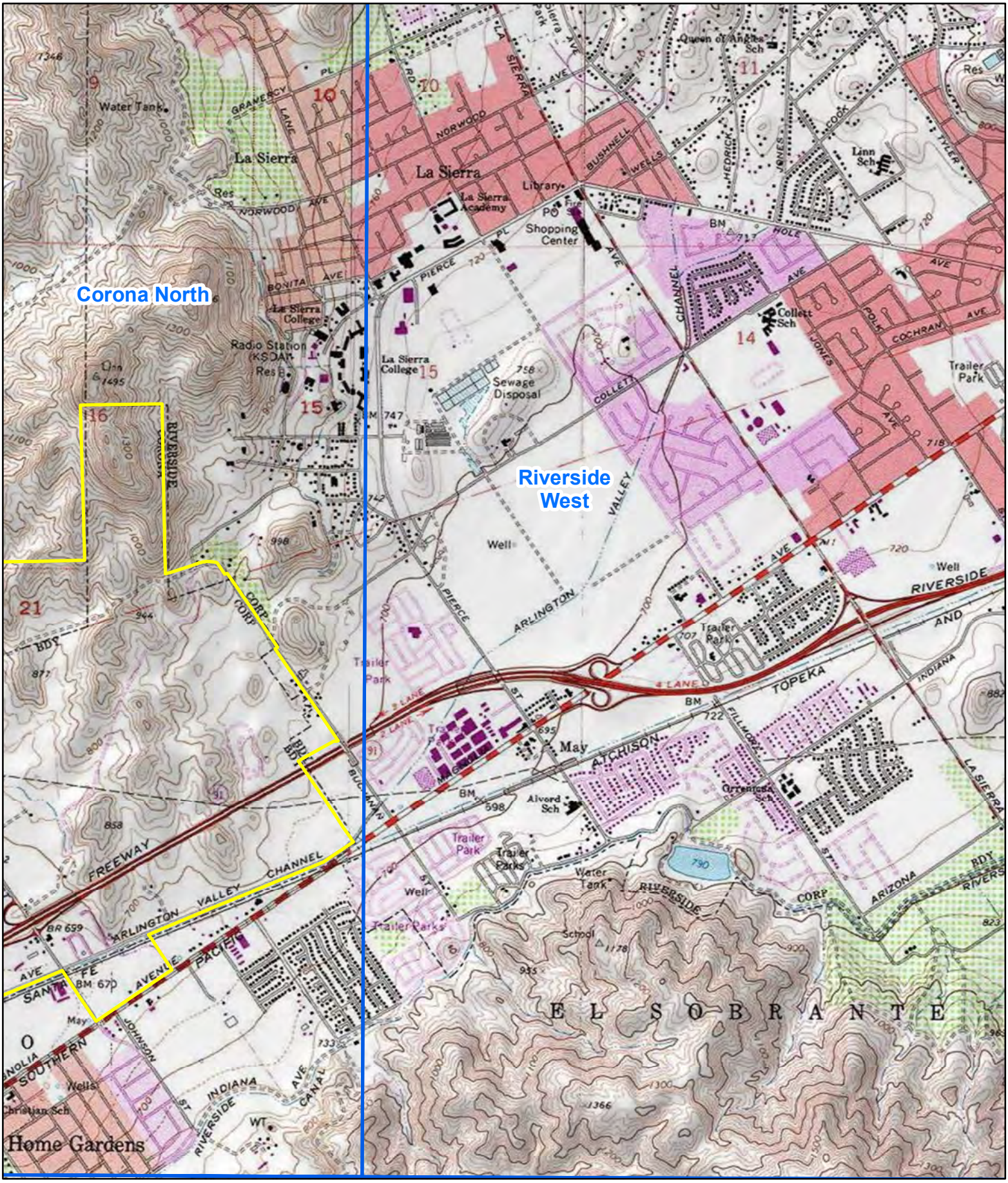


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

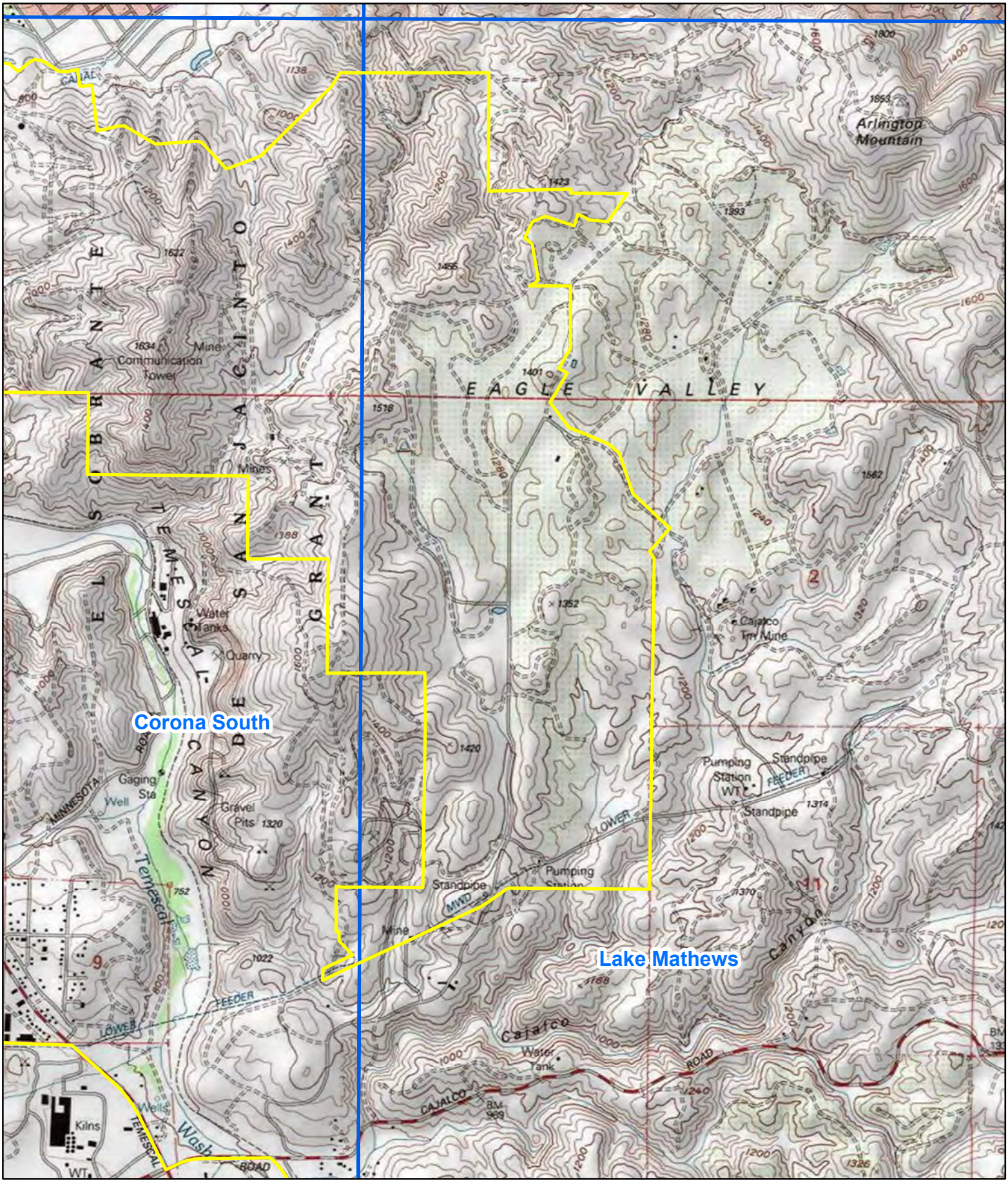
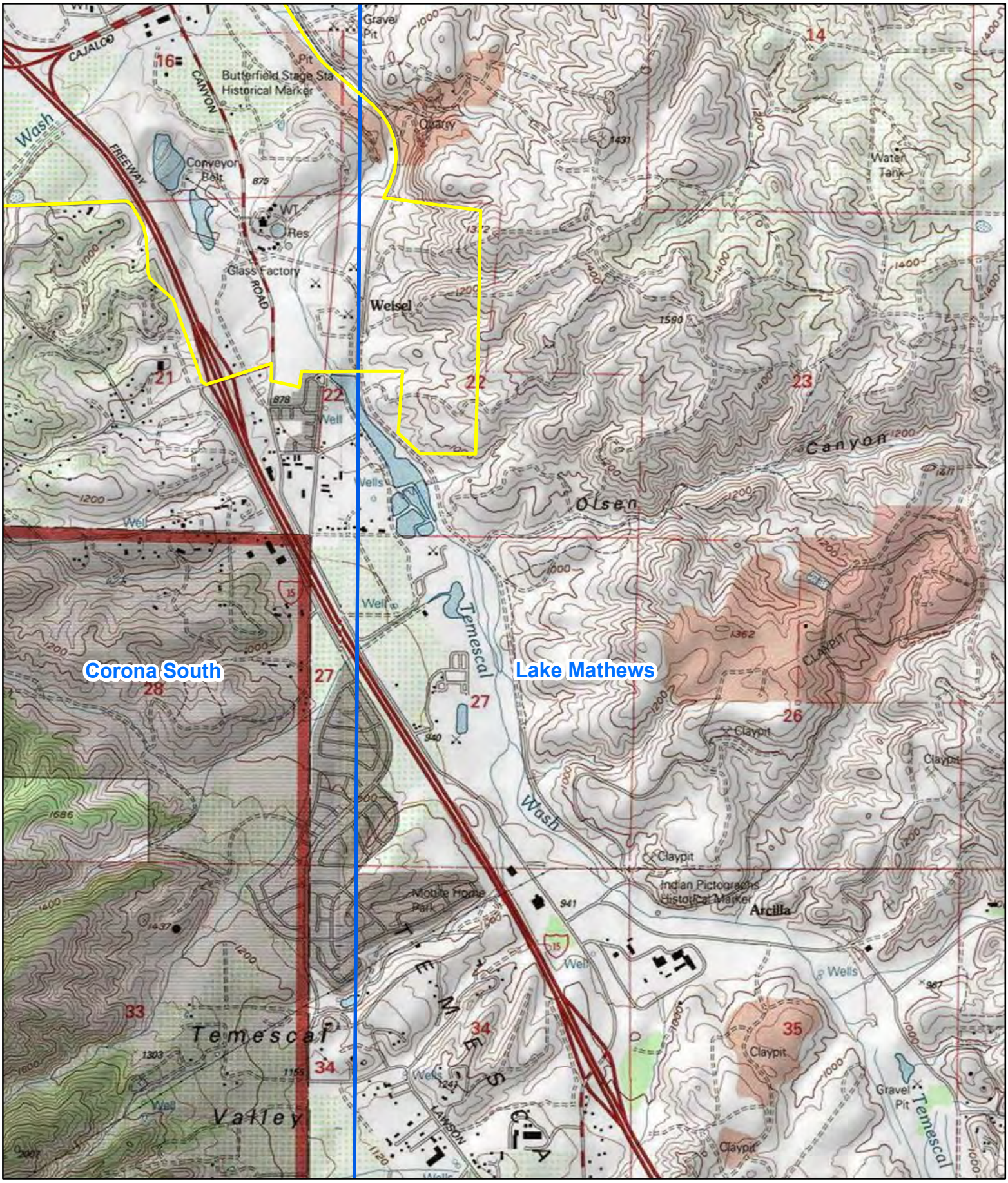


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Erica Pinto
Chairperson
Jamul Indian Village
PO Box 612, Jamul, CA, 91935
619-669-4785
epinto@jiv-nsn.gov

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Ms. Pinto,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

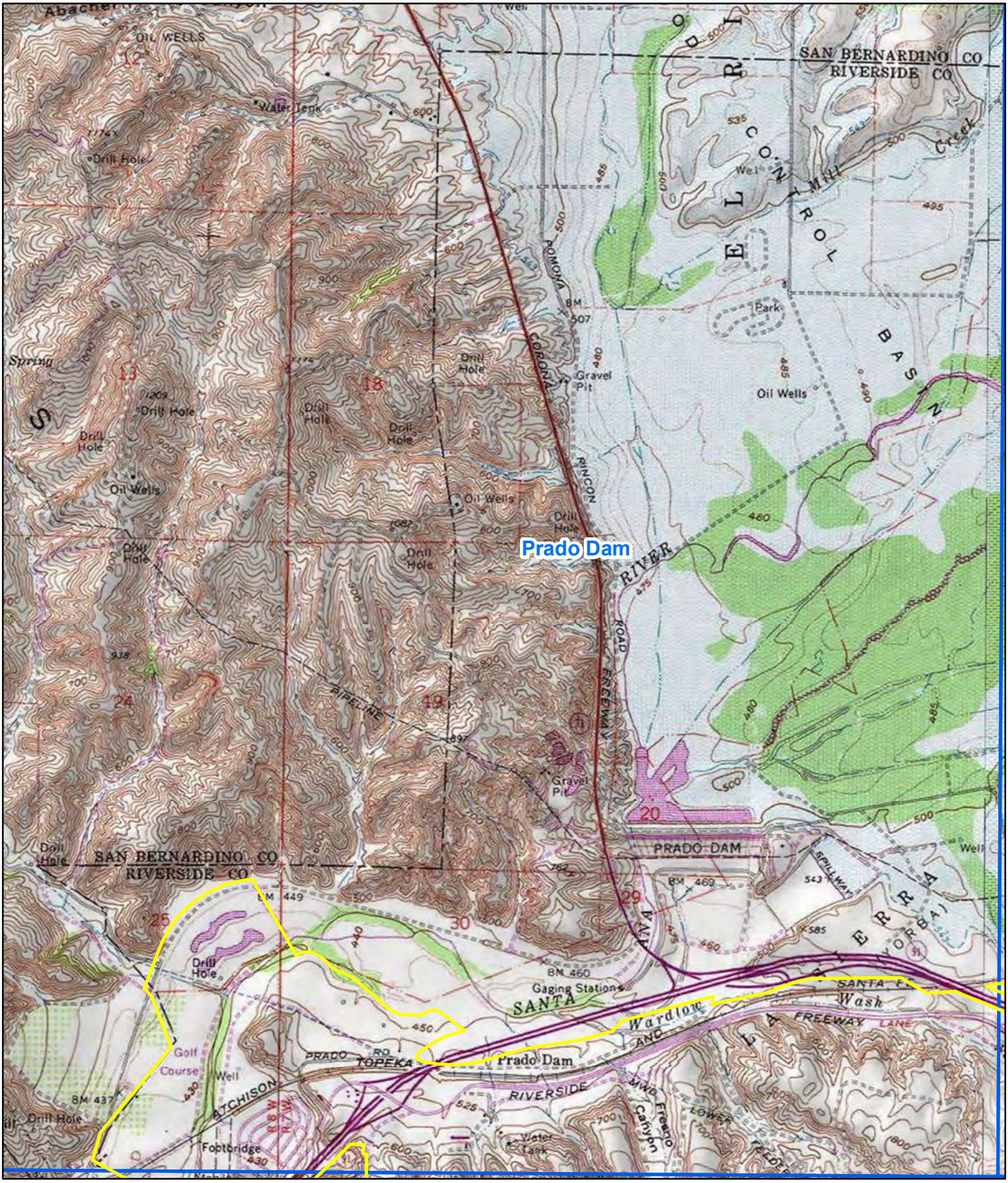


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

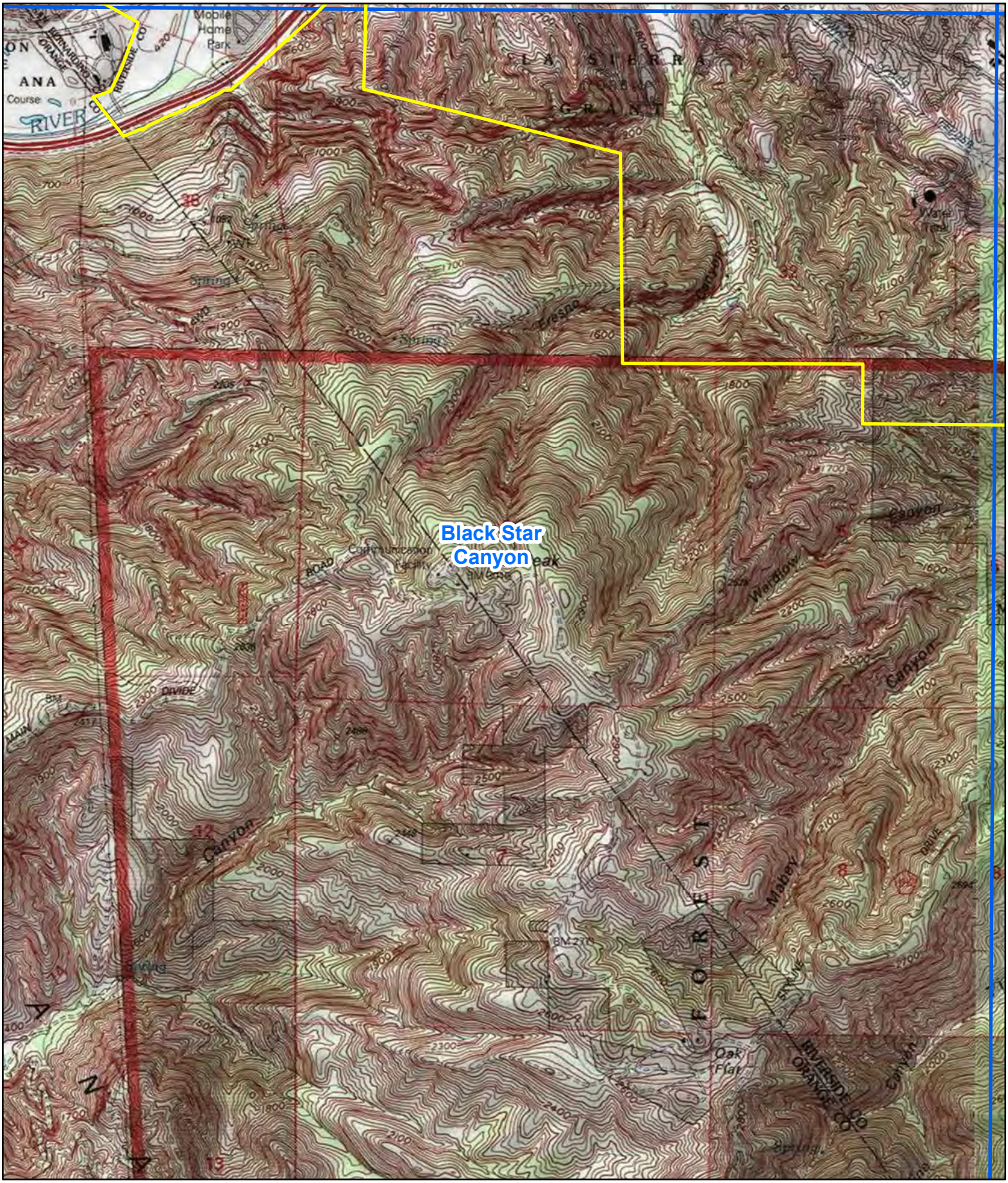
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

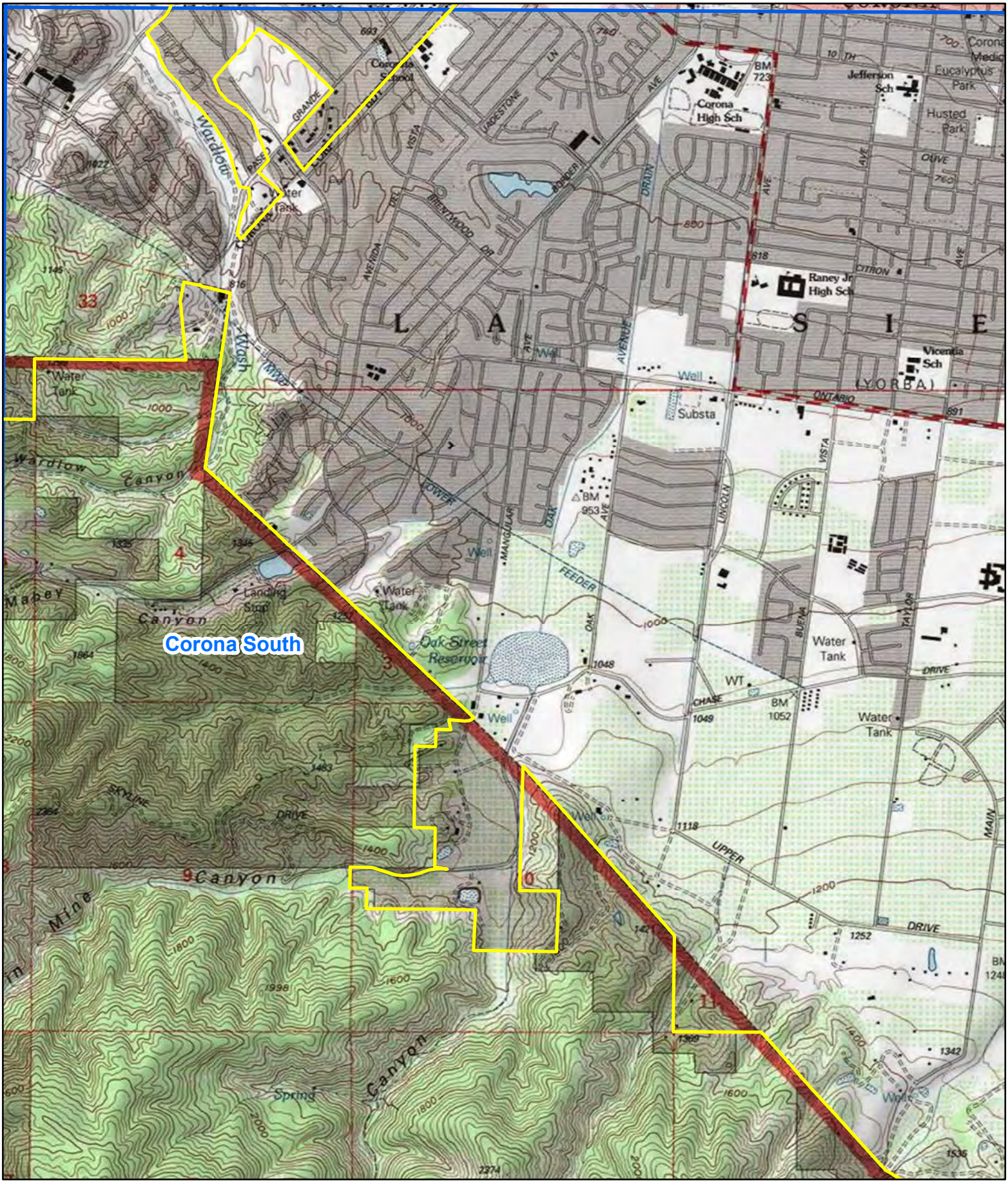
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

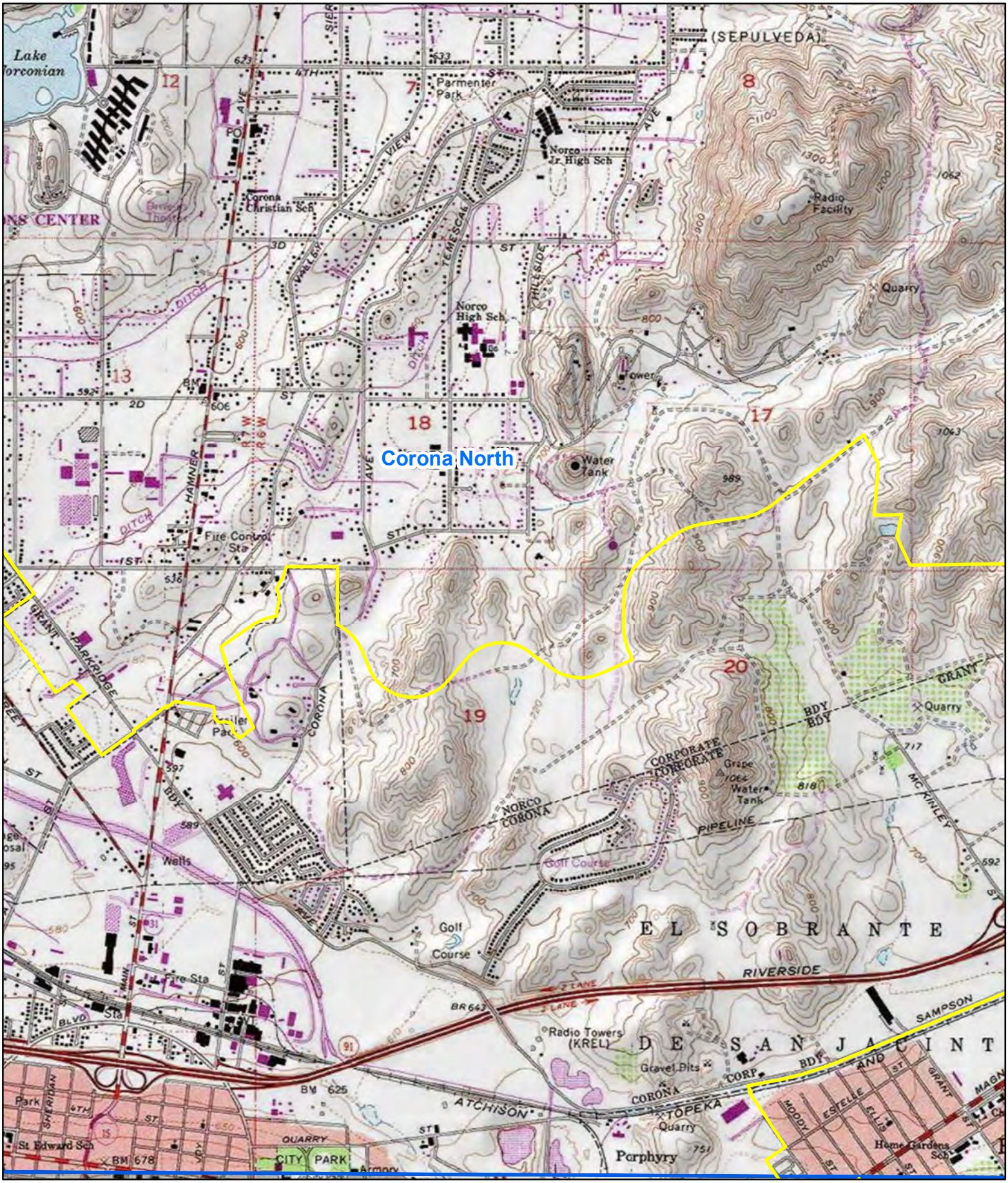
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

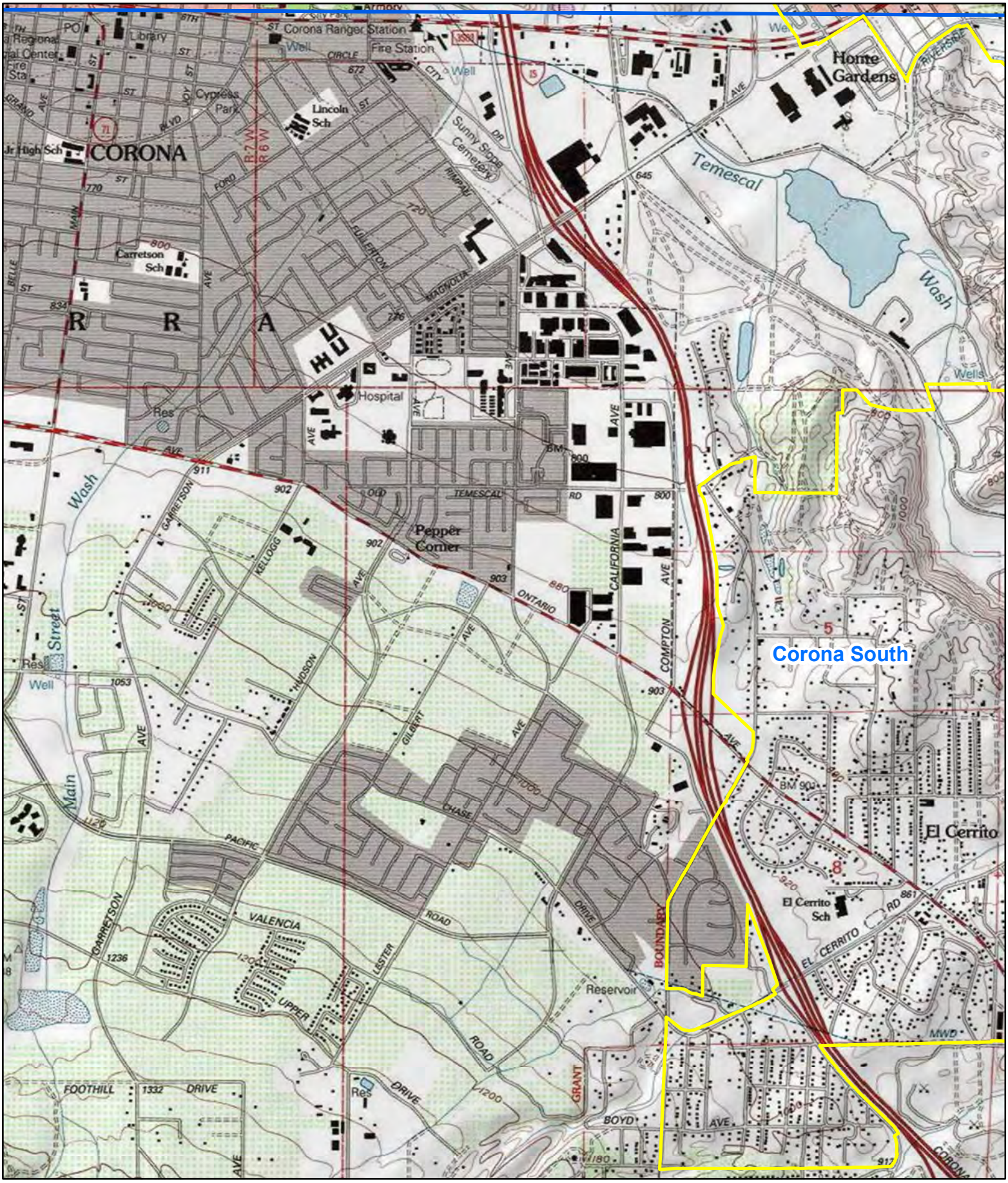


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

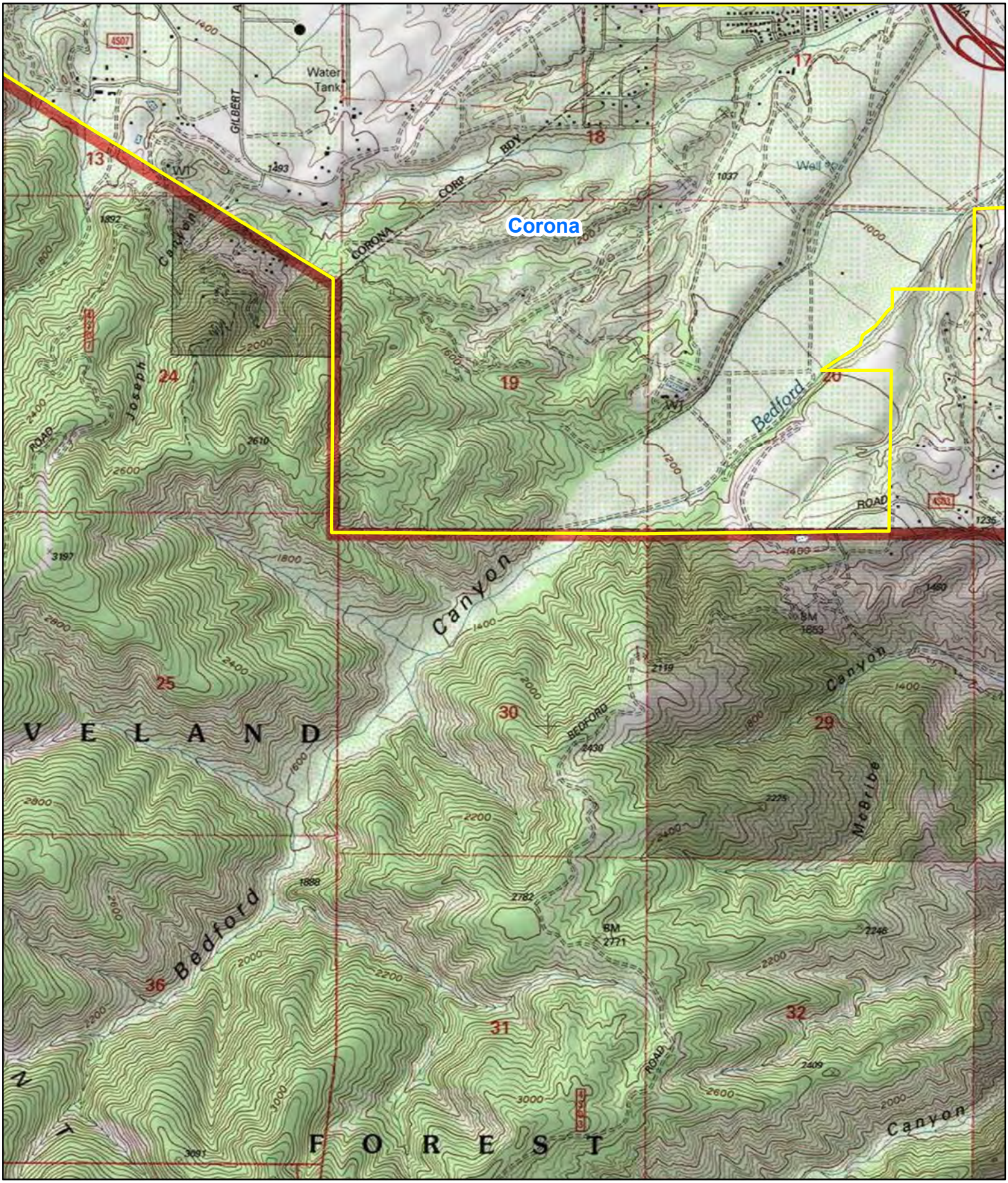
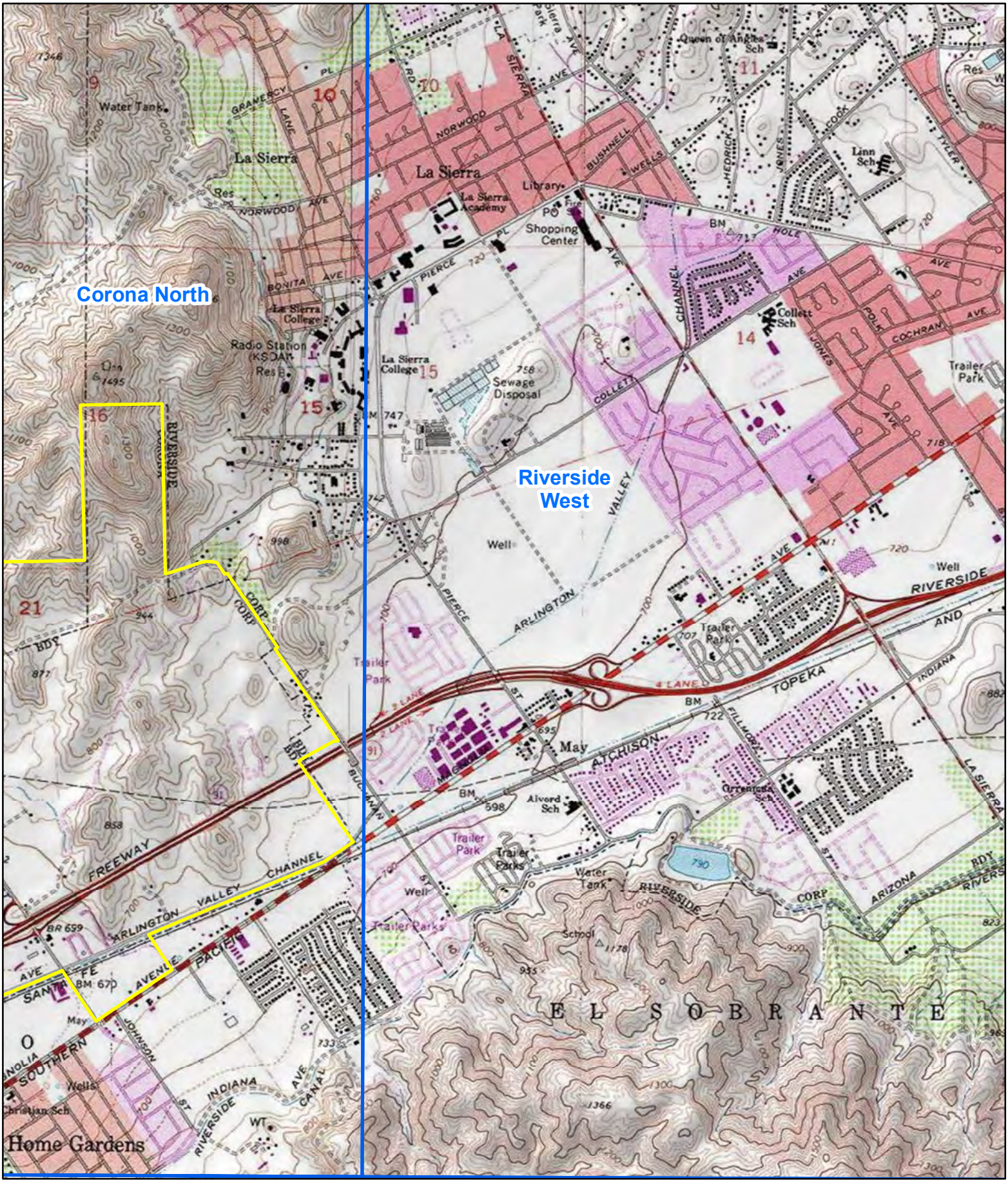


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

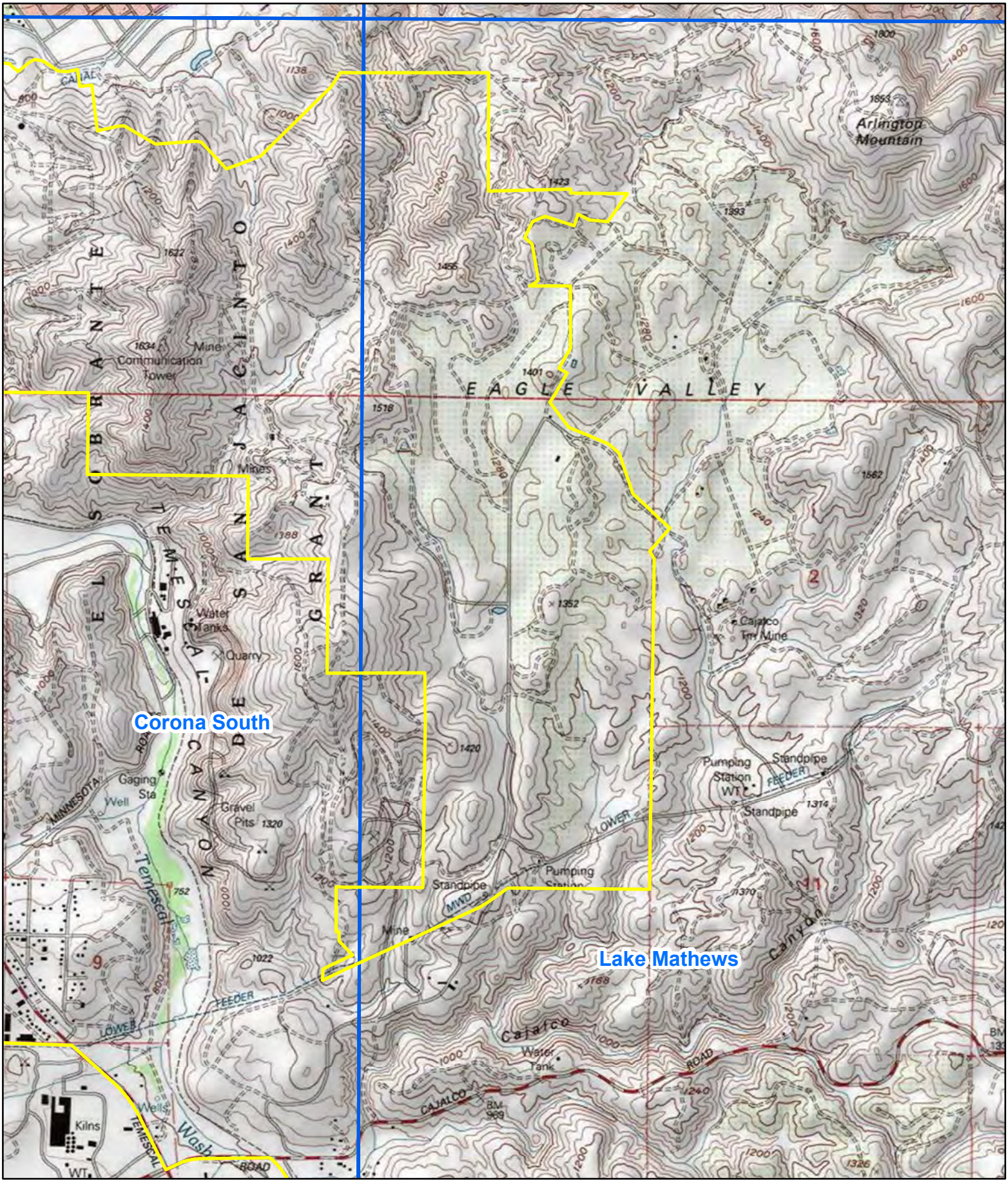
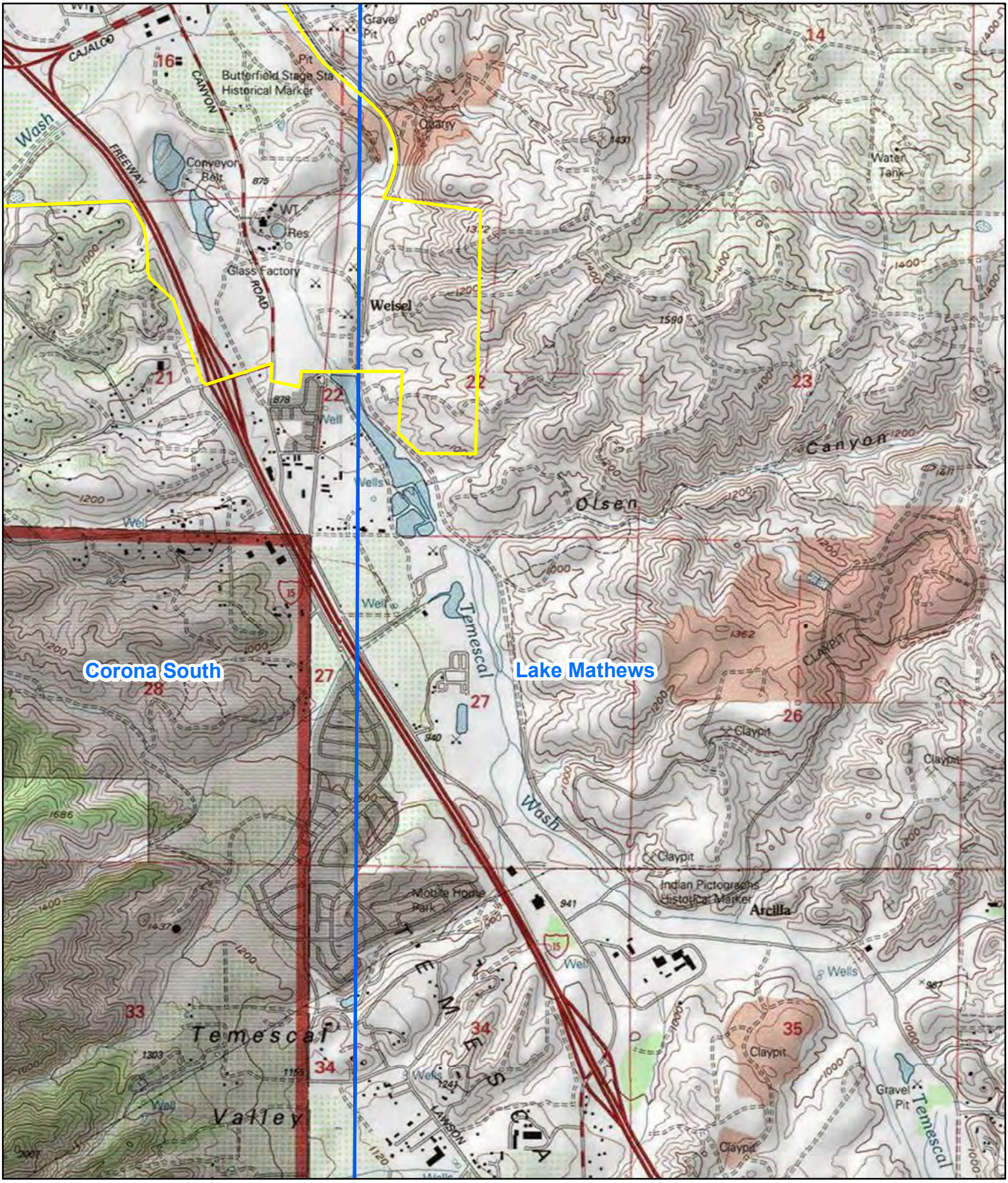


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Fred Nelson
Chairperson
La Jolla Band of Luiseno Indians
22000 Highway 76, Pauma Valley, CA, 92061
760-742-3771

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Nelson,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

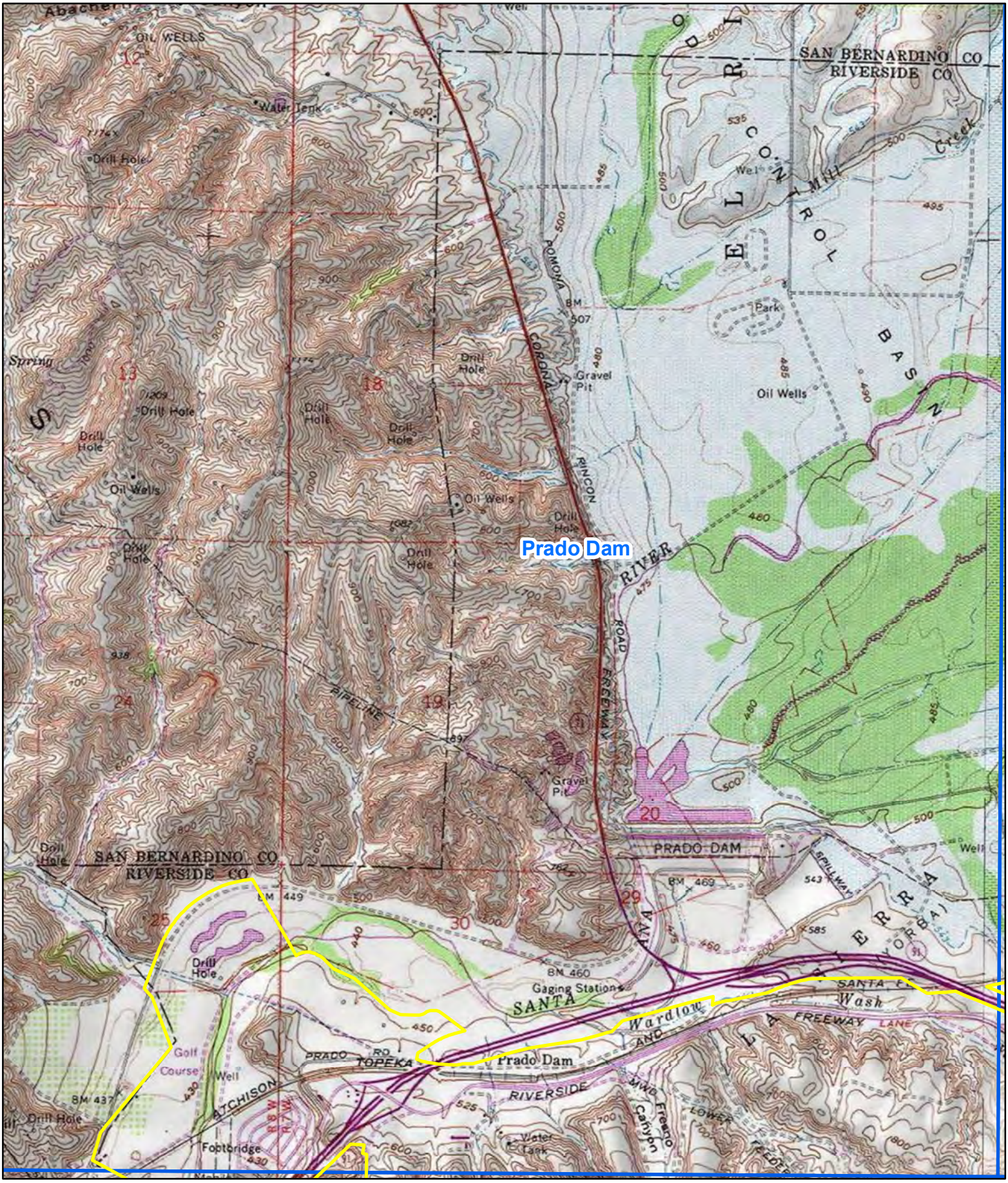


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

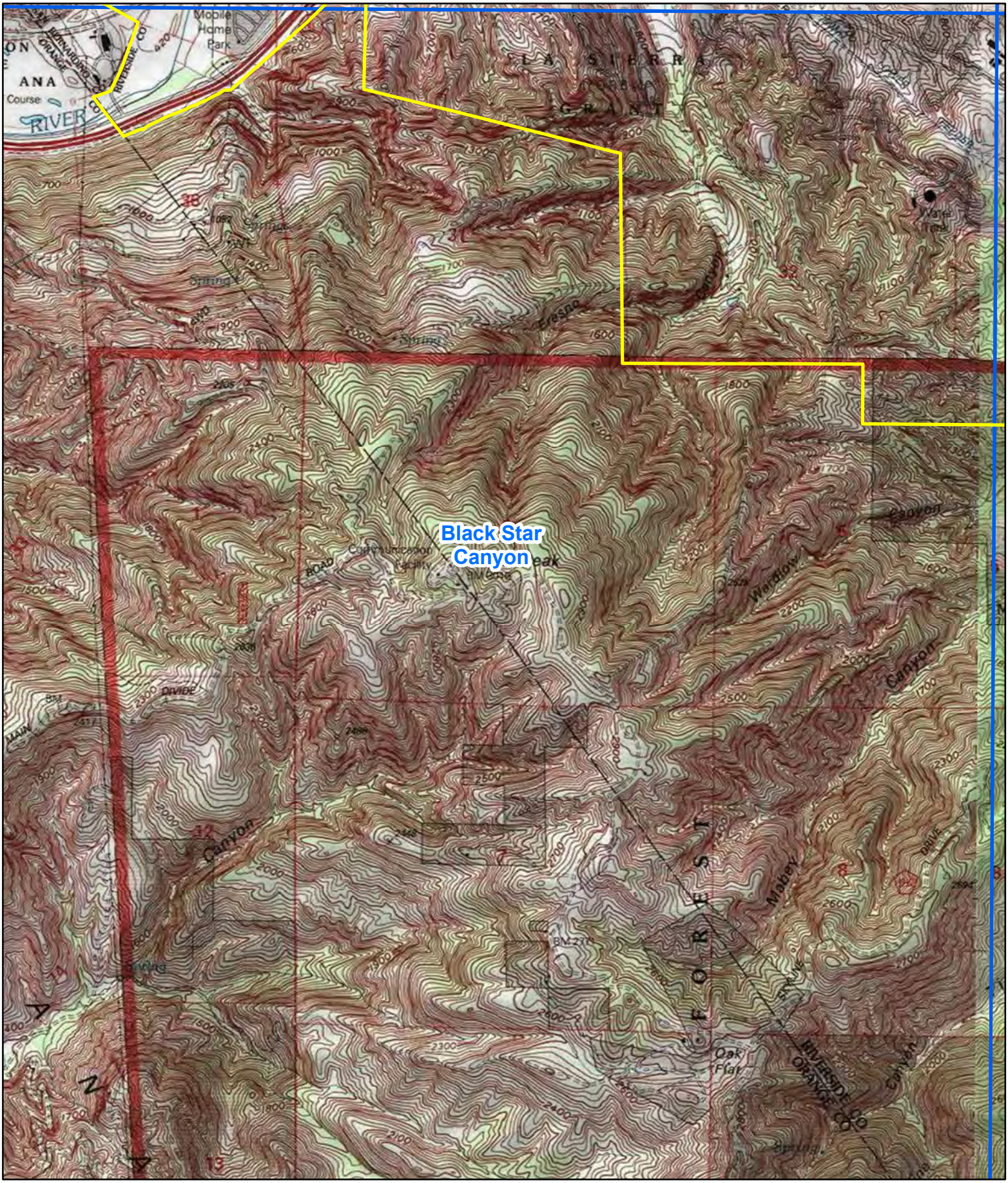
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

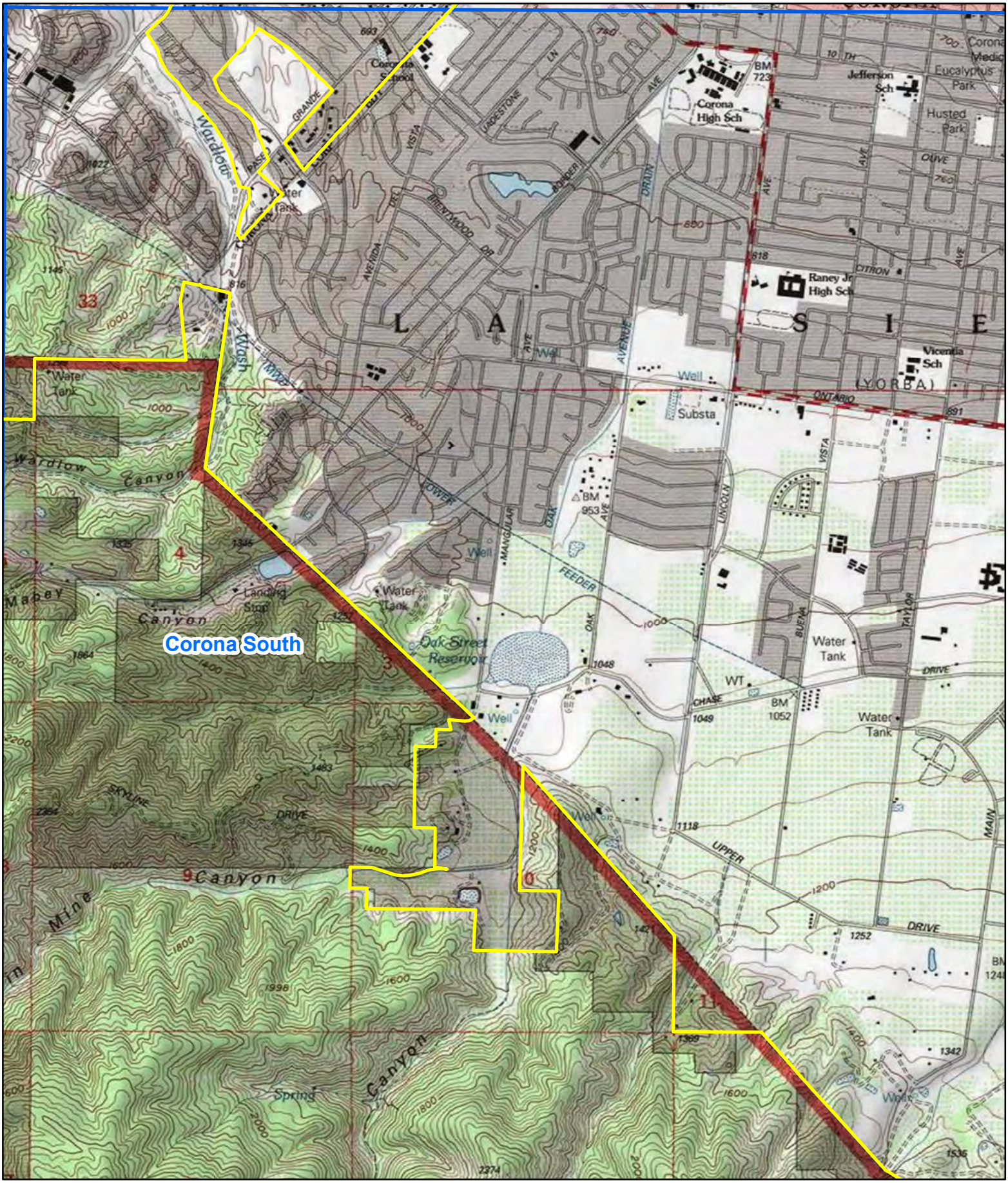
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

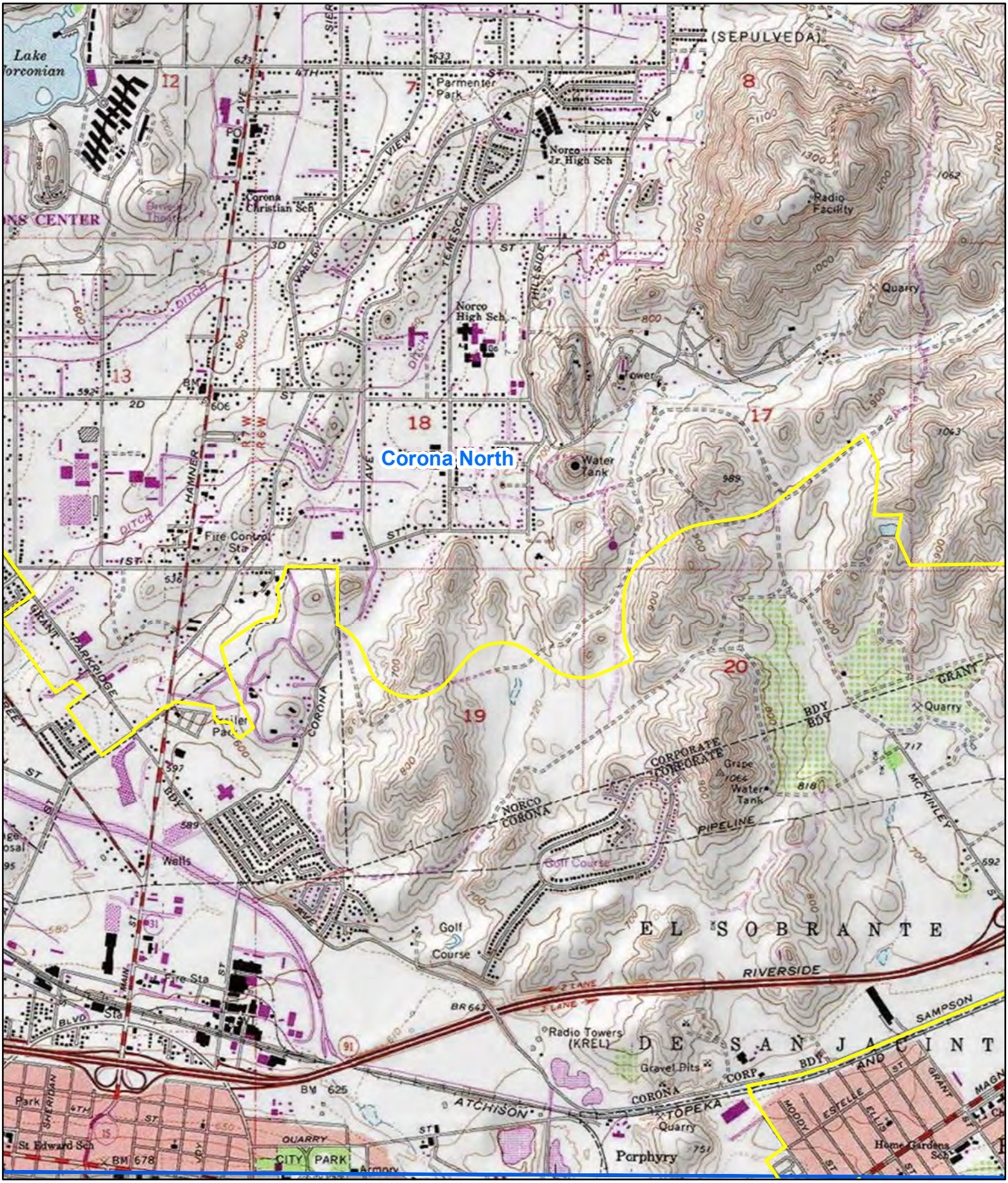
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

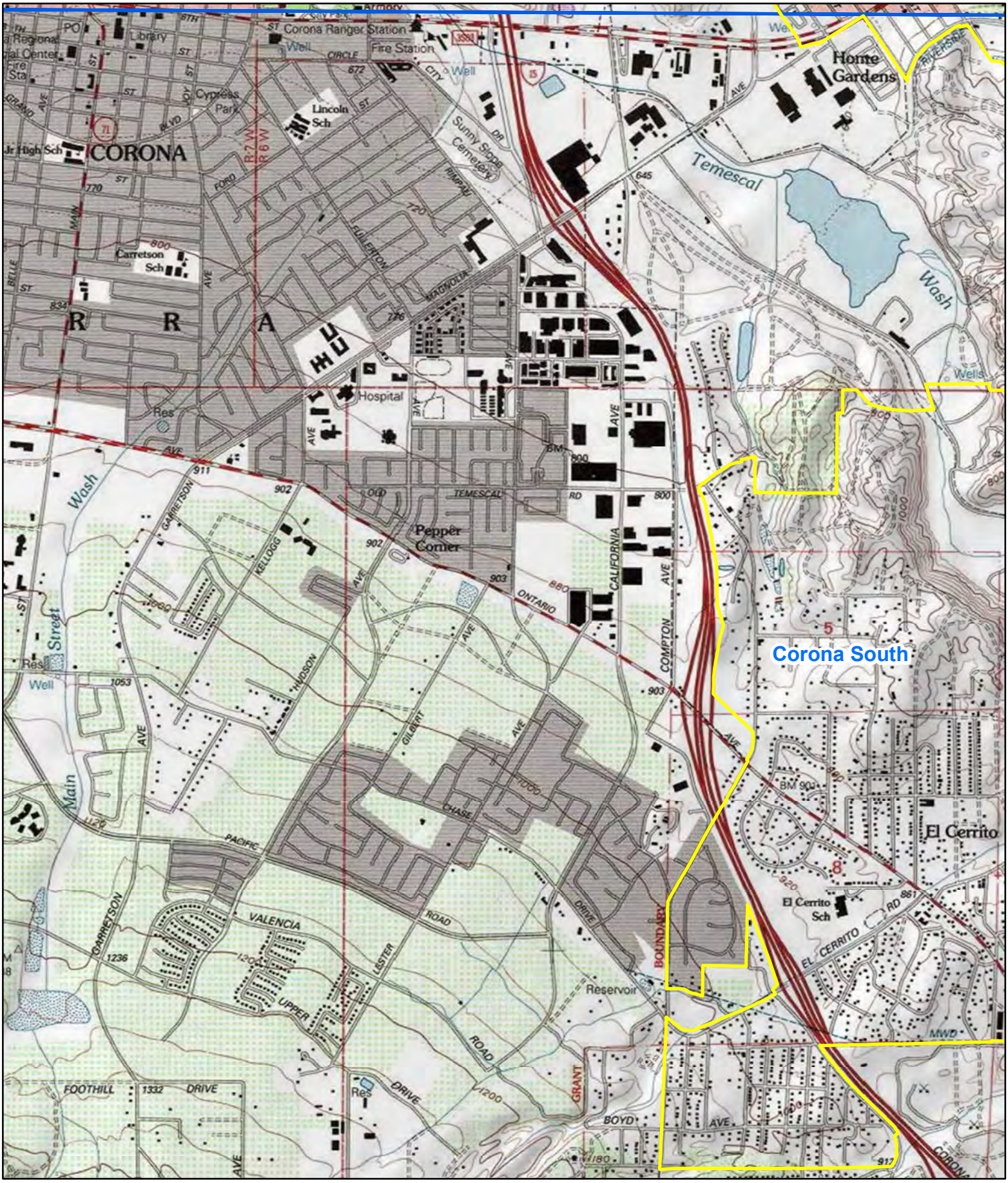


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

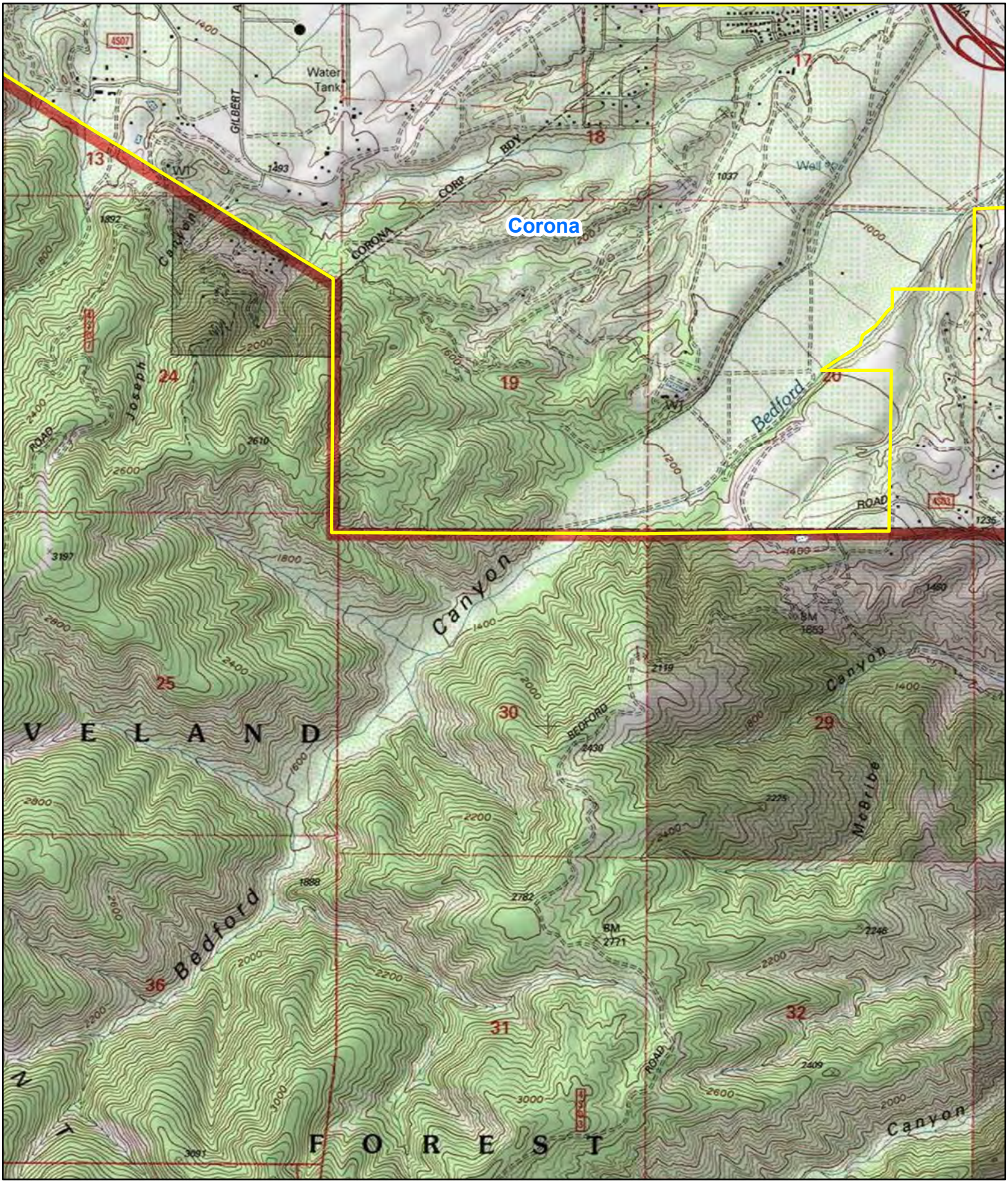
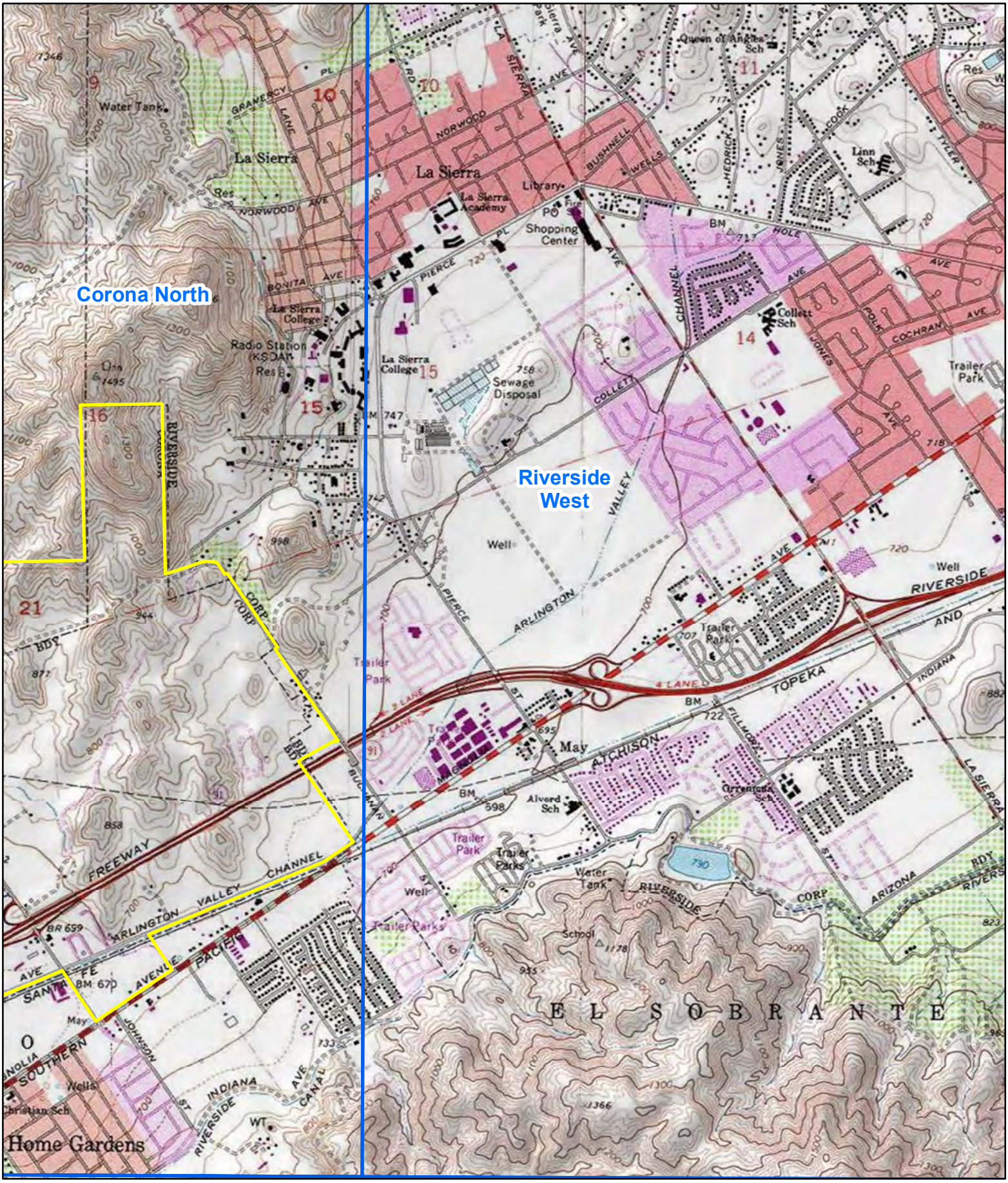


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

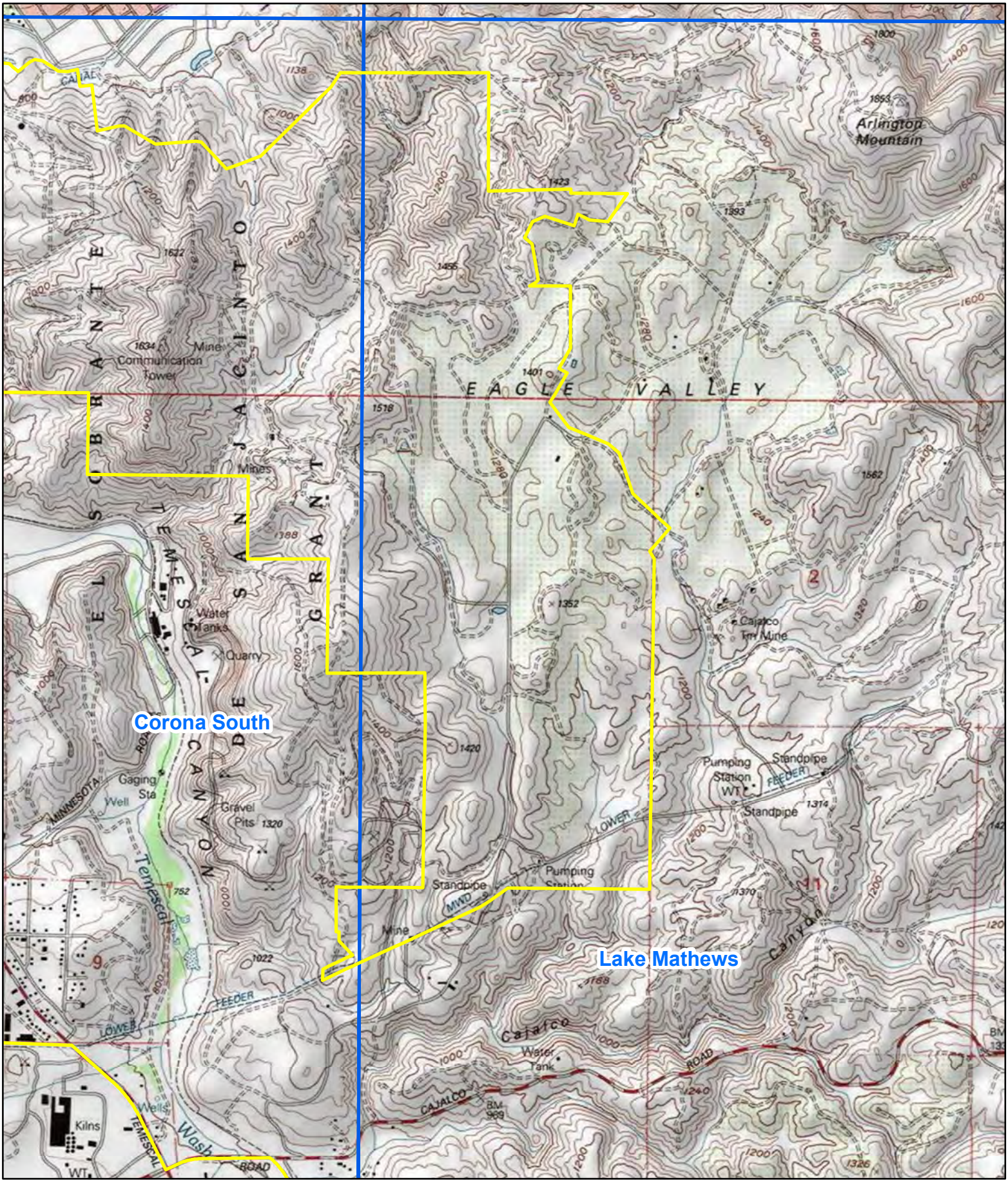
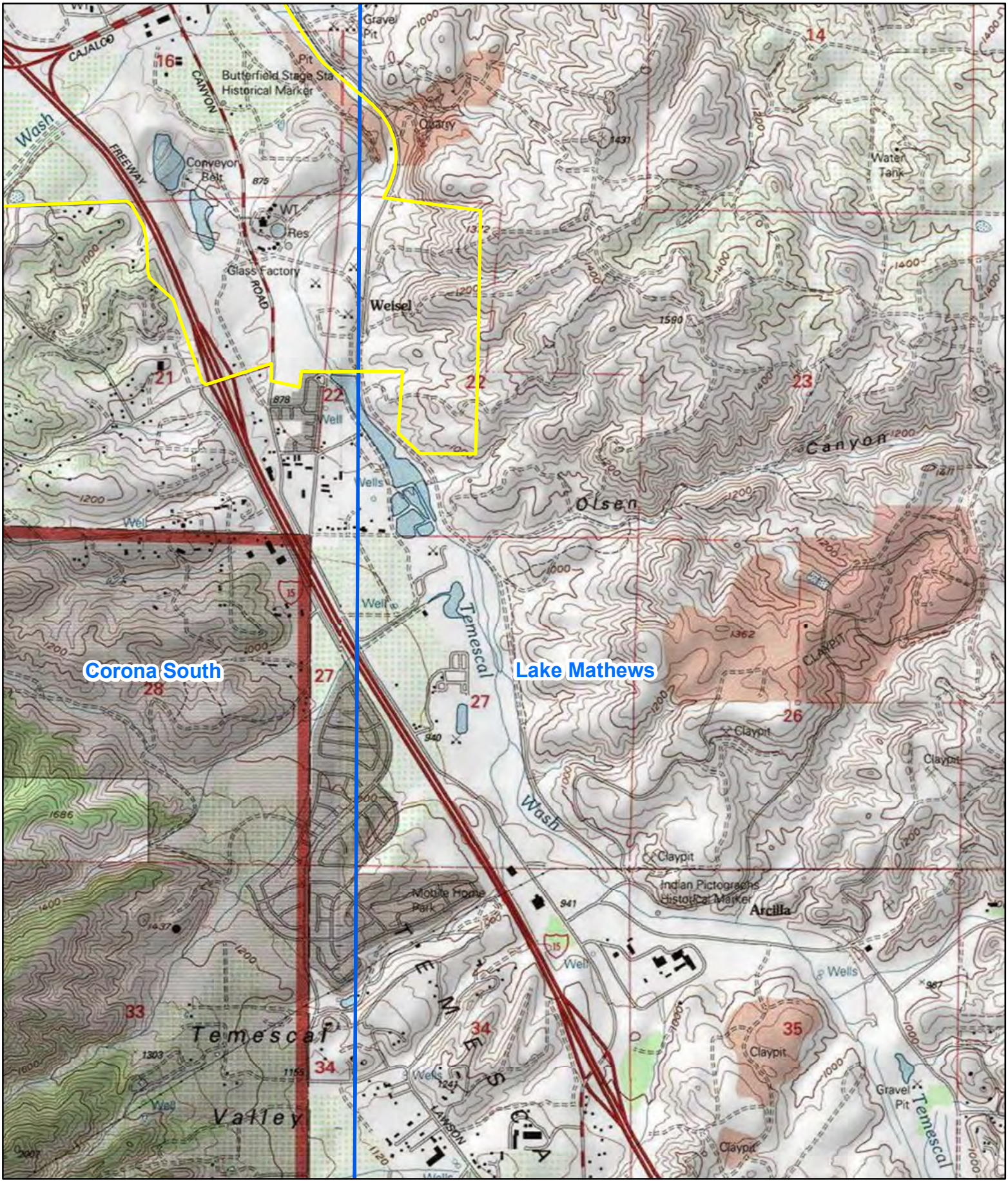


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Gwendolyn Parada
Chairperson
La Posta Band of Diegueno Mission Indians
8 Crestwood Road, Boulevard, CA, 91905
619-478-2113
LP13boots@aol.com

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Ms. Parada,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

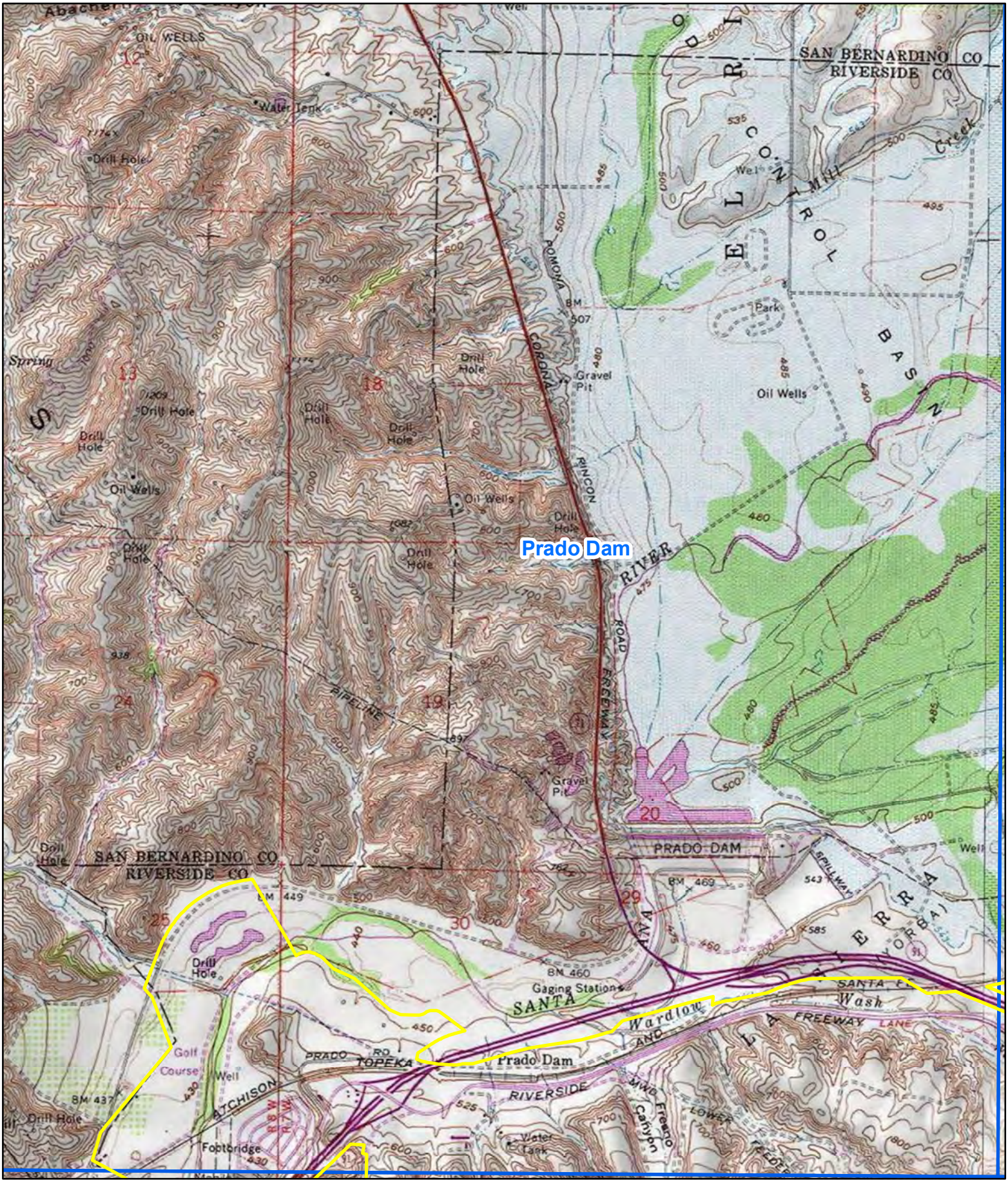


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

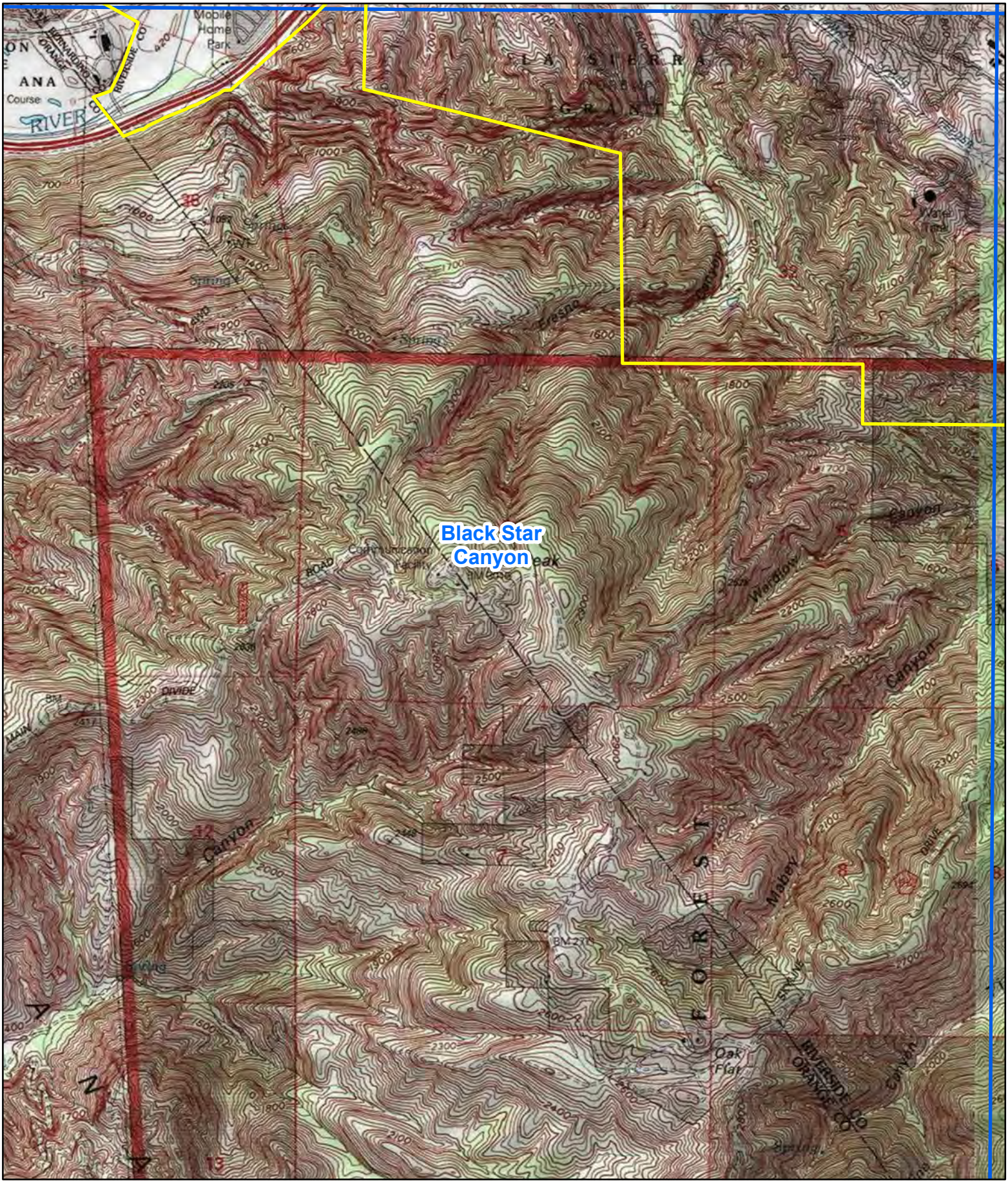
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

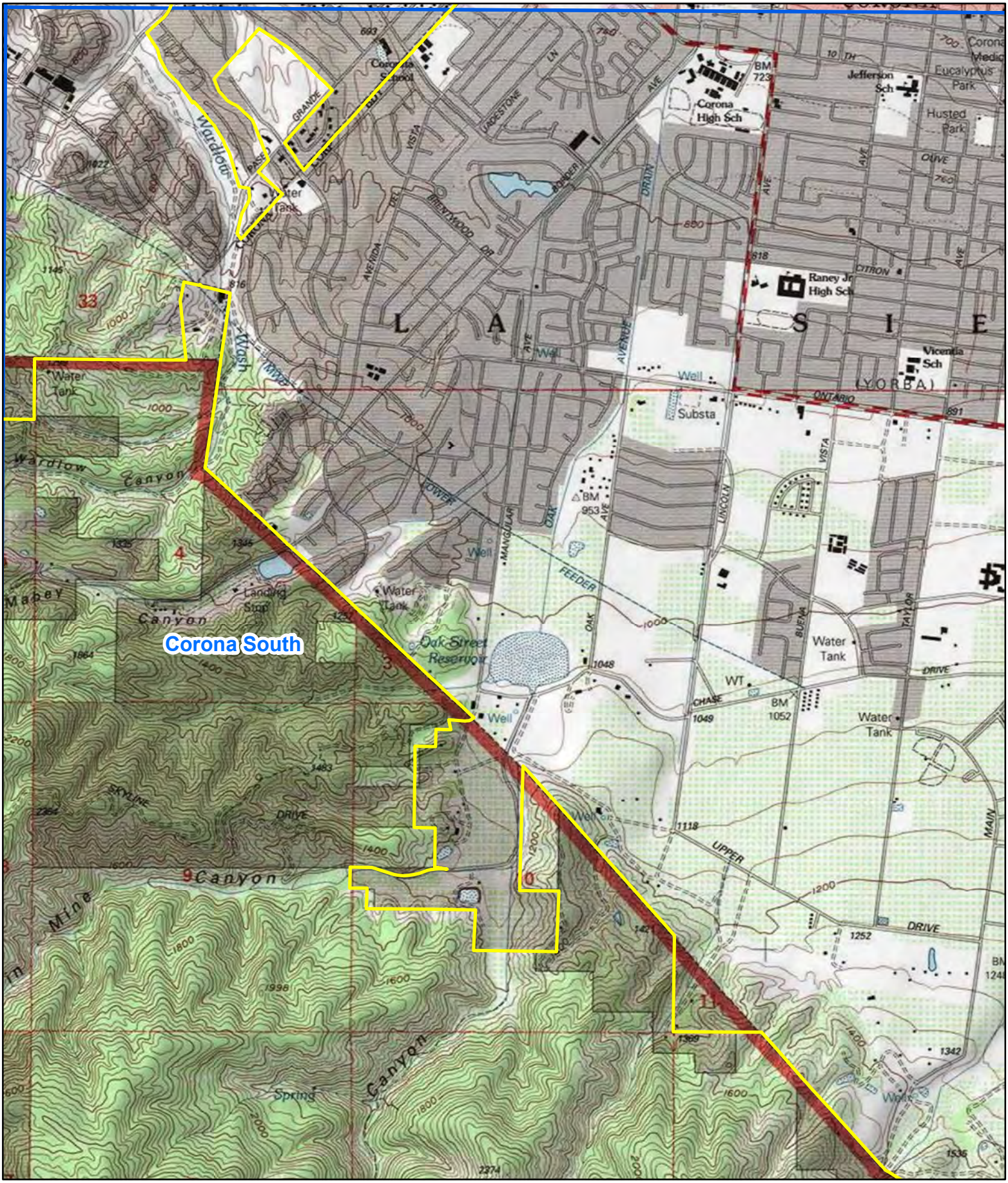
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

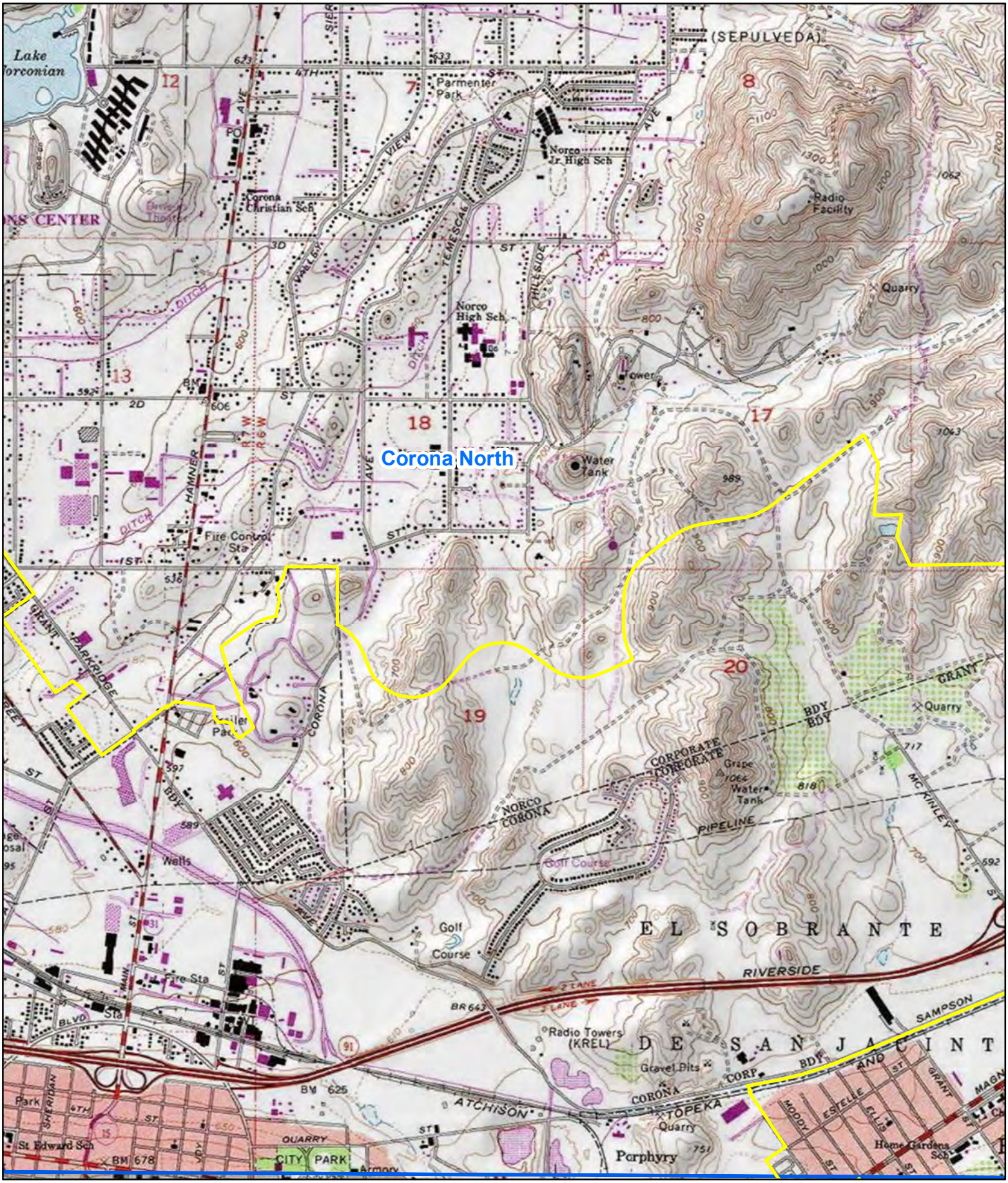
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

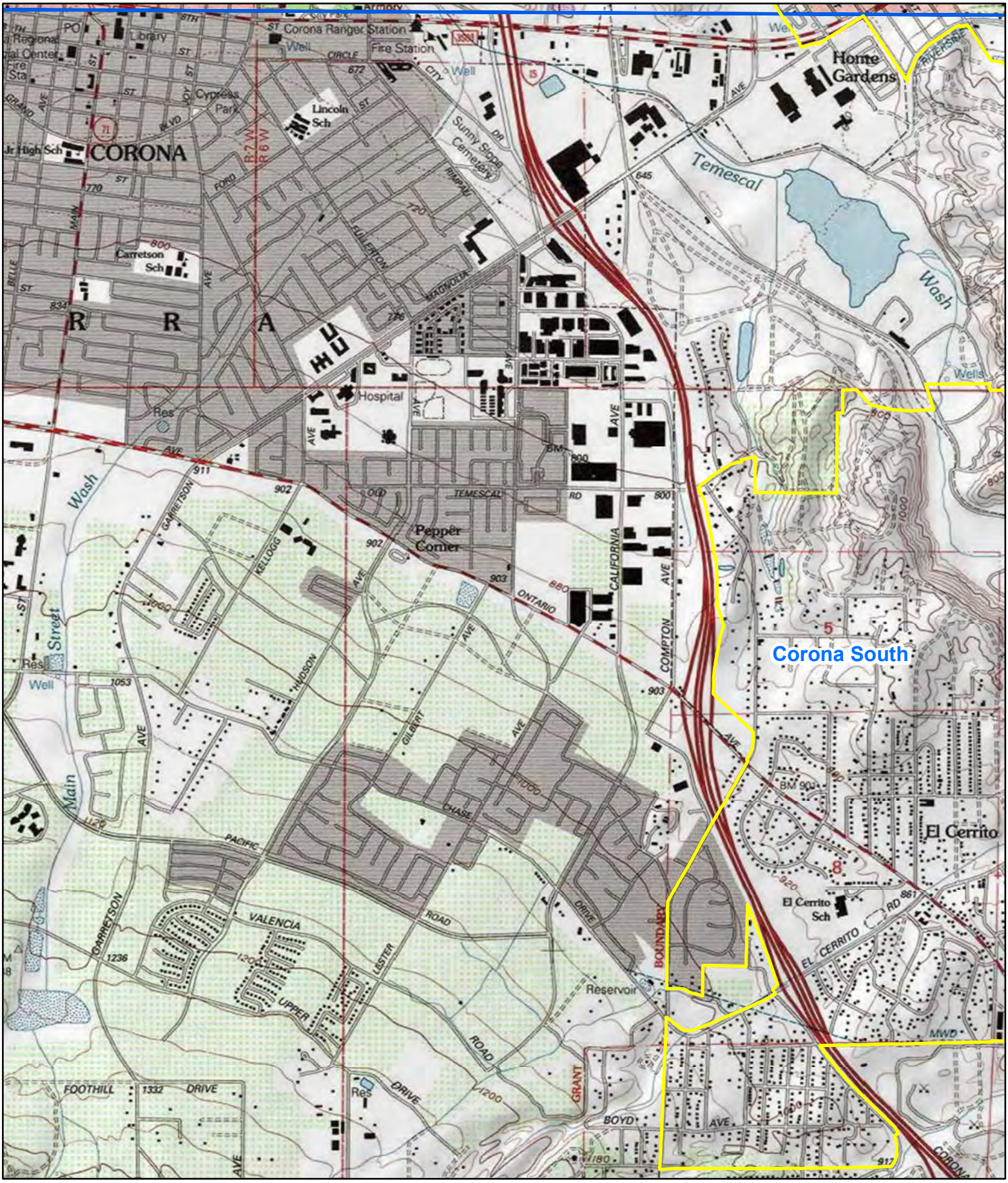


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

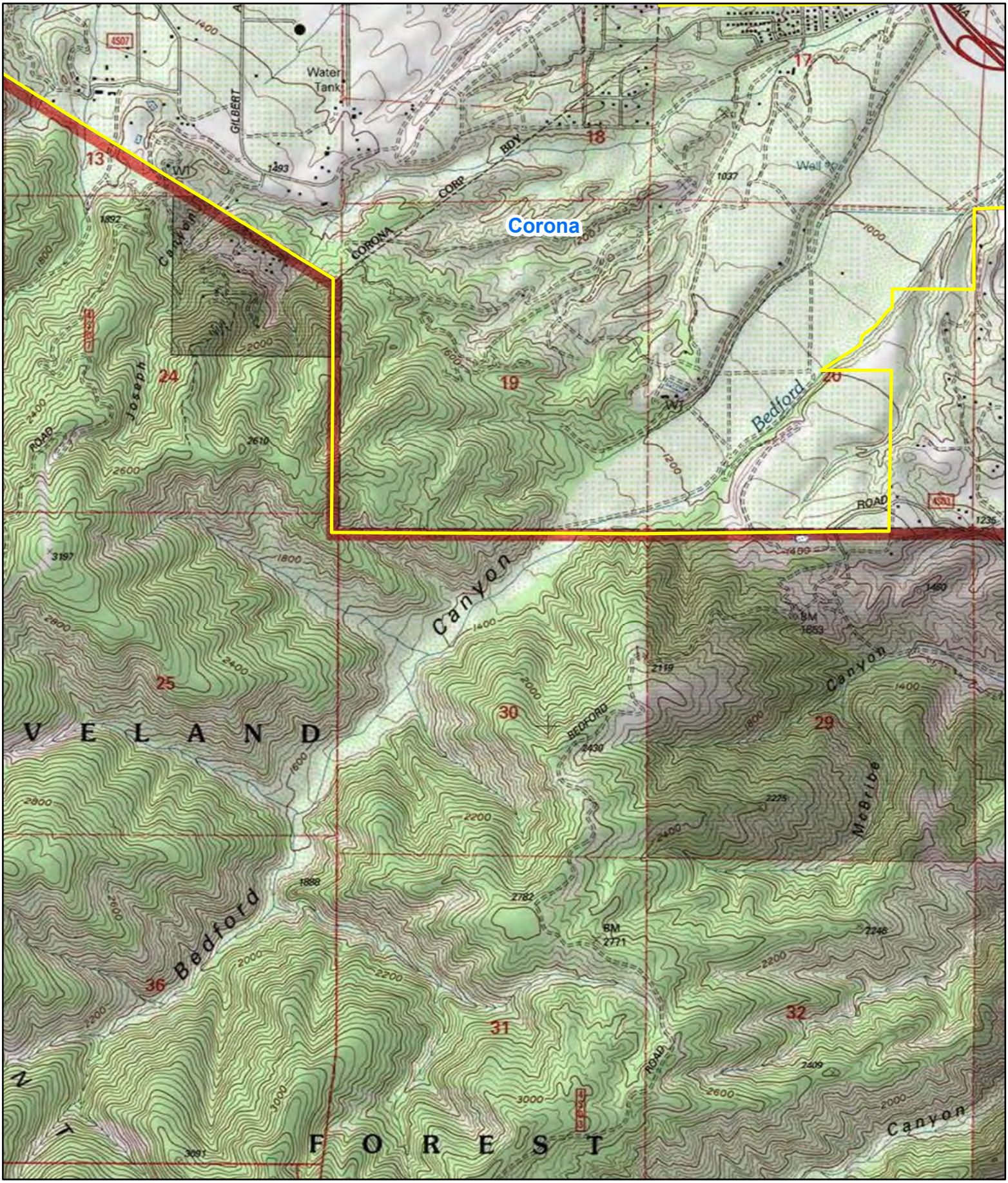
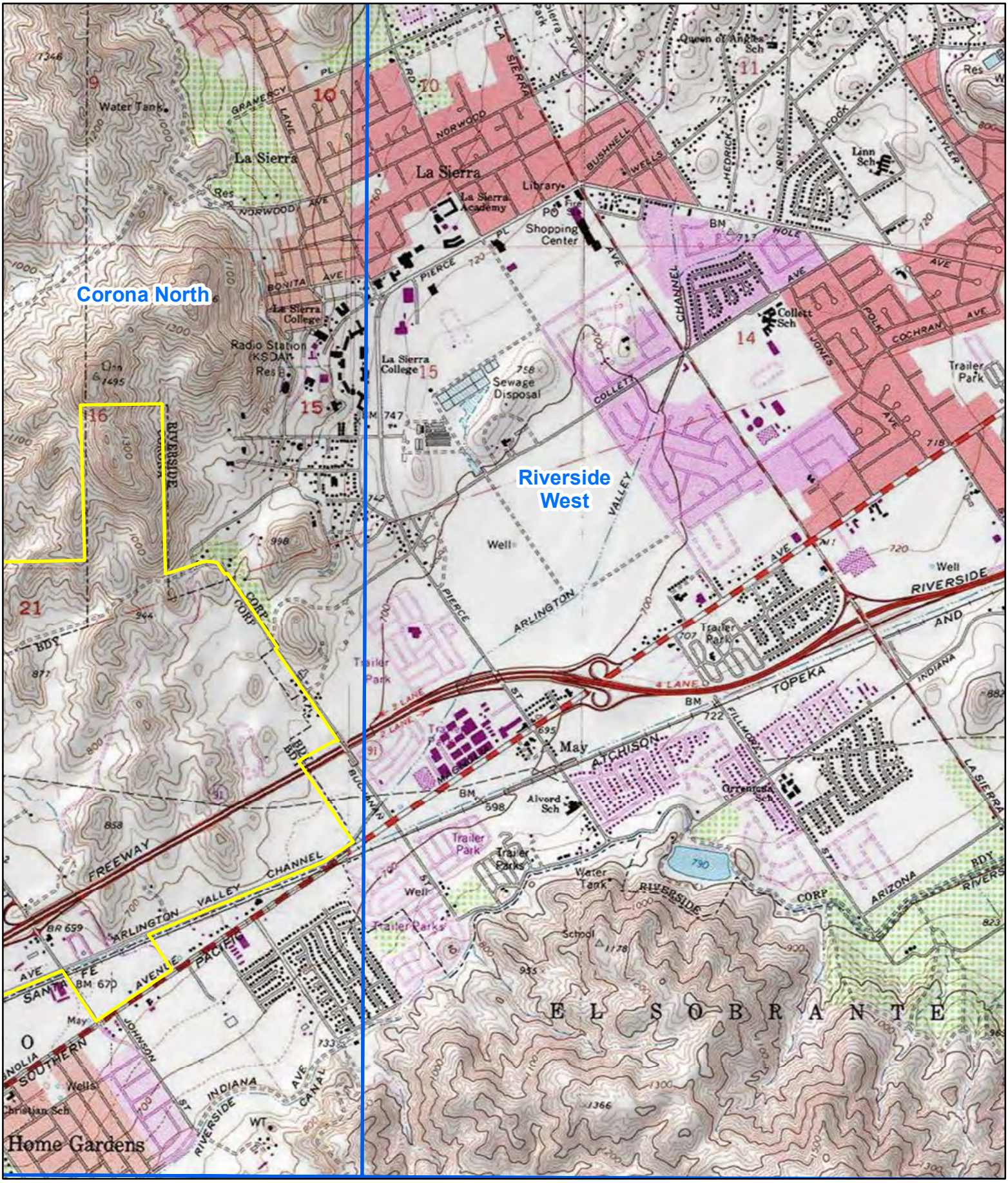


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

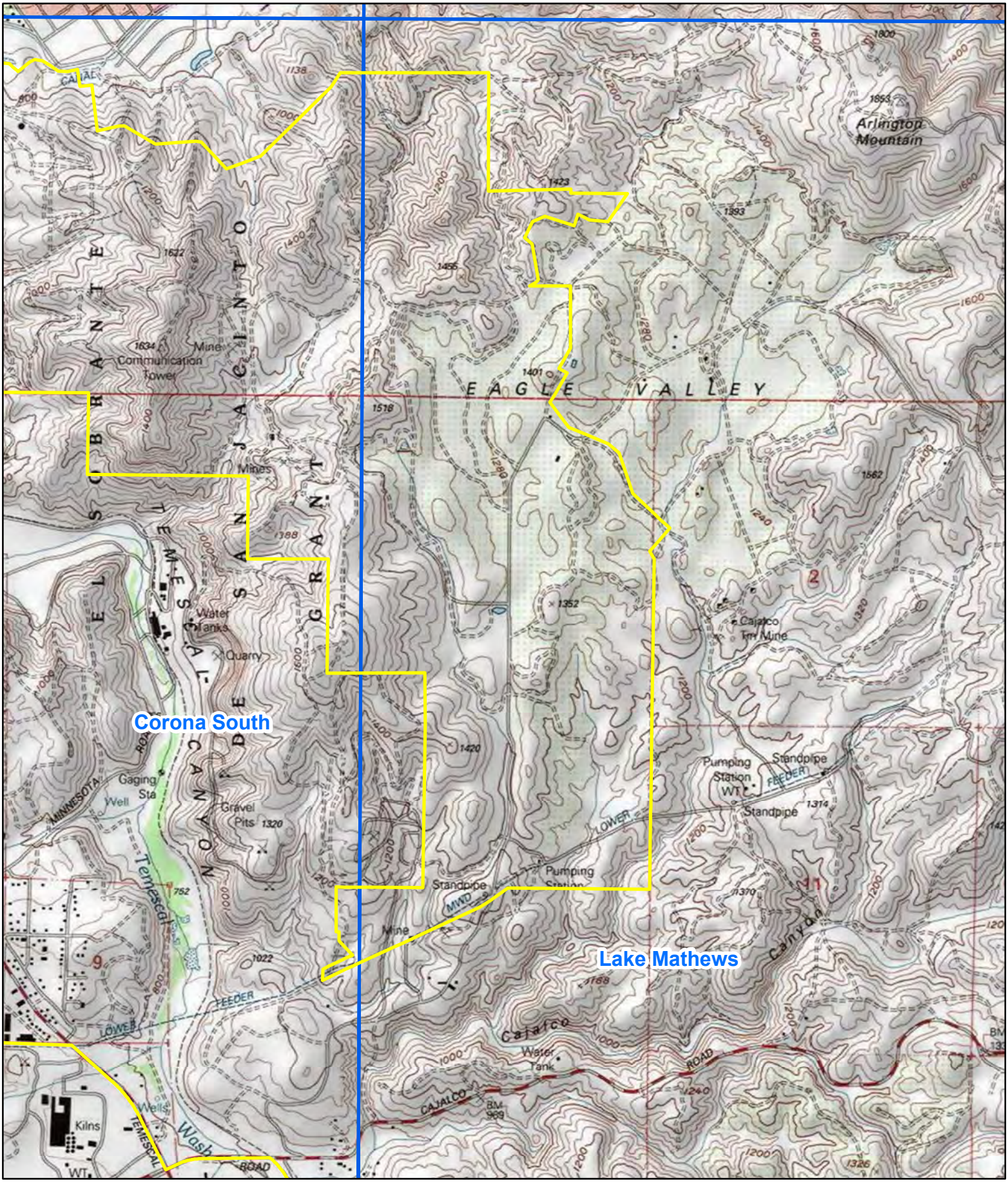
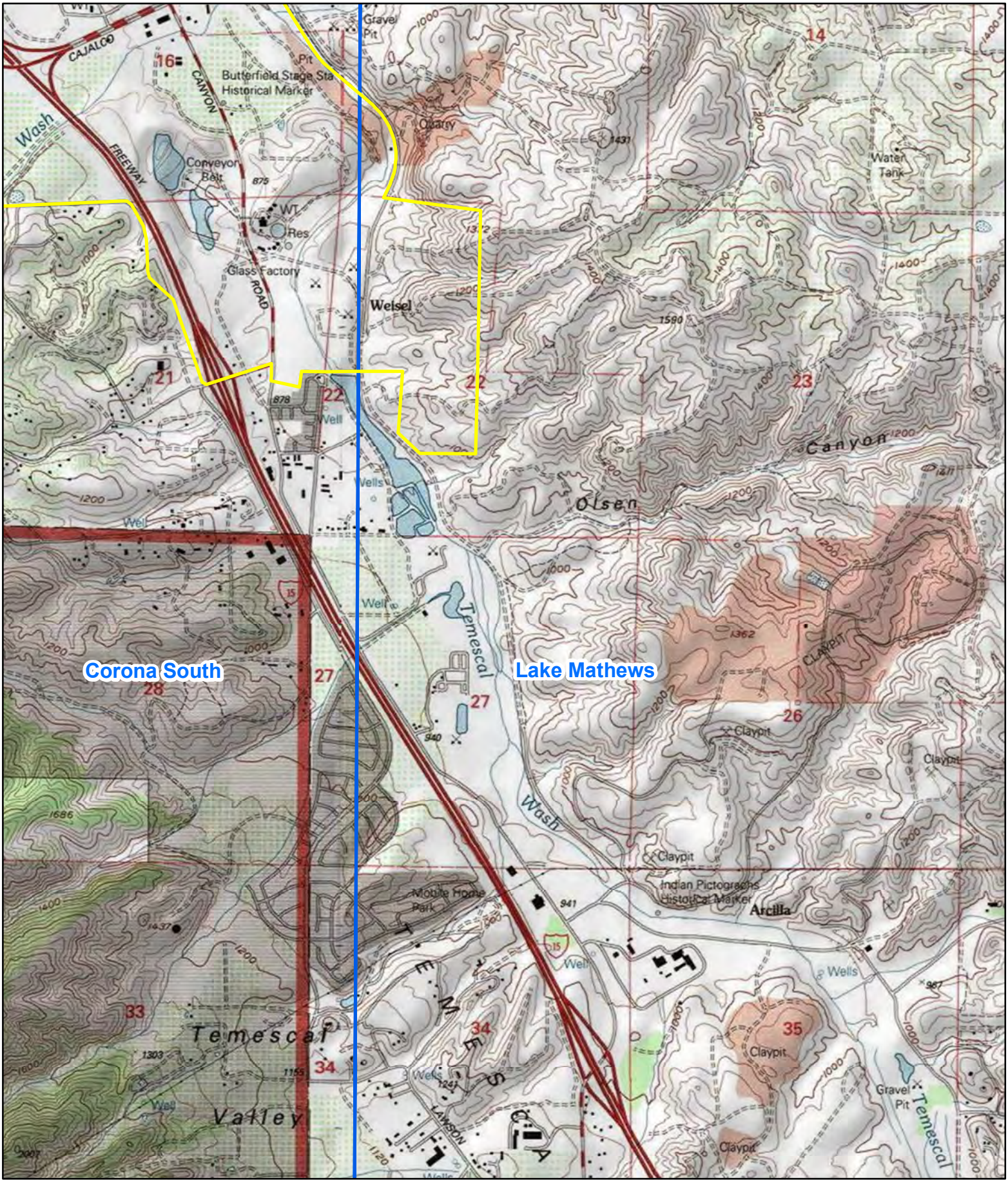


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

John Christman
Chairperson
Viejas Band of Kumeyaay Indians
1 Viejas Grade Road, Alpine, CA, 91901
619-445-3810

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Christman,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

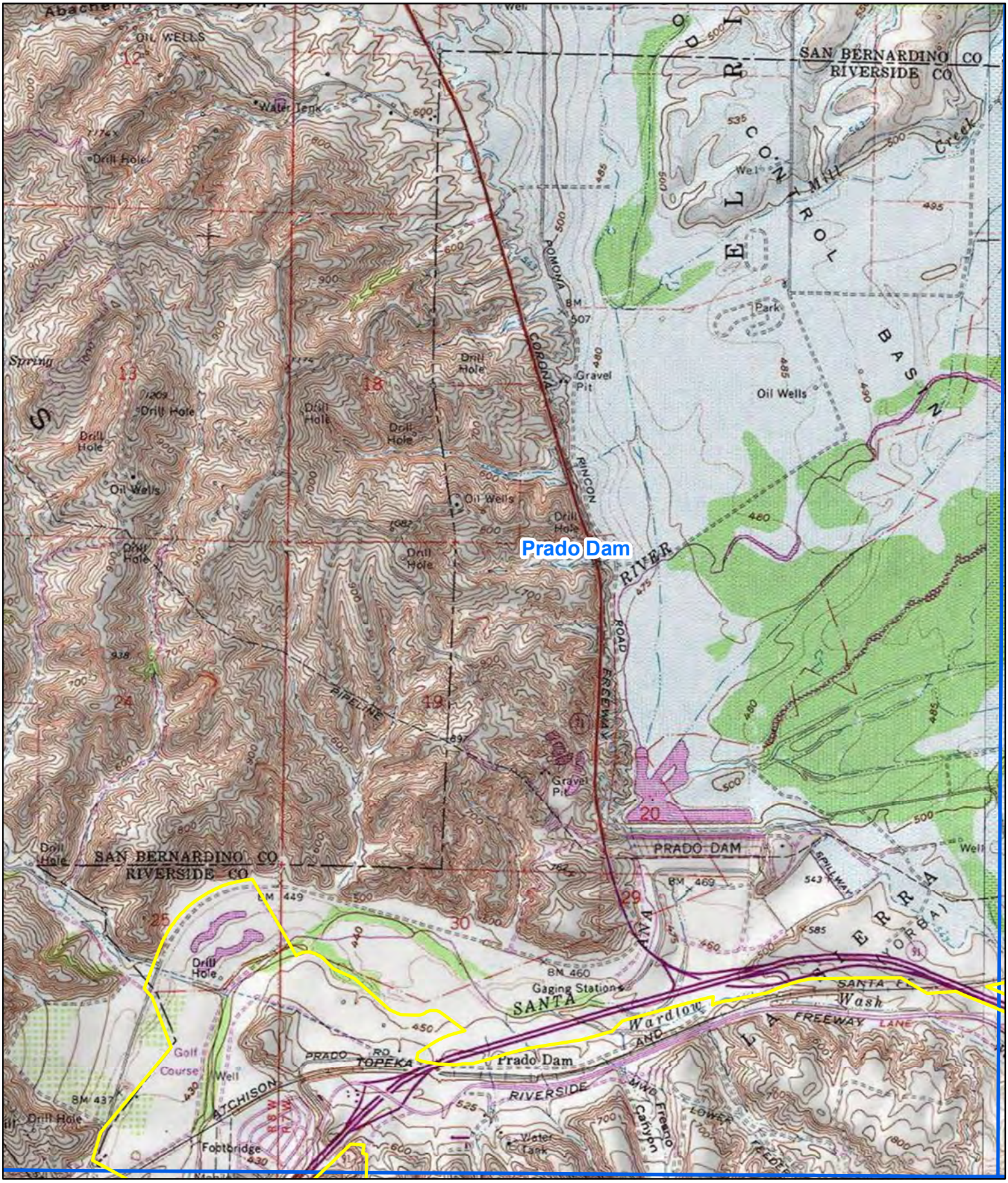


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

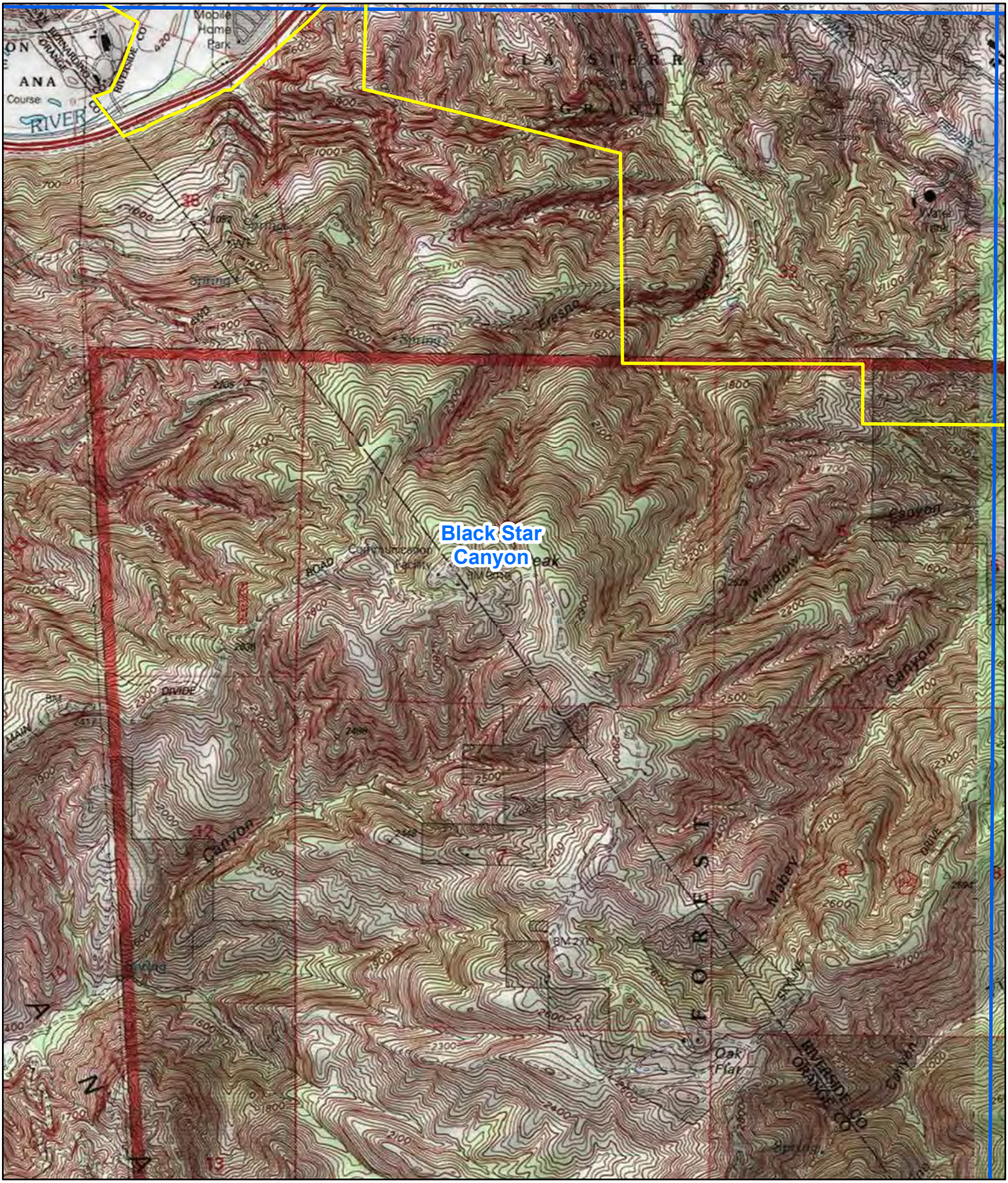
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

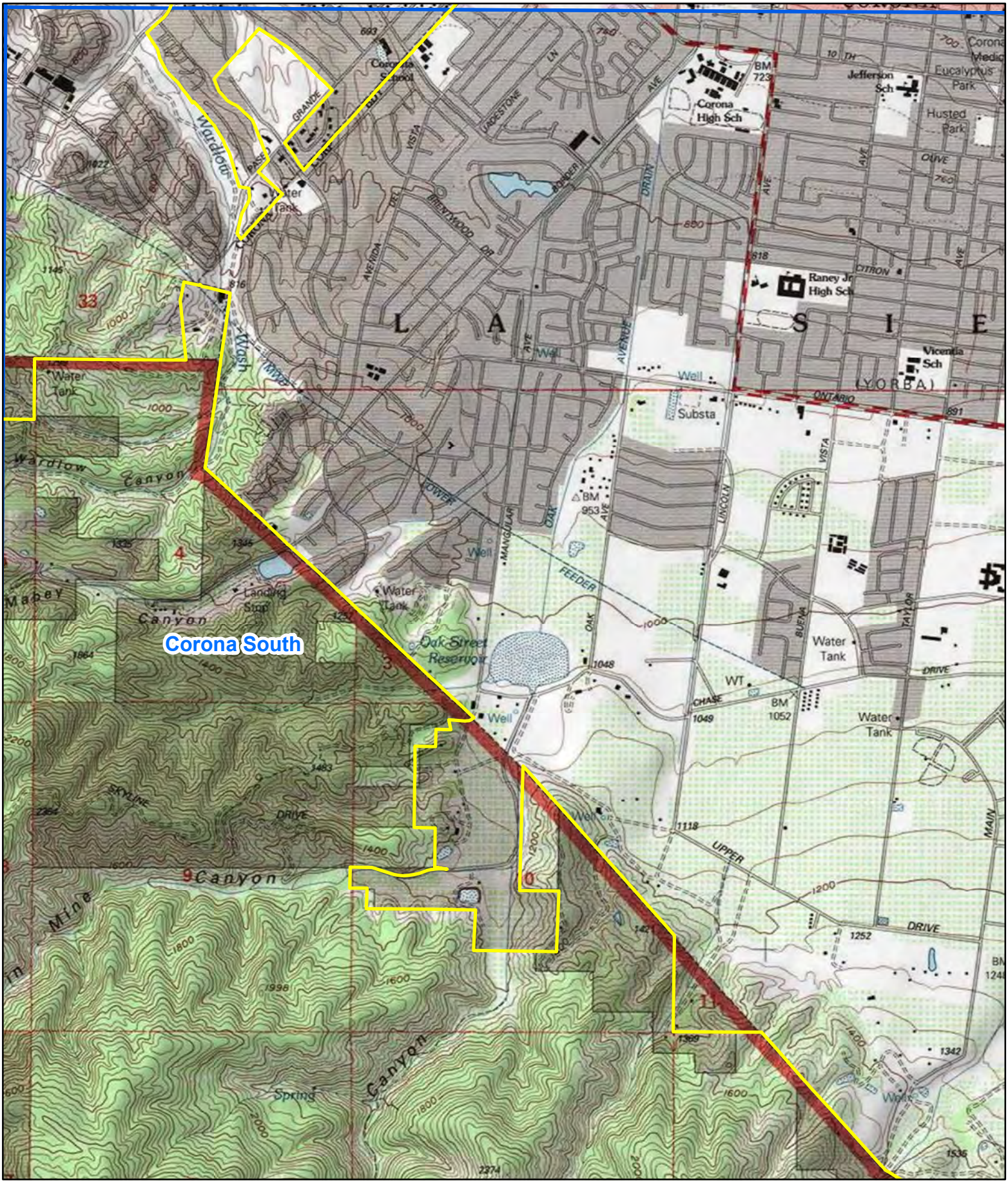
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

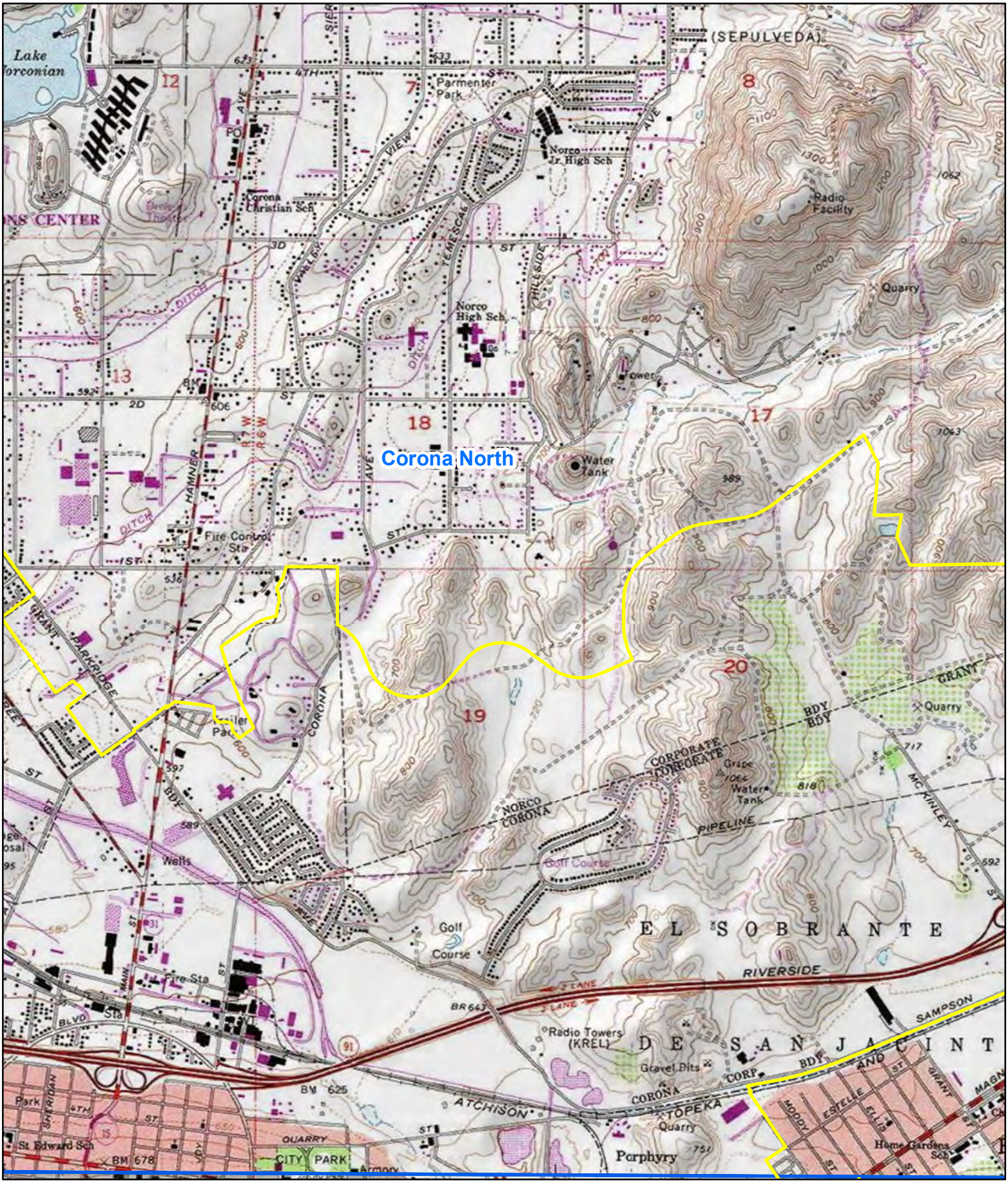
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

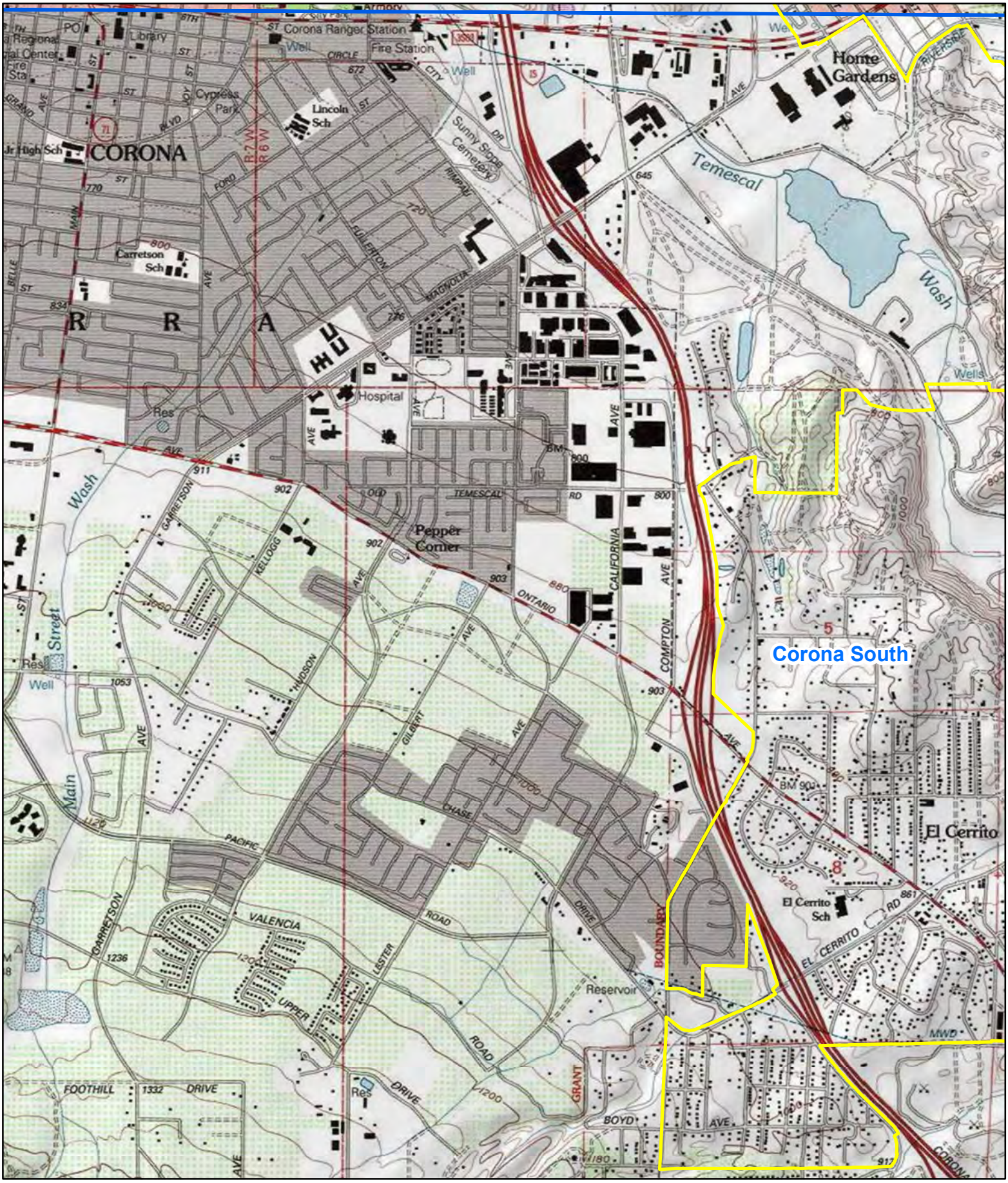


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

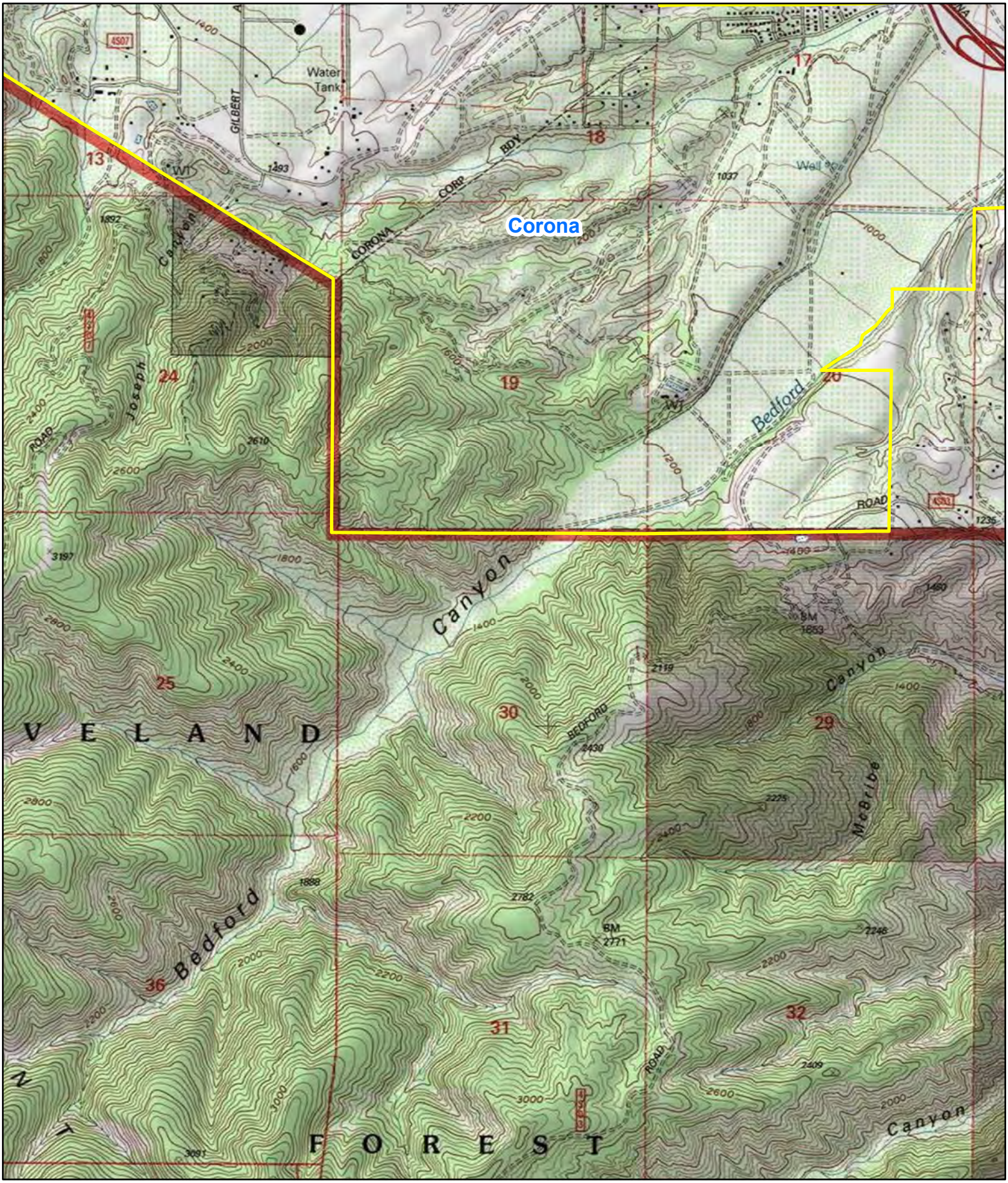
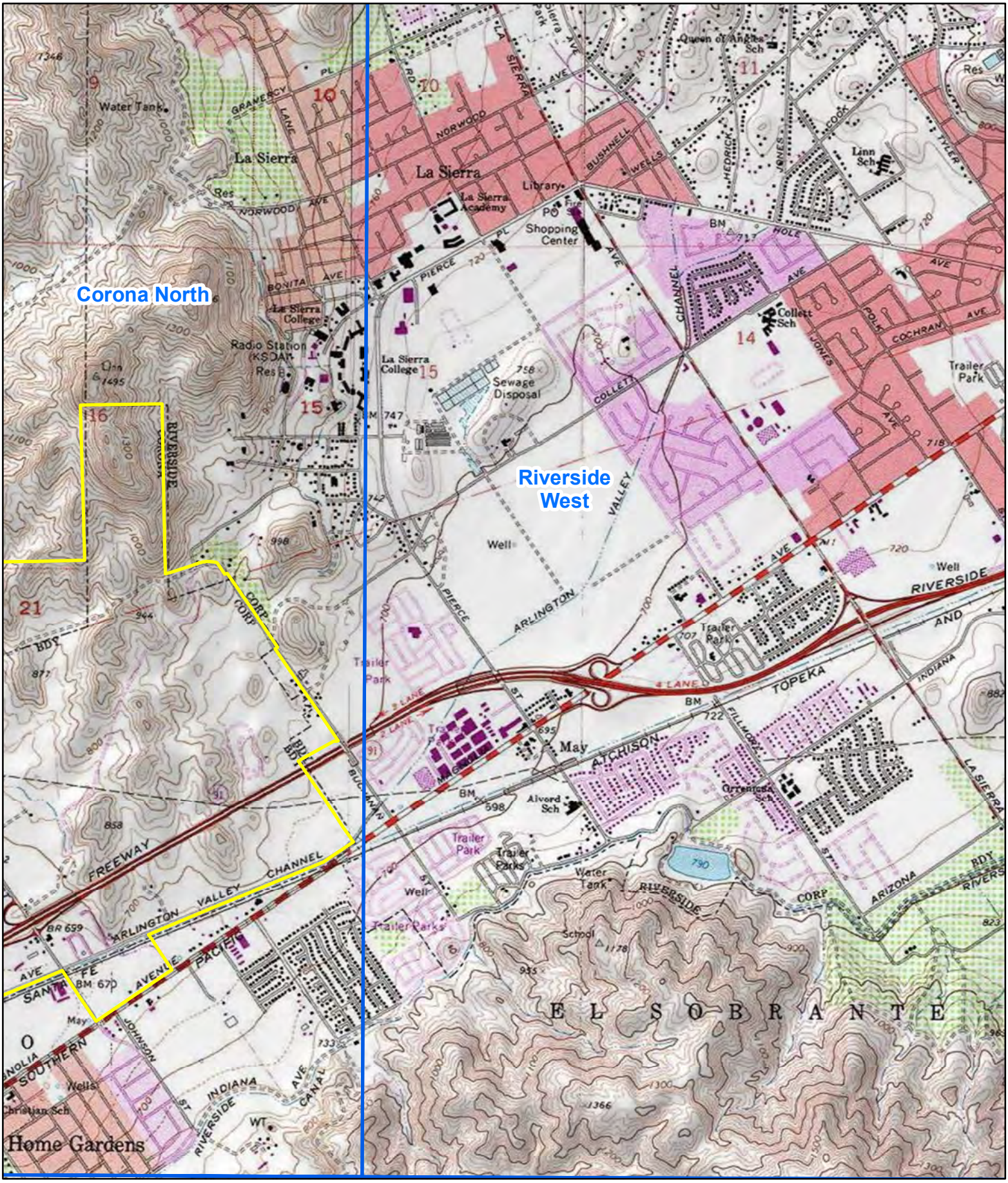


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

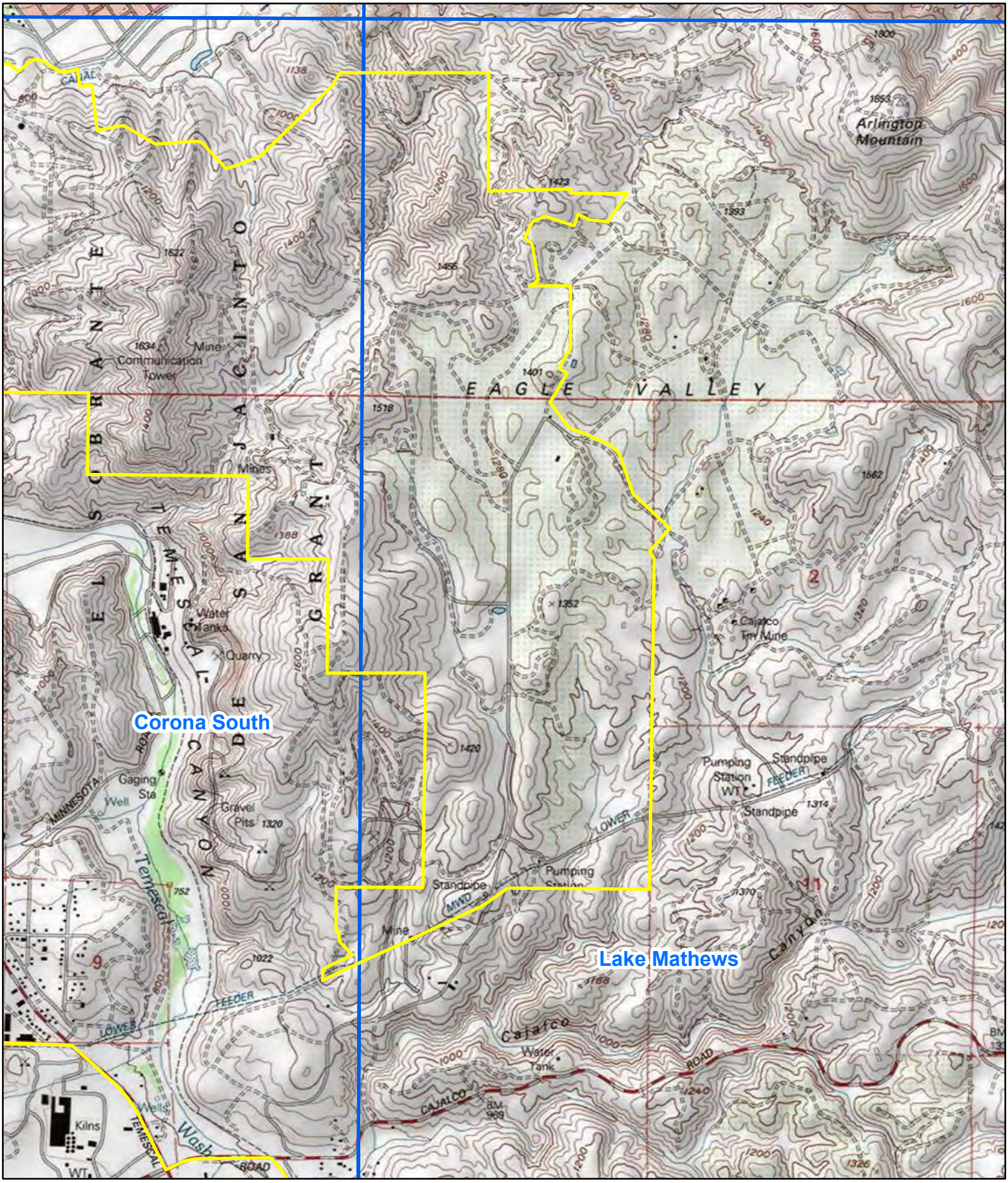
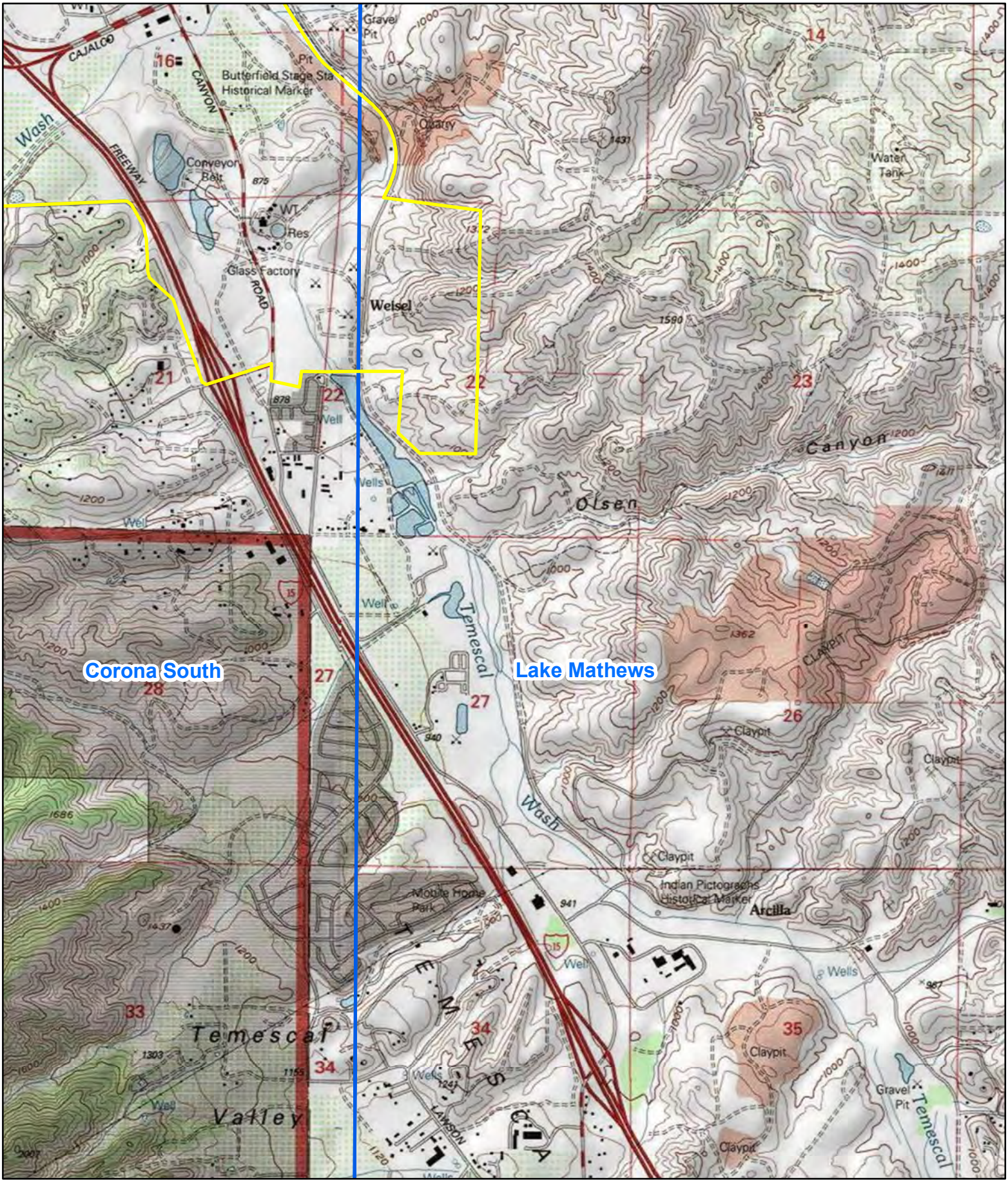


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Jeff Grubbe
Chairperson
Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive, Palm Springs, CA, 92264
760-699-6800

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Grubbe,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

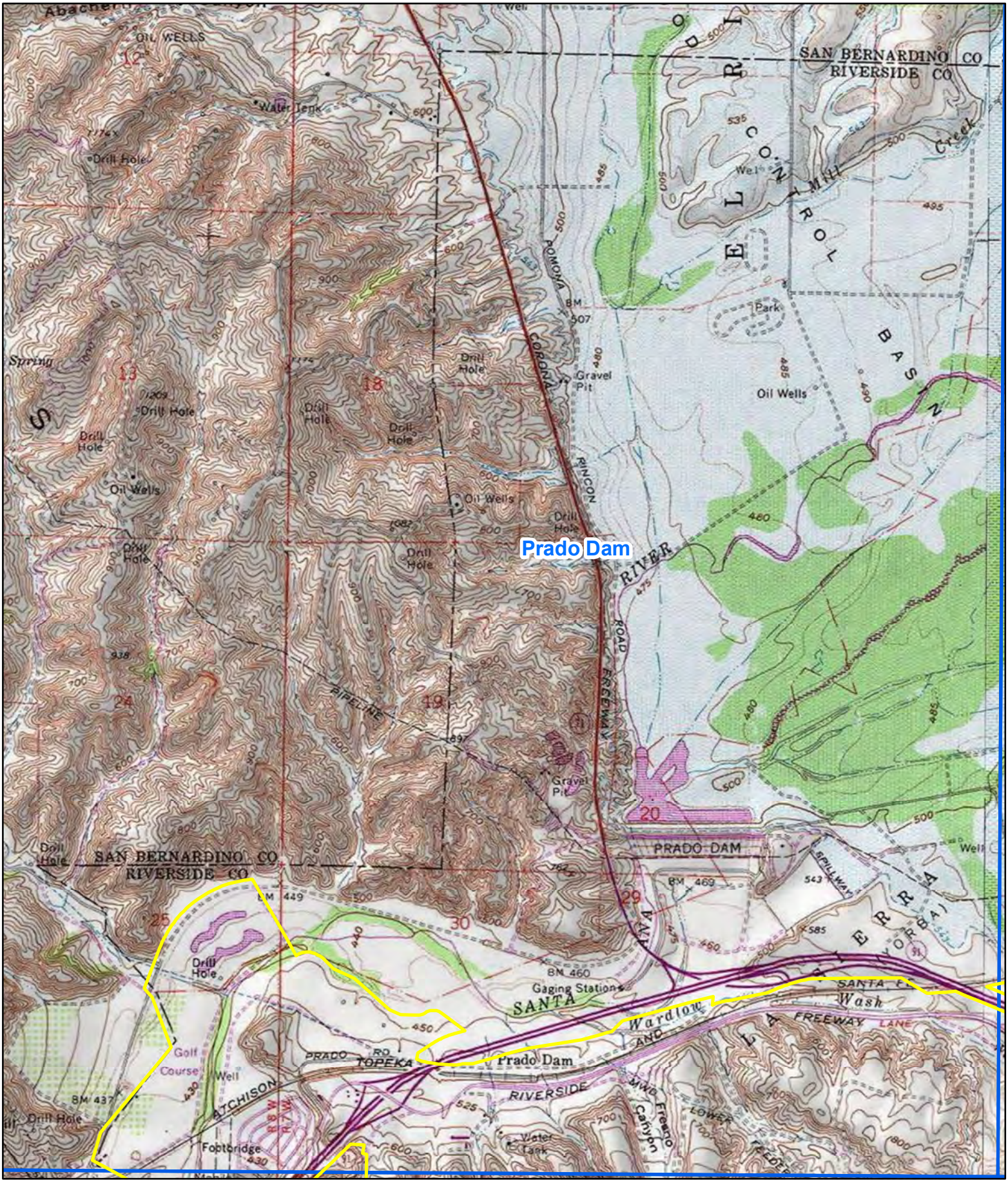


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

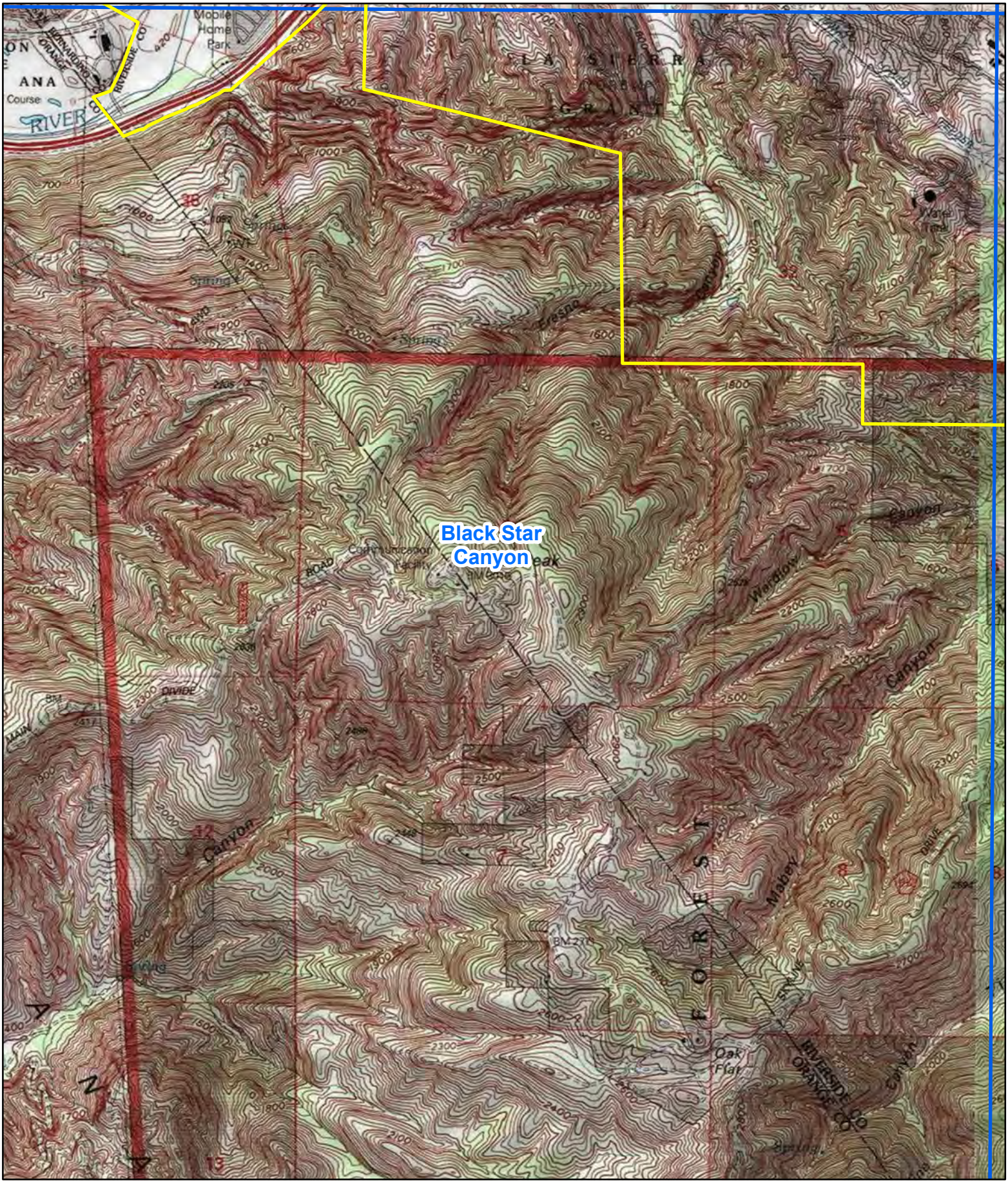
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

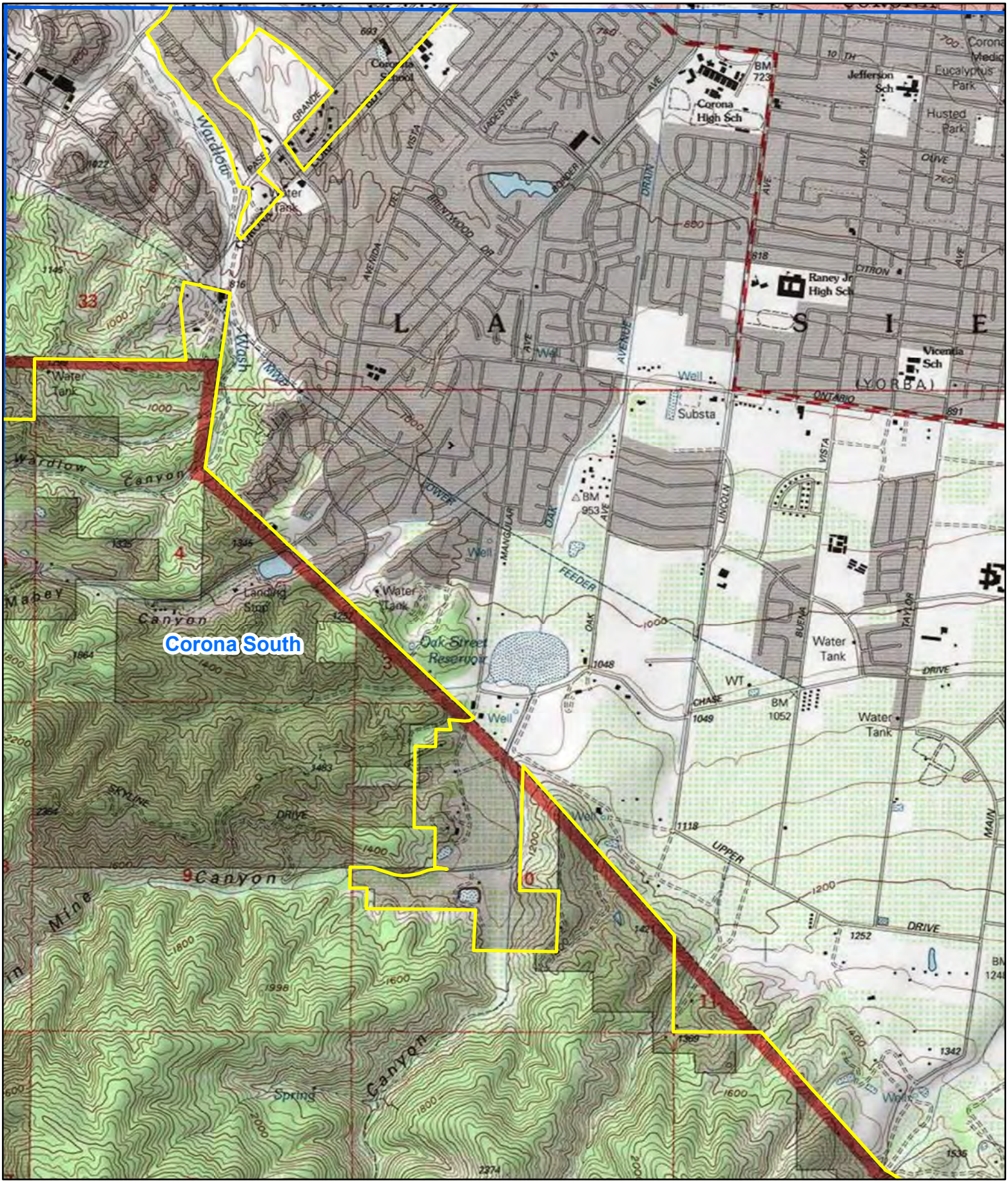
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

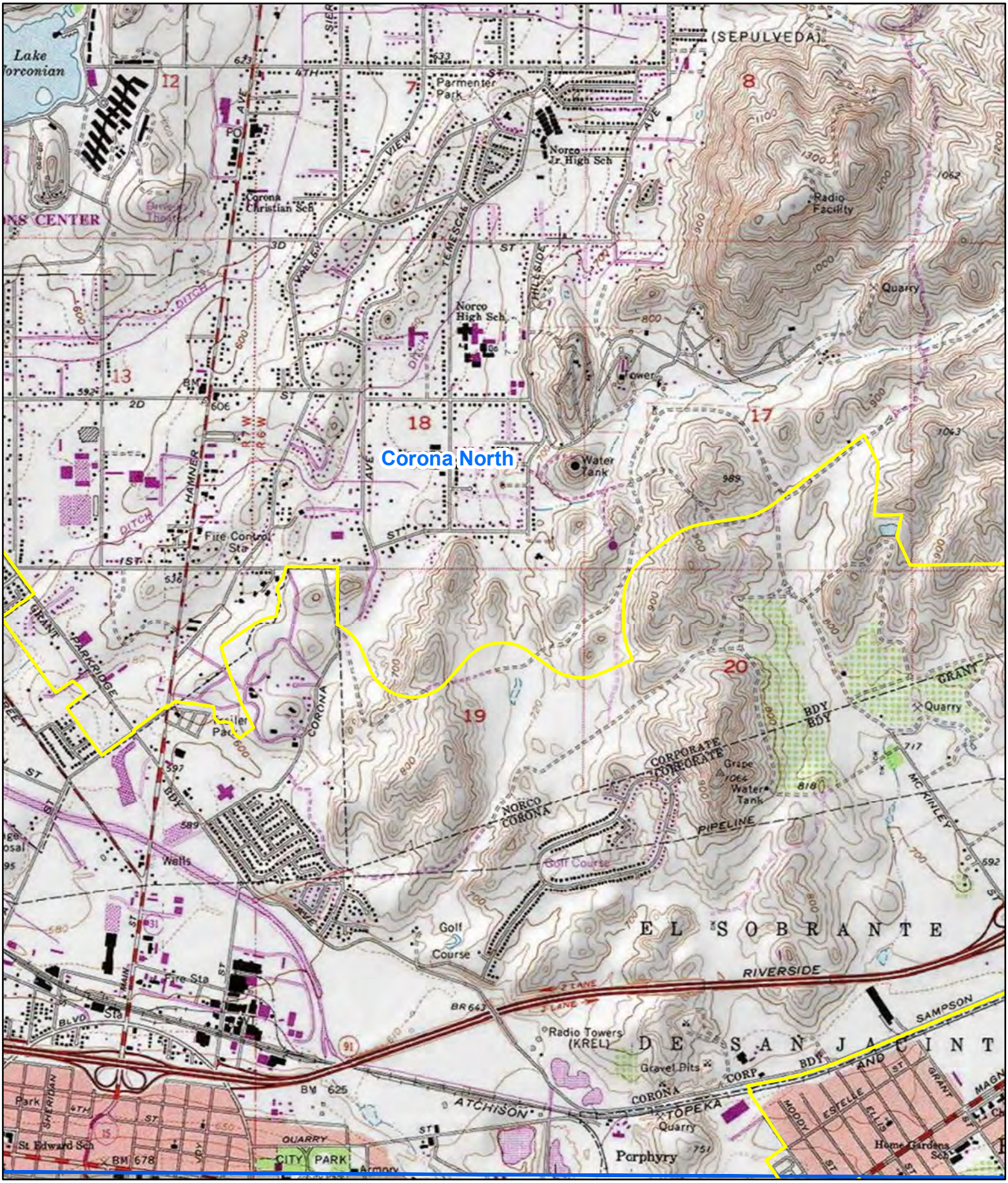
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

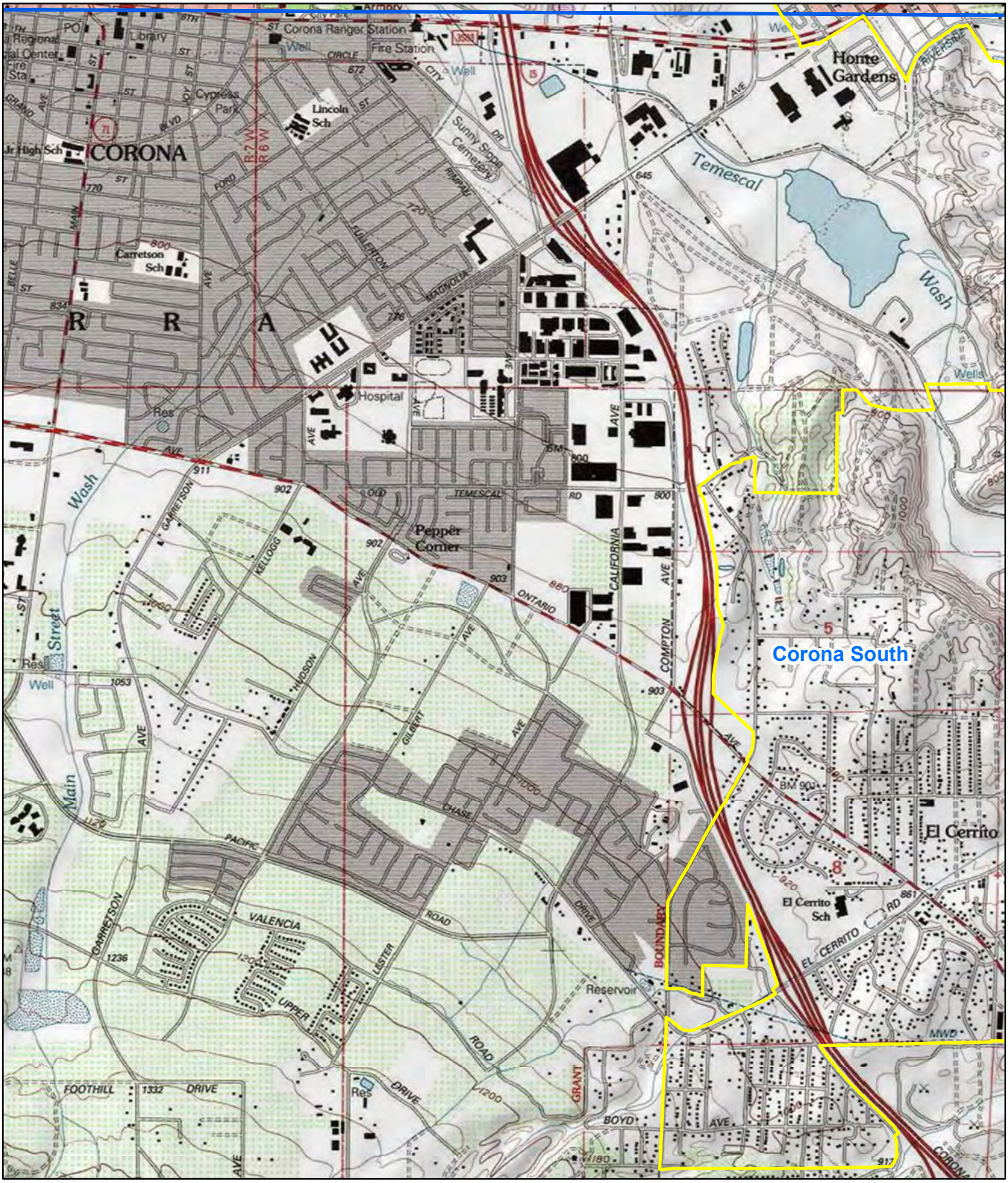


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

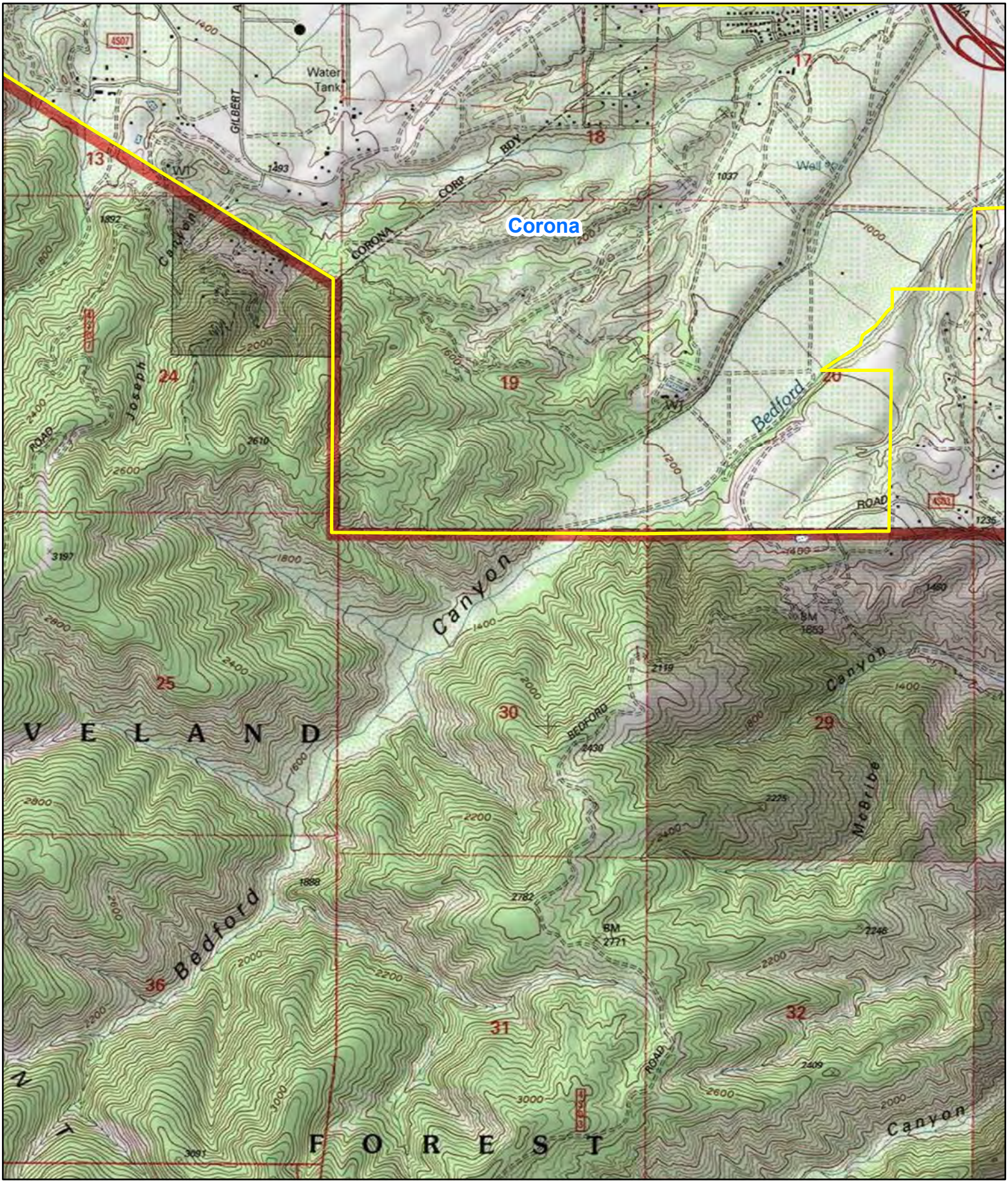
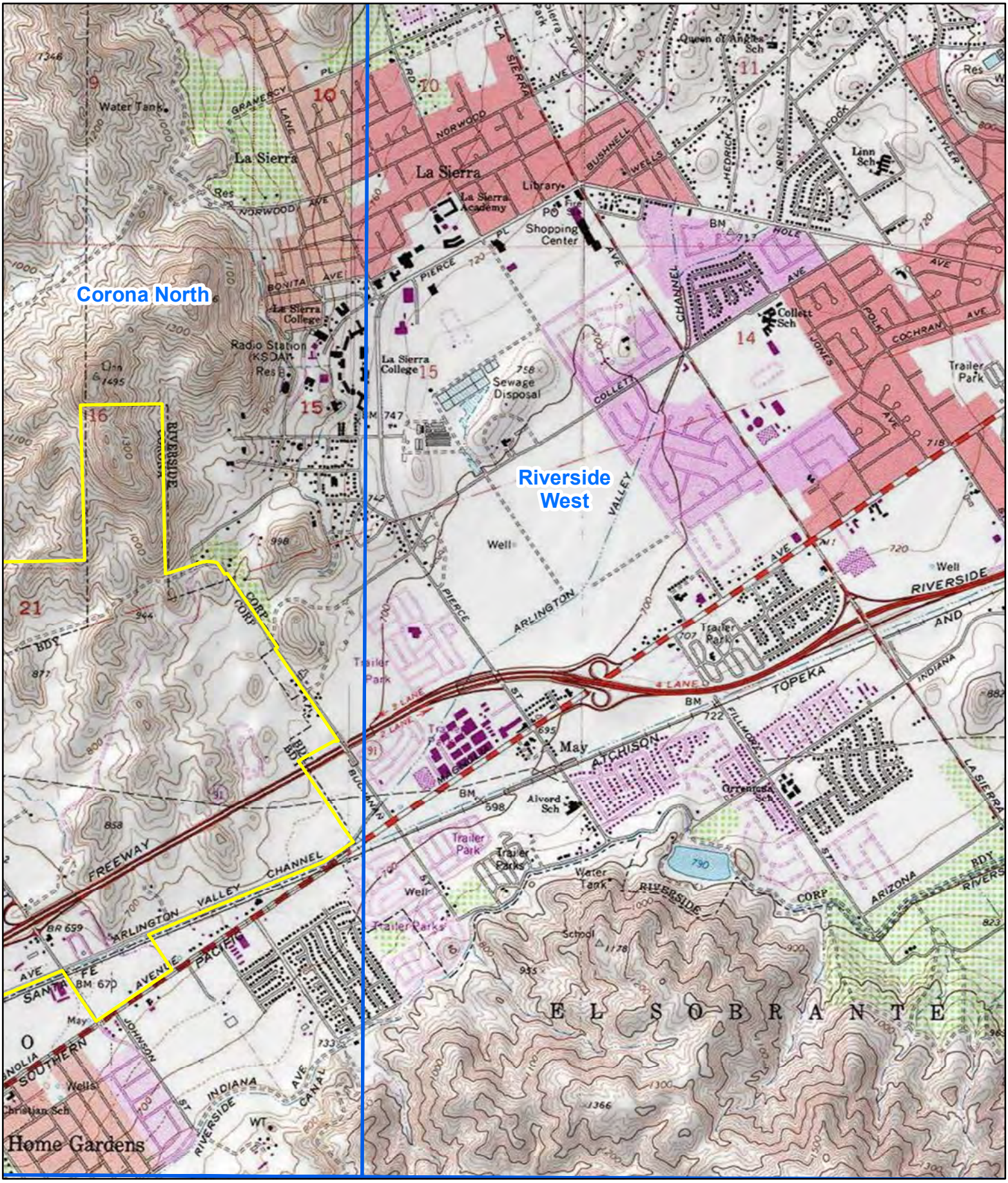


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

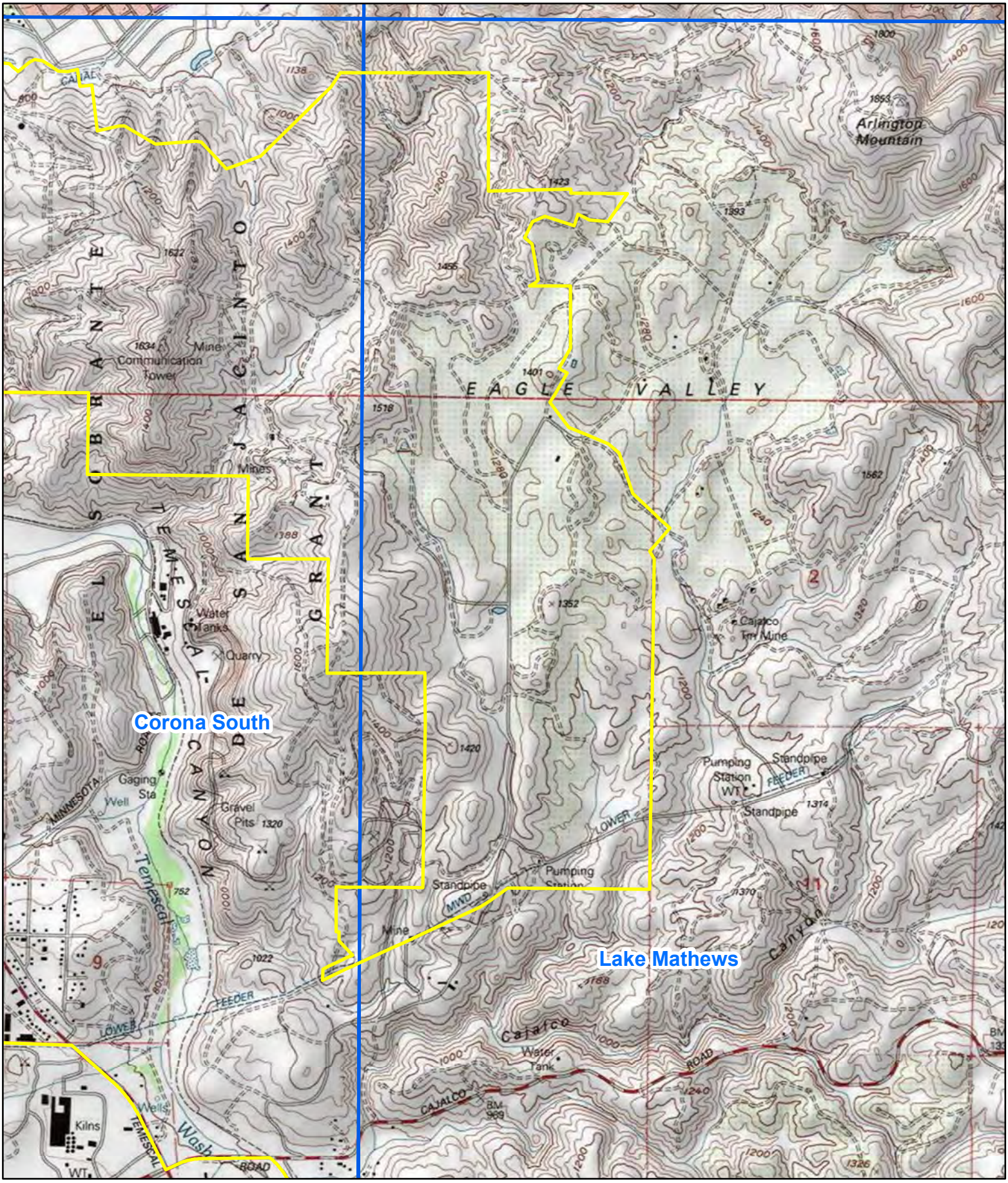
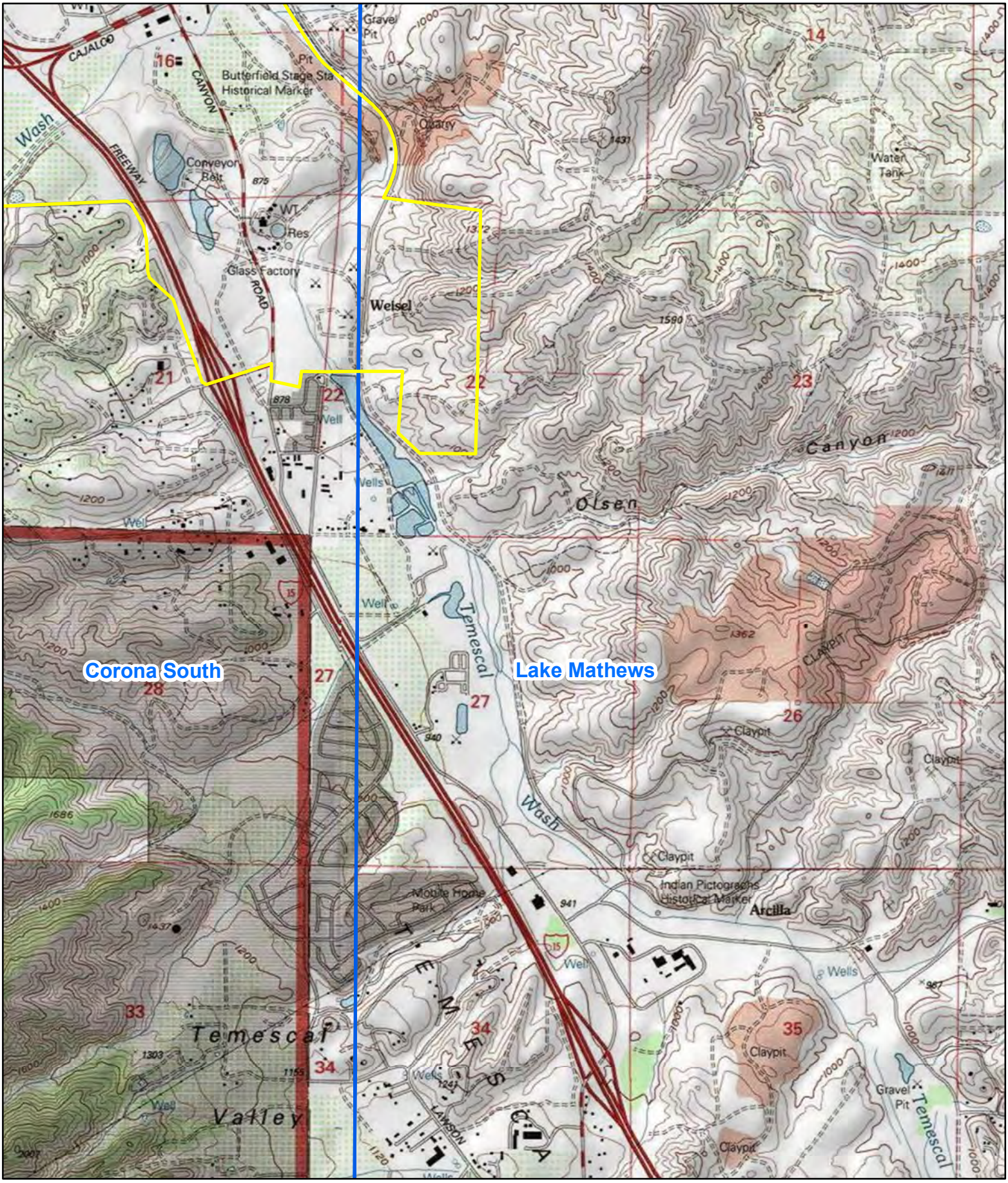


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Joeseph Hamilton
Chairperson
Ramona Band of Cahuilla
PO Box 391670, Anza, CA, 92539
951-763-4105
admin@ramona-nsn.gov

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Hamilton,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

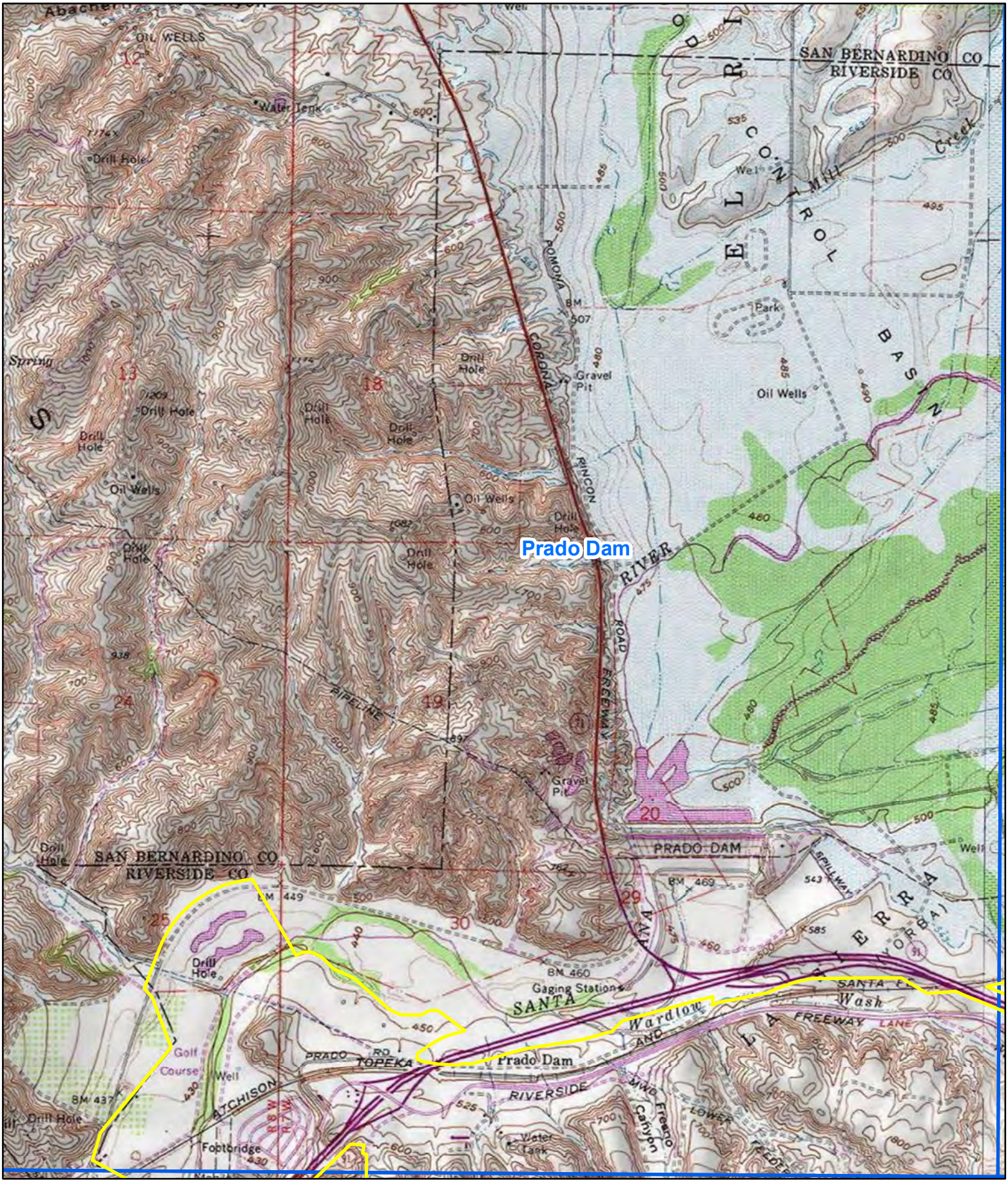


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

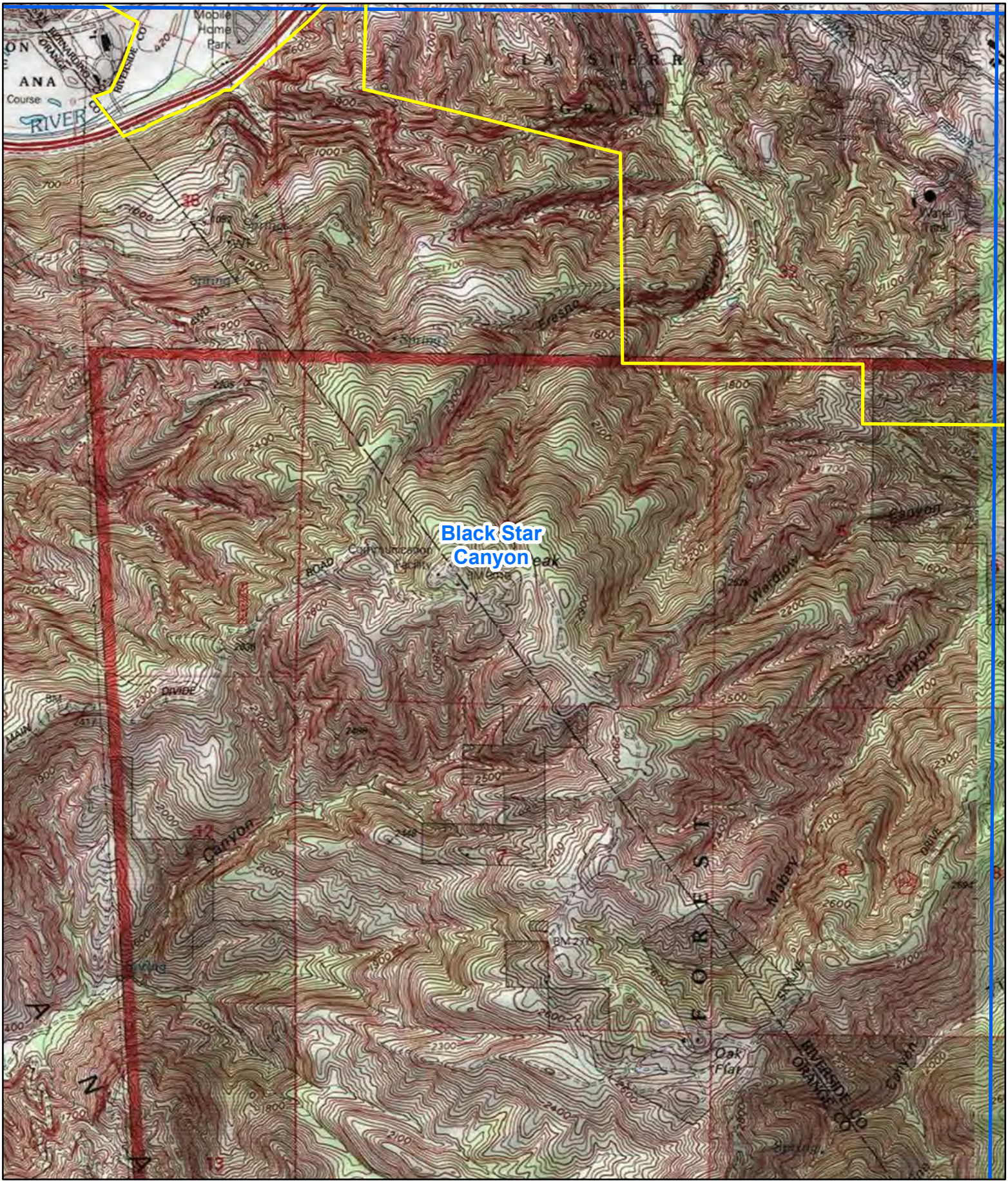
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

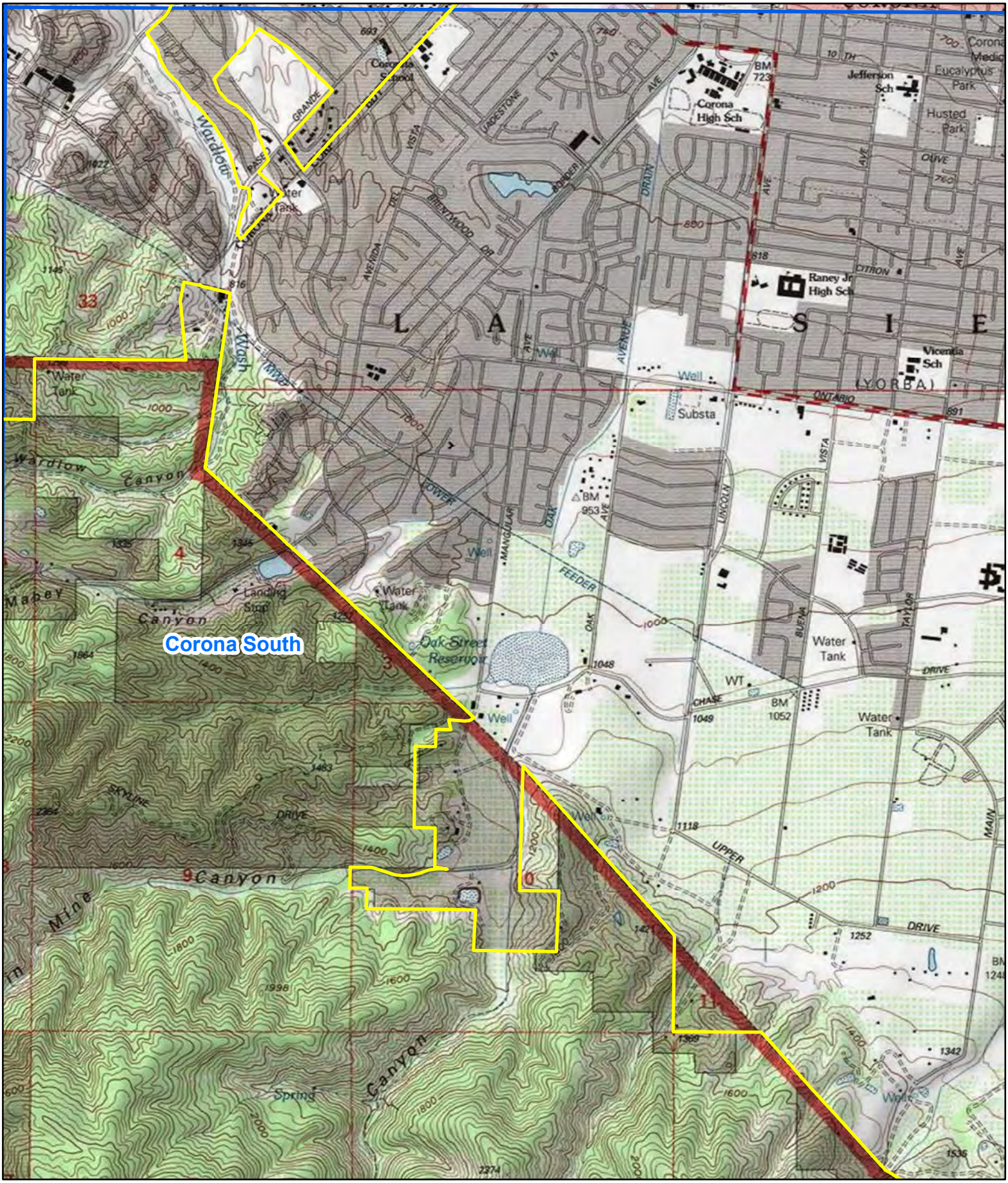
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

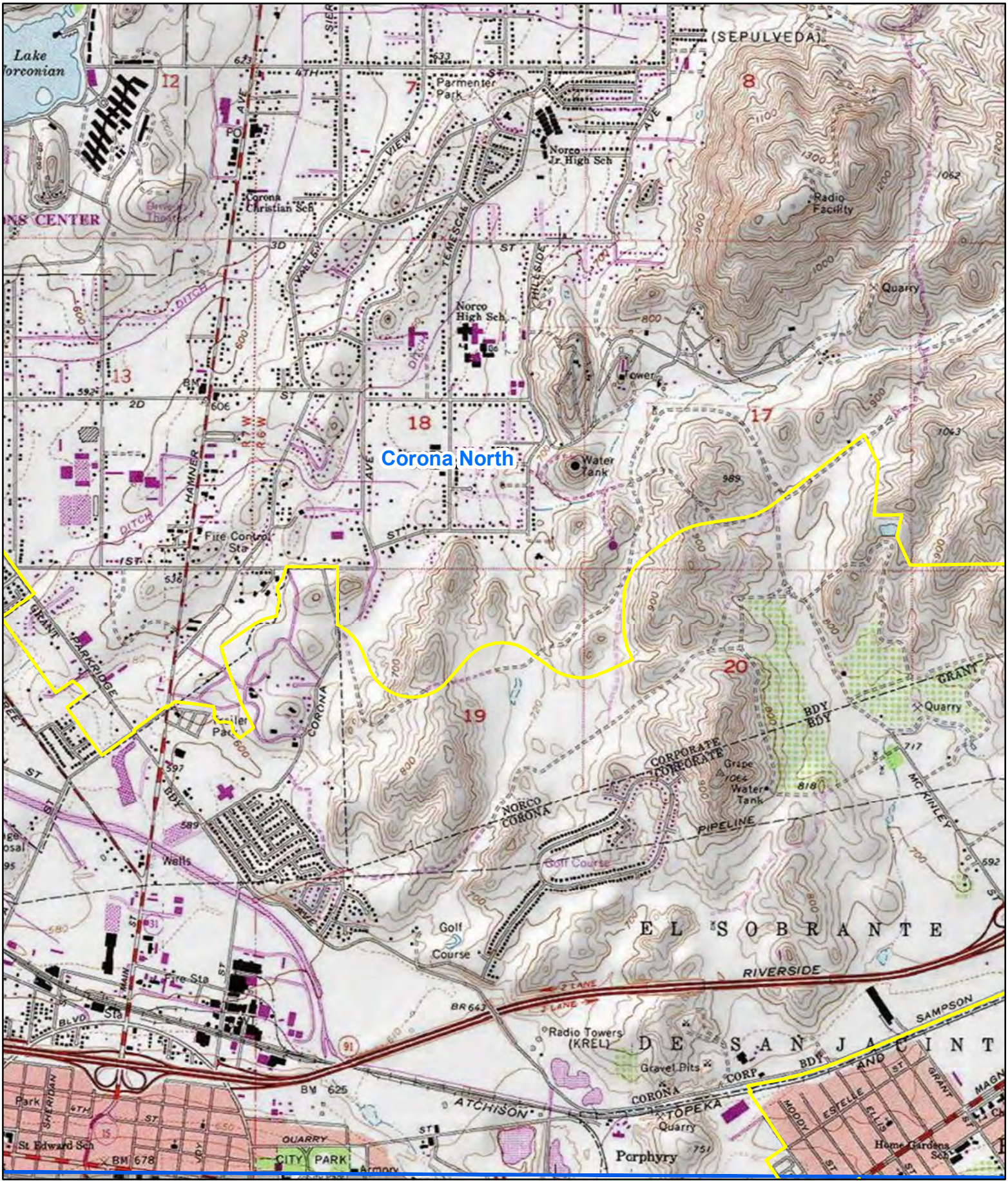
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

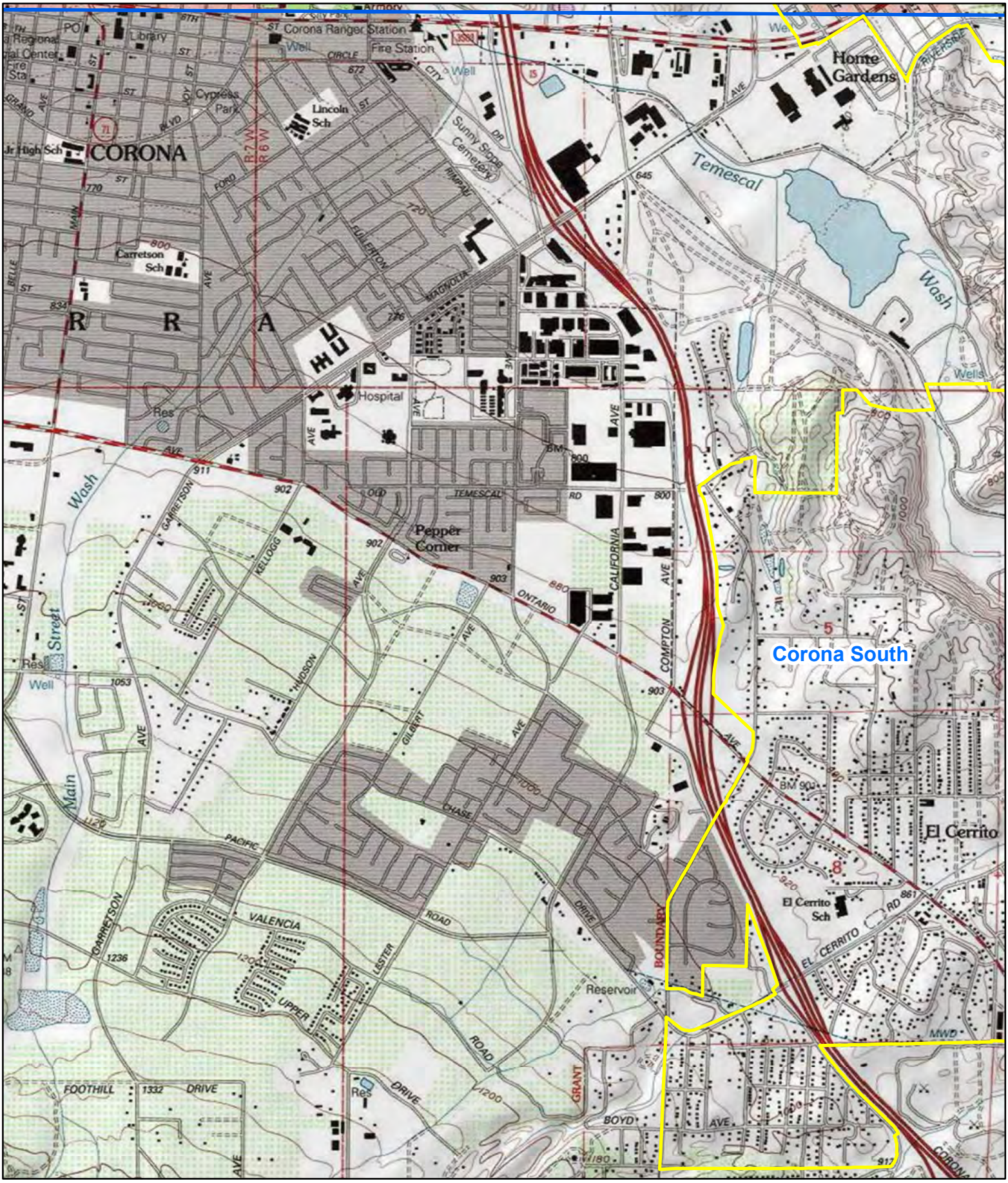


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

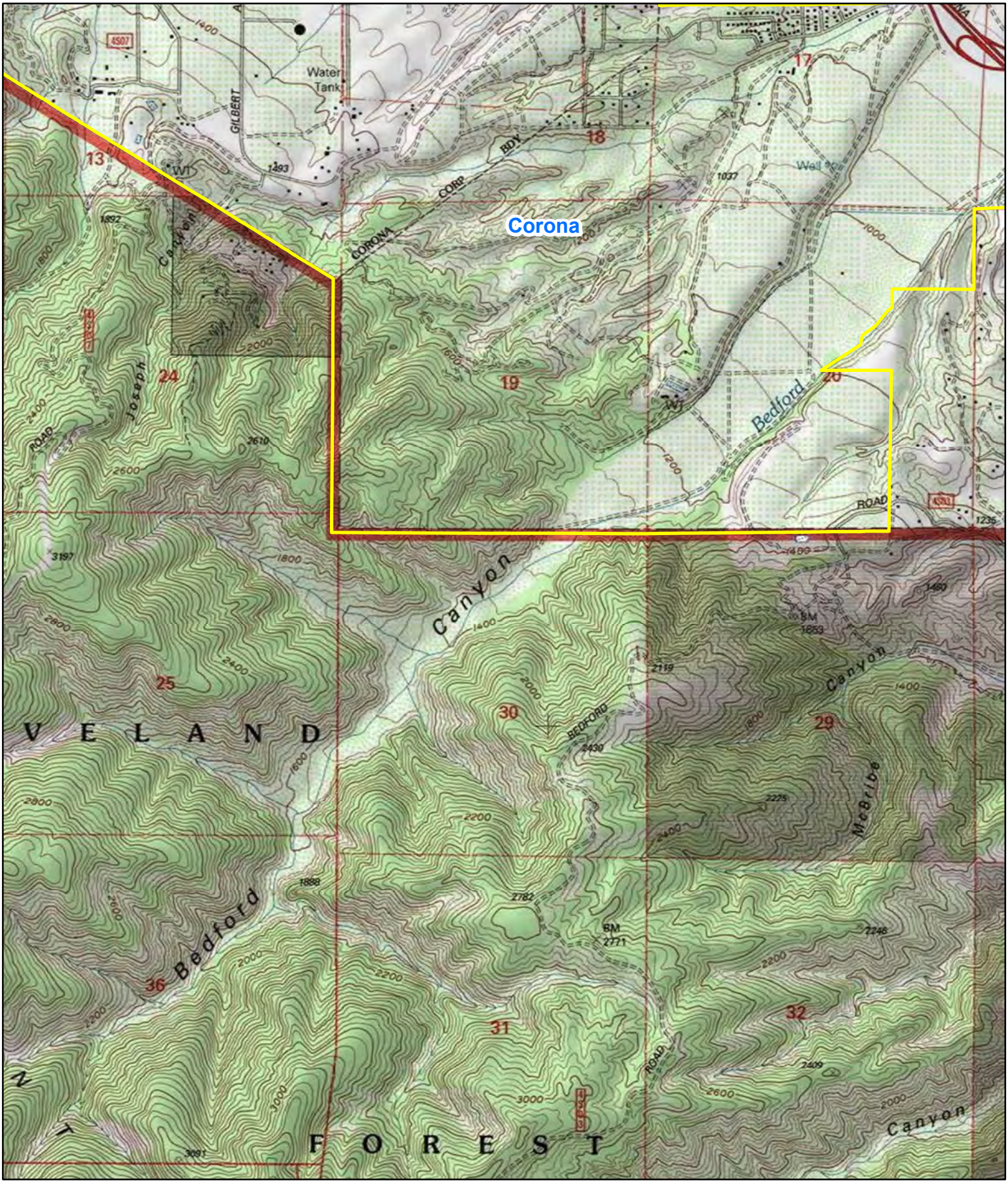
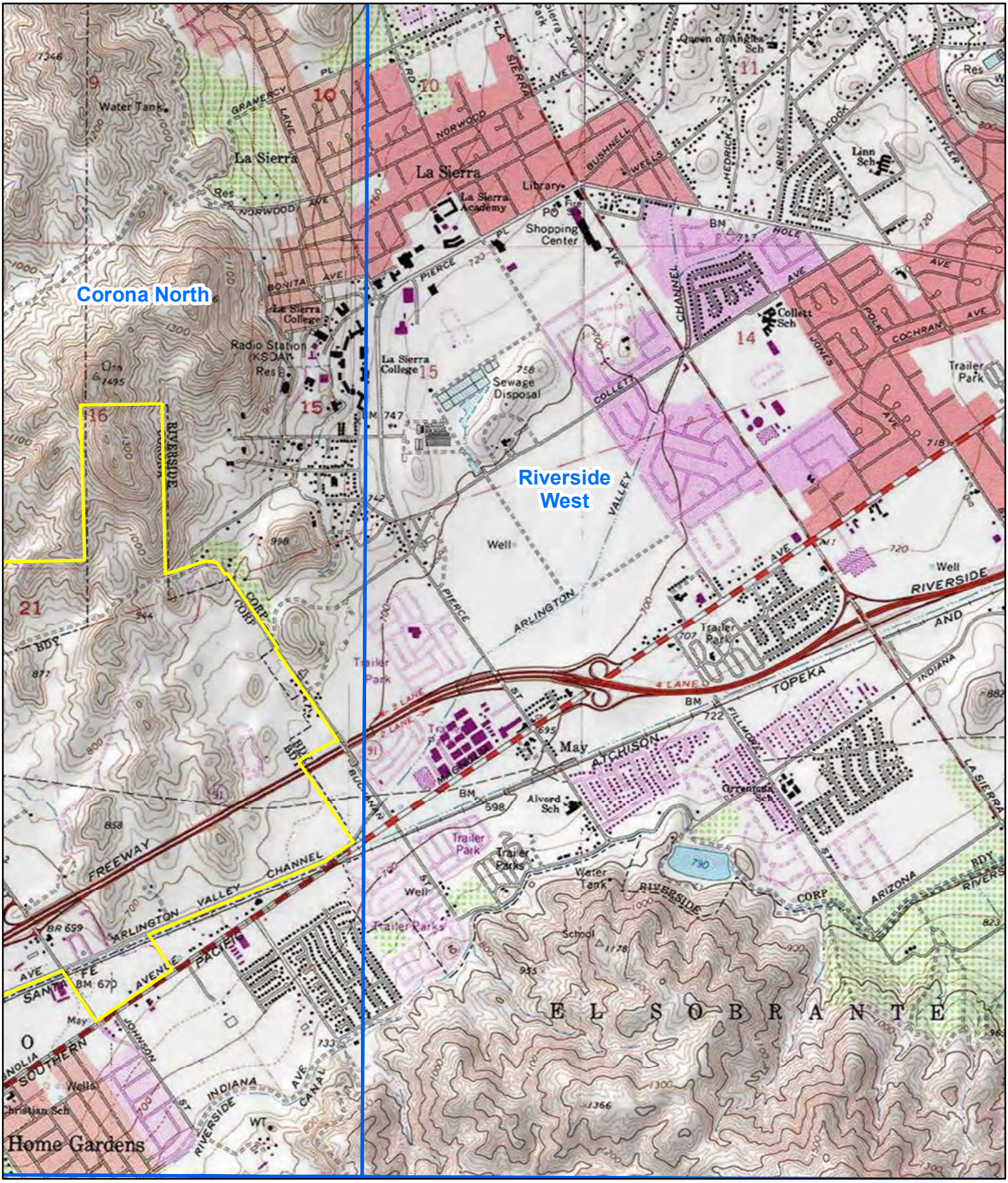


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

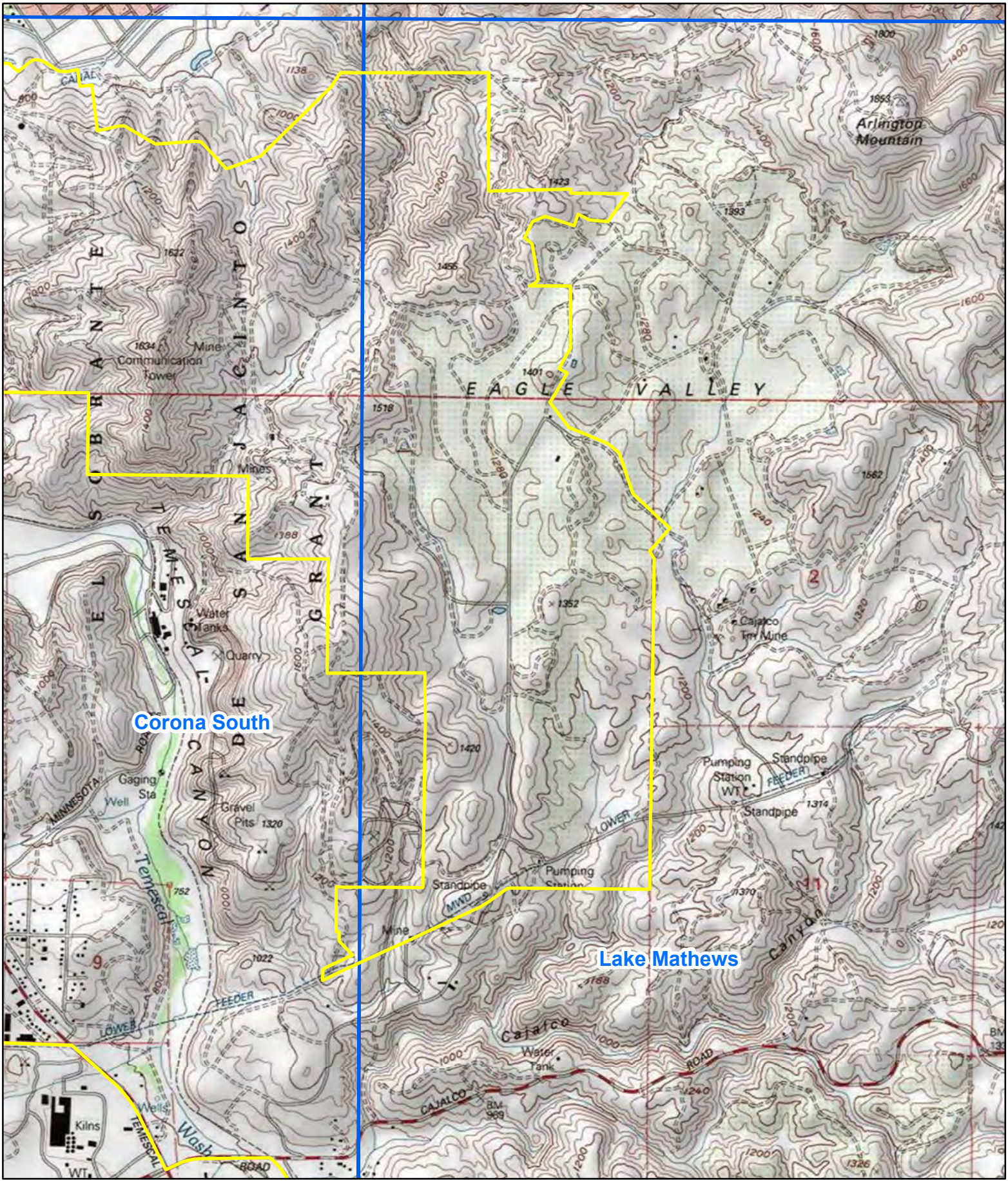
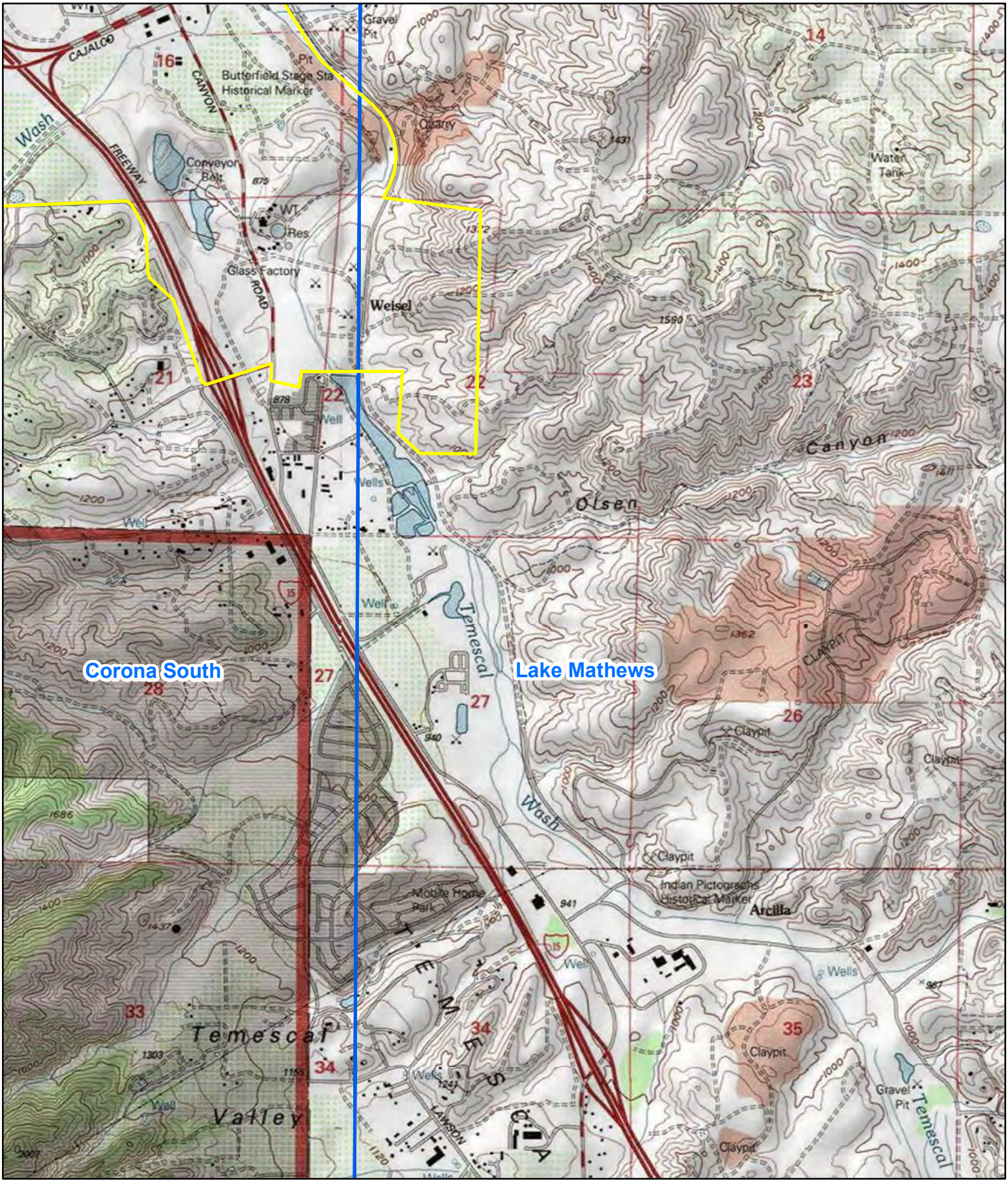


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Jill McCormick
Historic Preservation Officer
Quechan Tribe of the Fort Yuma Reservation
PO Box 1899, Yuma, AZ, 85366
760-572-2423
historicpreservation@quechantribe.com

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Ms. McCormick,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

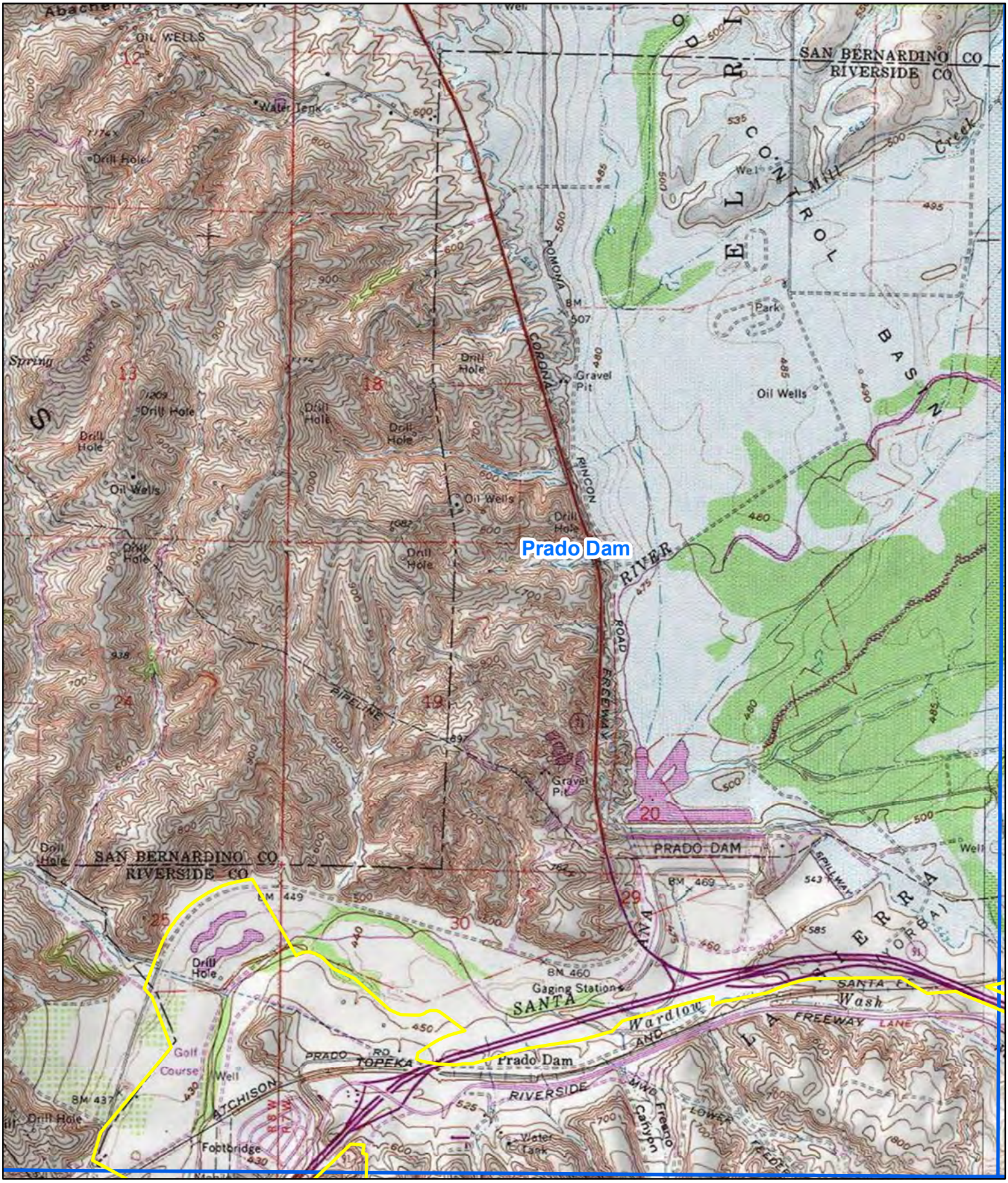


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

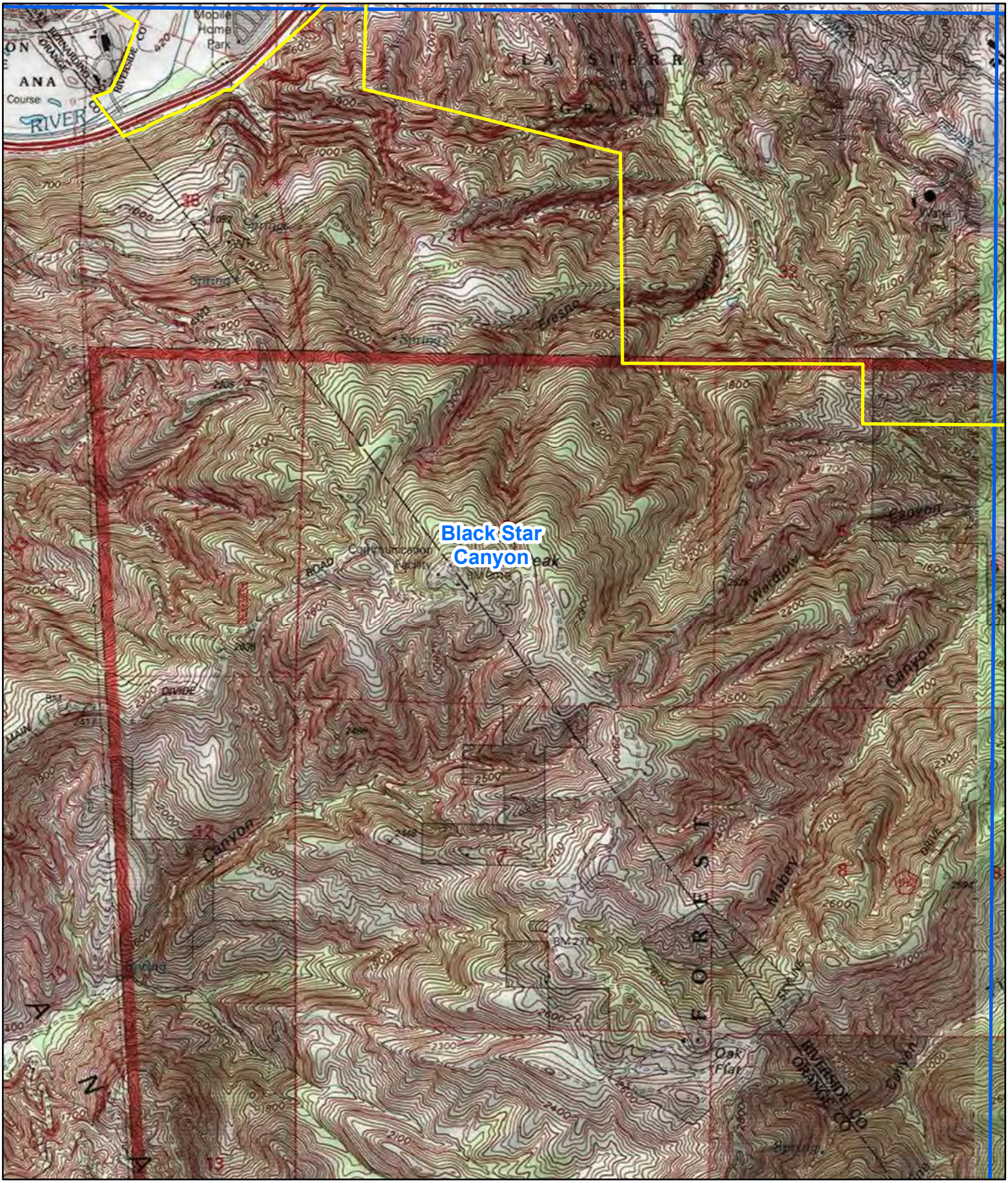
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

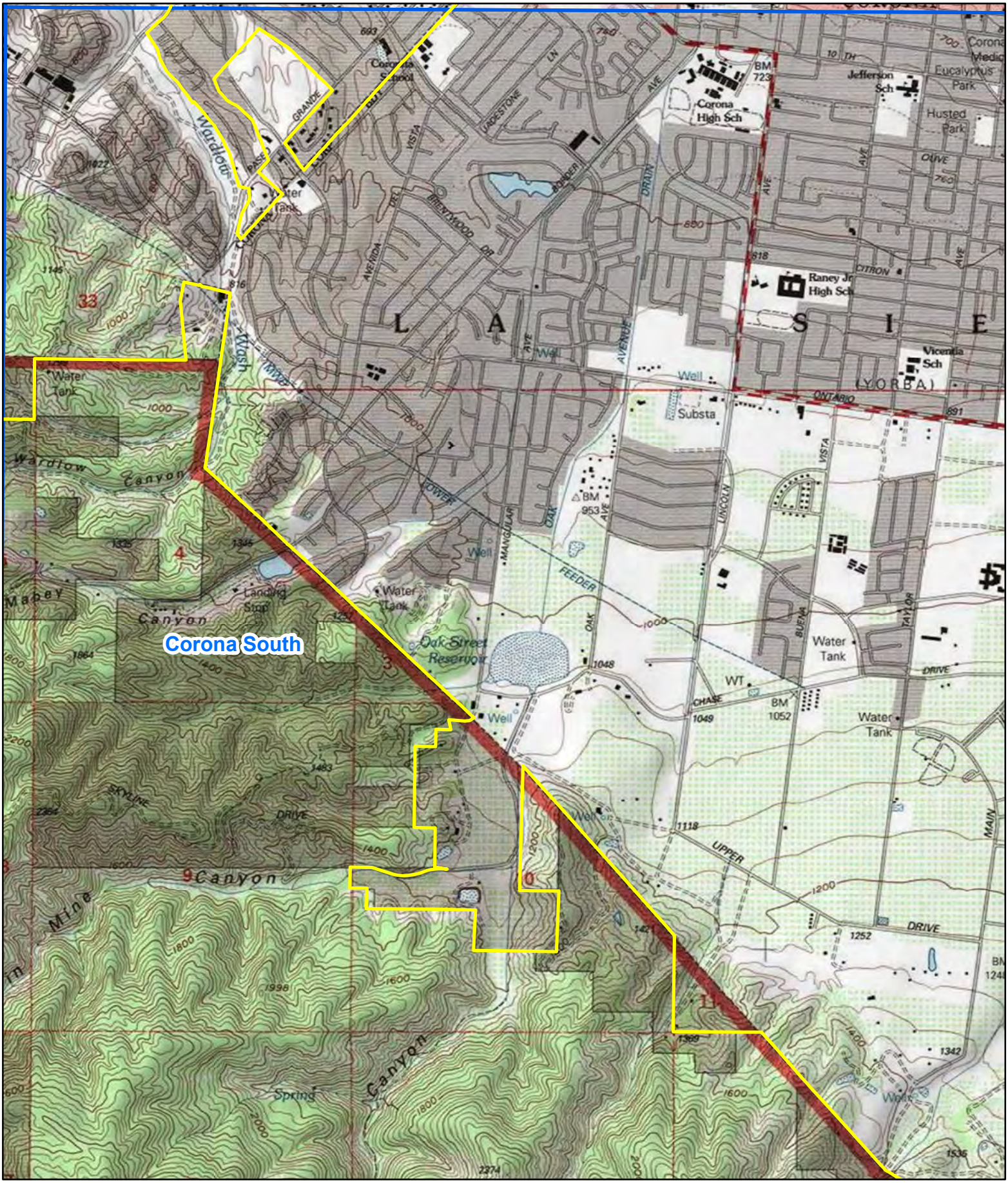
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

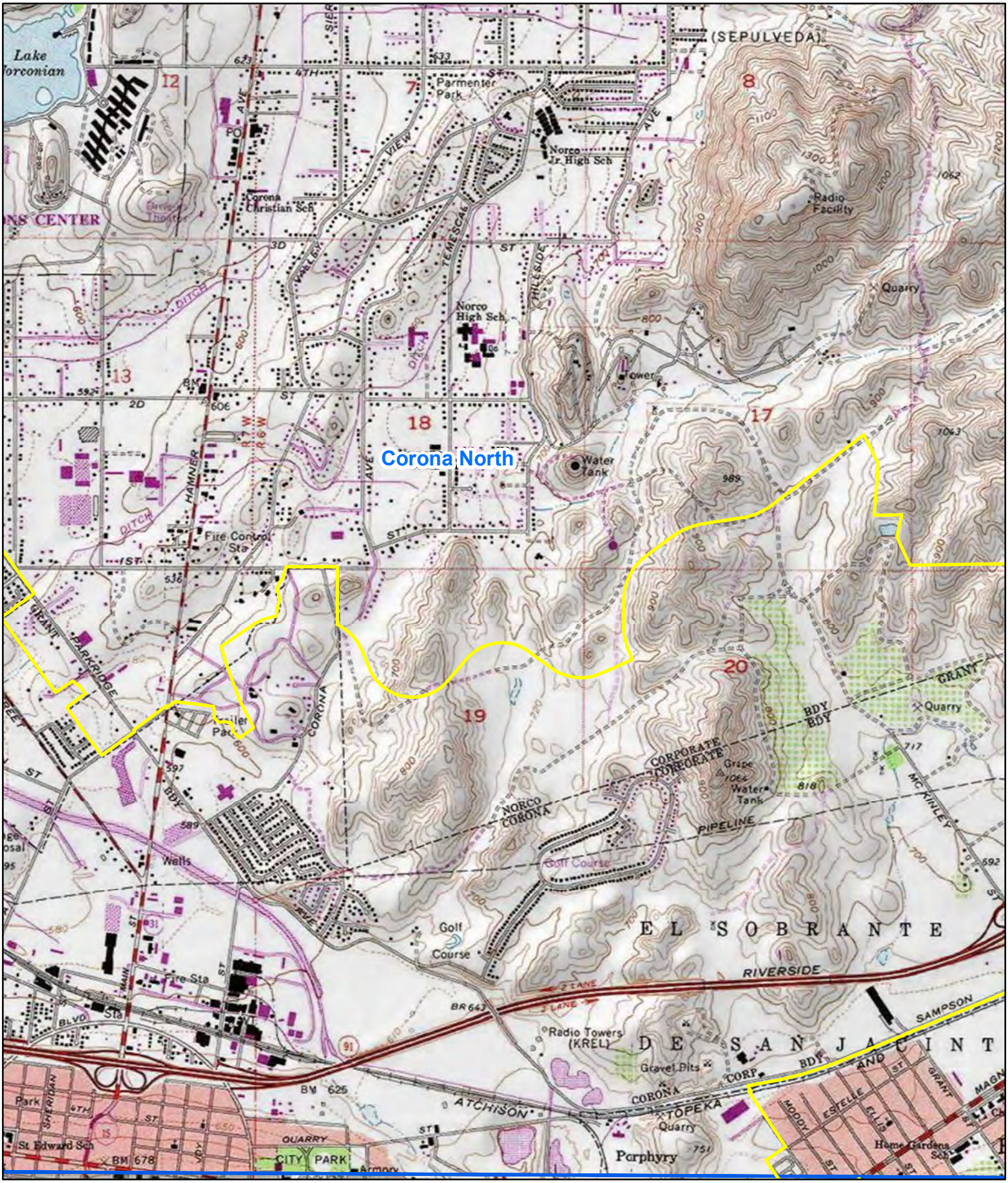
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

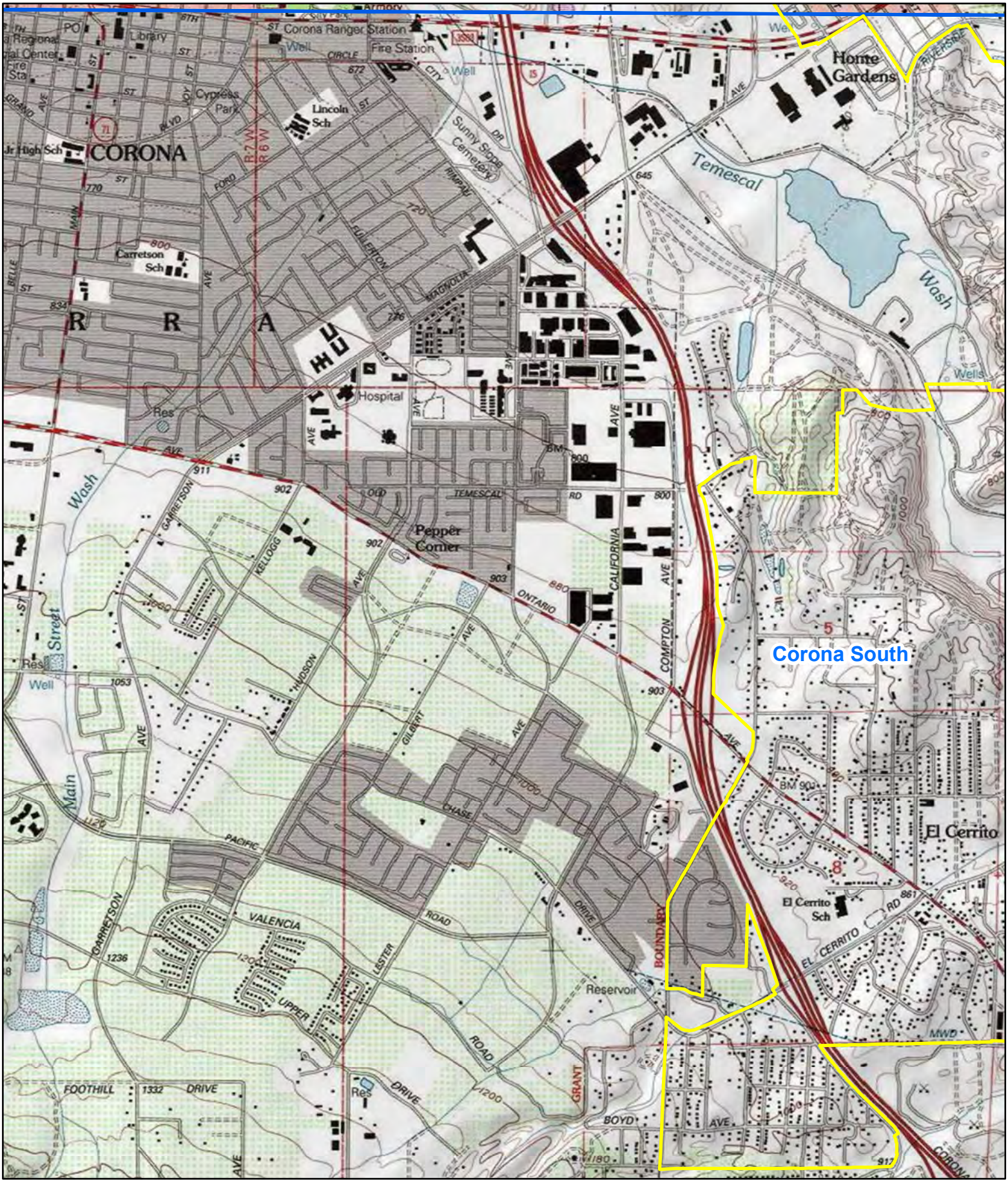


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

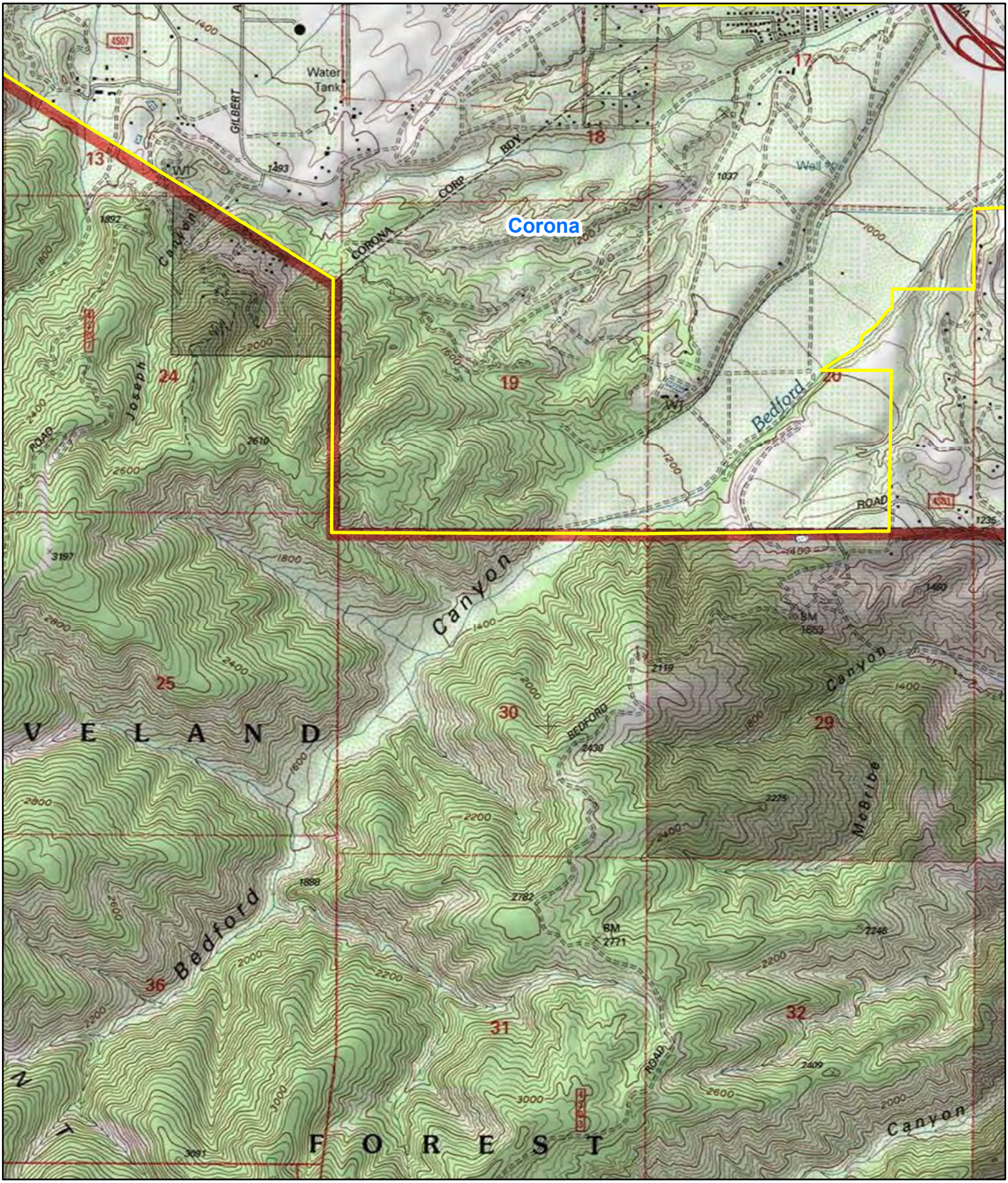
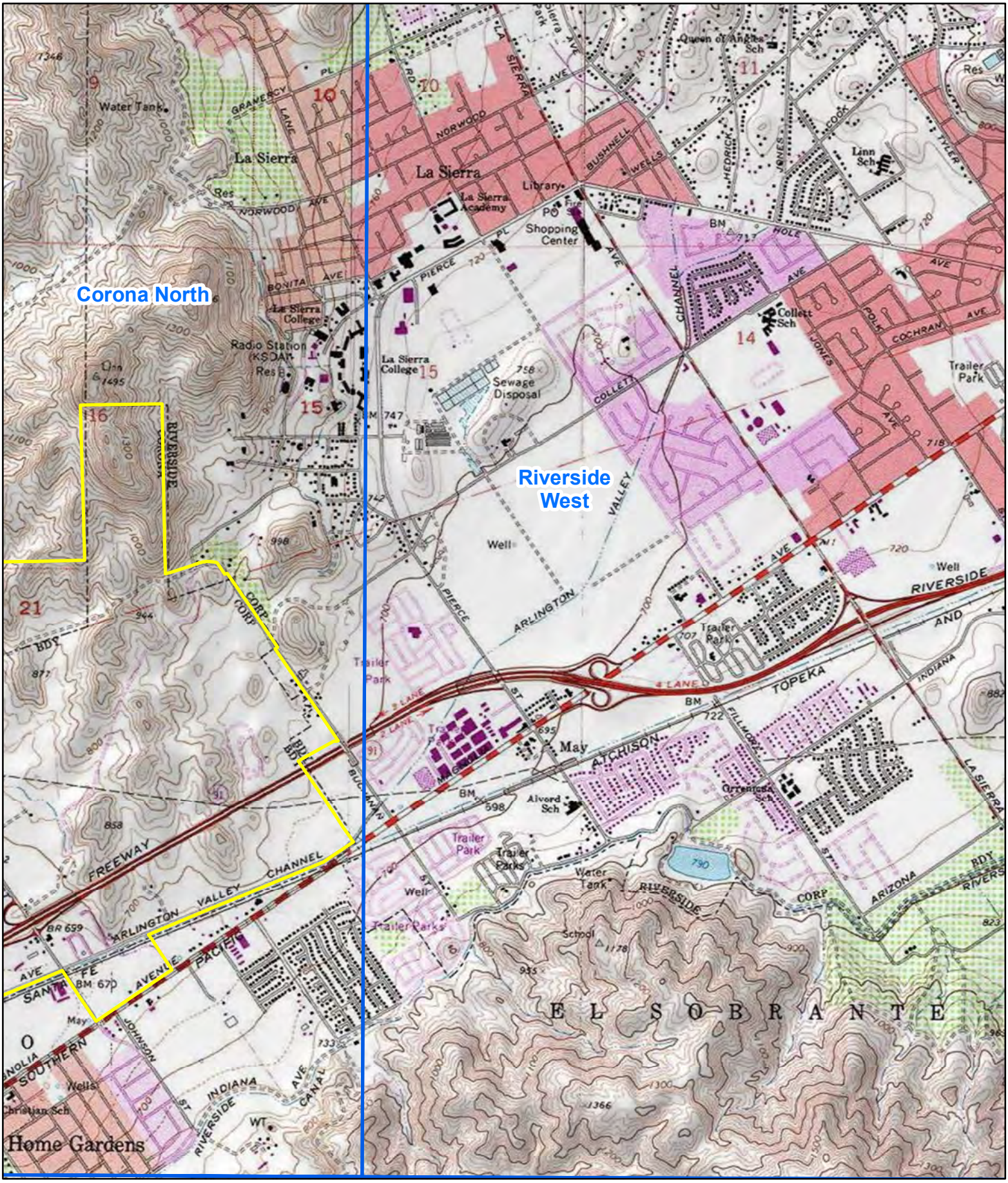


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

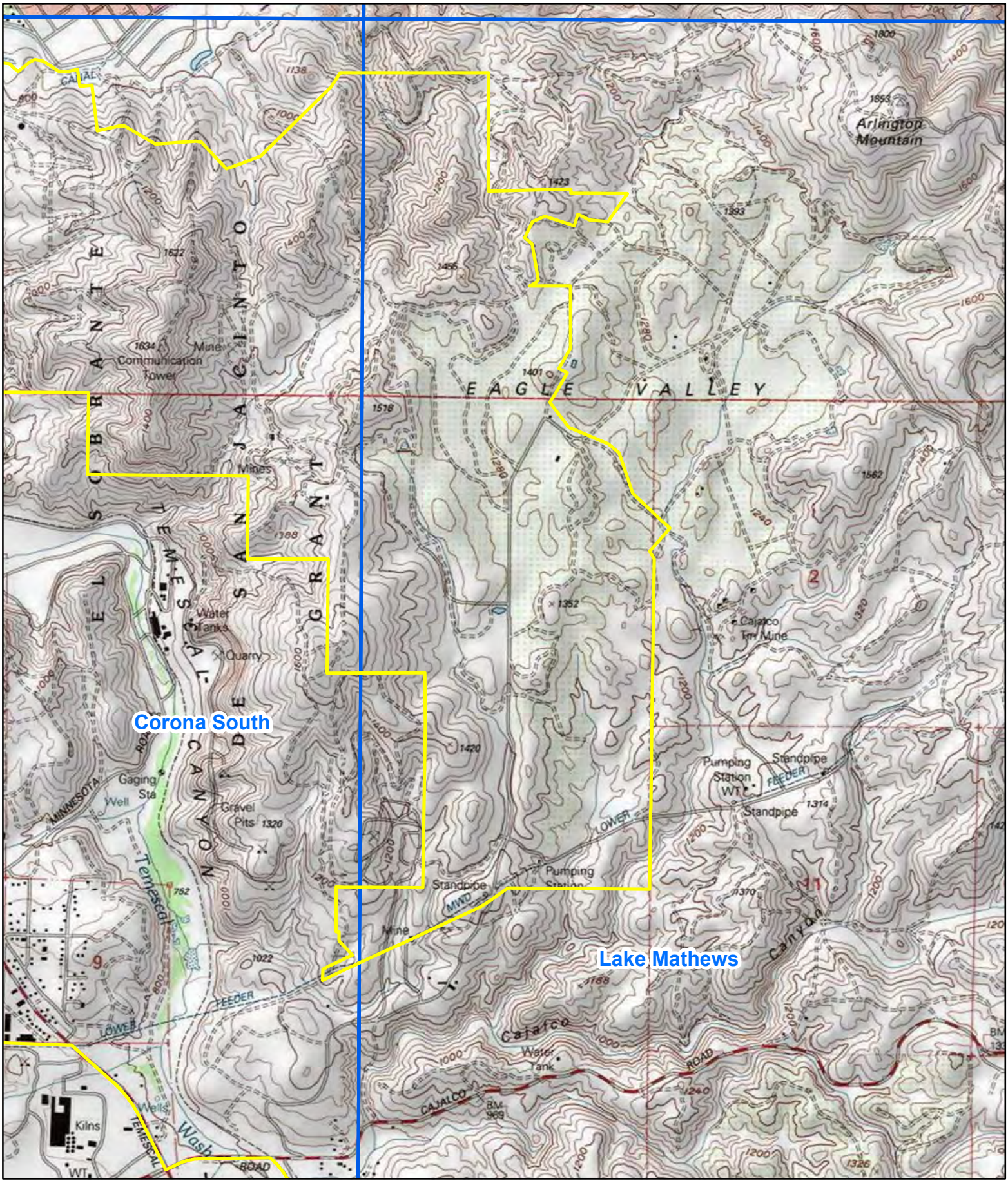
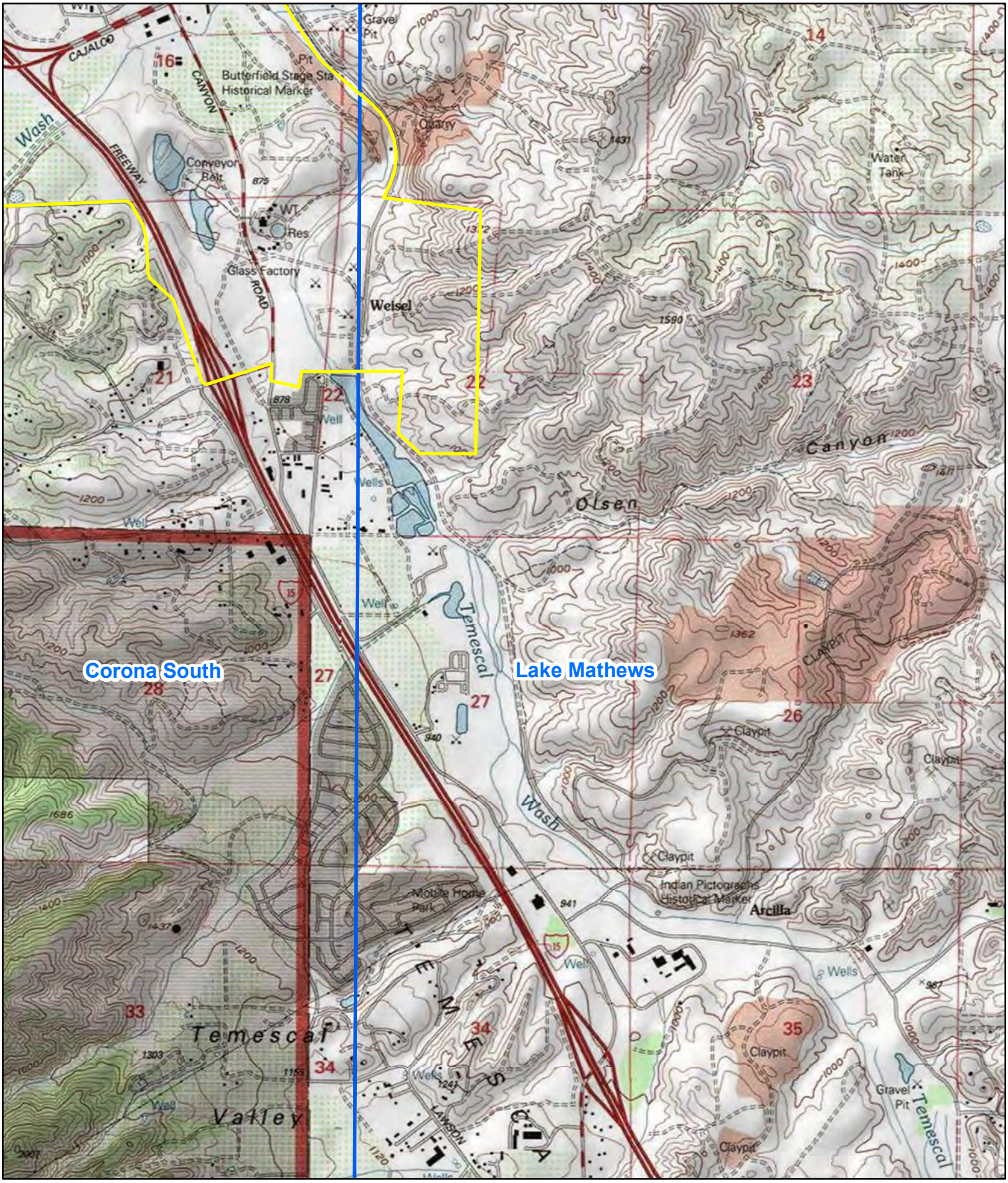


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Javaughn Miller
Tribal Administrator
La Posta Band of Diegueno Mission Indians
8 Crestwood Road, Boulevard, CA, 91905
619-478-2113
jmiller@Lptribe.net

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Miller,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

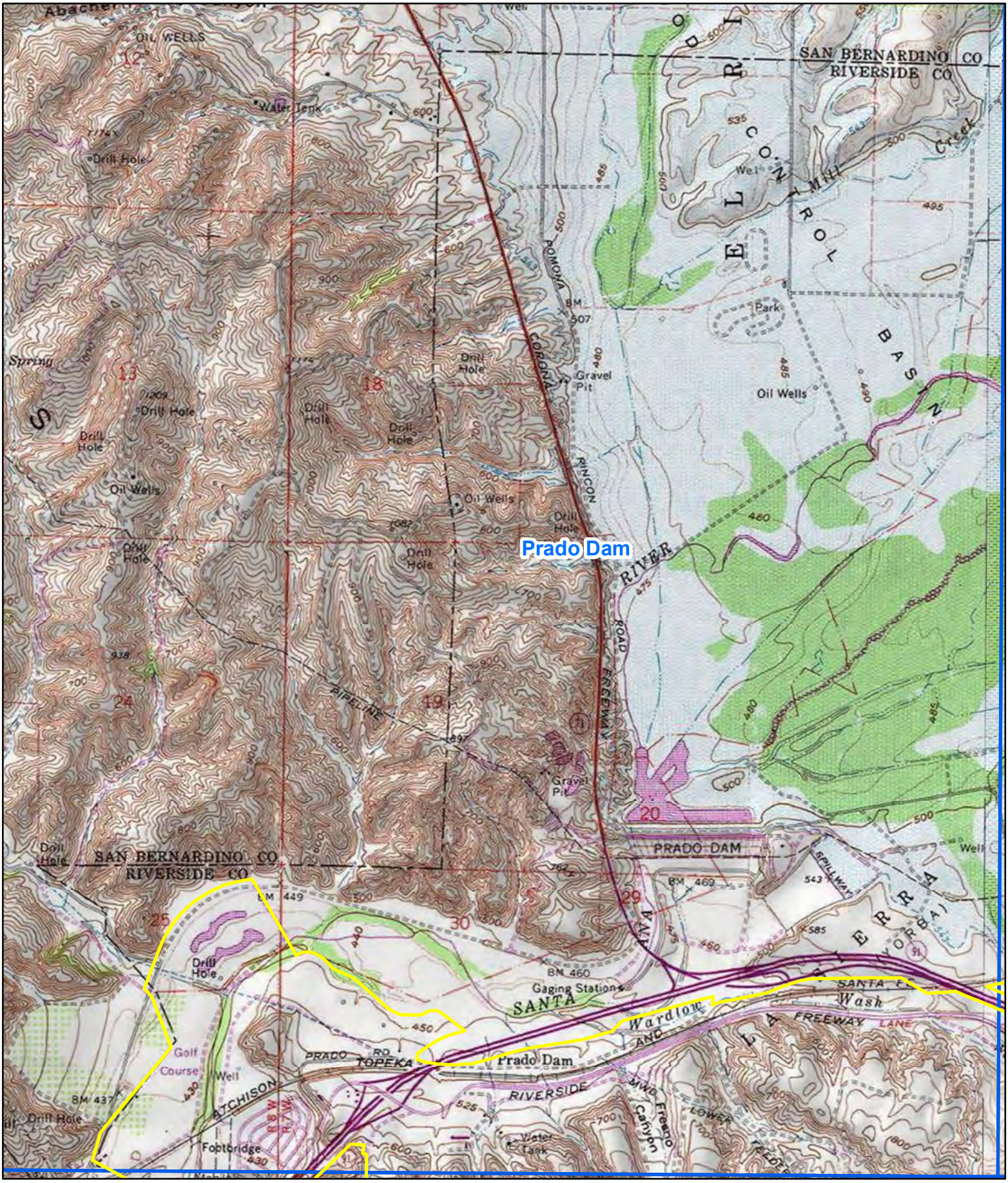


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

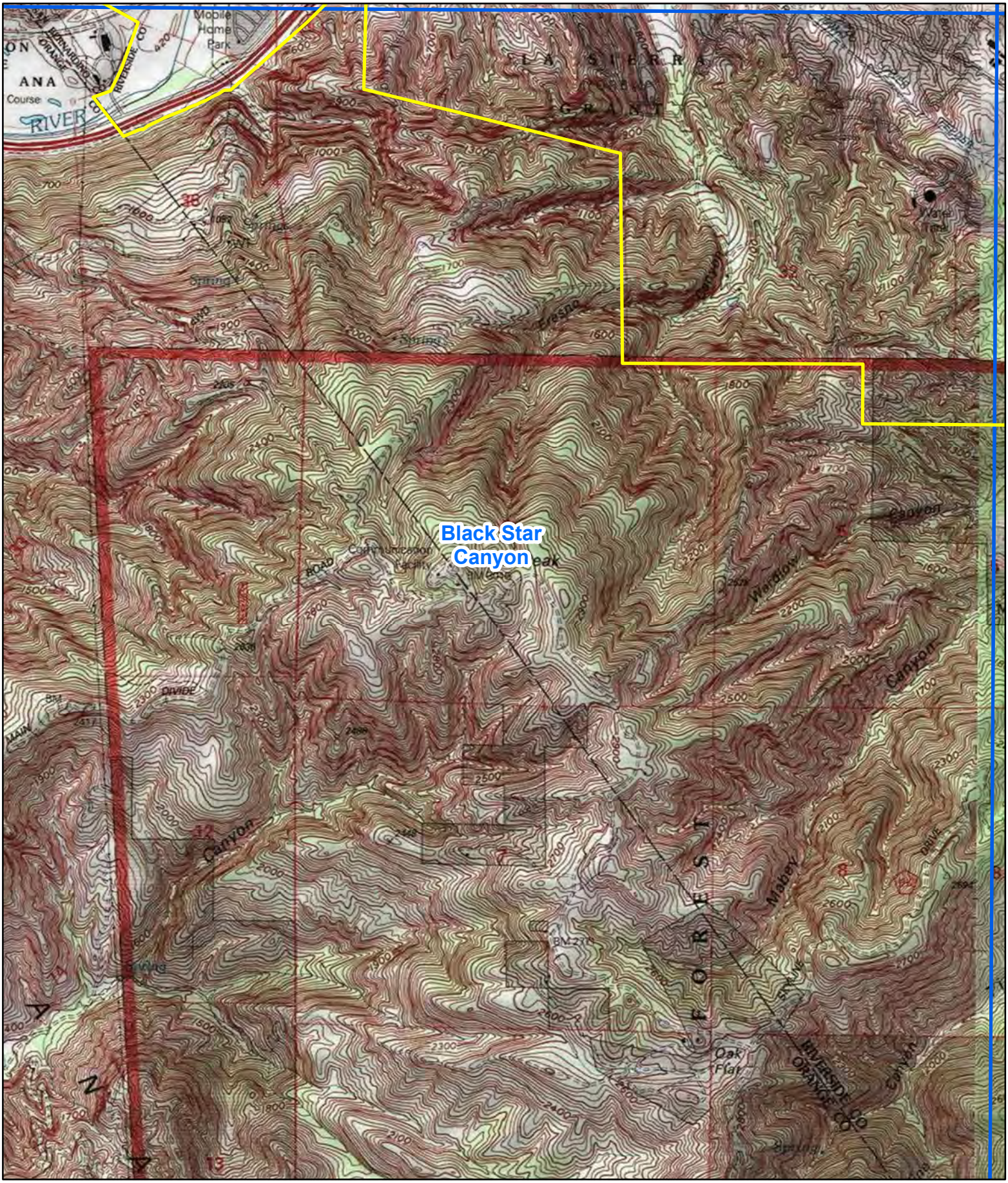
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

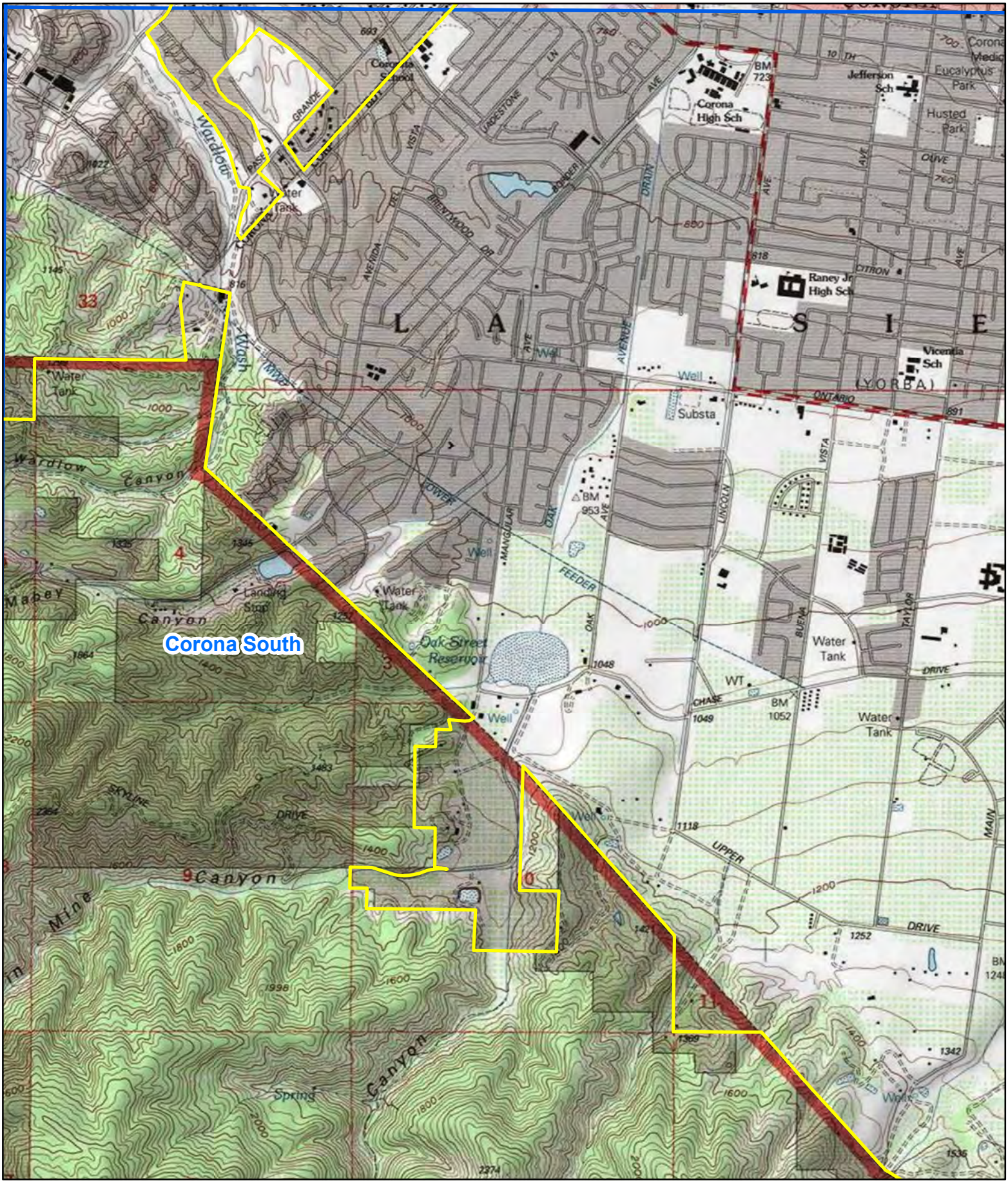
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

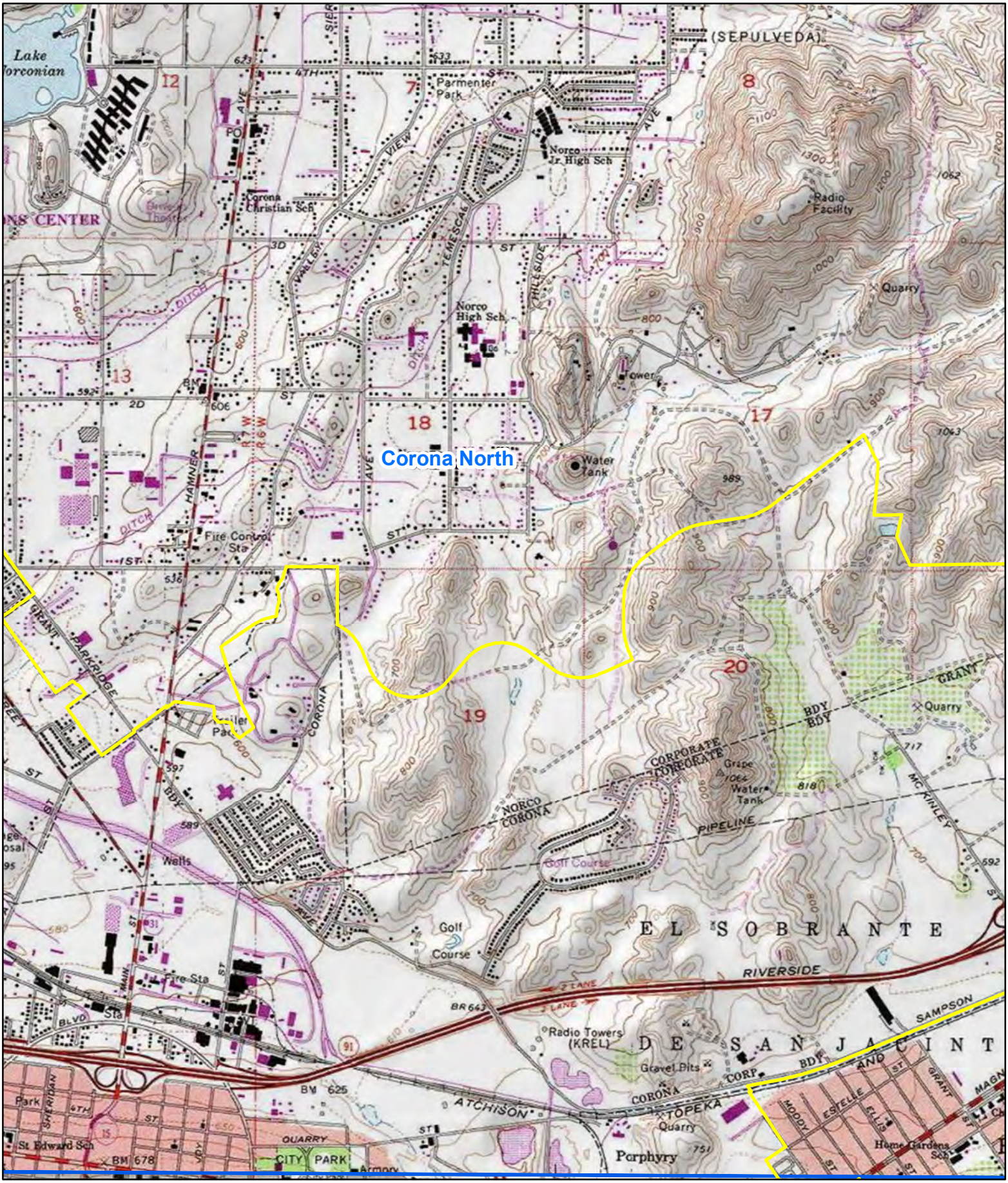
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

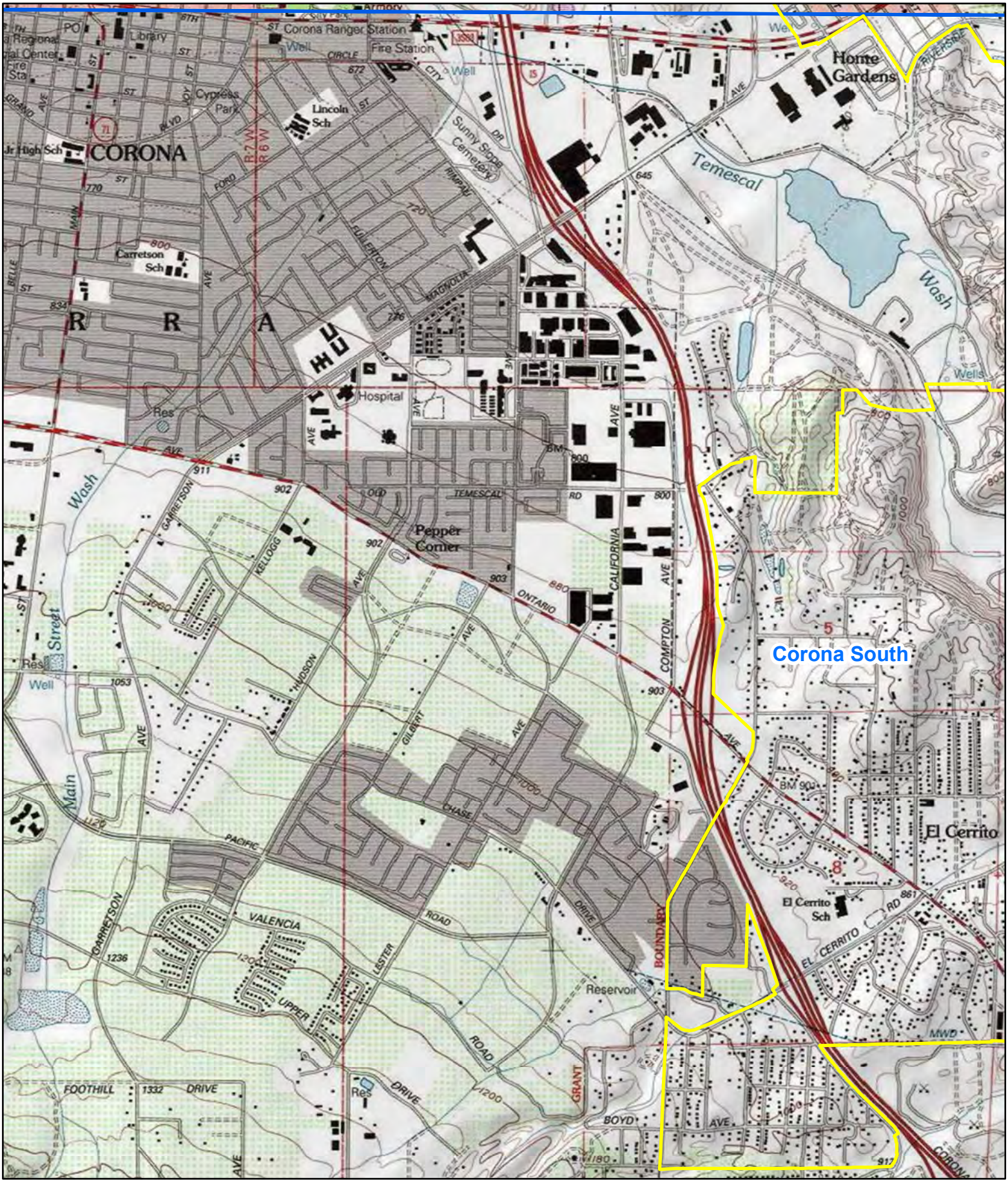


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

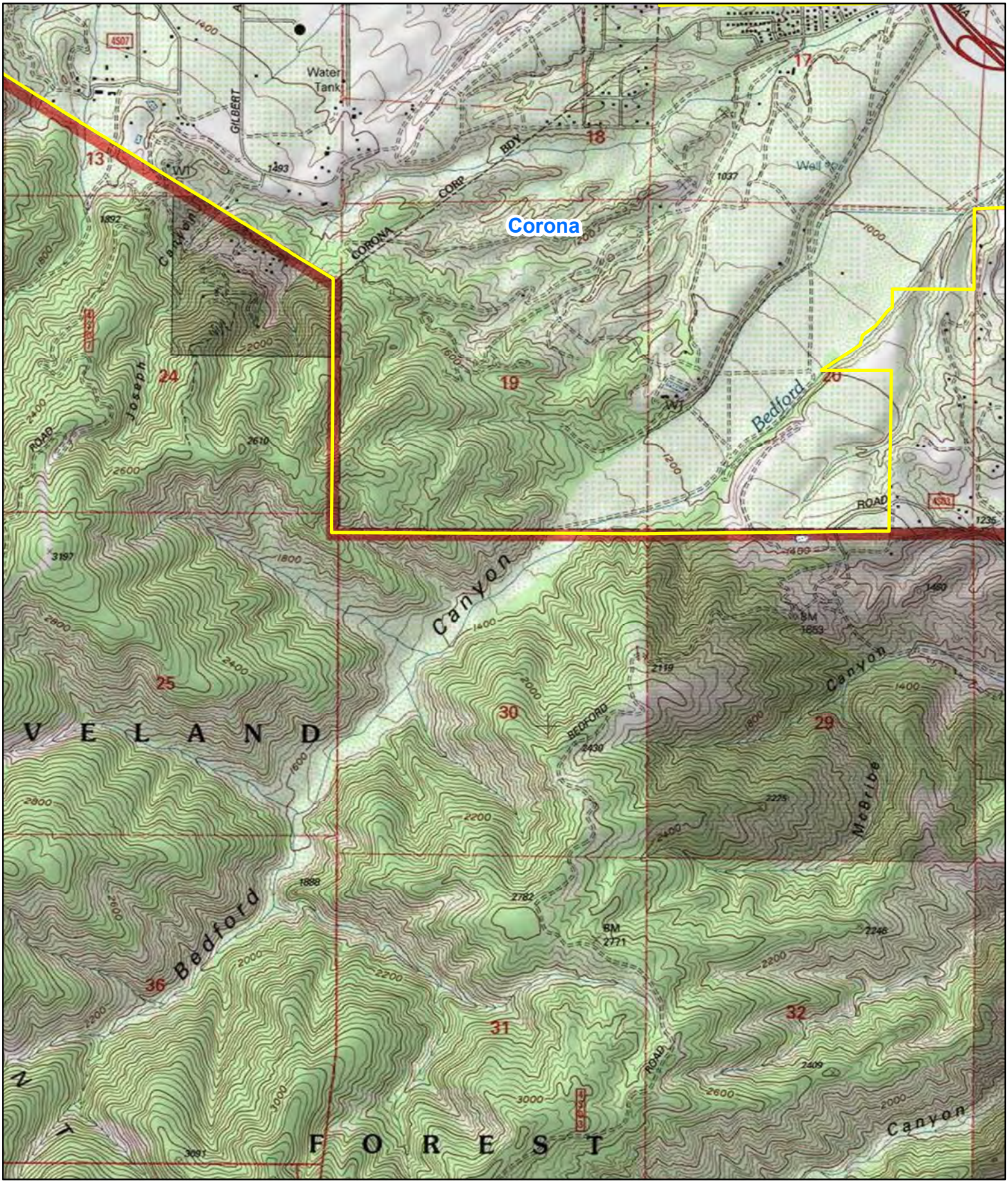
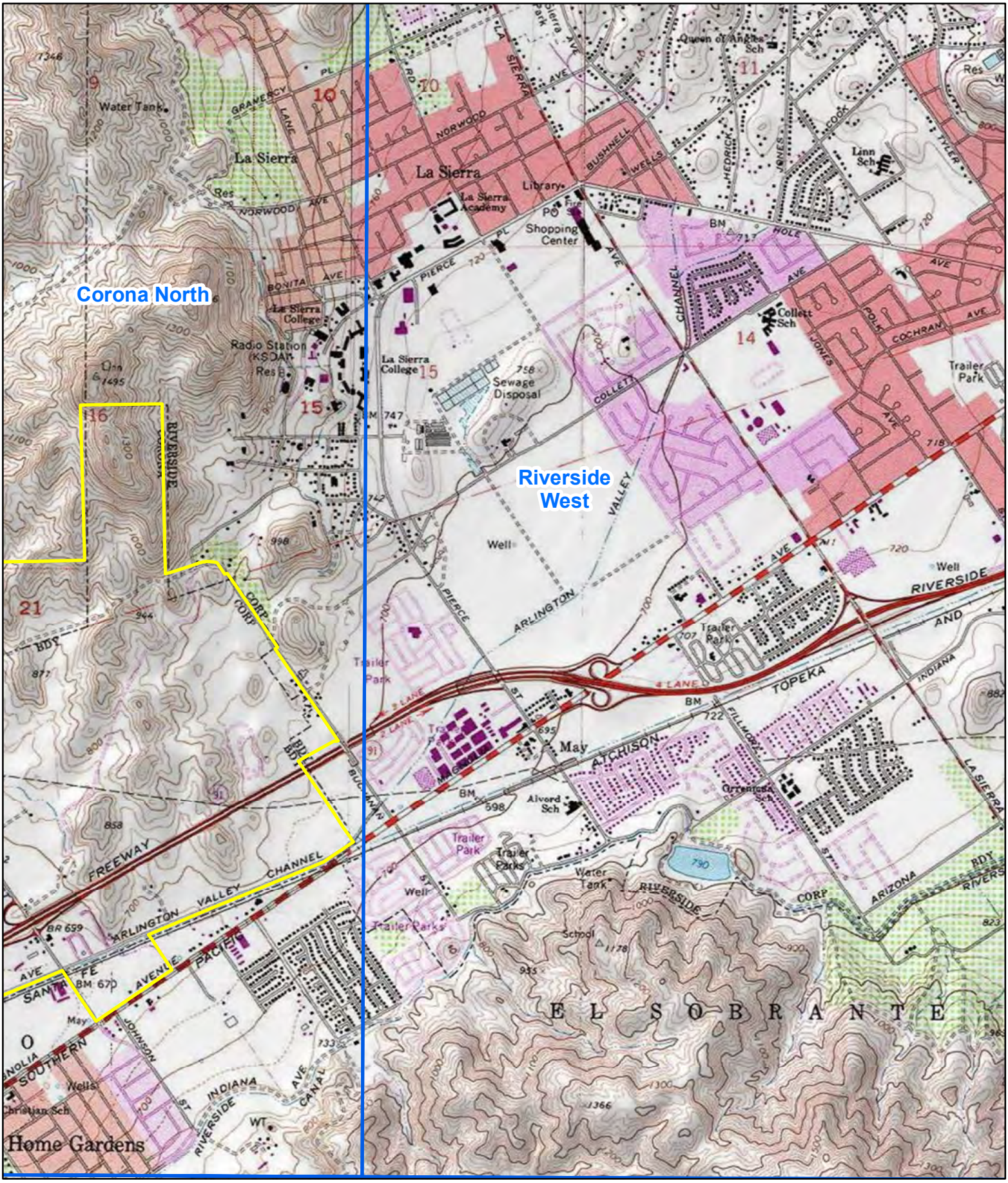


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

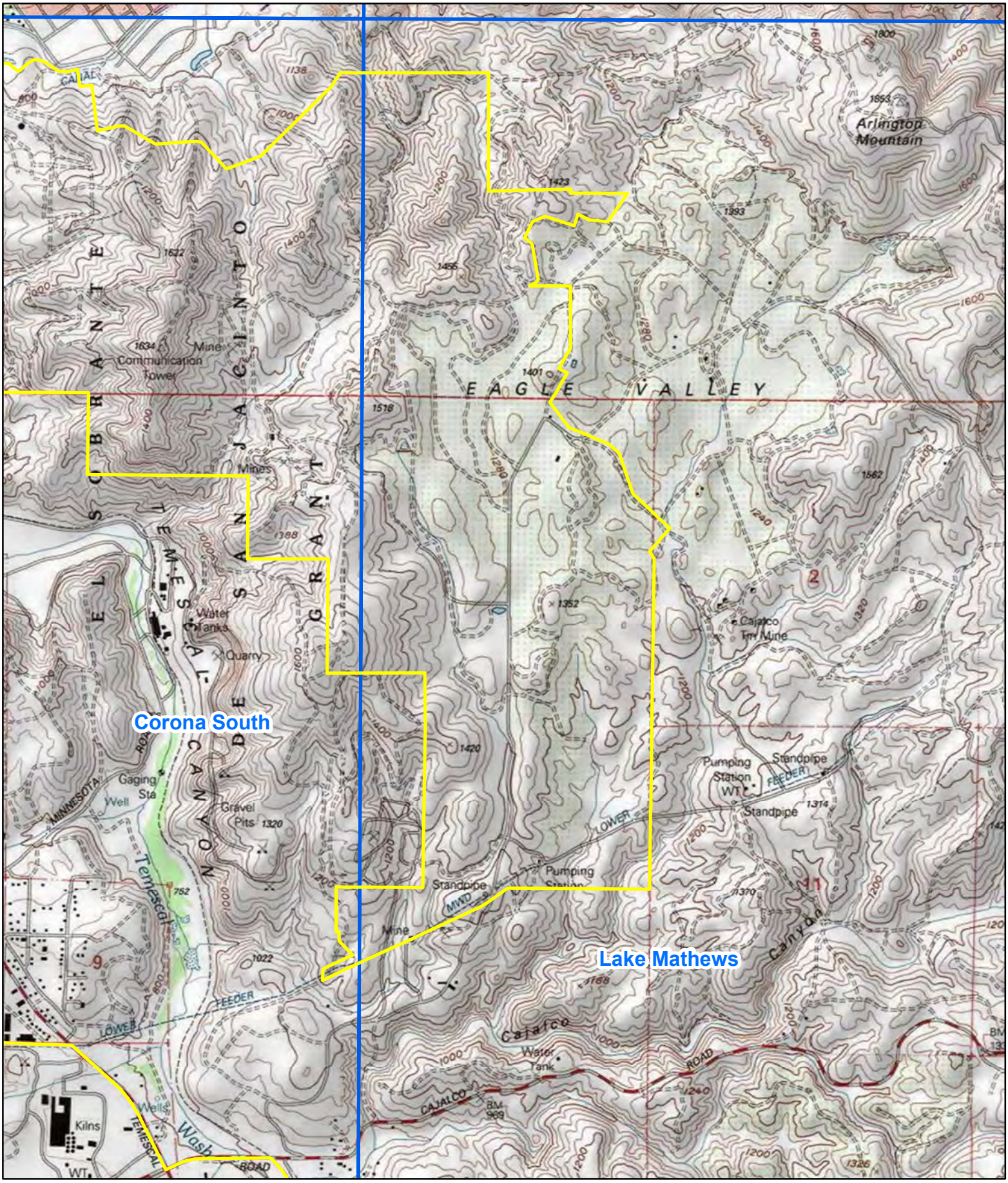
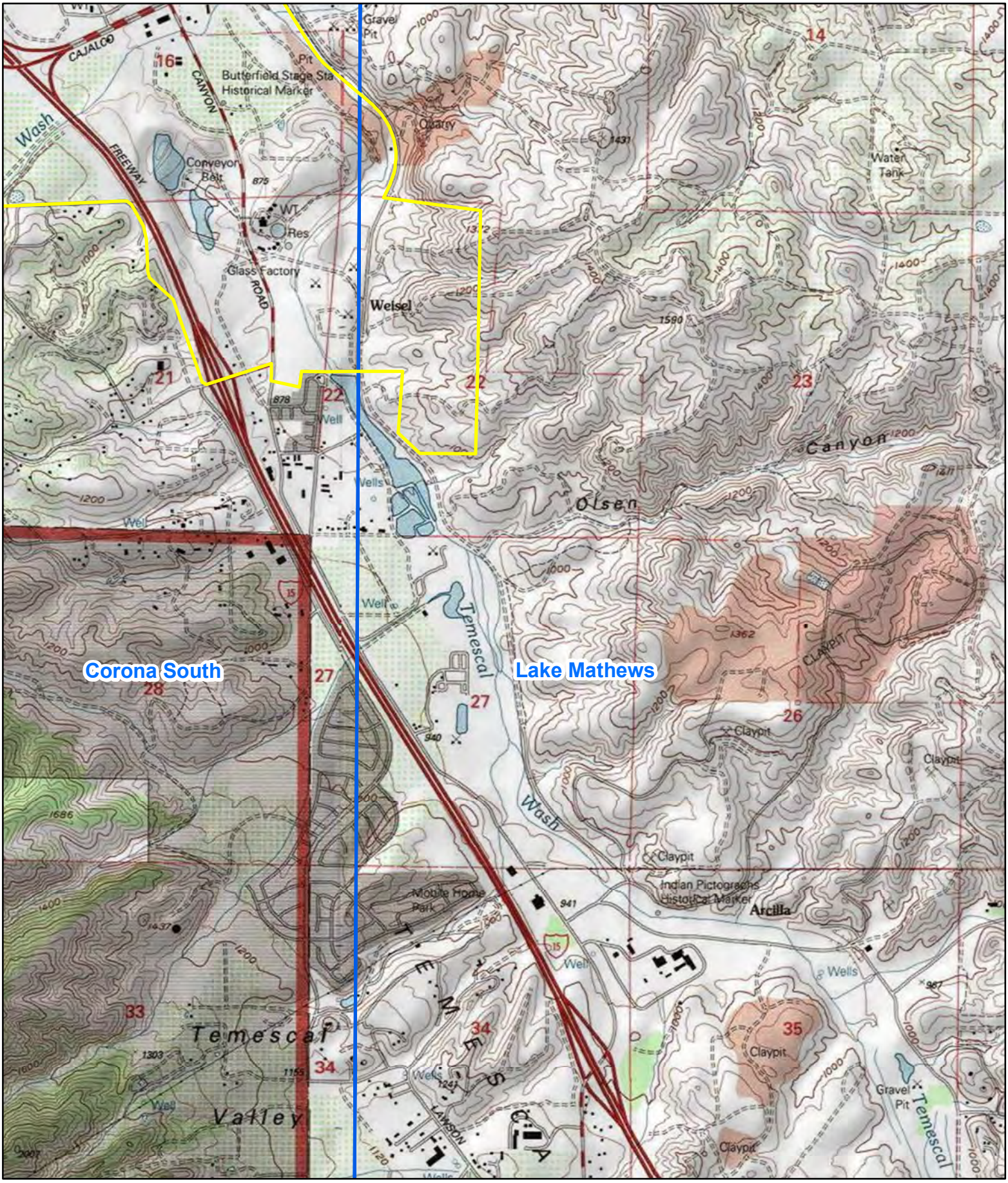


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Lisa Cumper
Preservation Officer
Jamul Indian Village
PO Box 612, Jamul, CA, 91935
619-669-4855
lcumper@jiv-nsn.gov

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Ms. Cumper,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

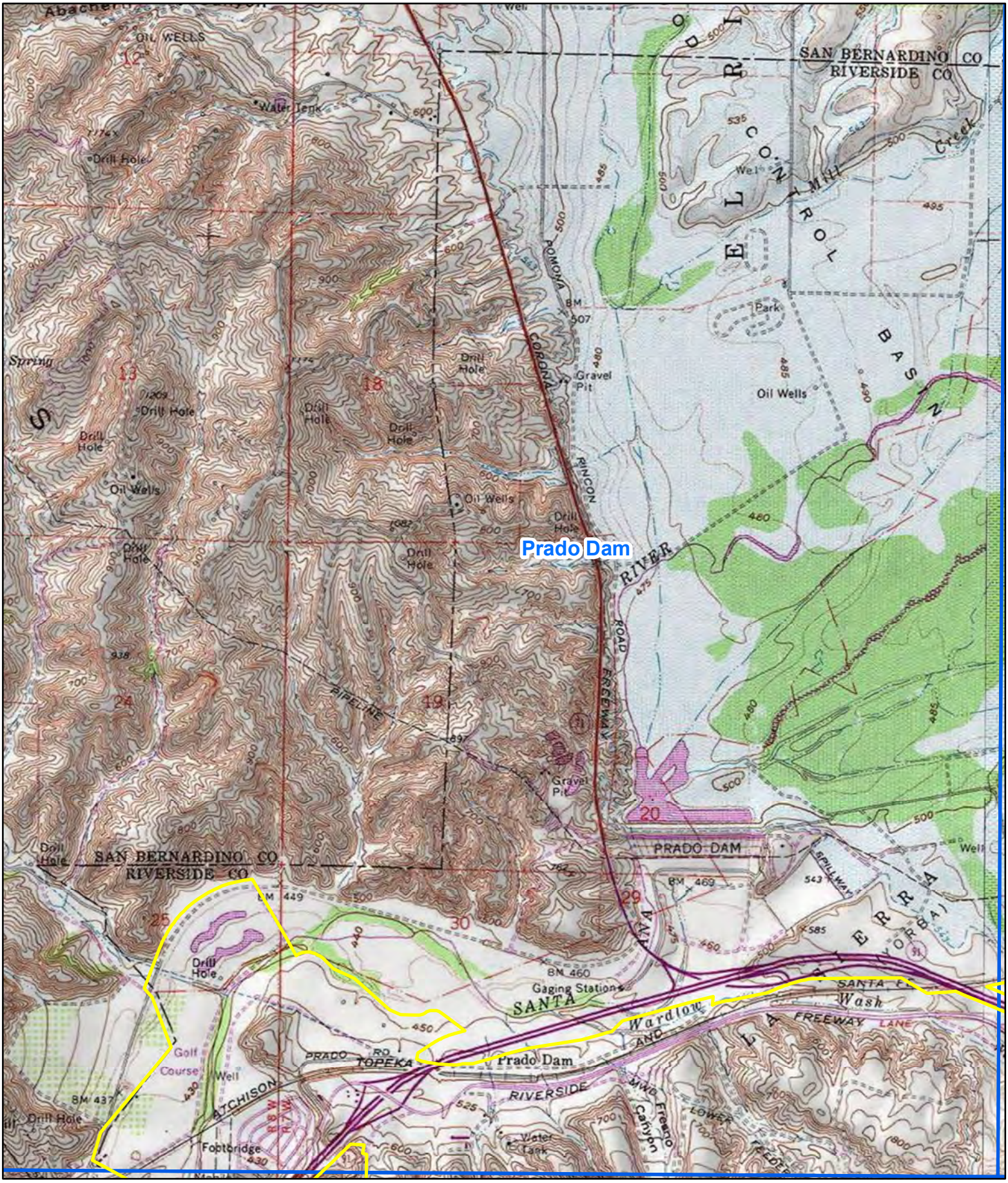


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

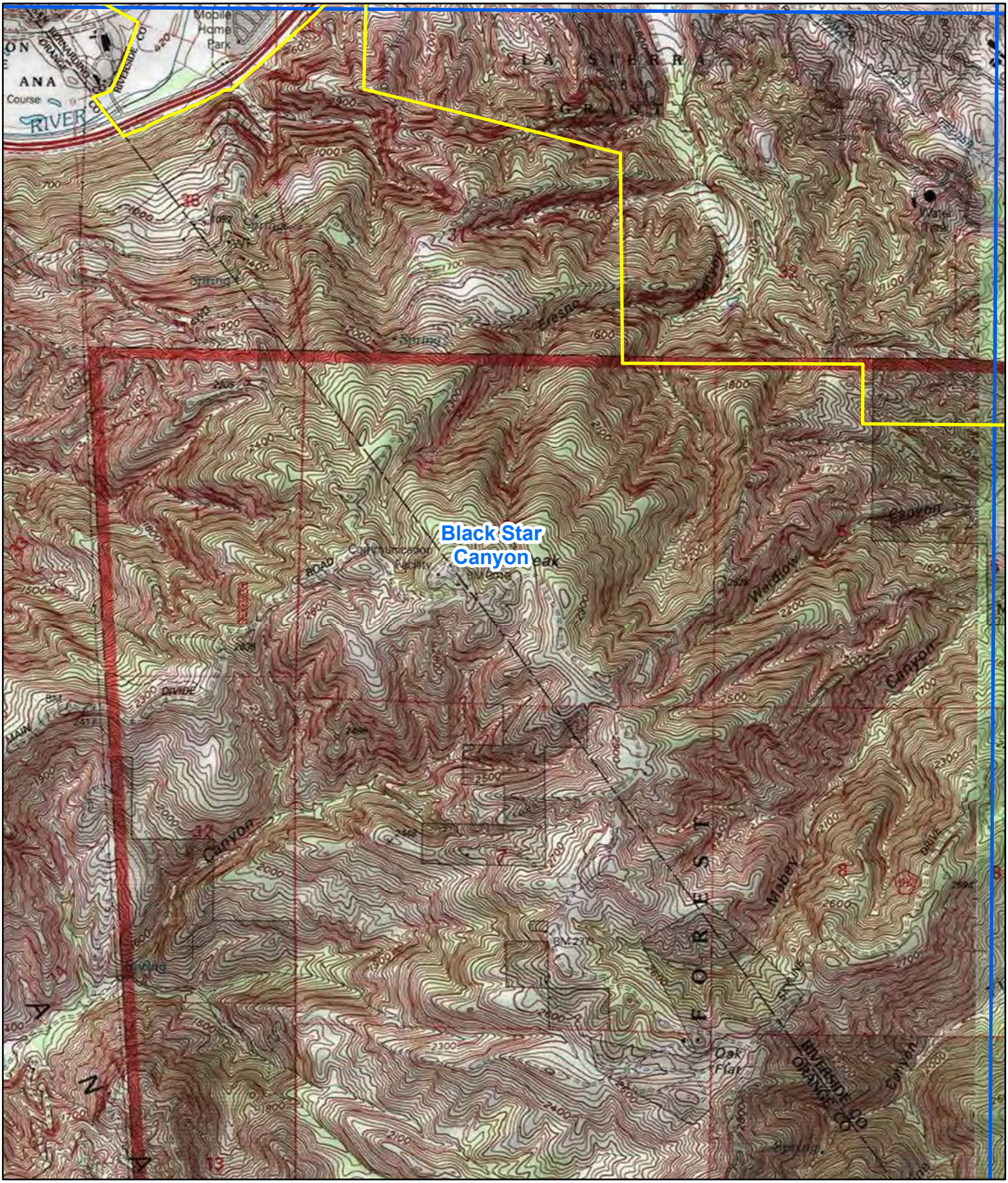
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

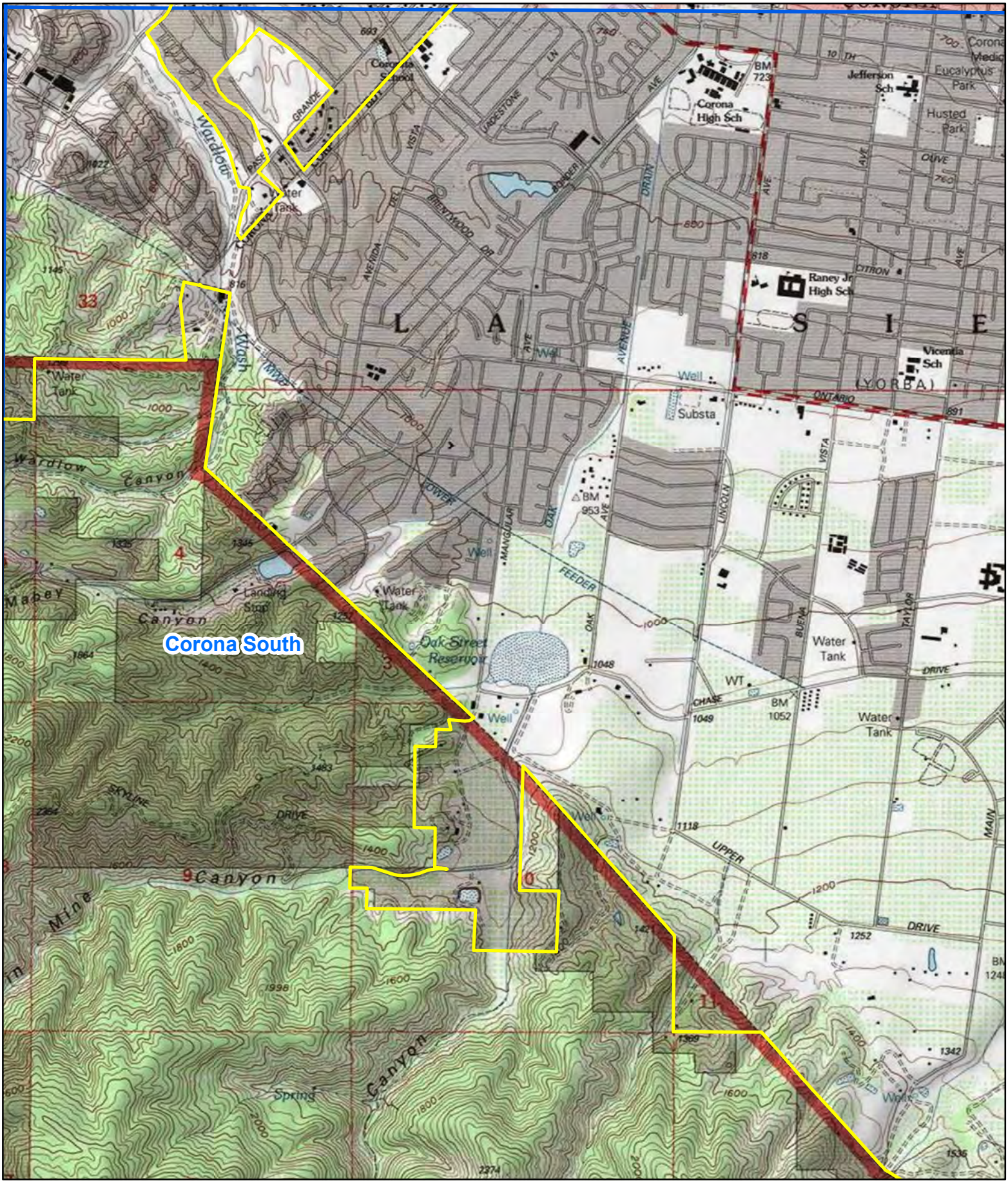
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

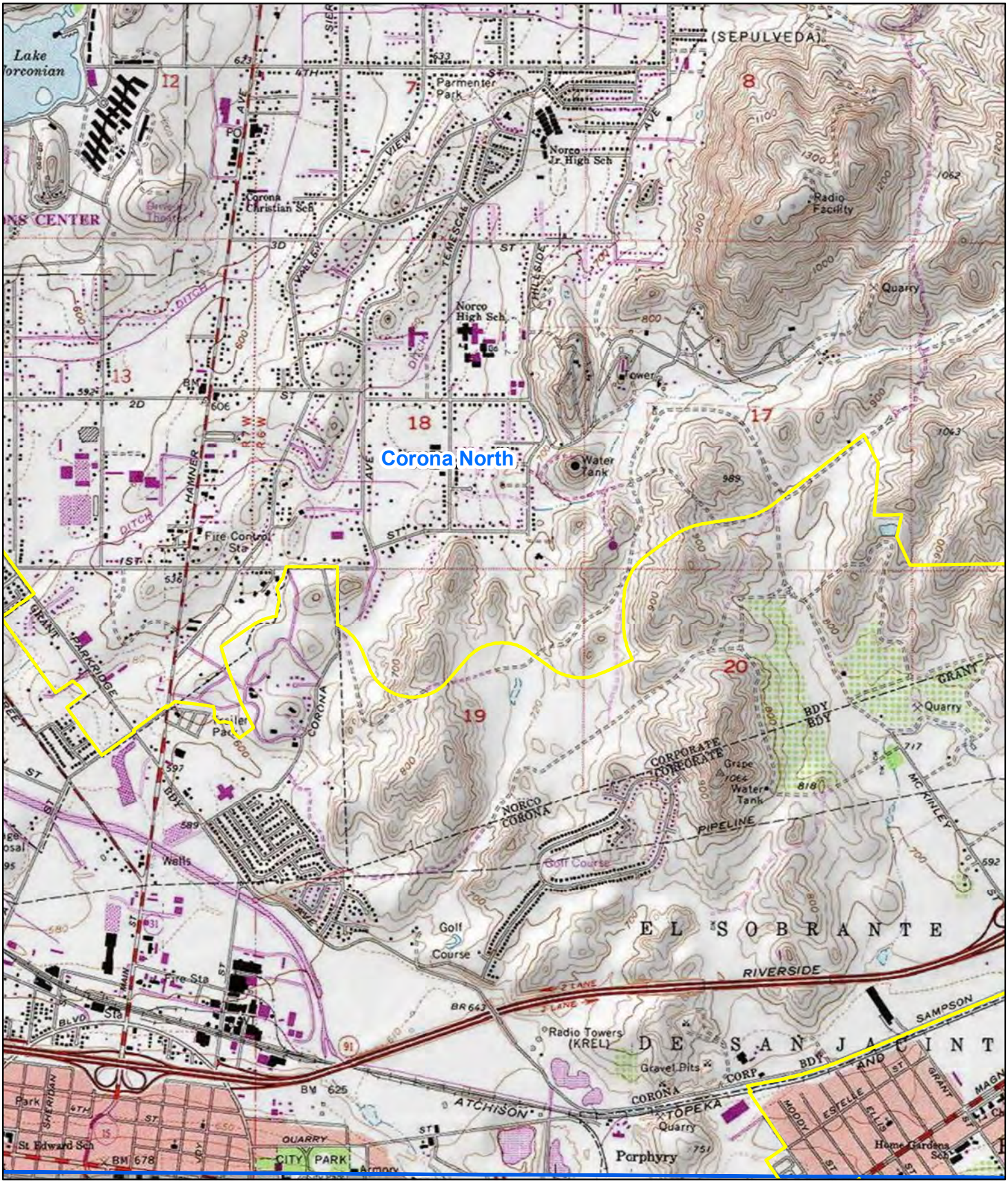
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

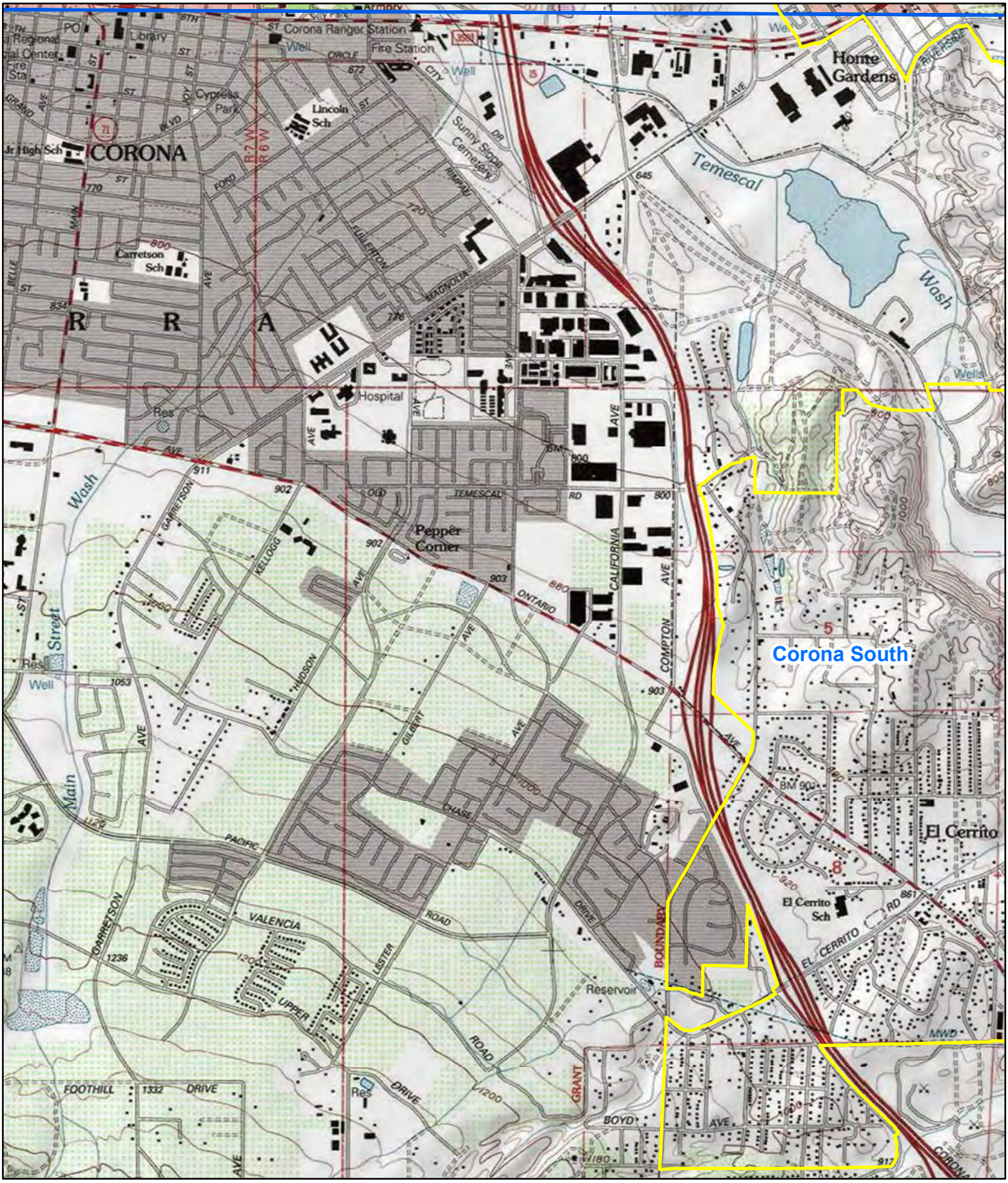


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

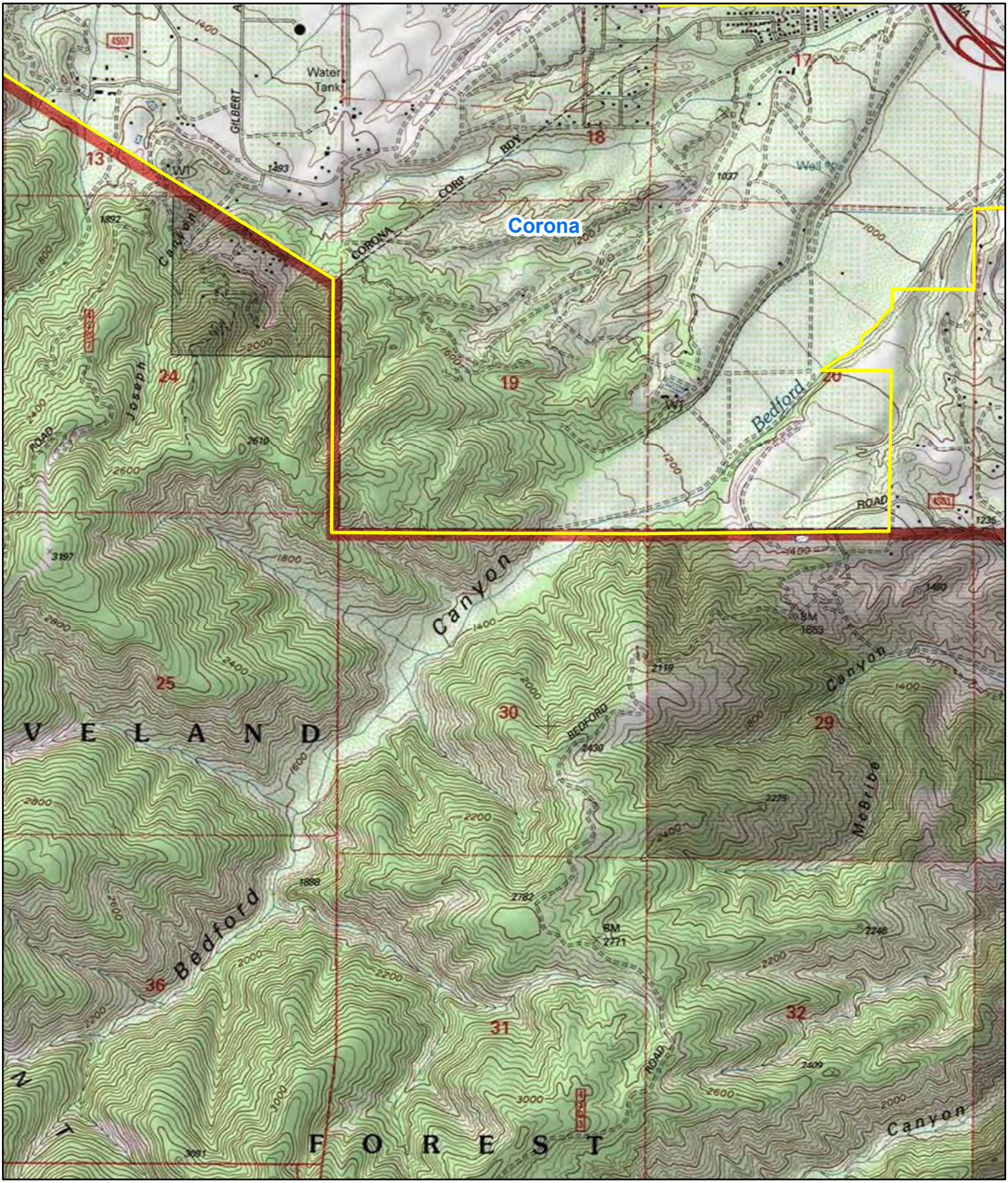
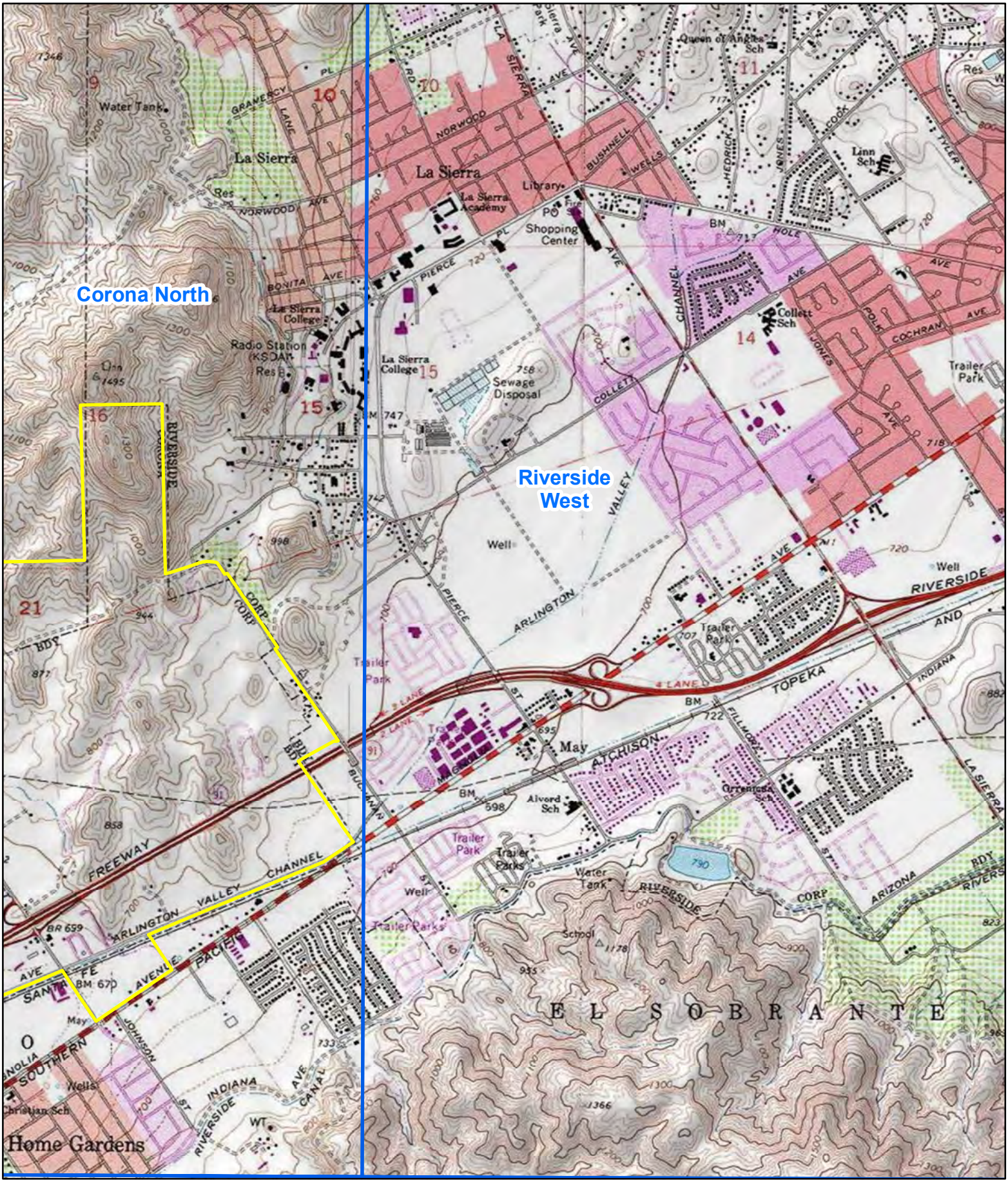


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

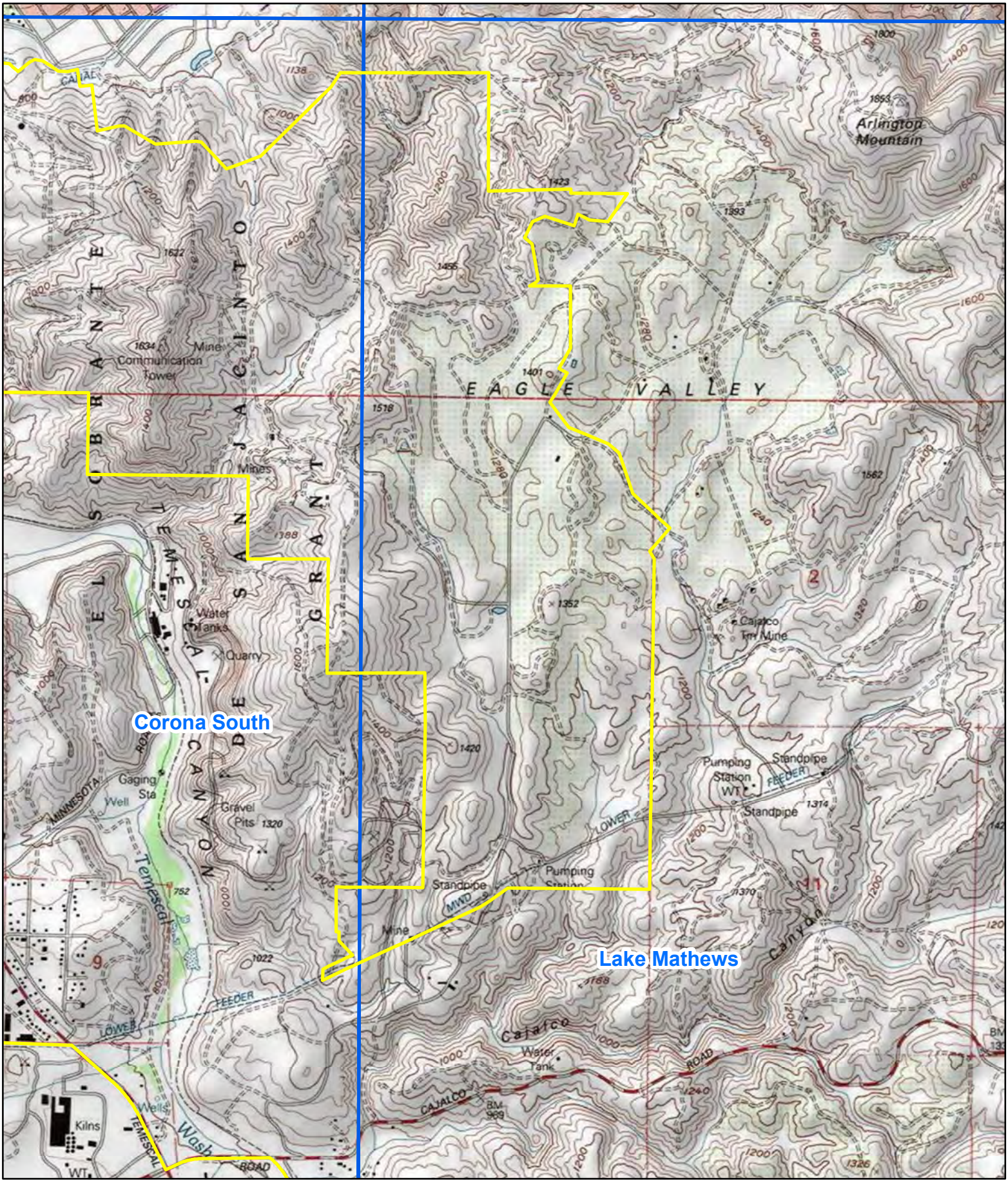
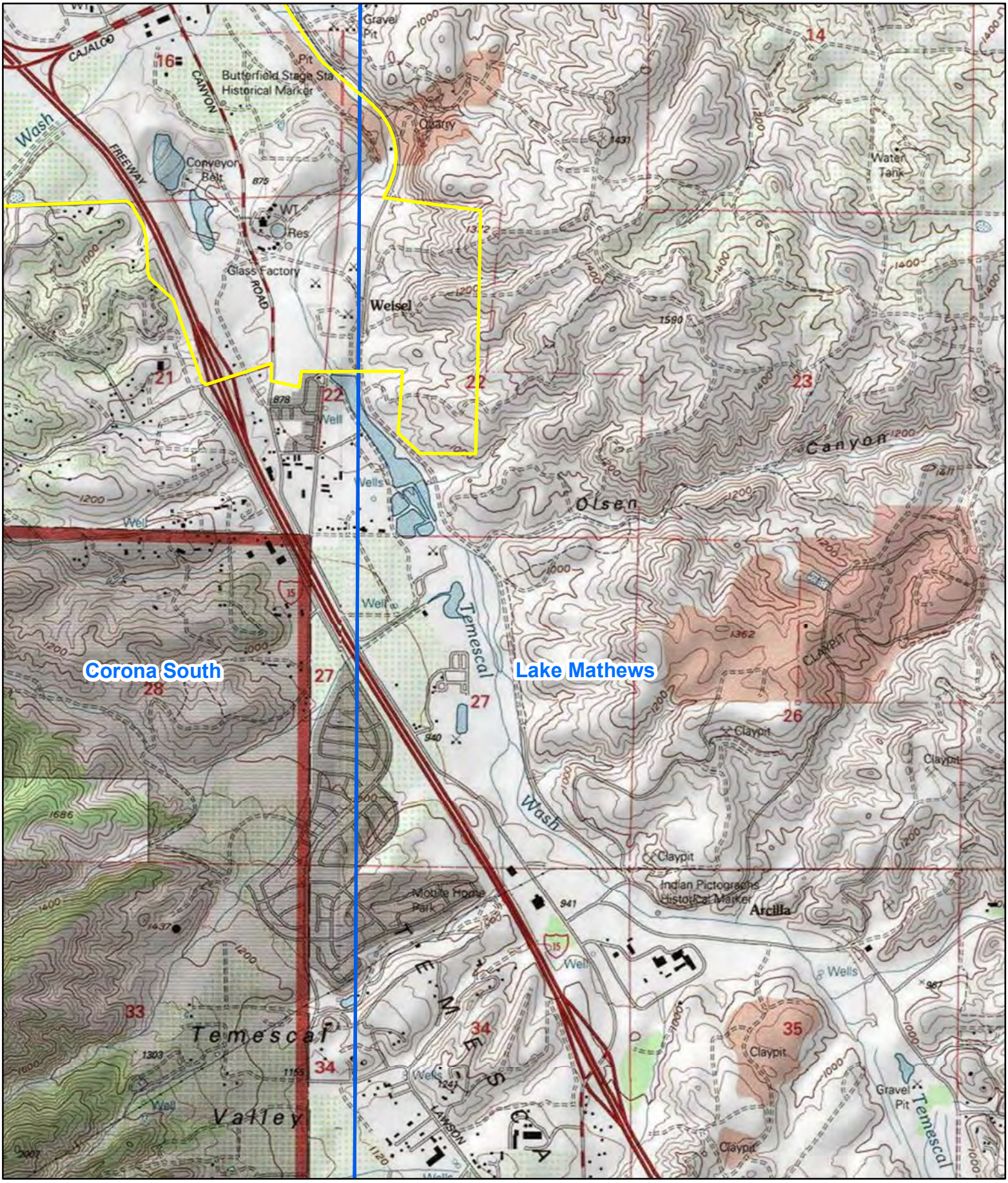


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Matias Belardes
Chairperson
Juaneno Band of Mission Indians Acjachemen Nation - Belardes
32161 Avenida Los Amigos, San Juan Capistrano, CA, 92675
949-293-8522
kaamalam@gmail.com

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Belardes,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

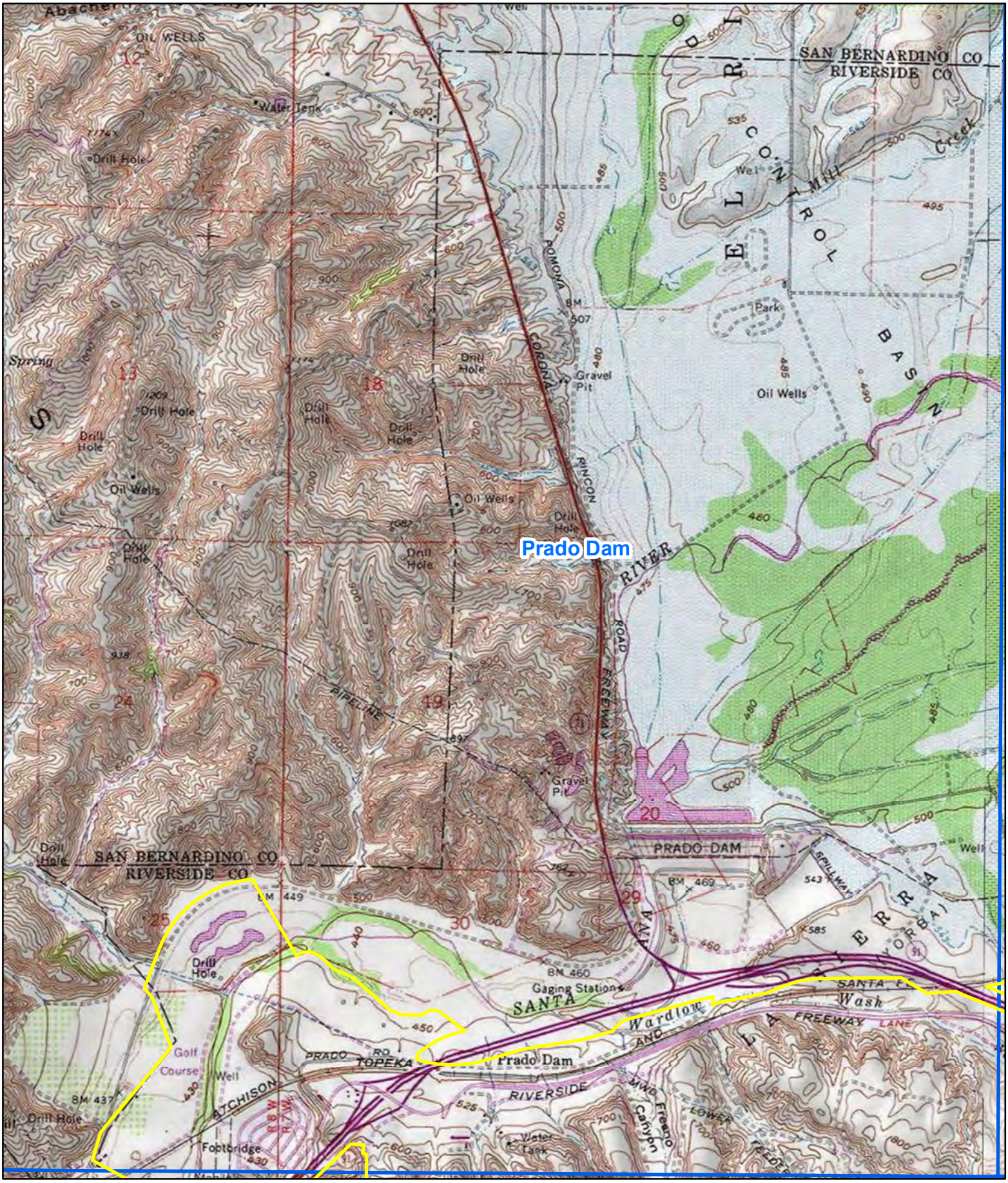


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

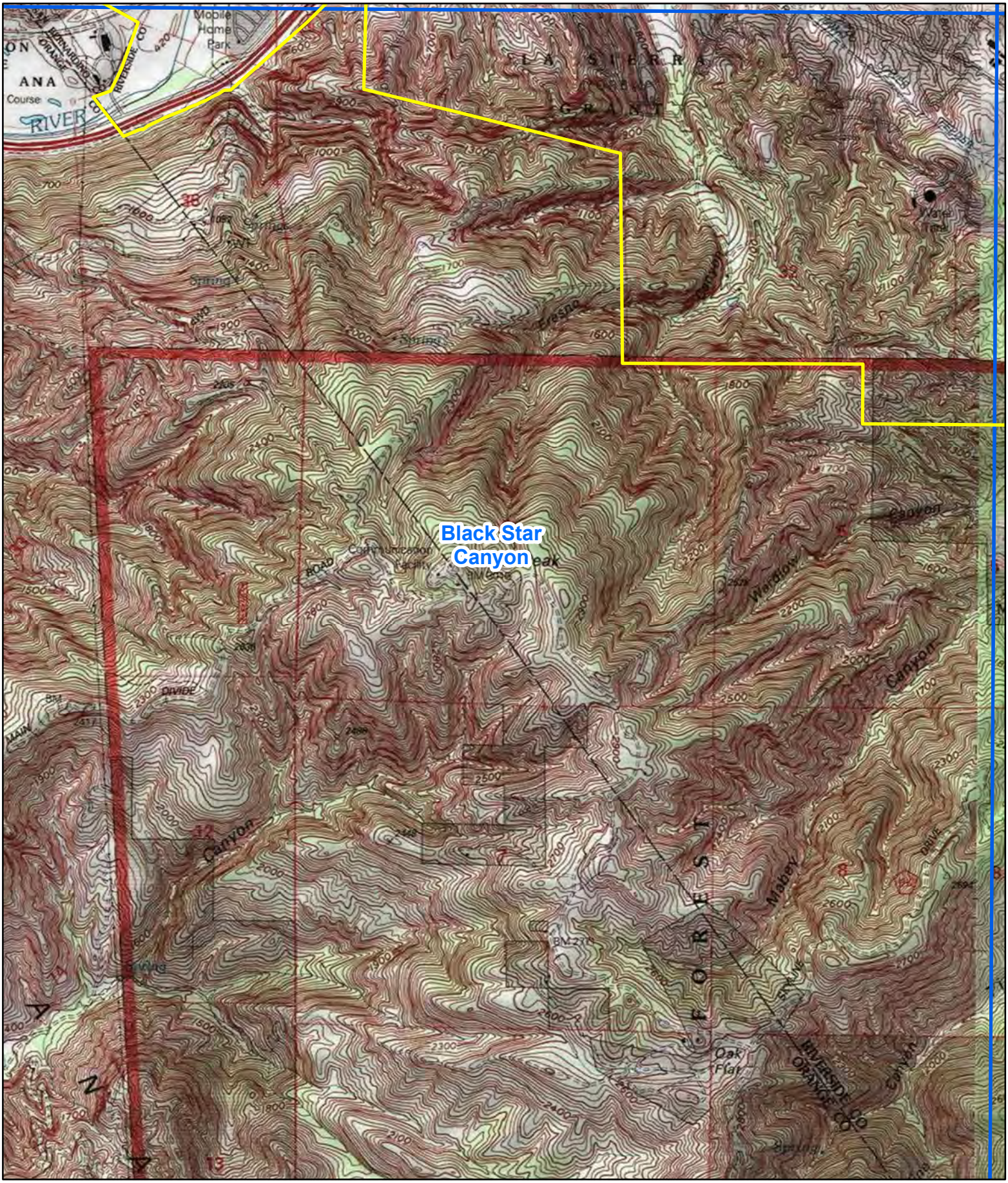
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

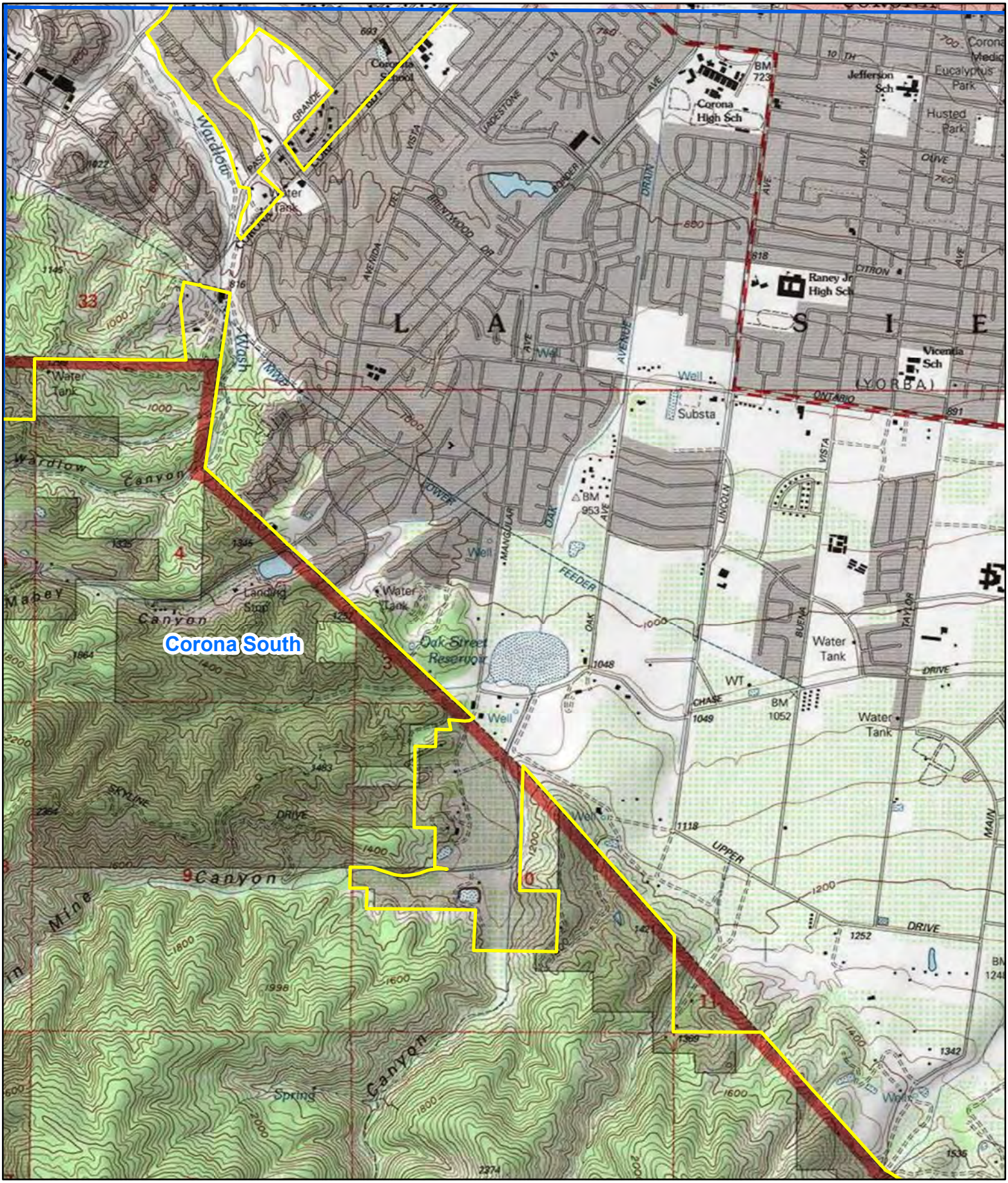
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

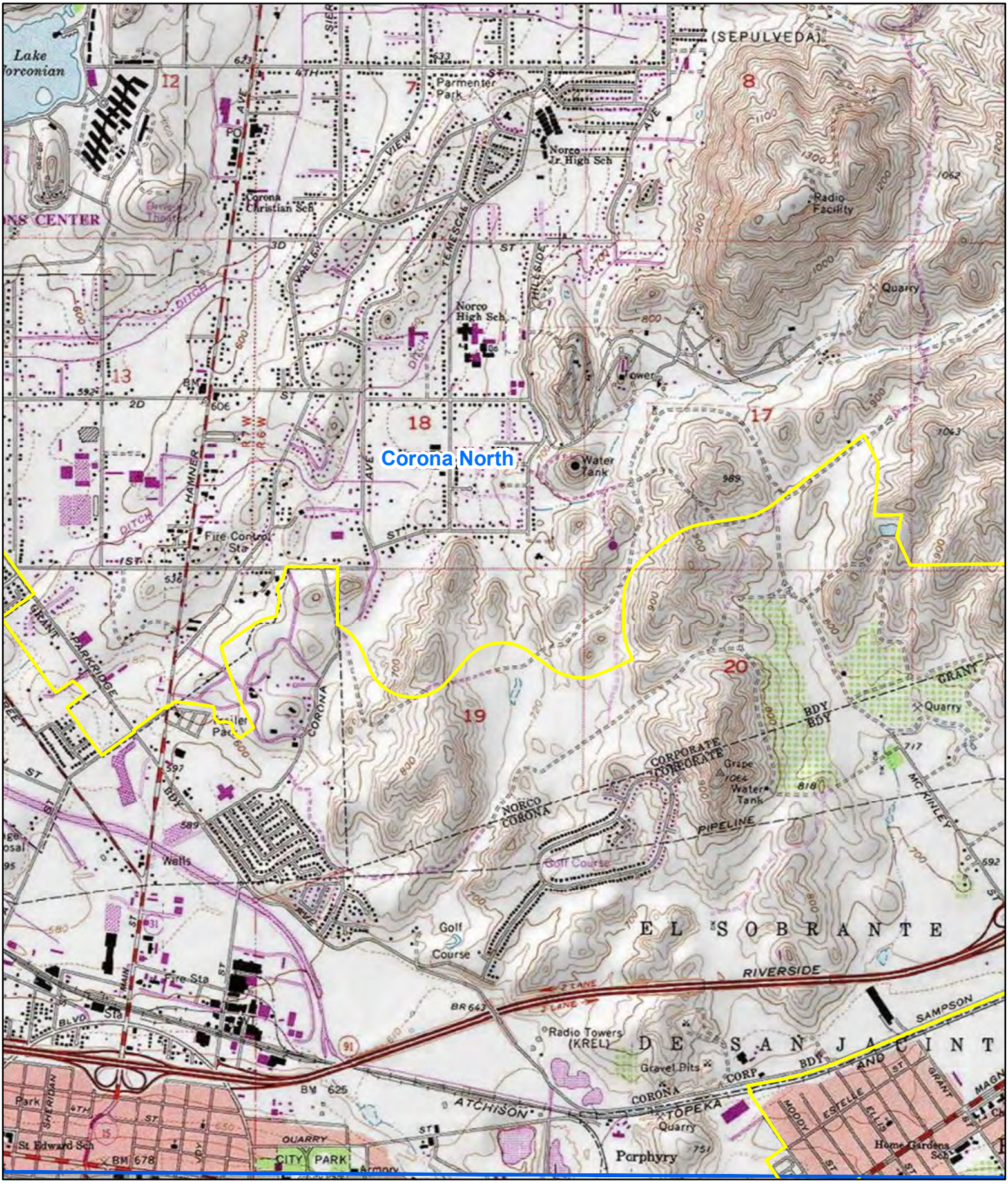
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

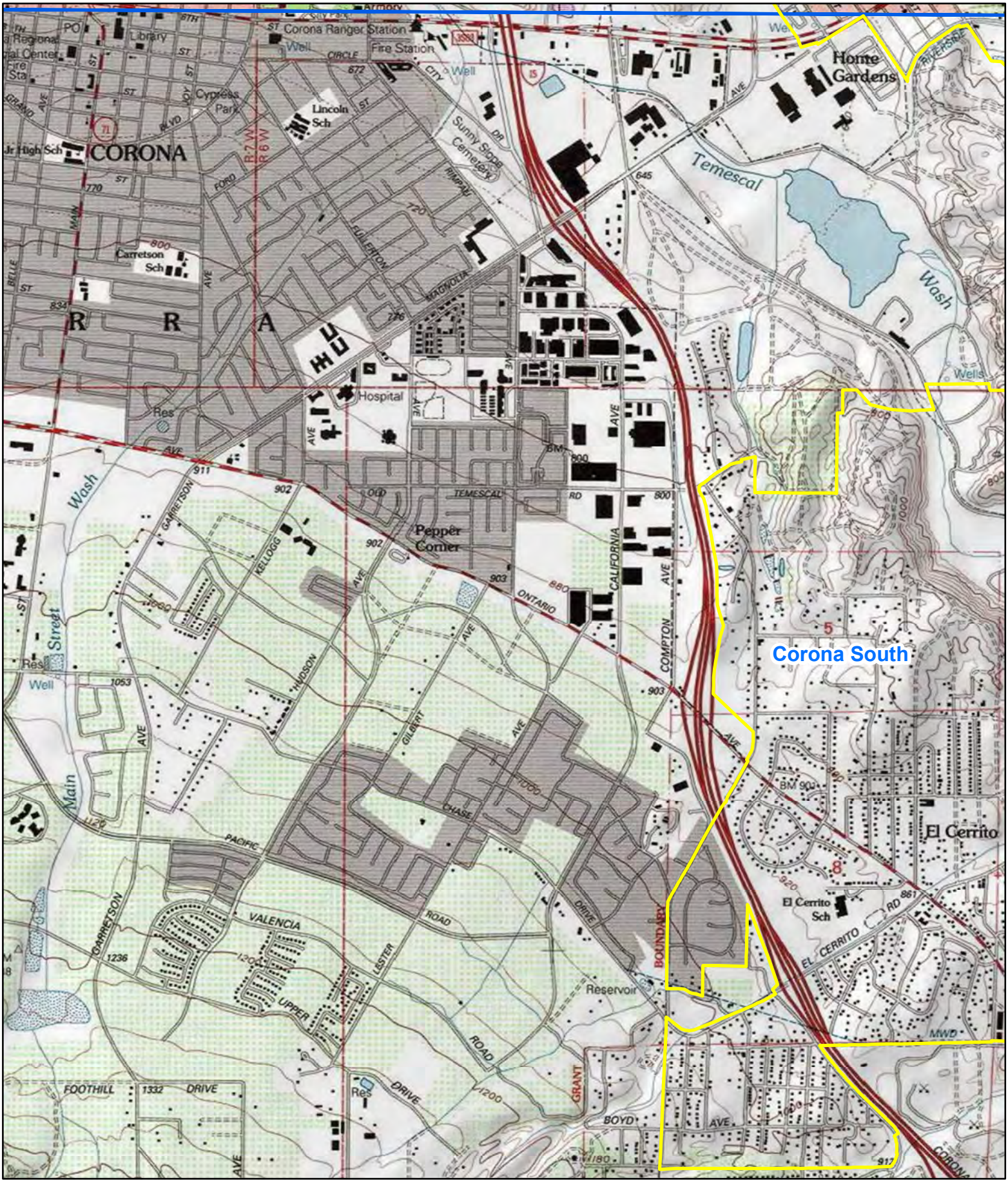


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

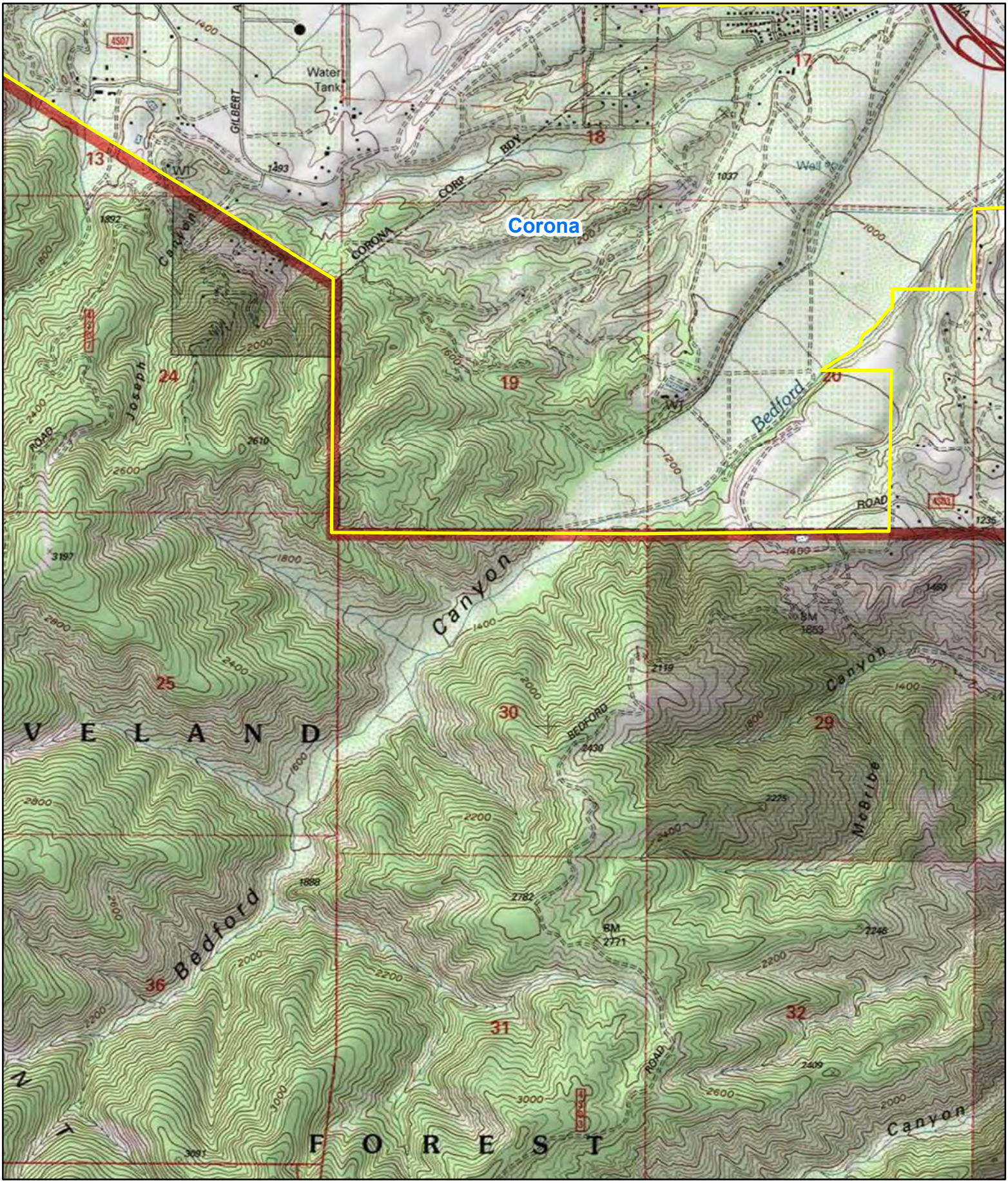
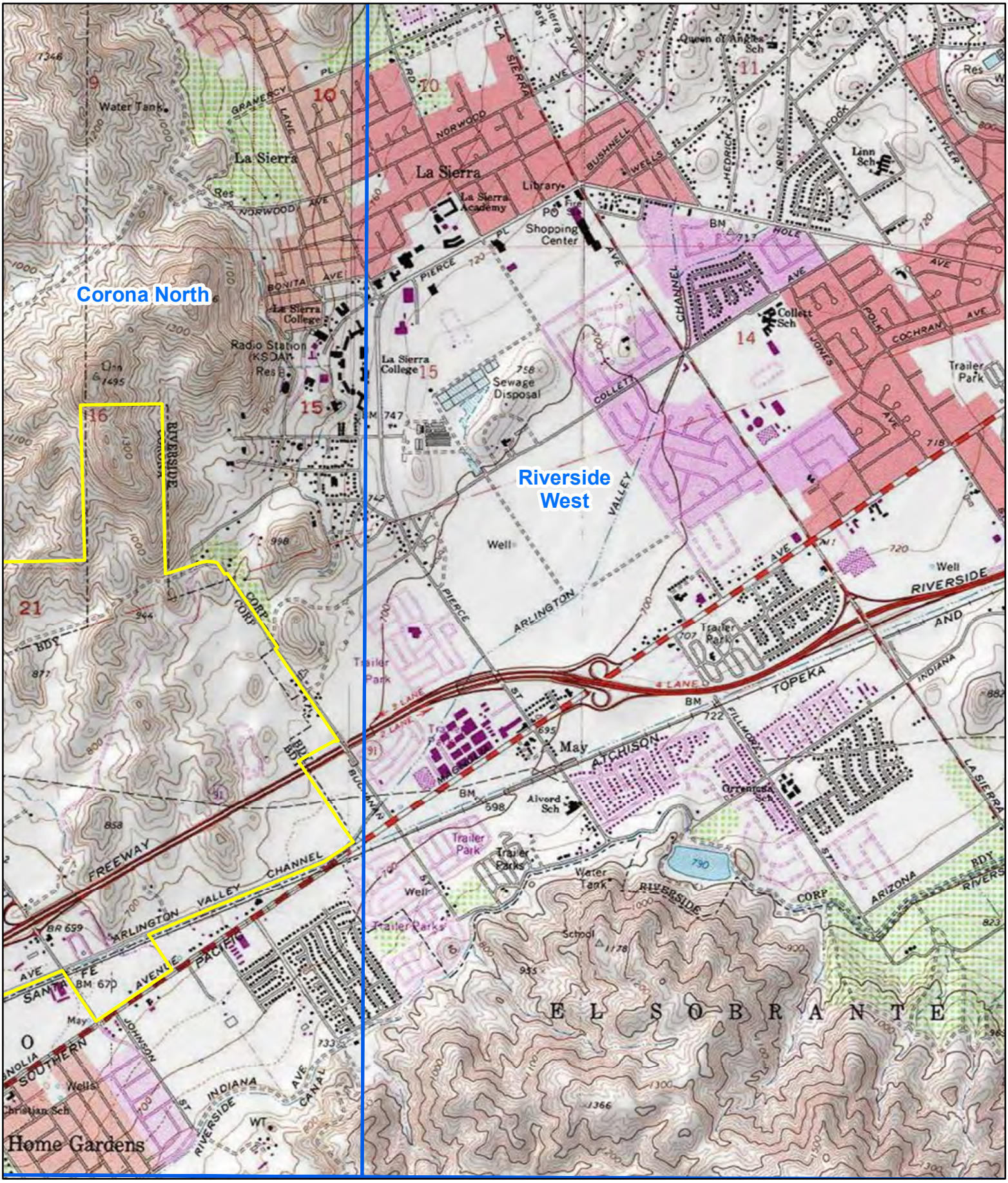


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

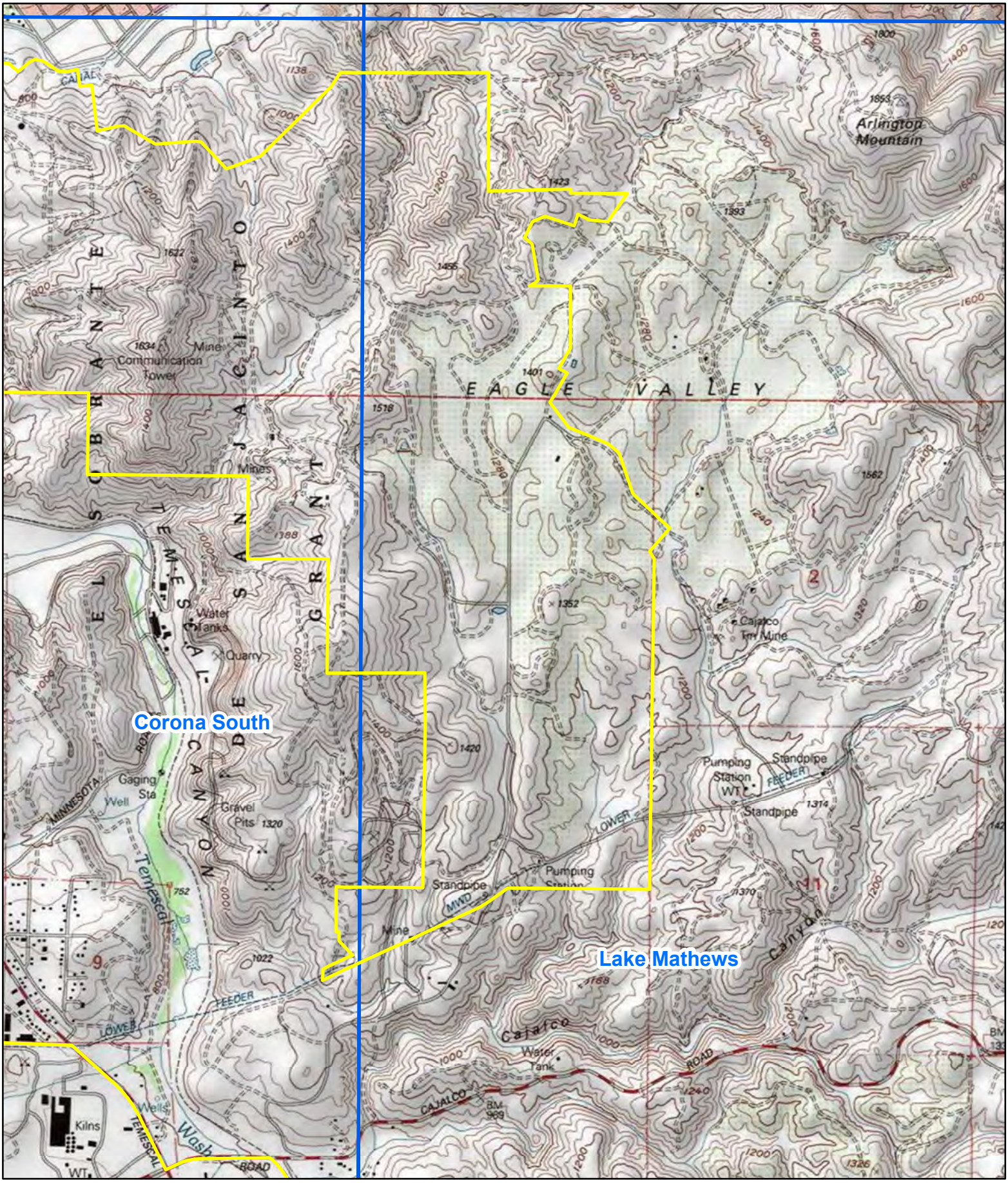
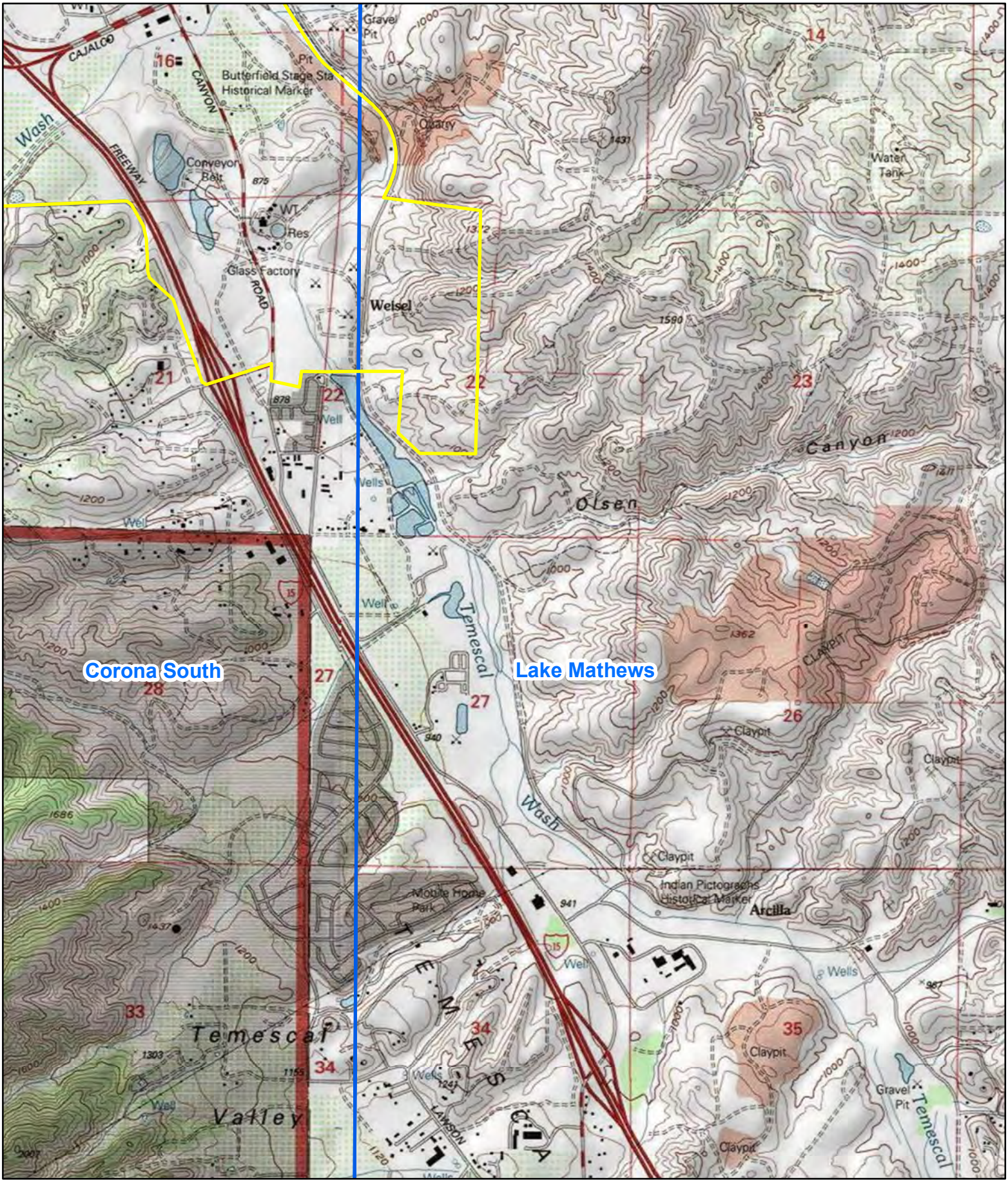


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Michael Garcia
Vice Chairperson
Ewiiaapaayp Tribe
4054 Willows Road, Alpine, CA, 91901
619-445-6315
michaelg@leaningrock.net

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Garcia,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

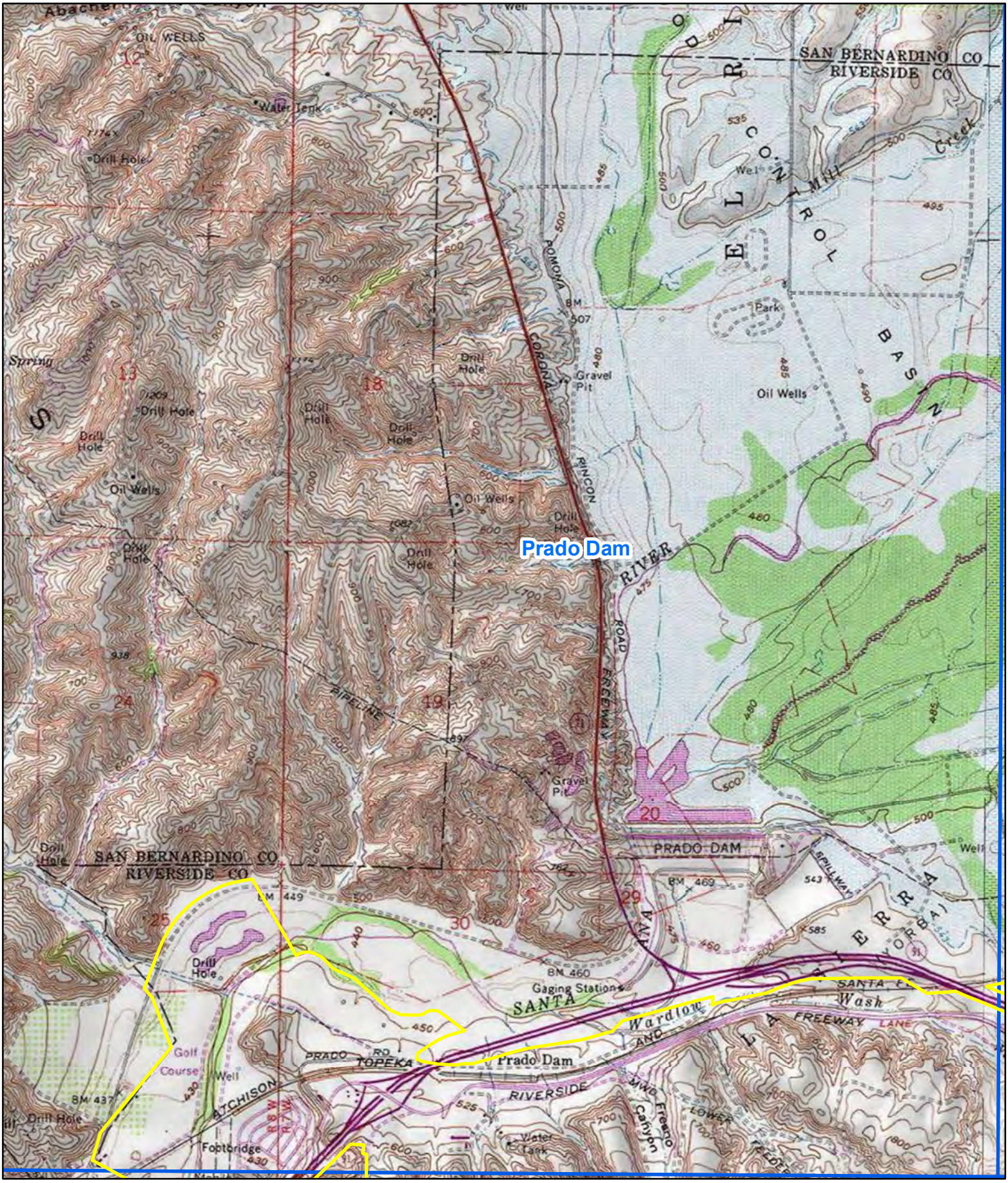


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

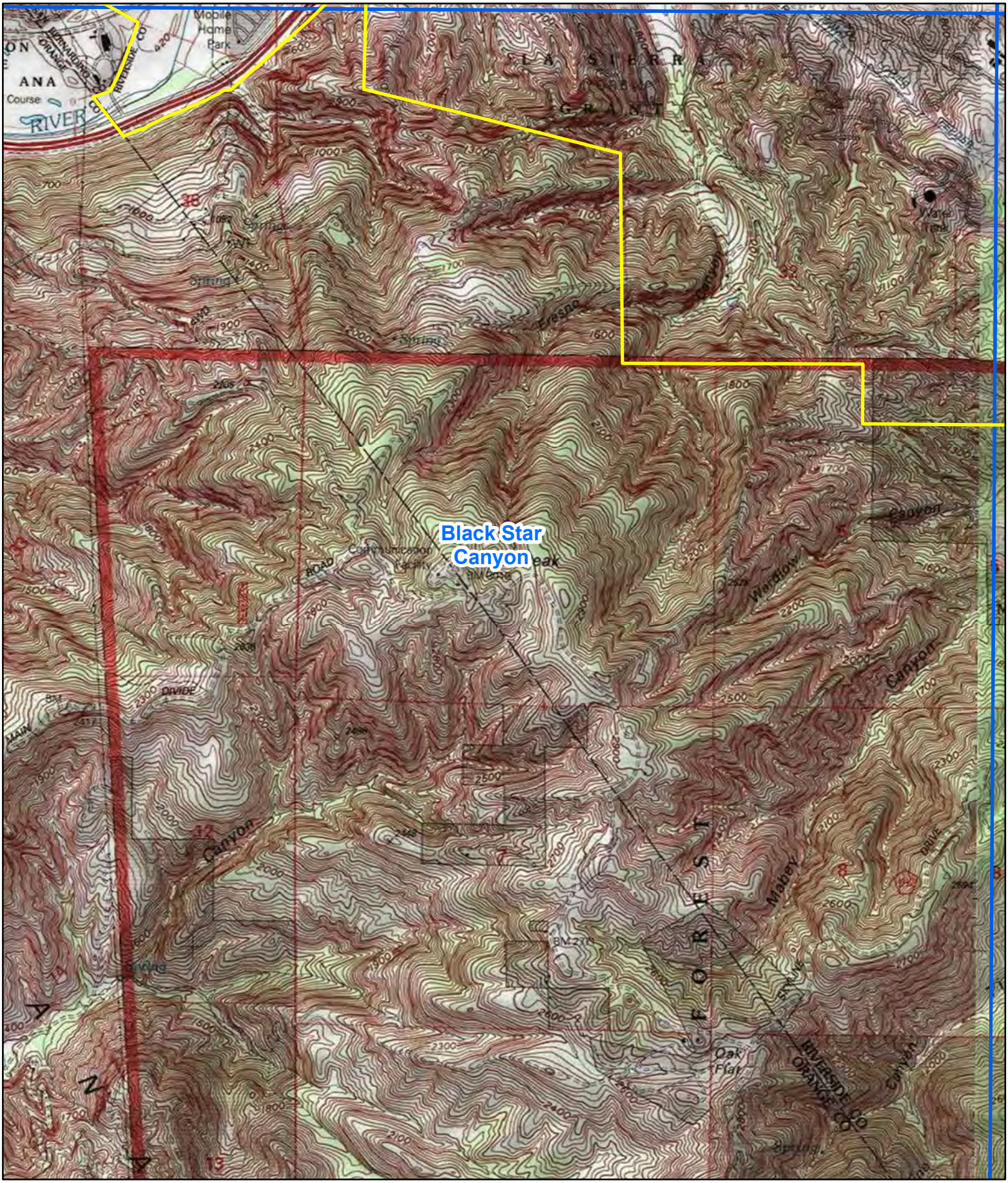
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

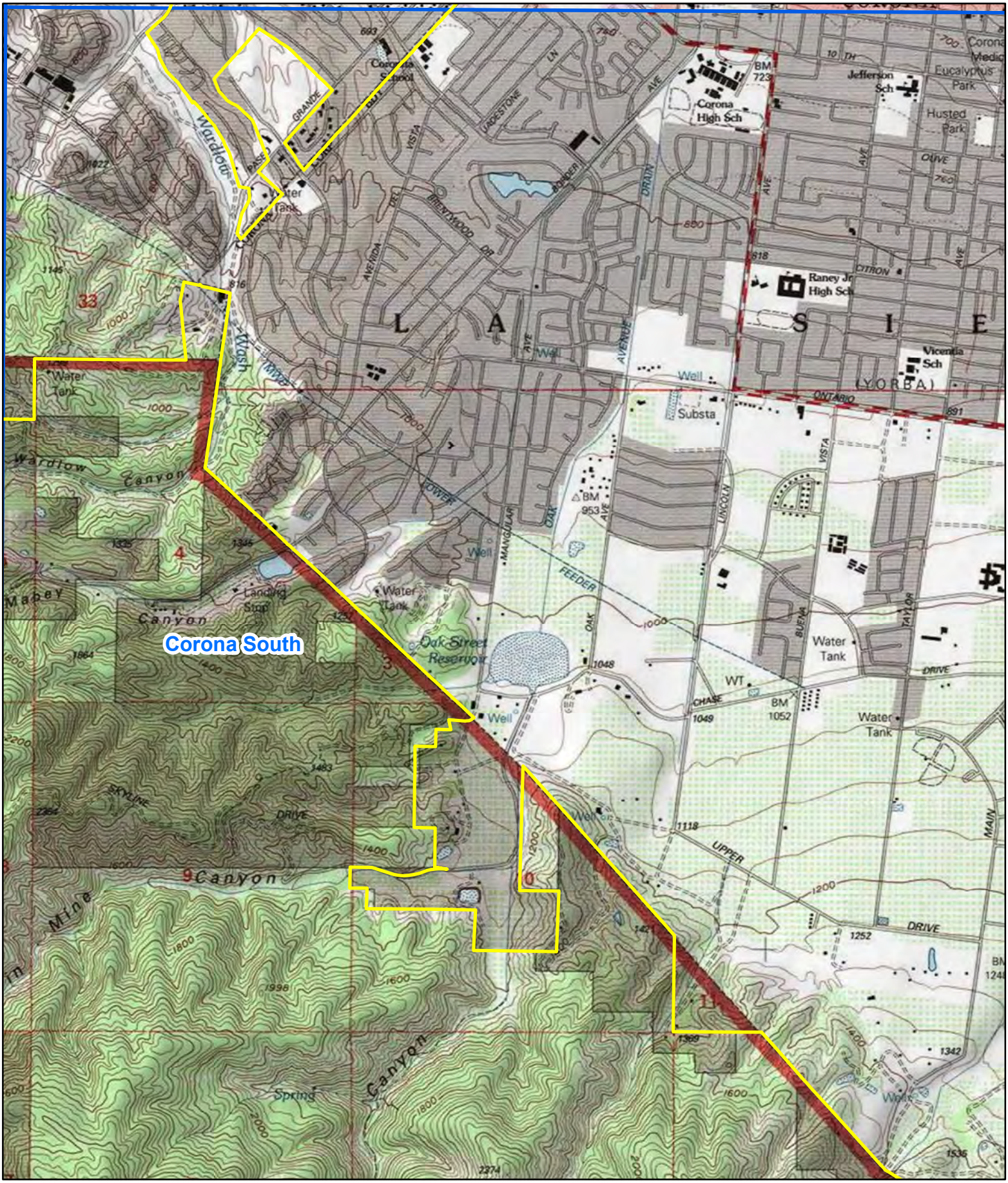
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

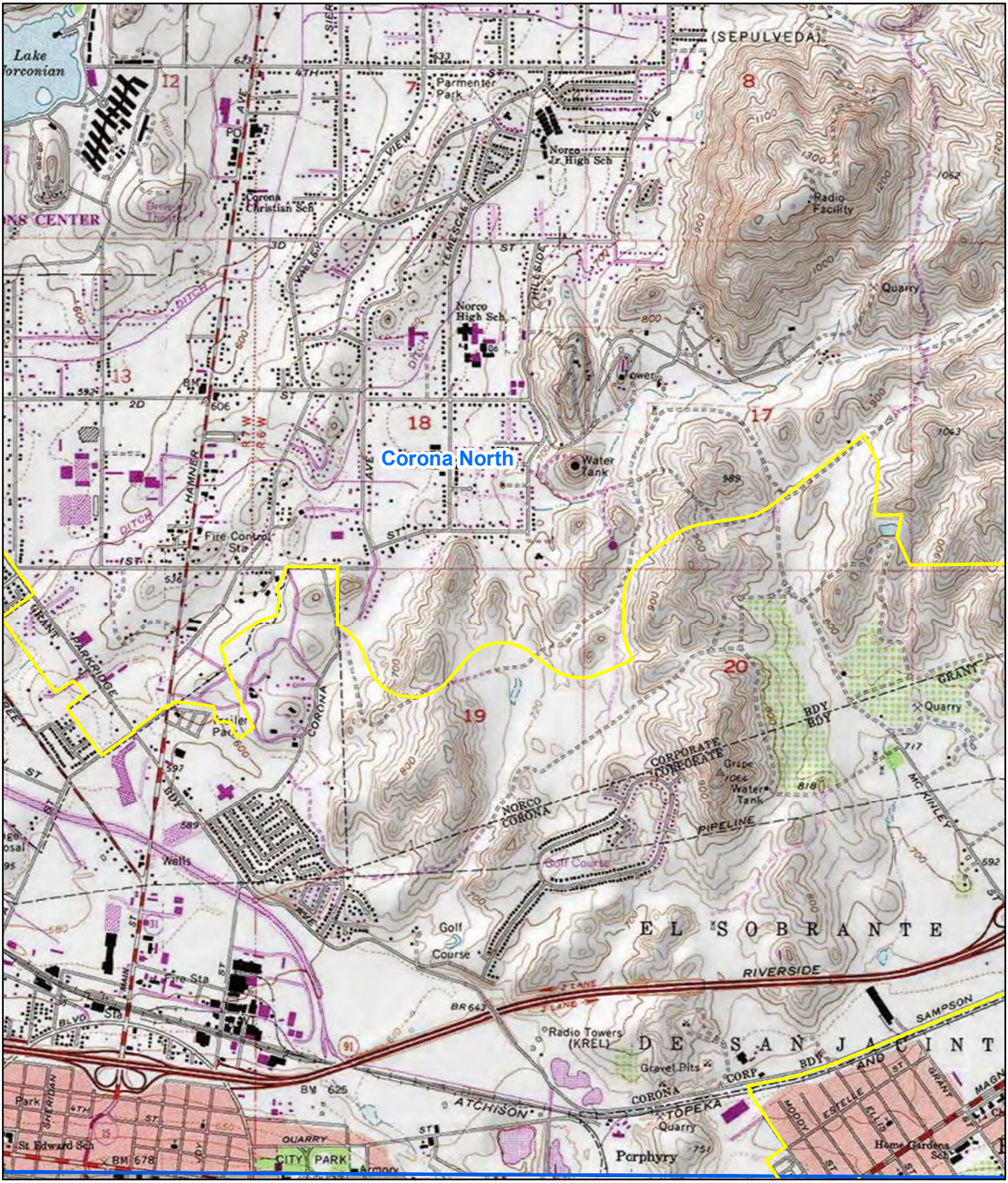
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

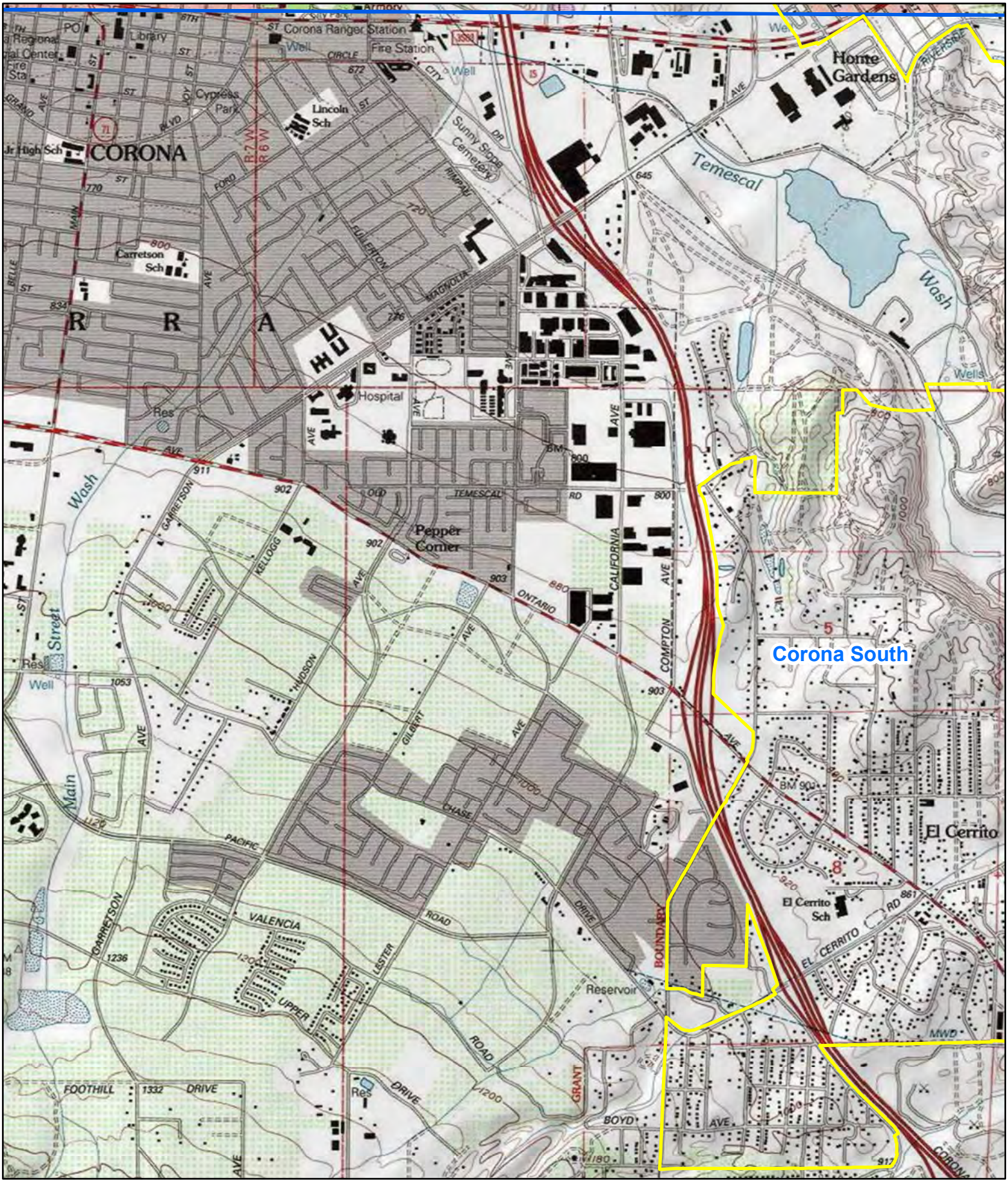


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

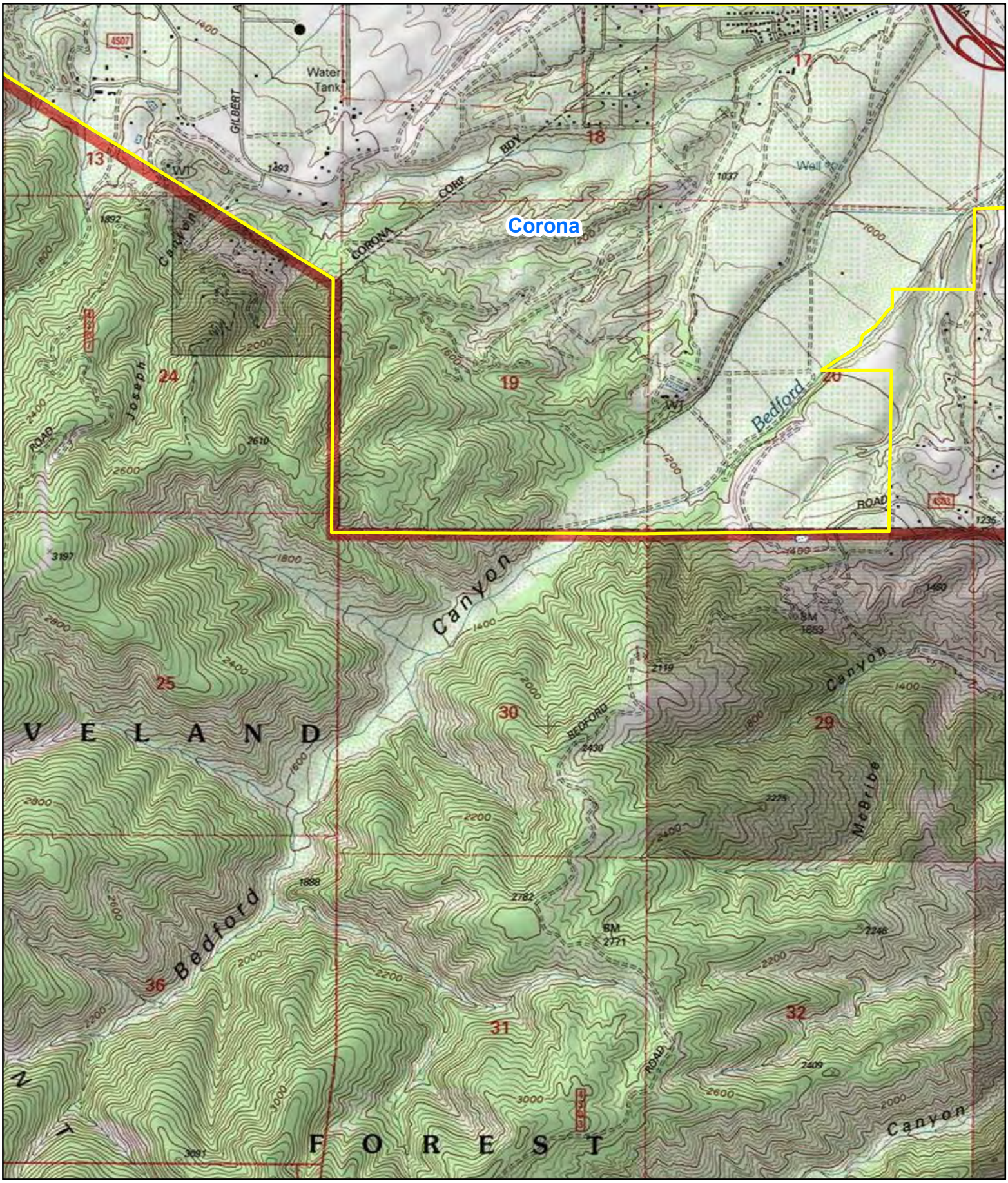
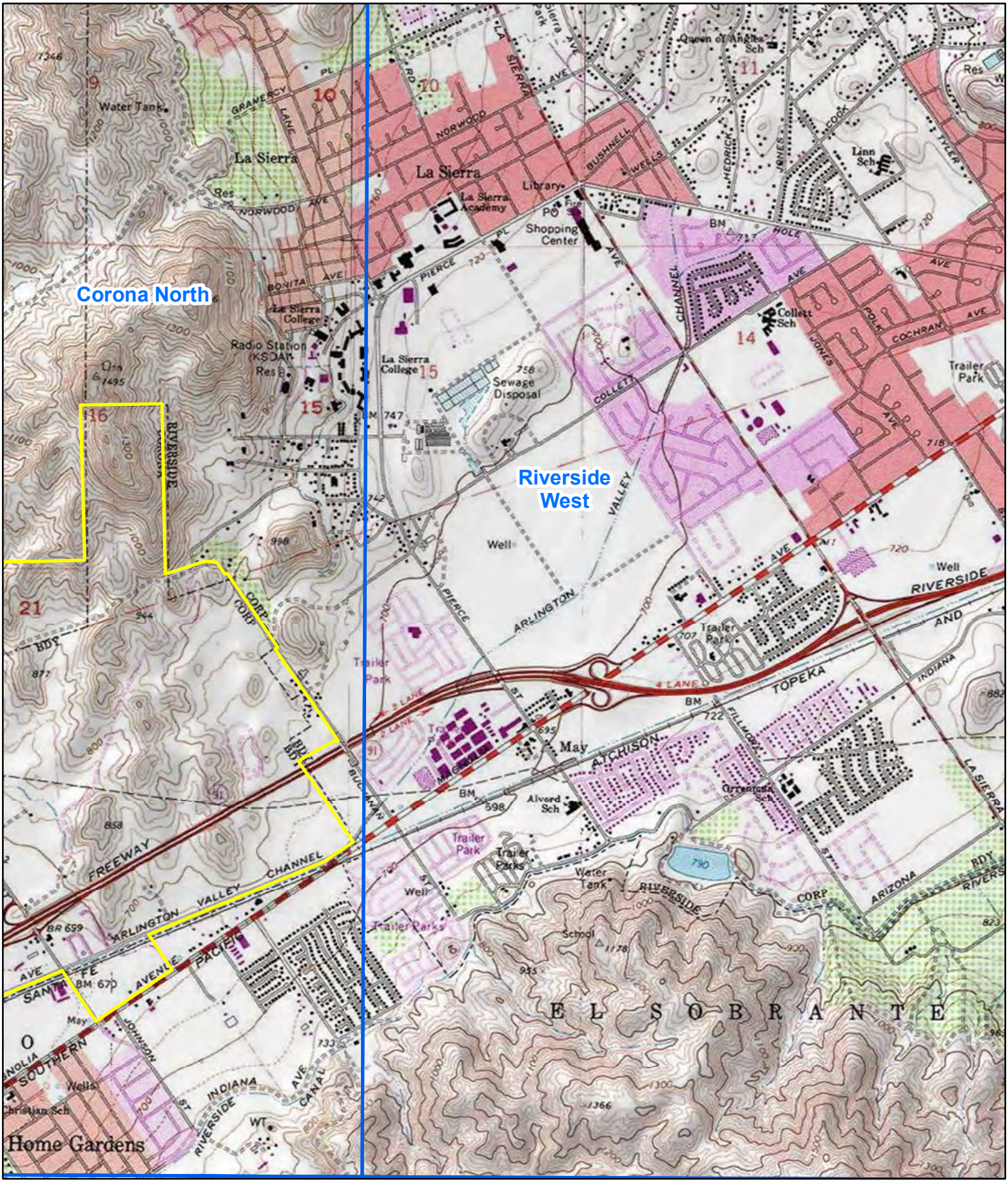


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

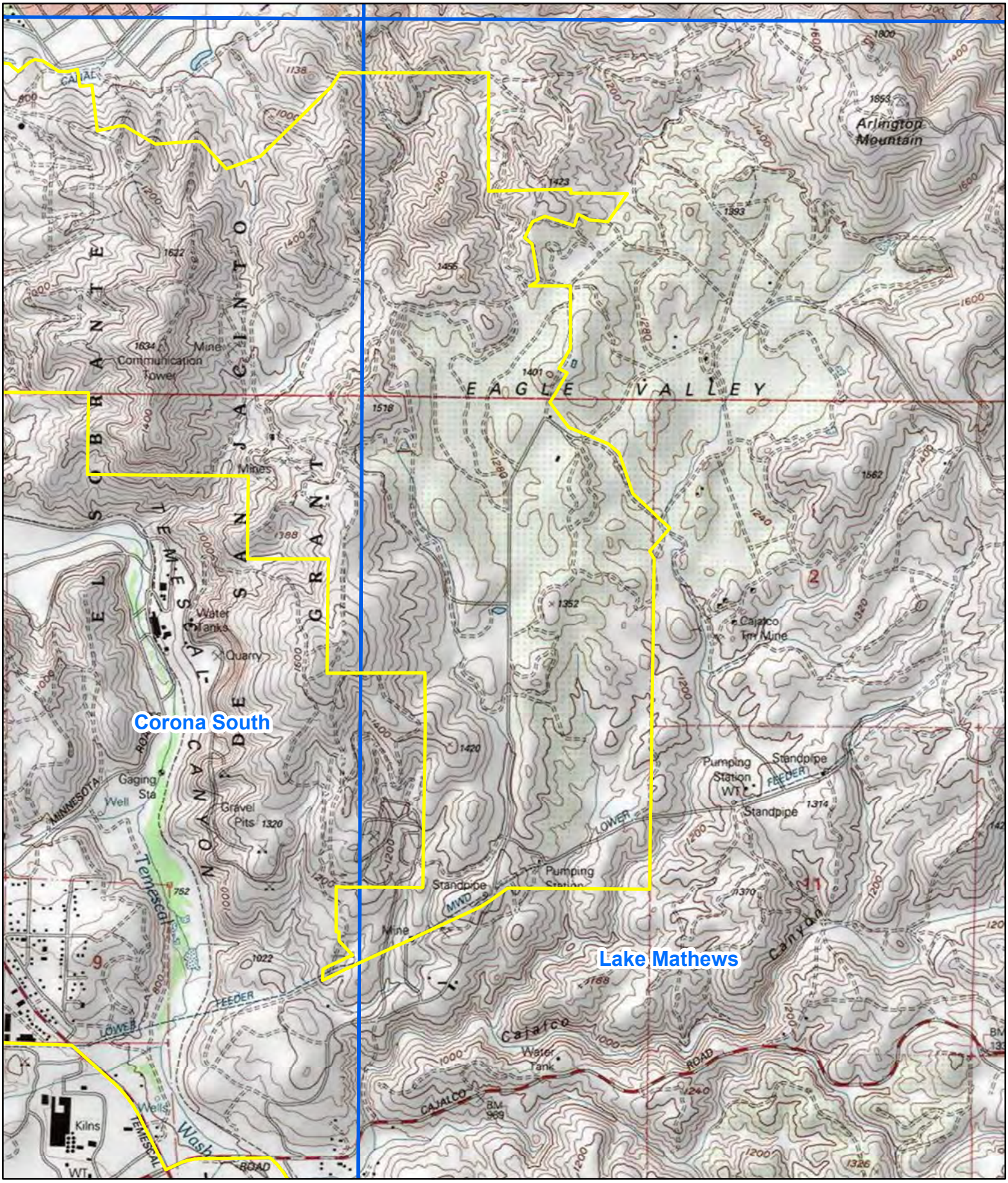
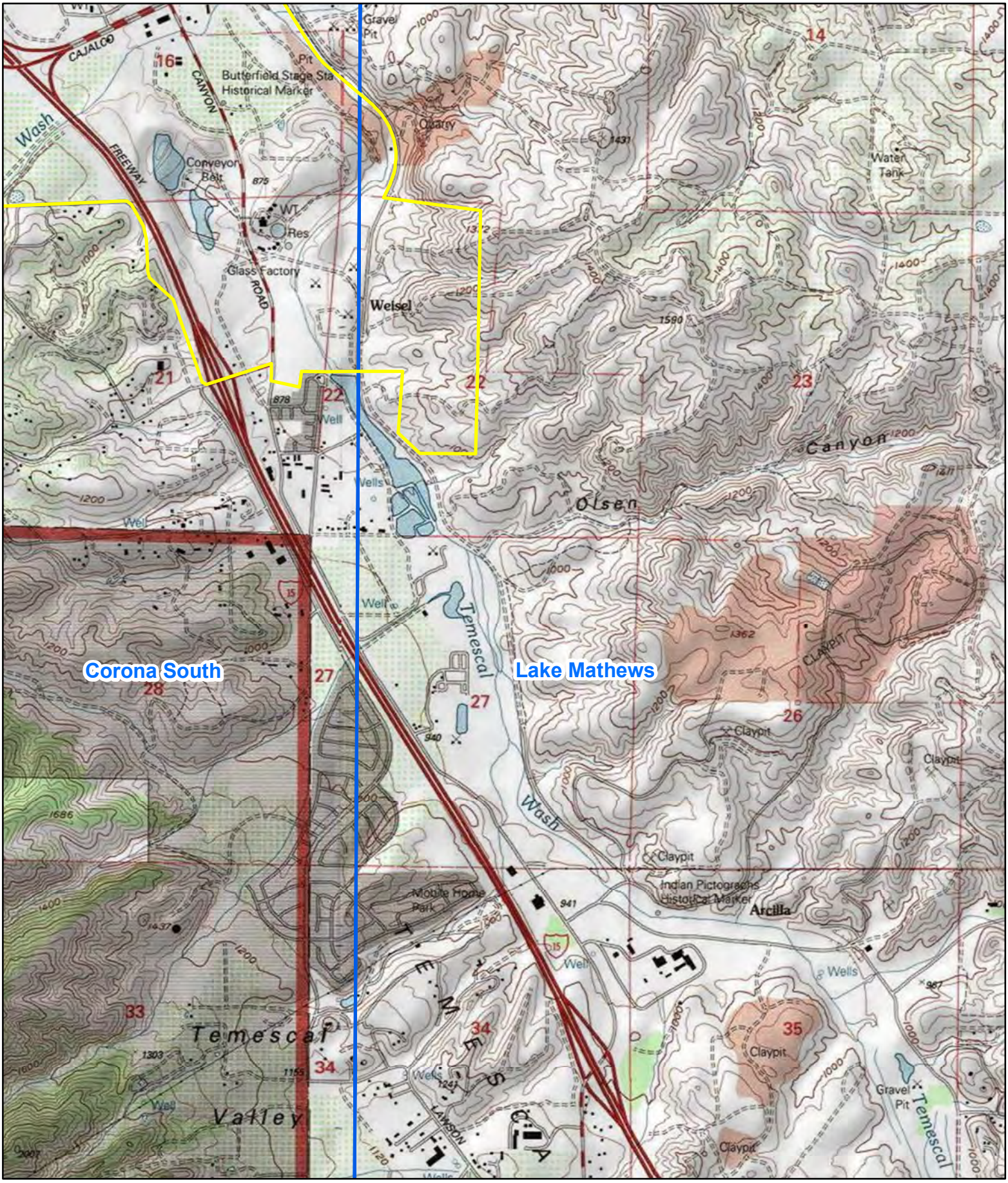


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Michael Linton
Chairperson
Mesa Grande Band of Diegueno Mission Indians
PO Box 270, Santa Ysabel, CA, 92070
760-782-3818
mesagrandeband@msn.com

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Linton,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

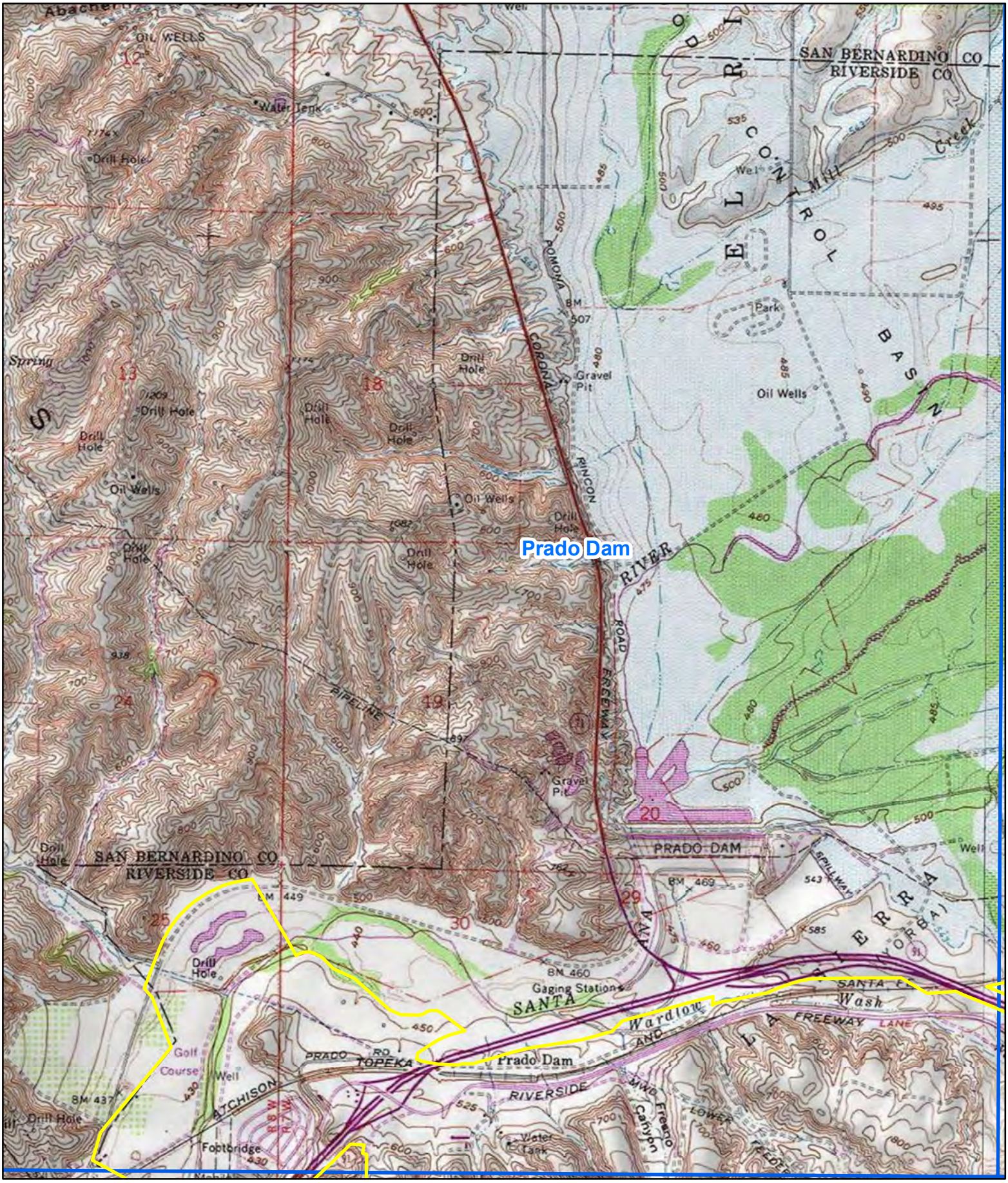


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

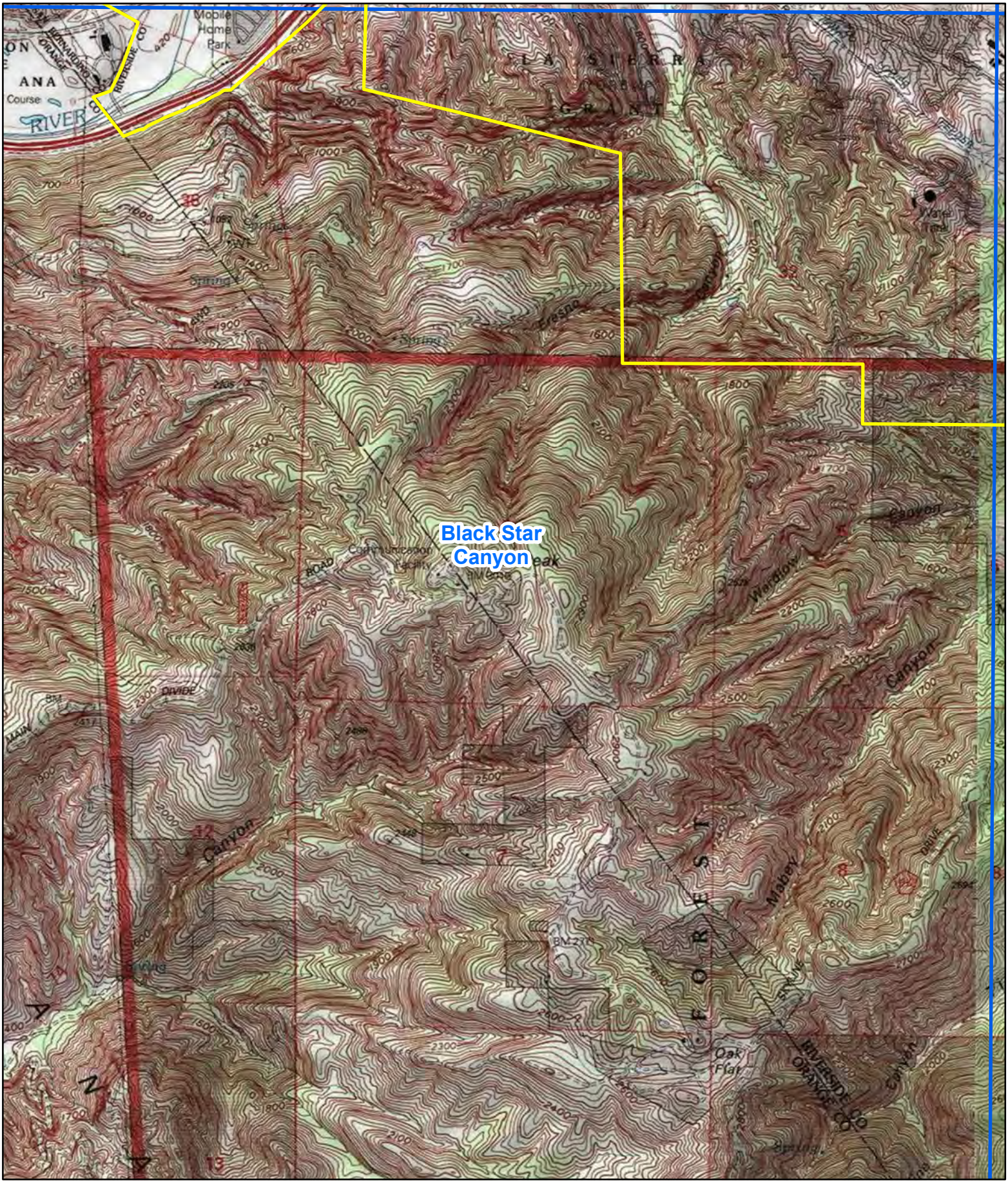
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

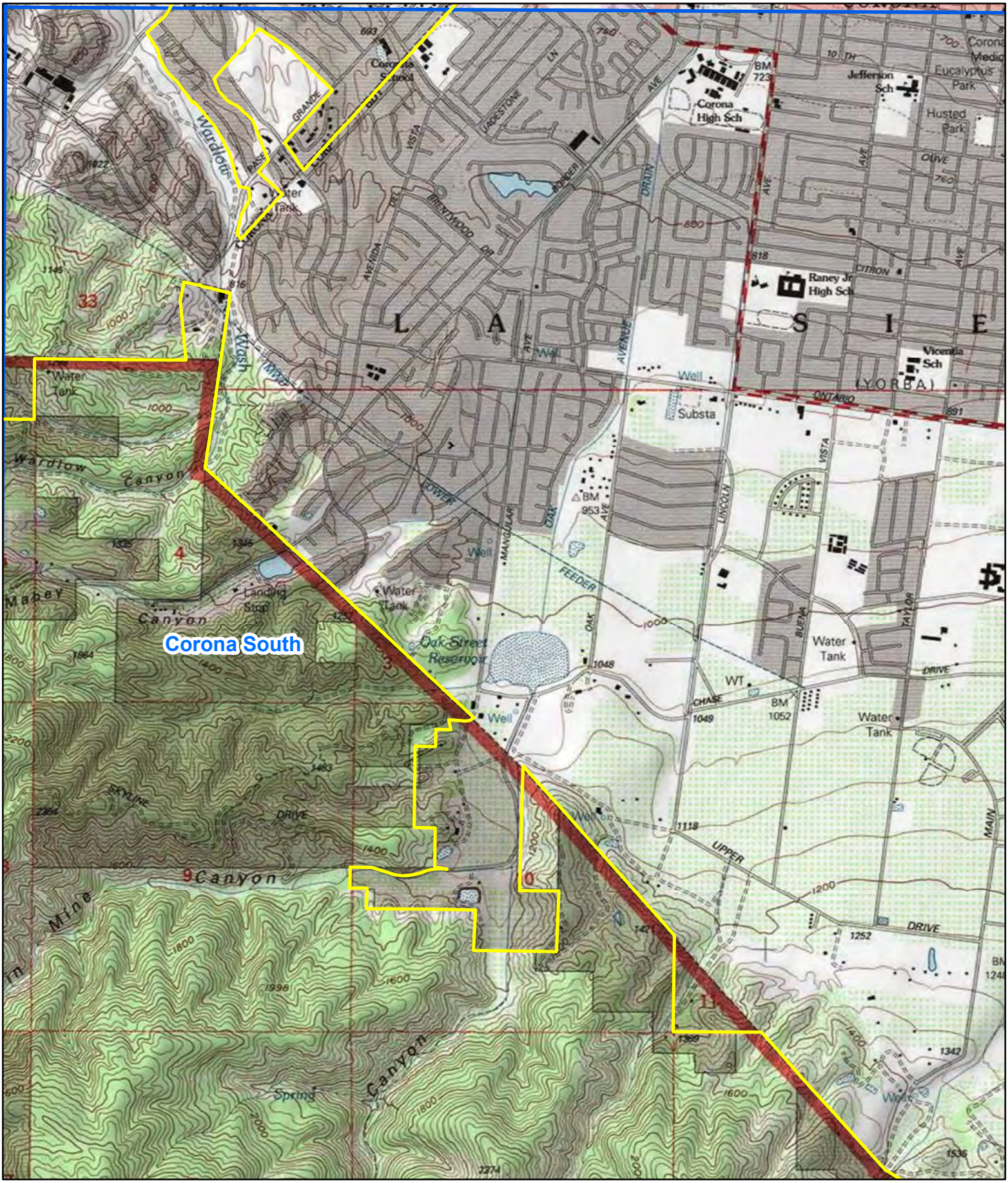
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

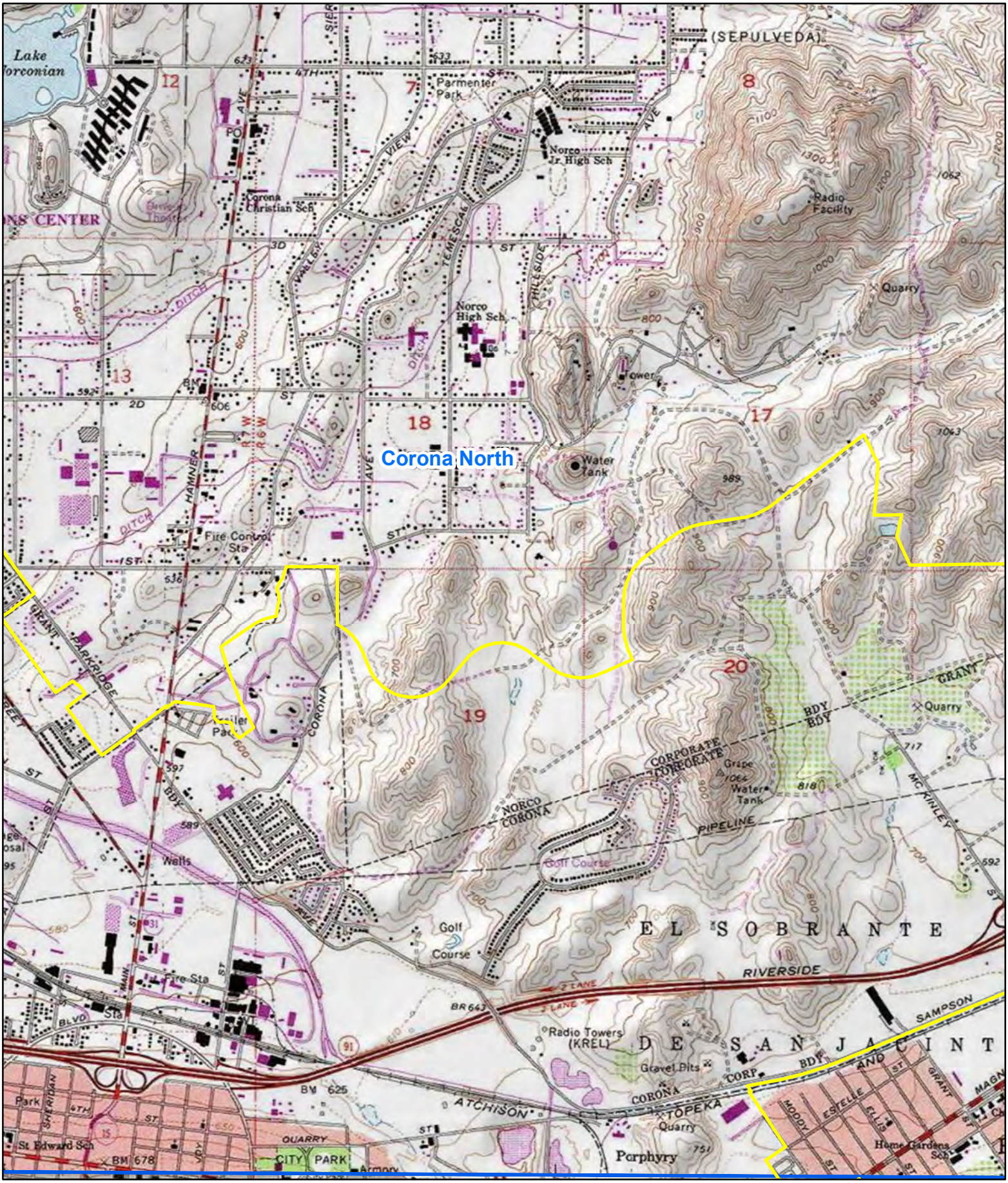
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

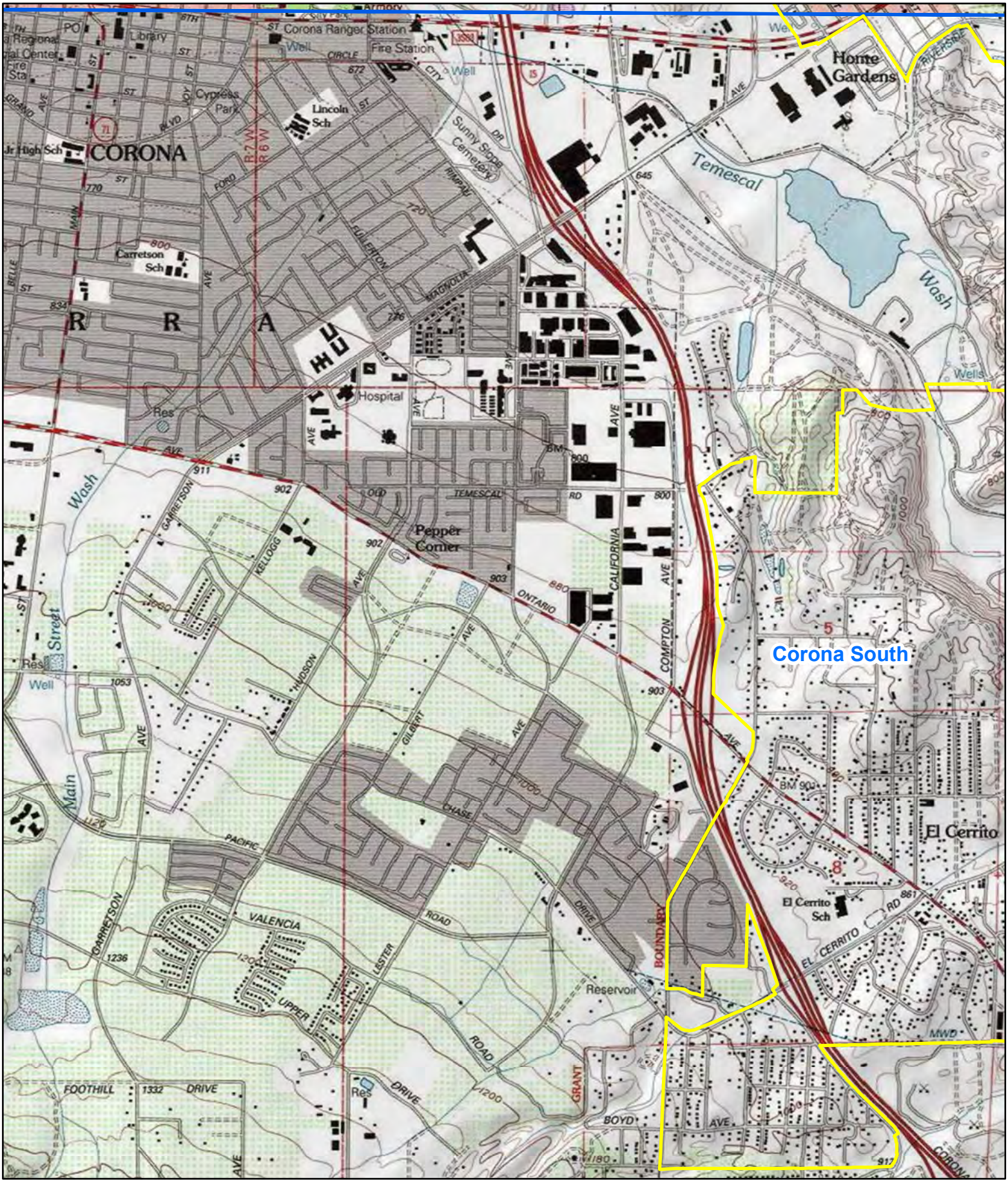


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

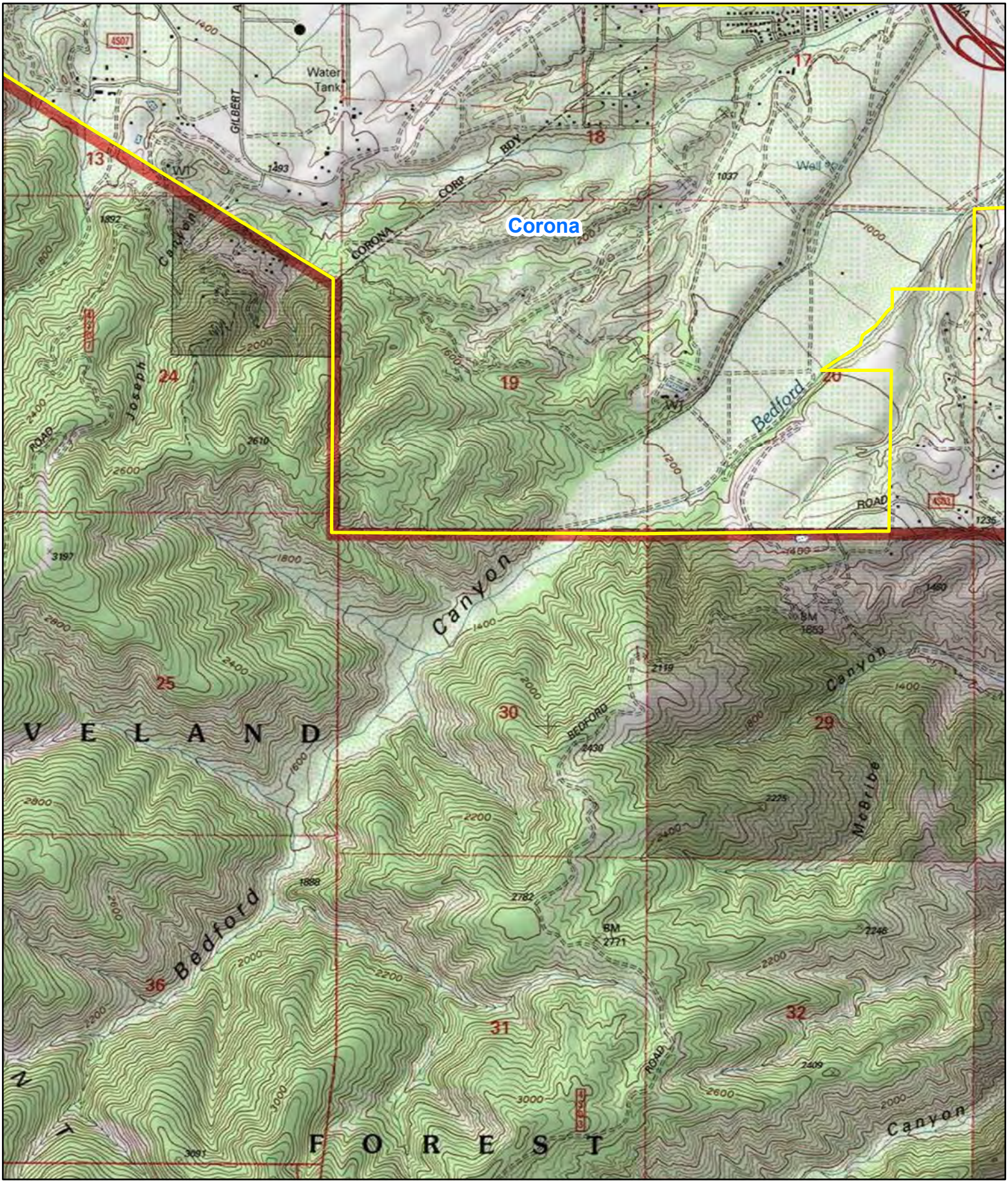
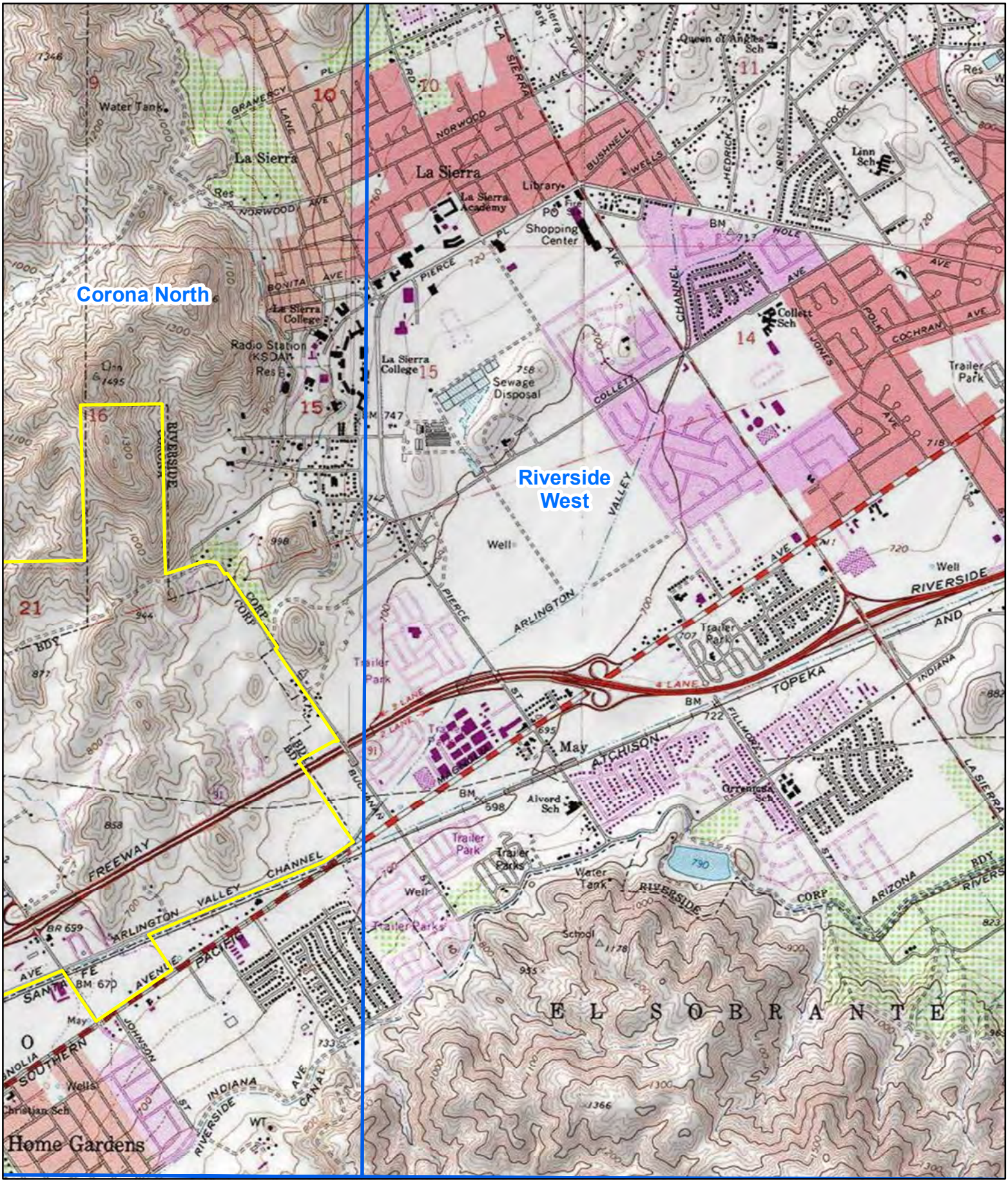


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

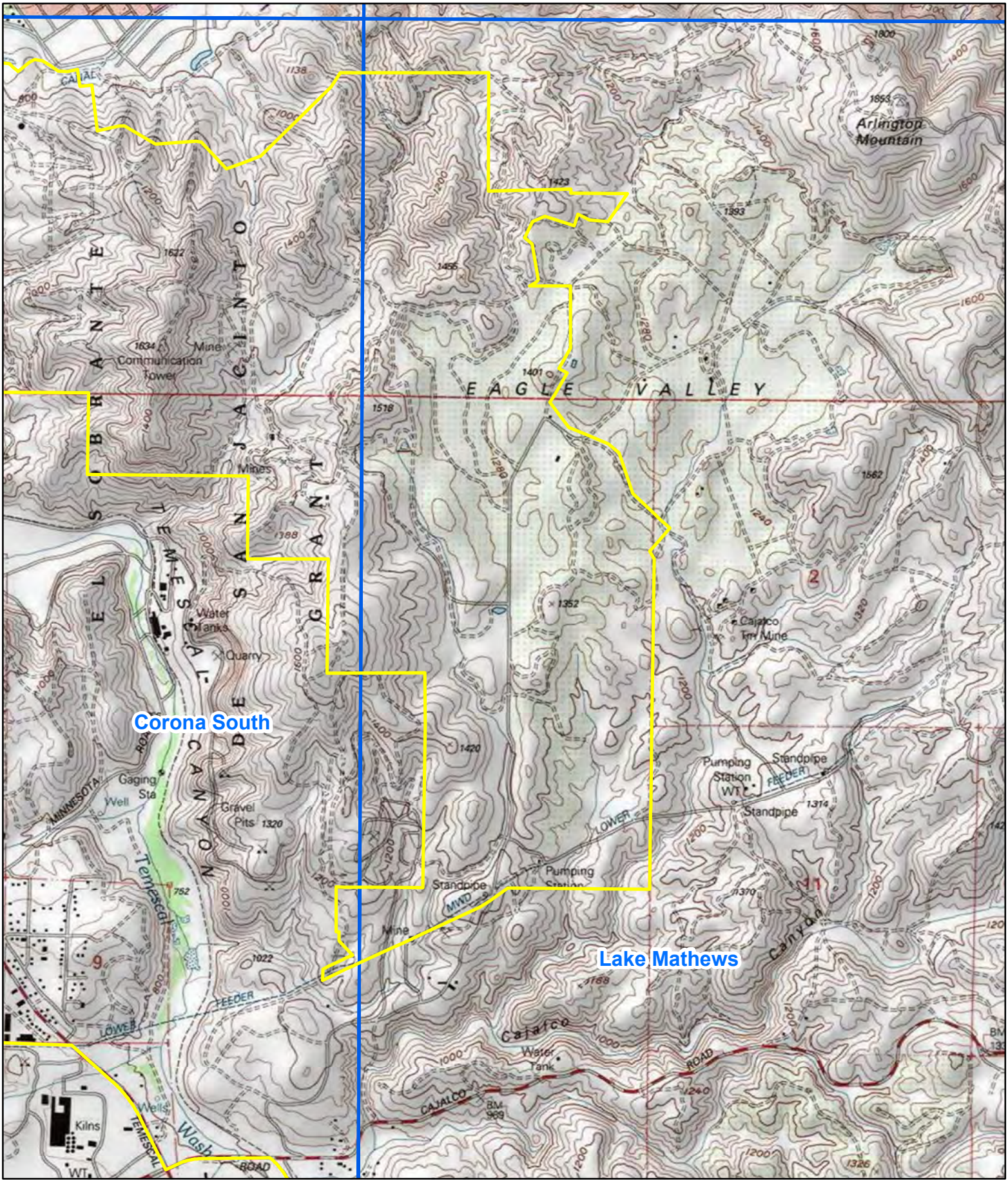
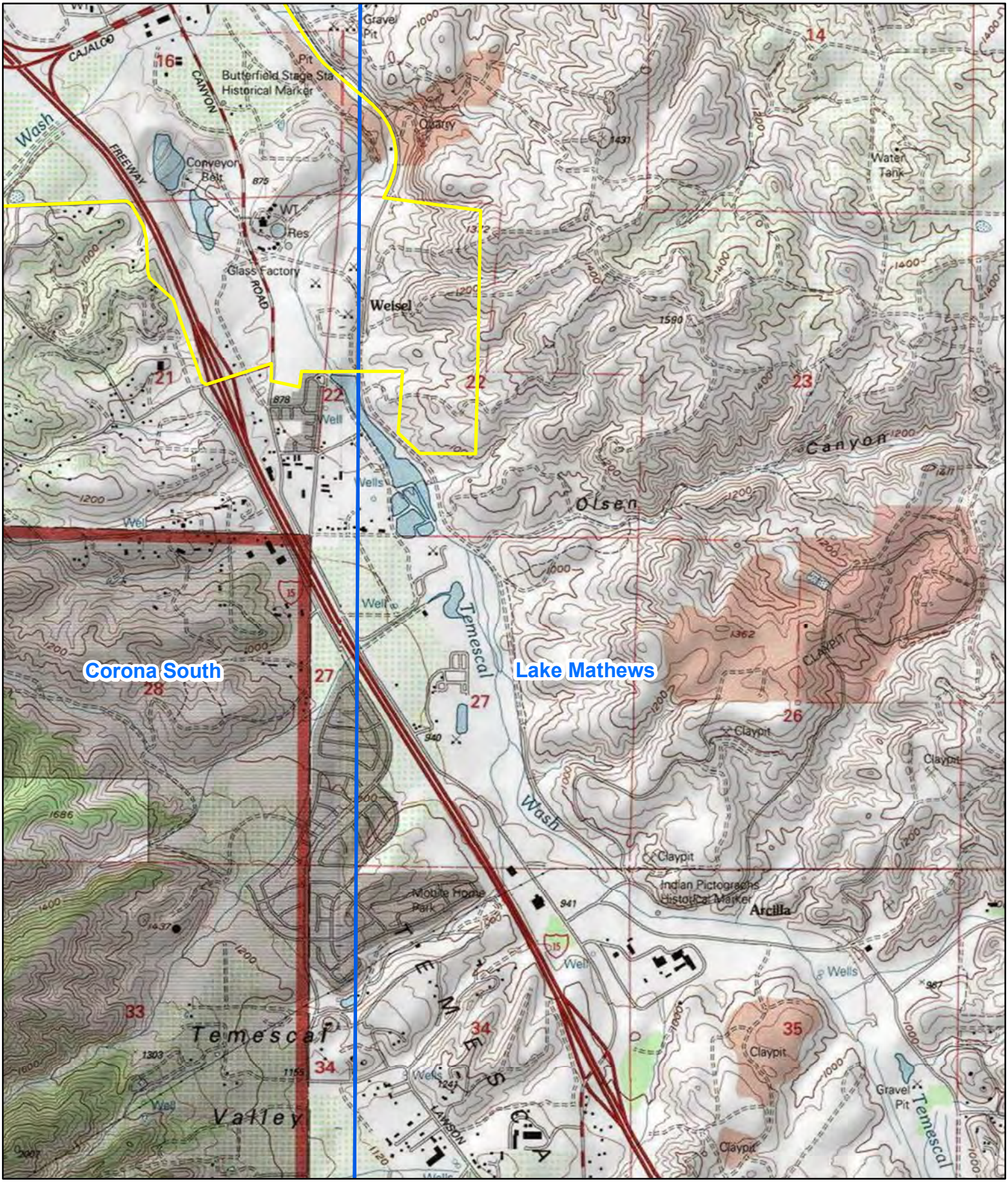


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Mark Macarro
Chairperson
Pechanga Band of Luiseno Indians
PO Box 1477, Temecula, CA, 92593
951-770-6000
epreston@pechanga-nsn.gov

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Macarro,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

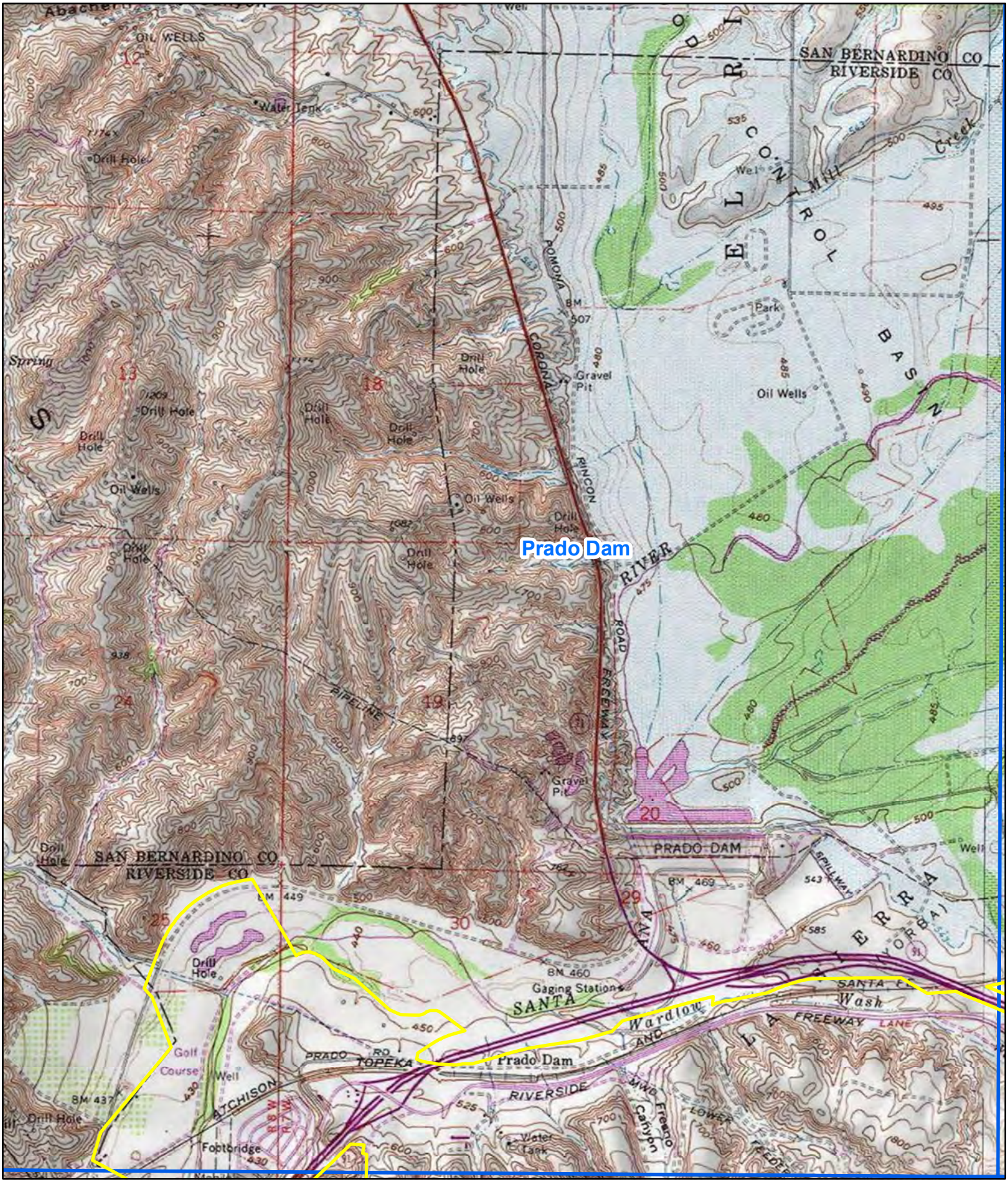


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

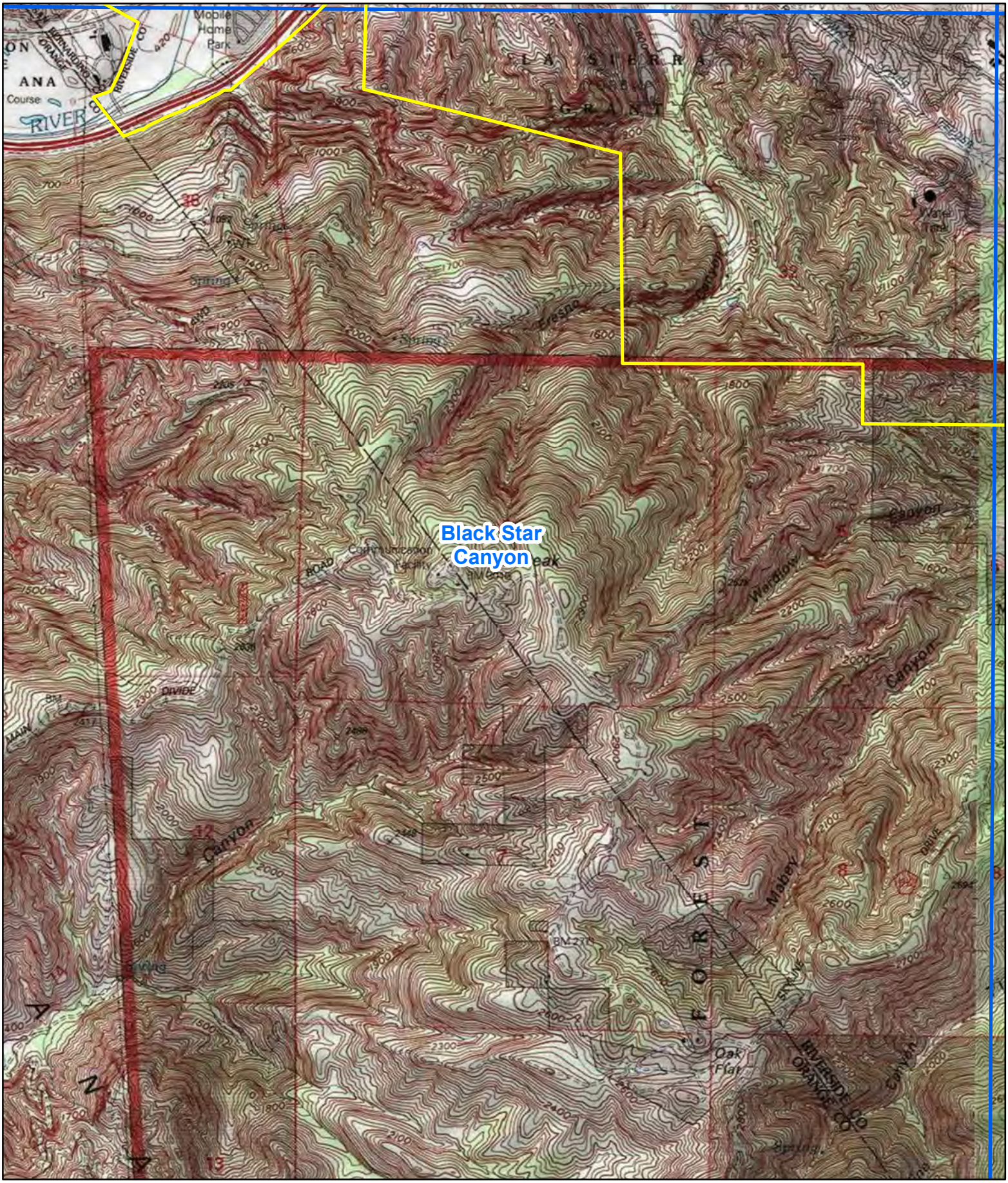
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

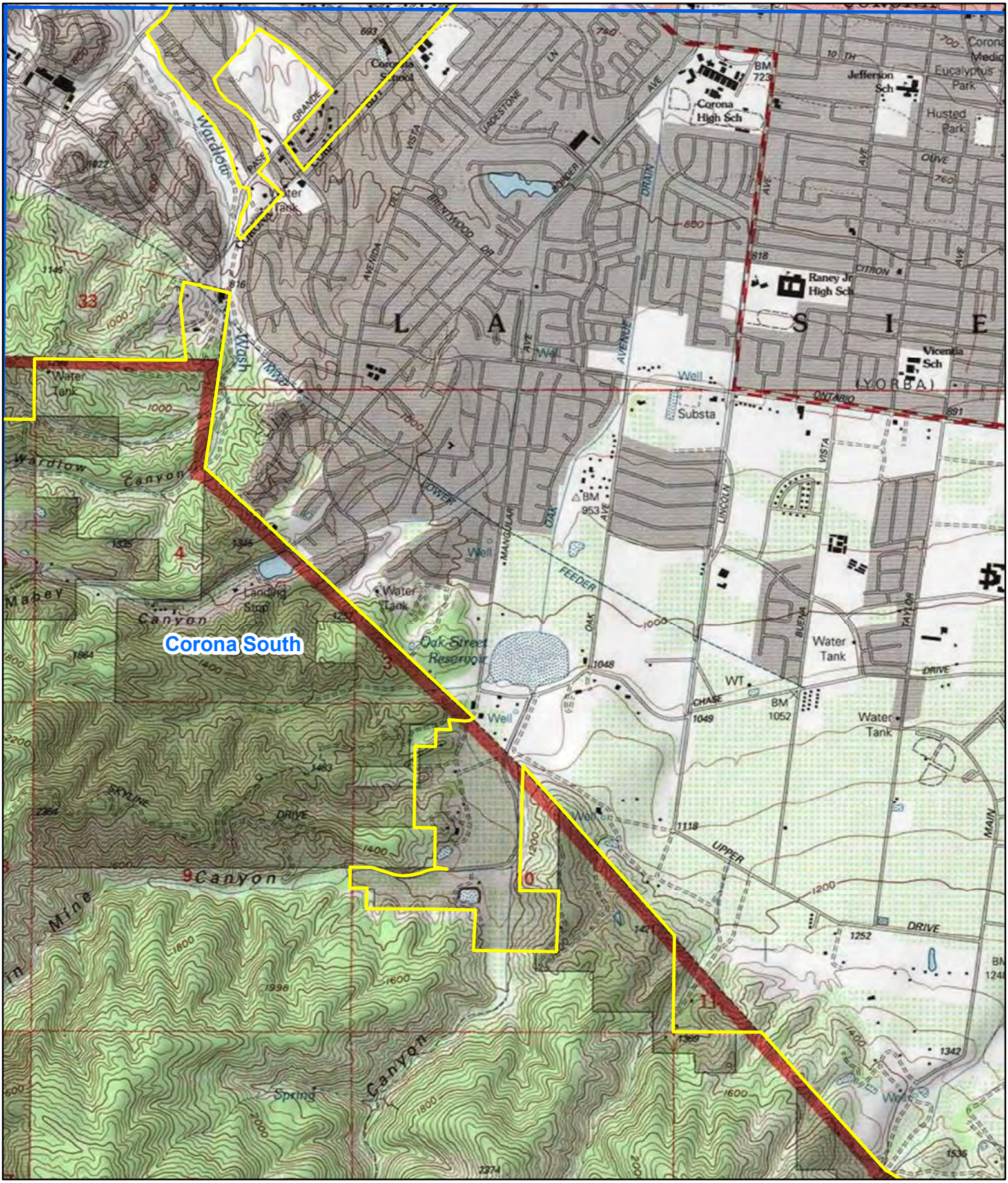
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

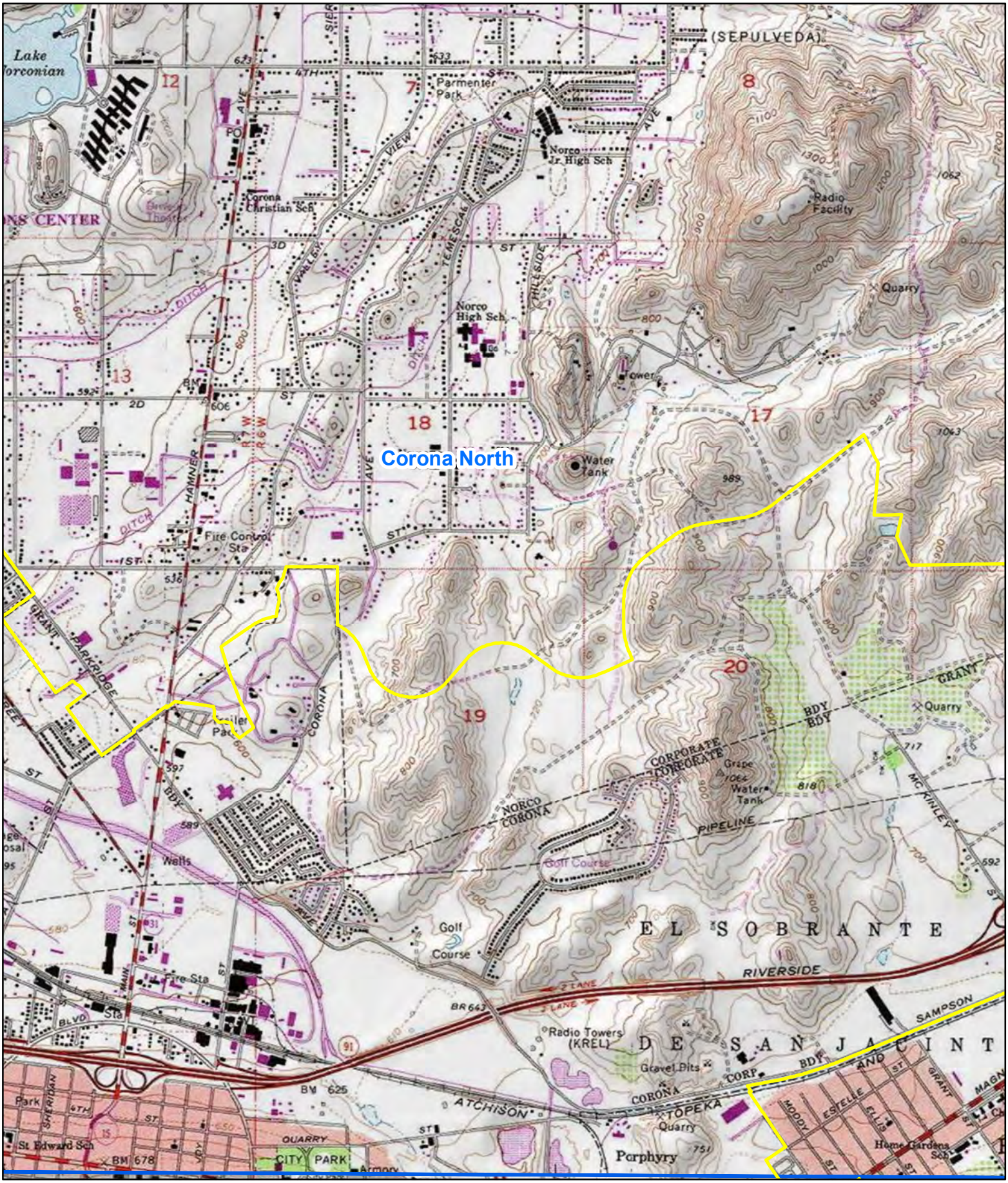
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

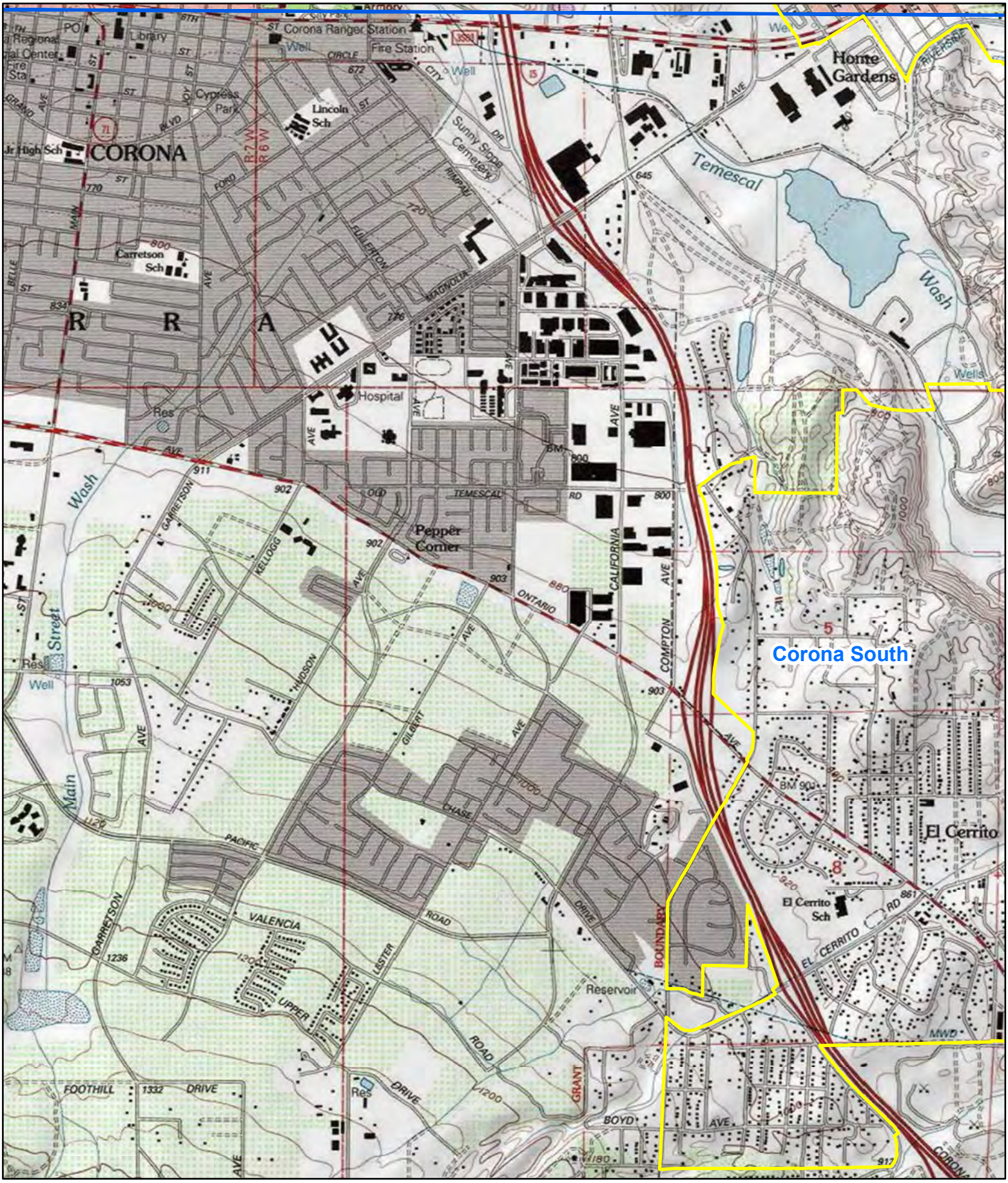


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

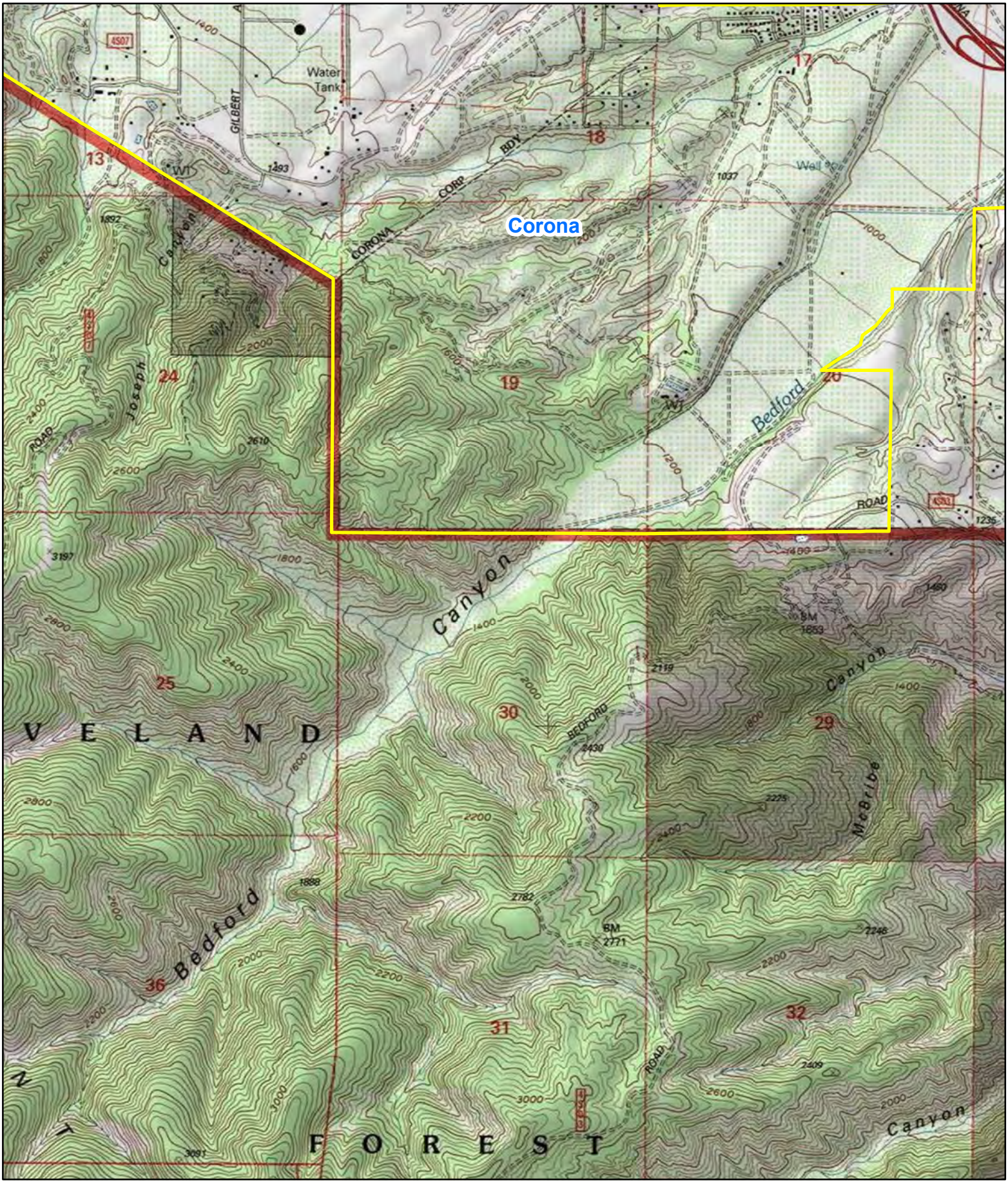
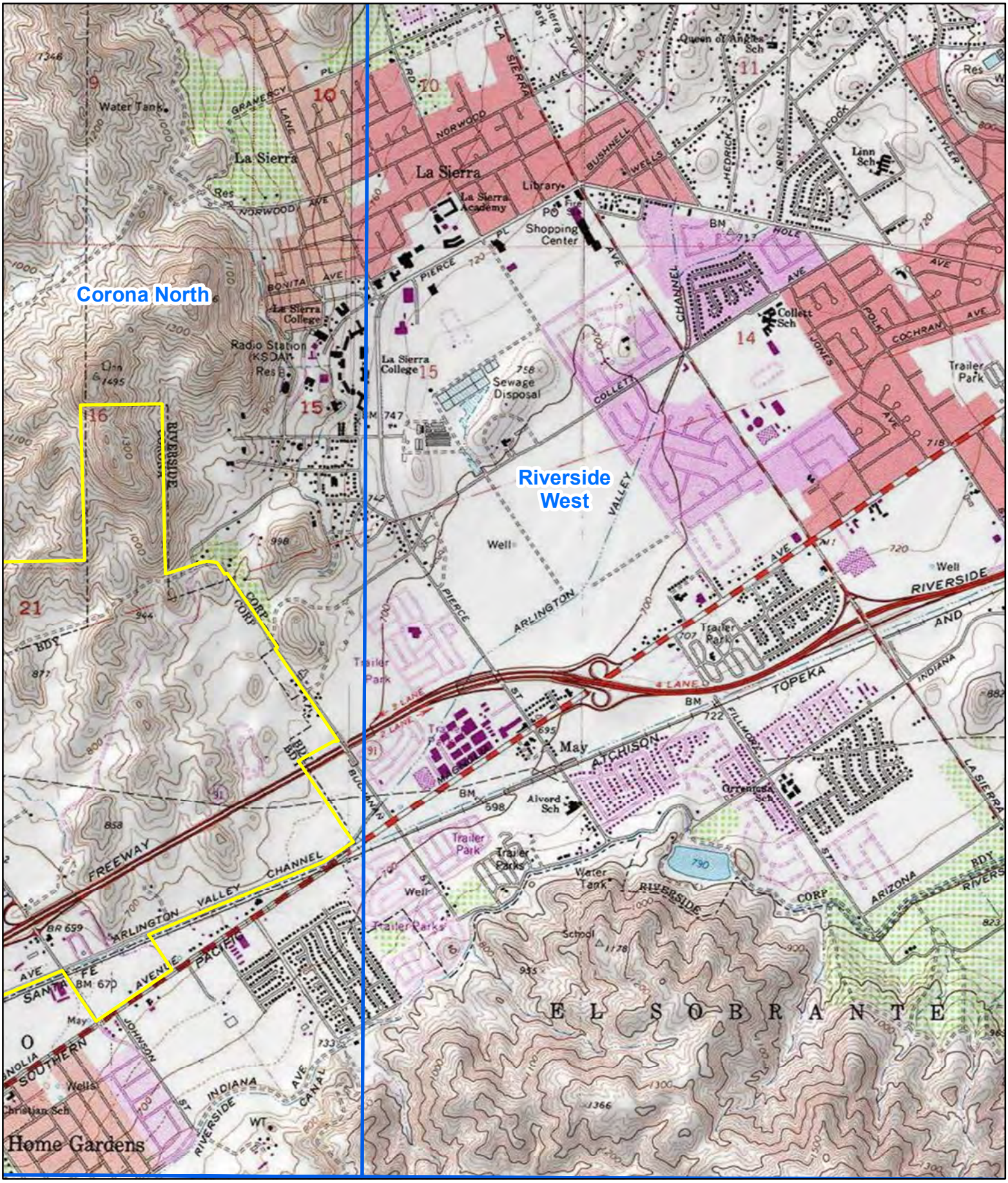


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

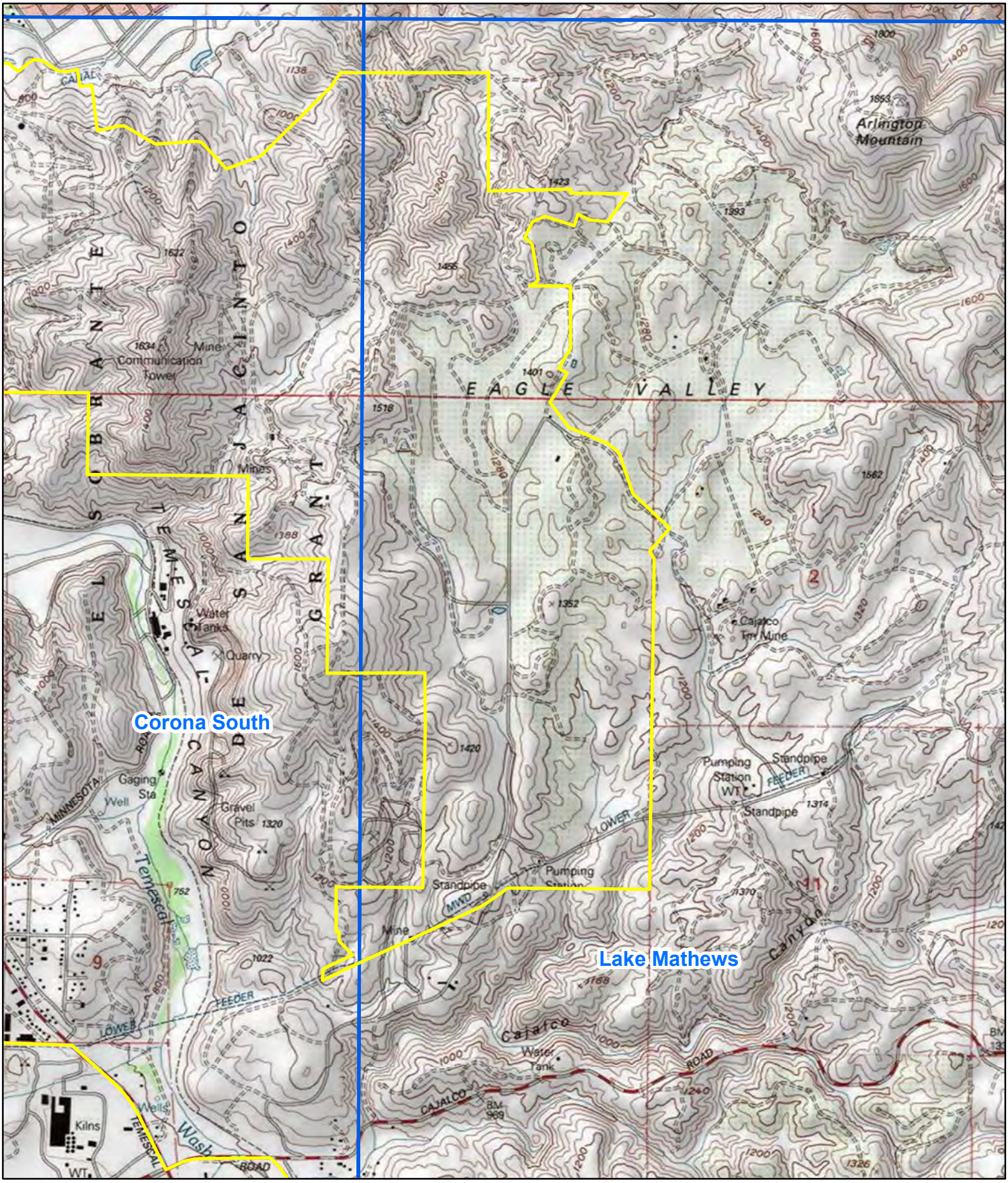
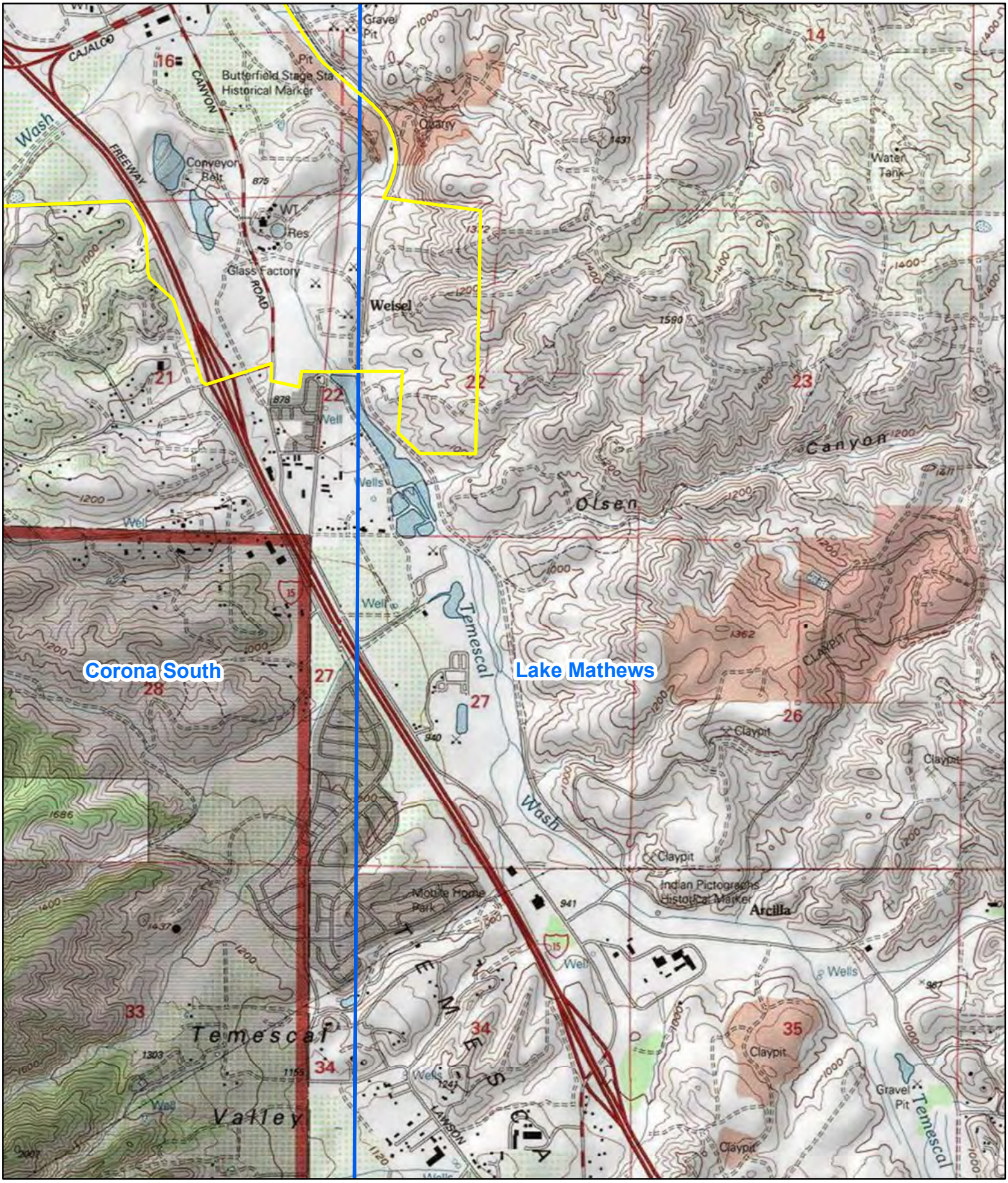


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Robert Dorame
Chairperson
Gabrielino Tonvoa Indians of California Tribal Council
PO Box 490, Bellflower, CA, 90707
562-761-6417
gtongva@gmail.com

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Dorame,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

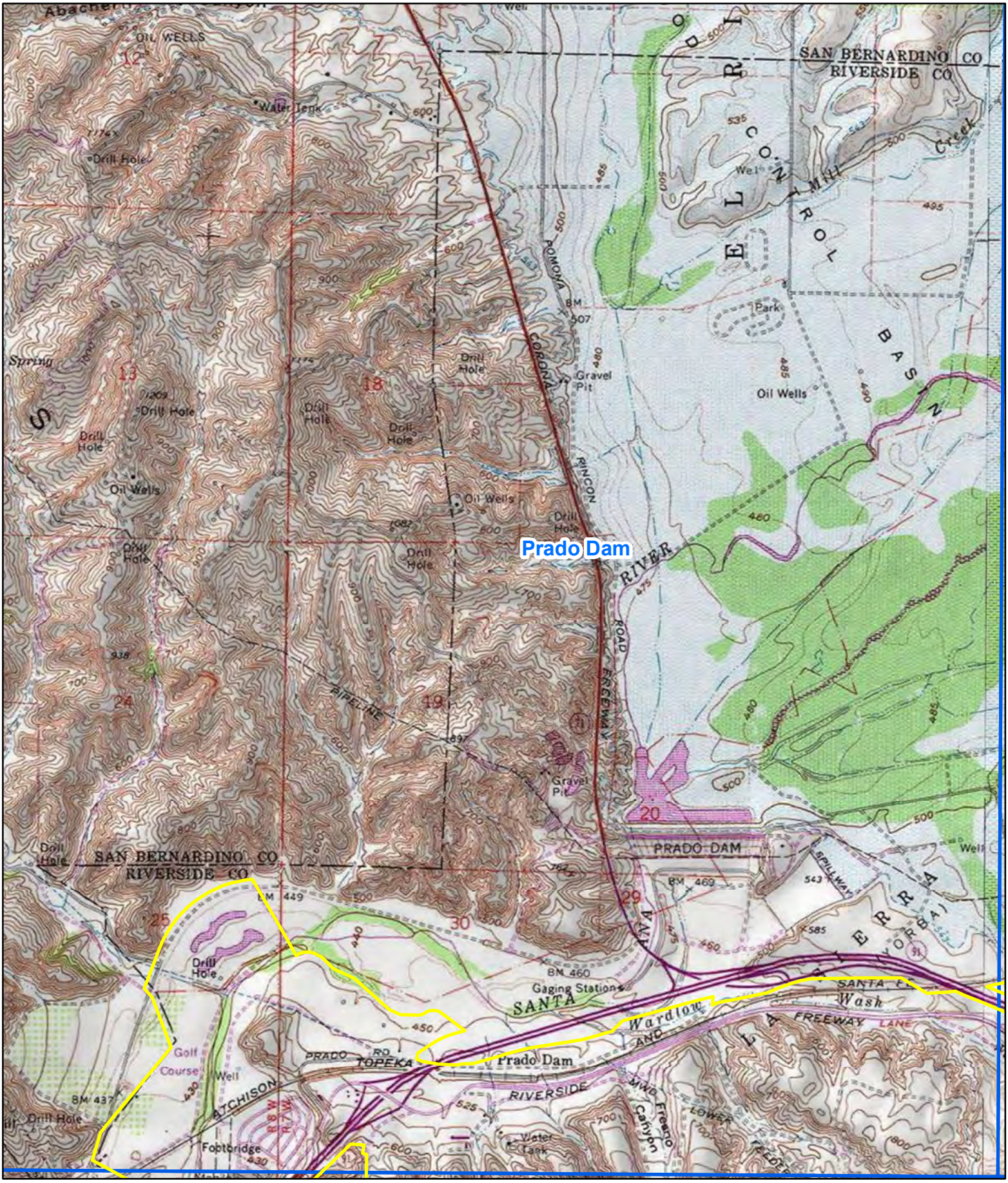


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

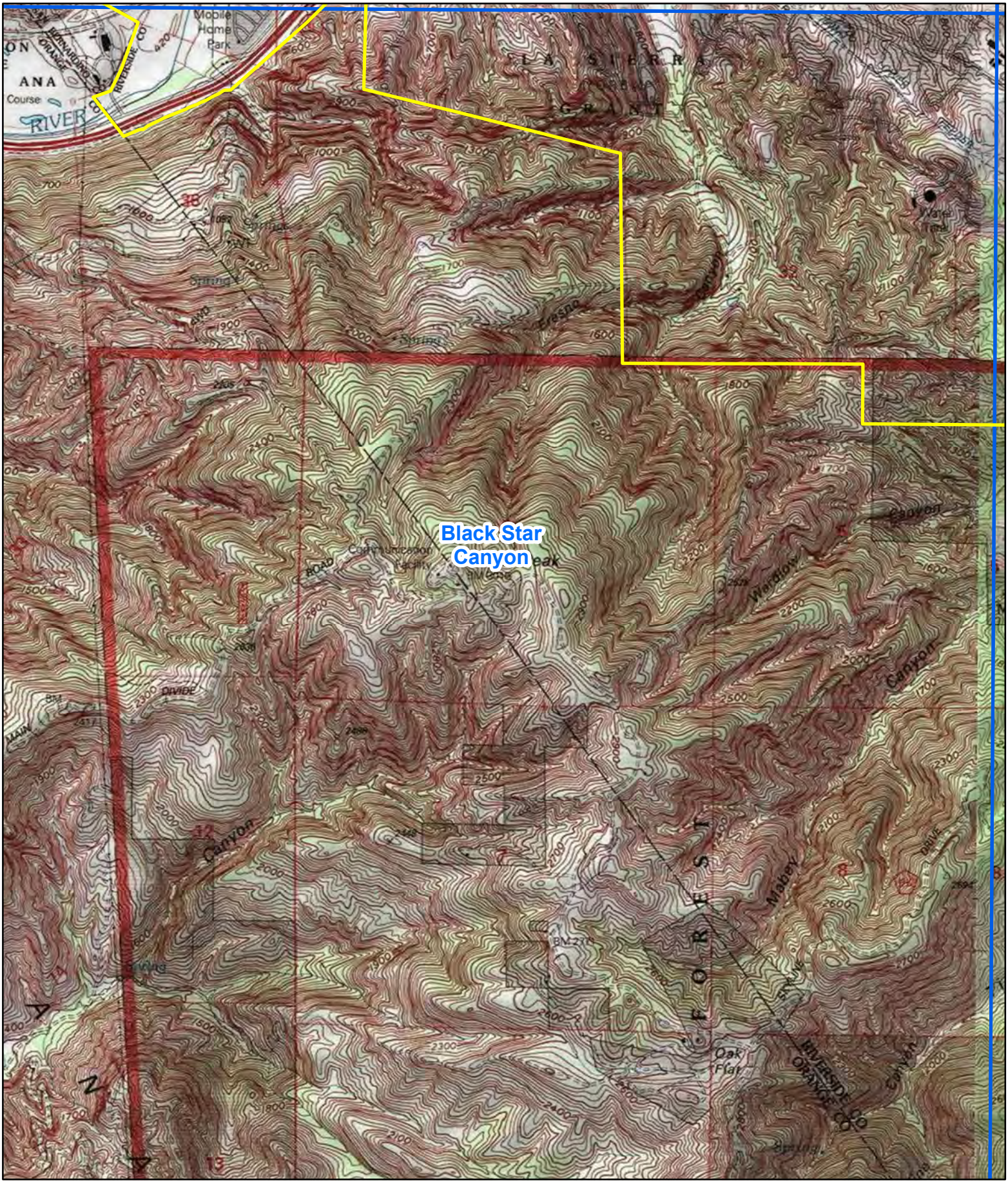
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

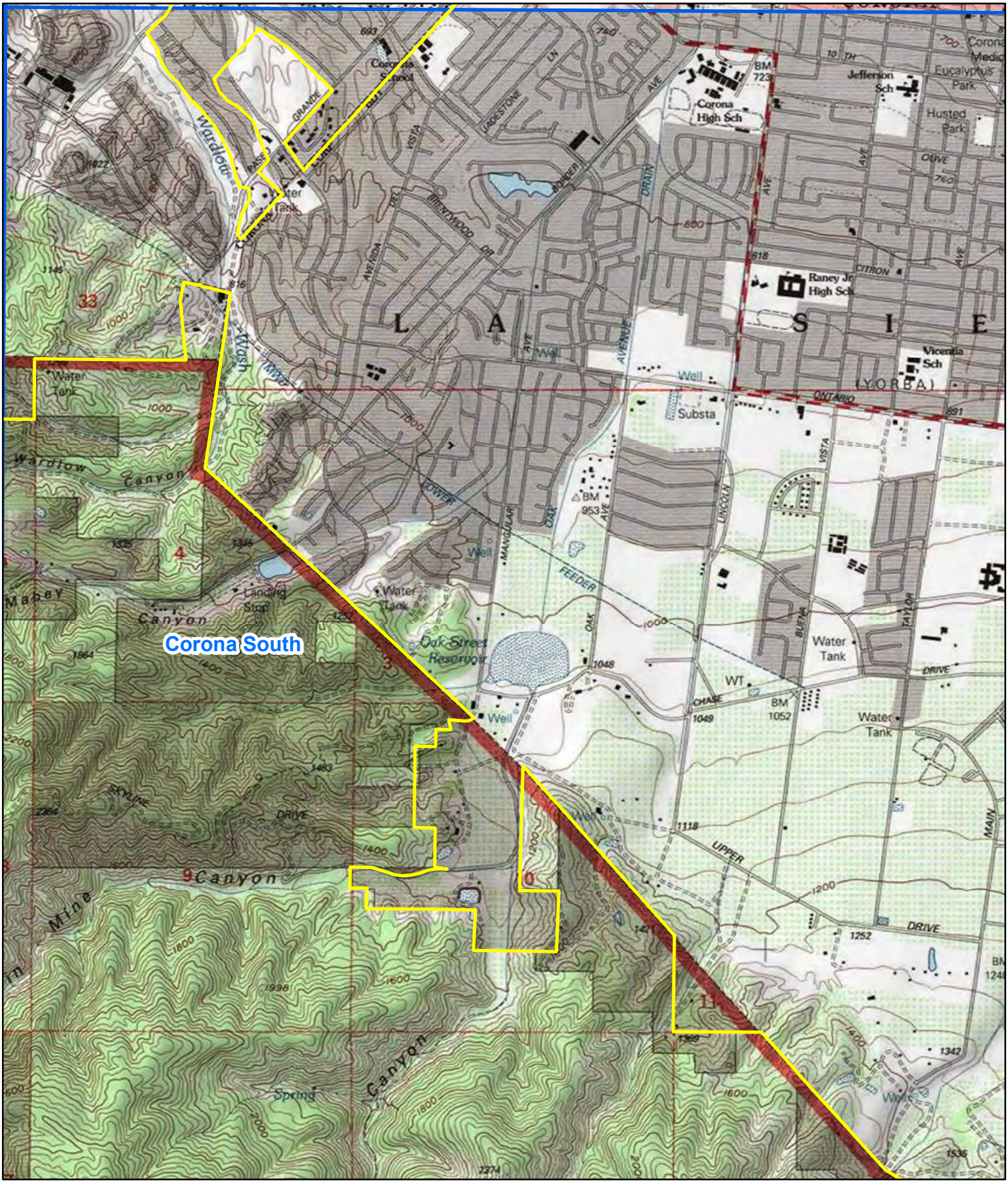
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

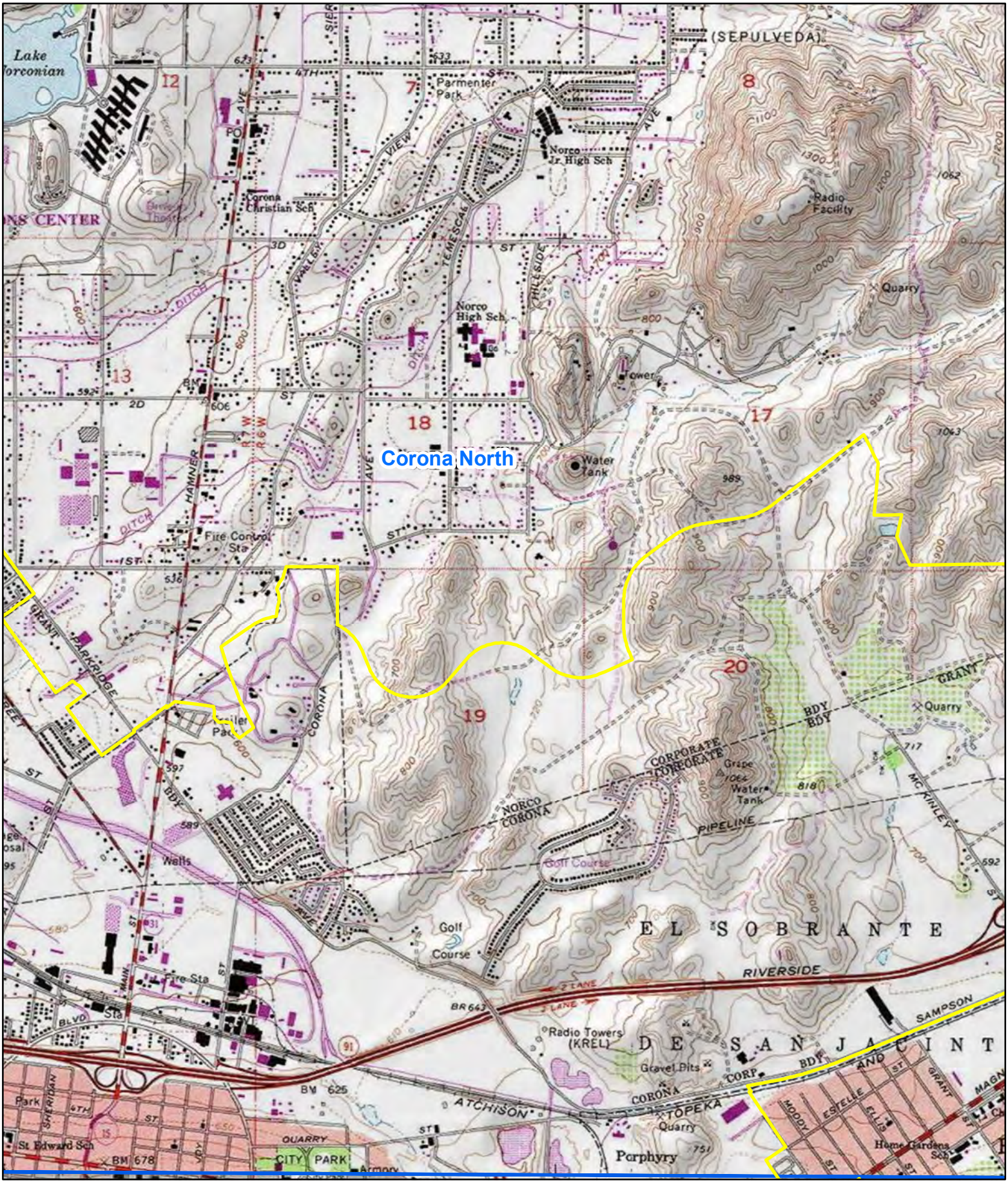
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

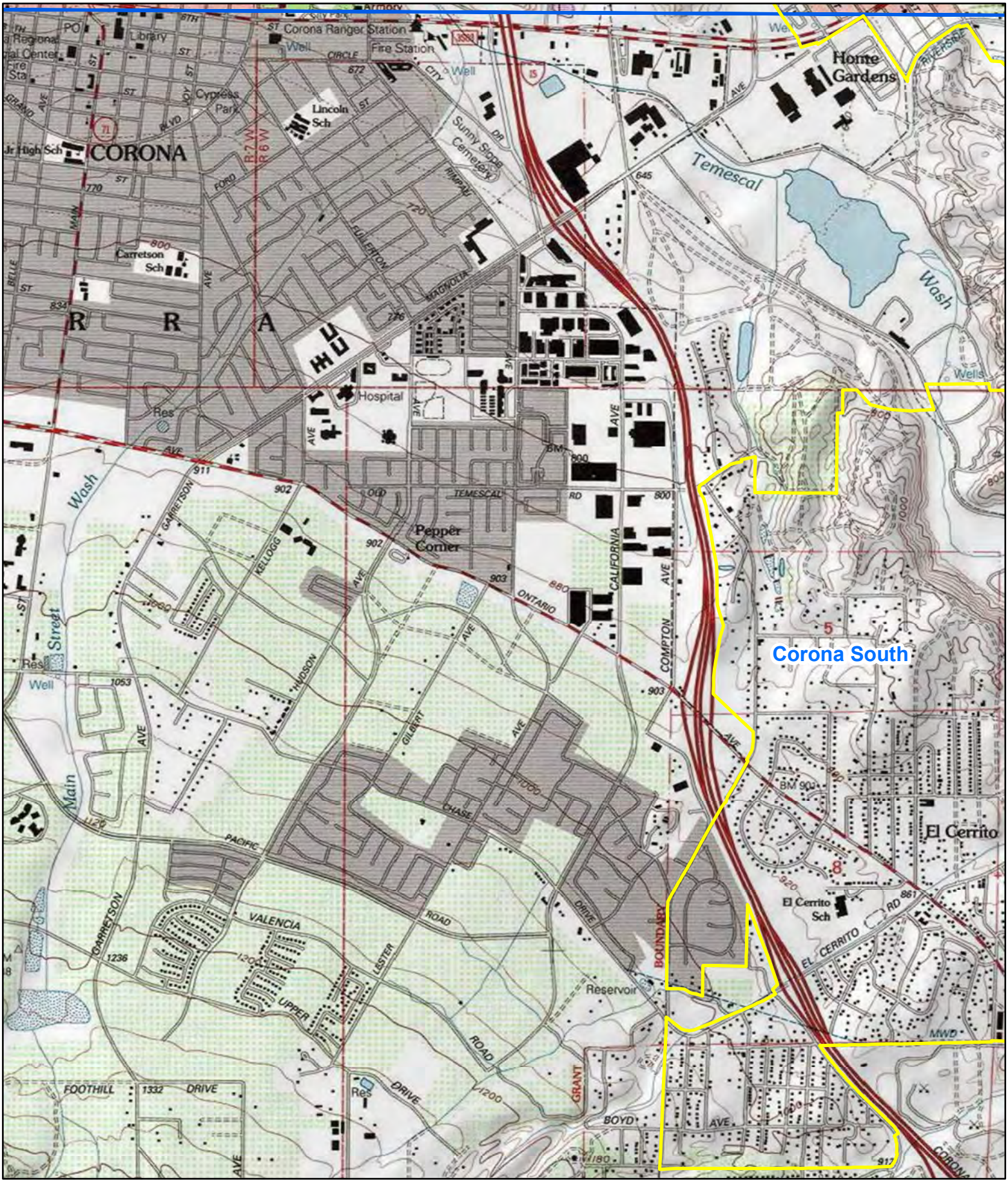


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

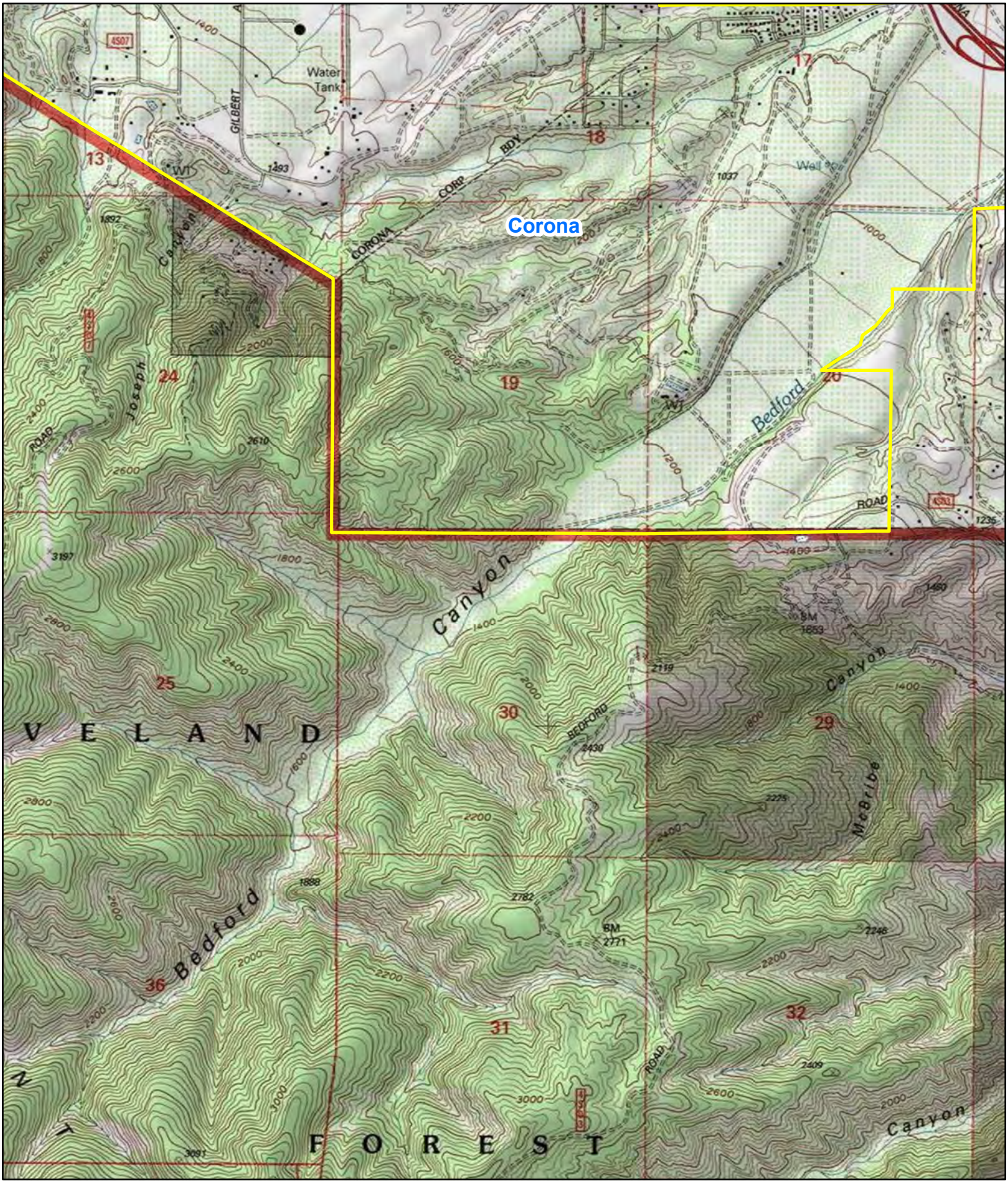
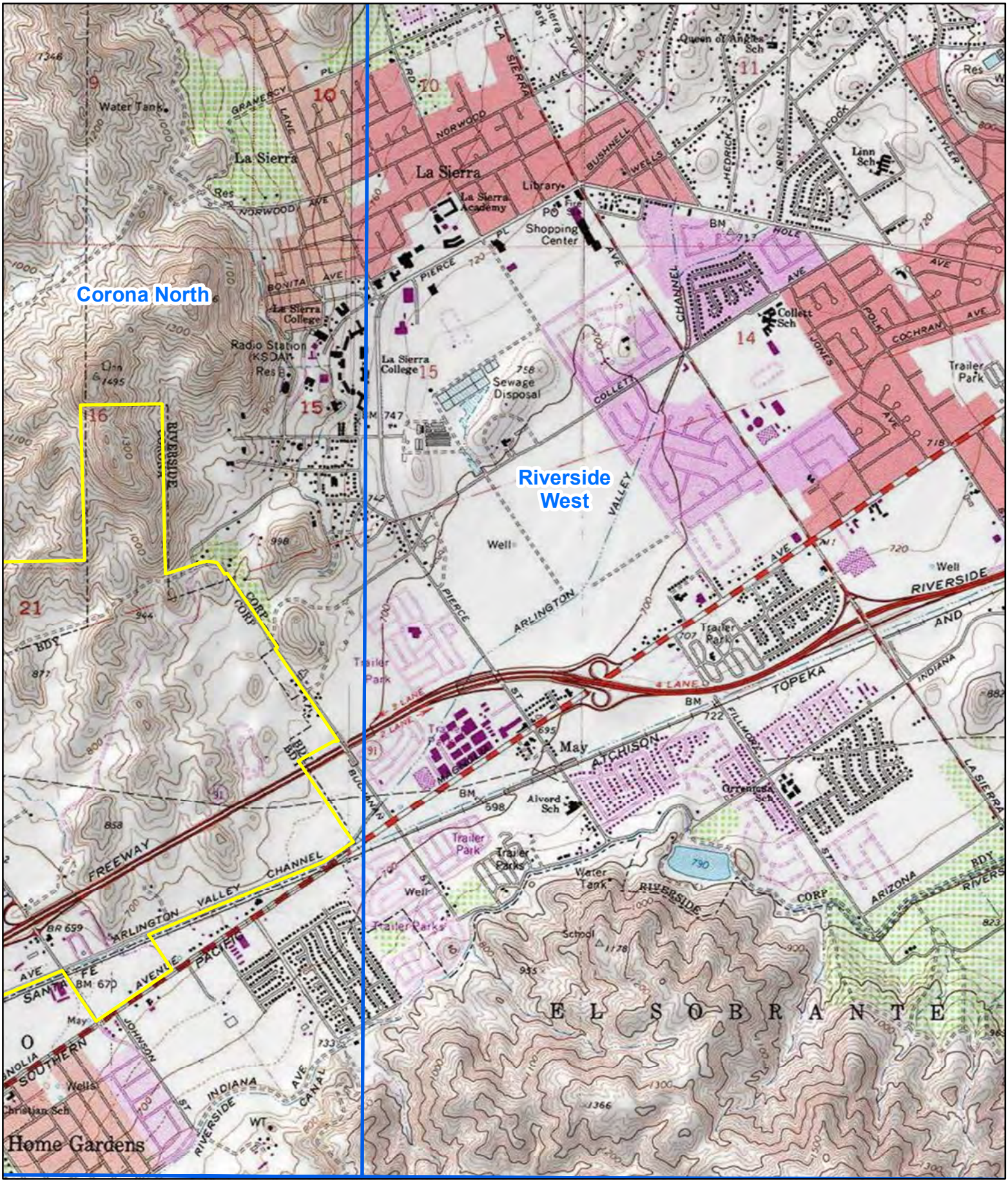


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

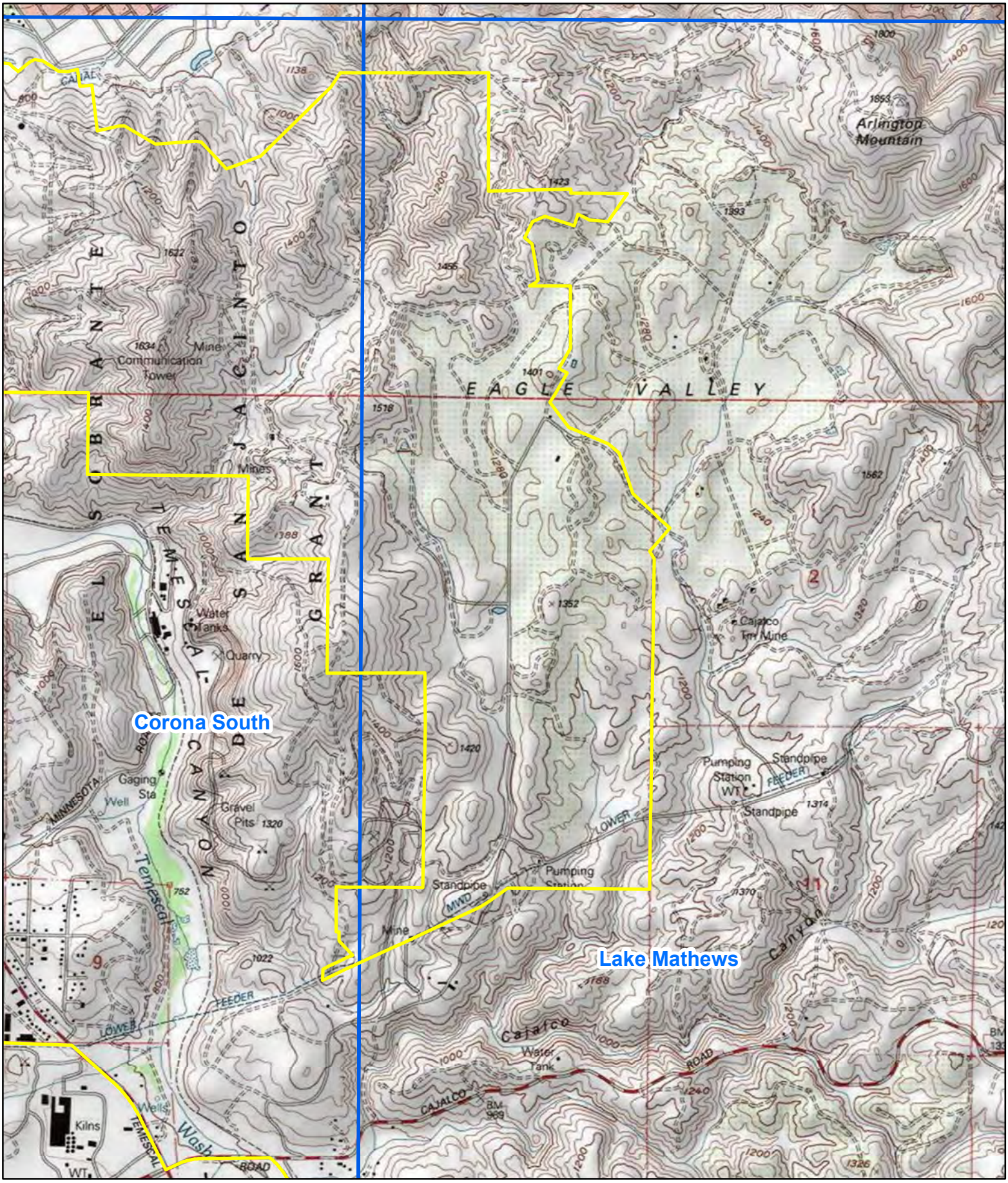
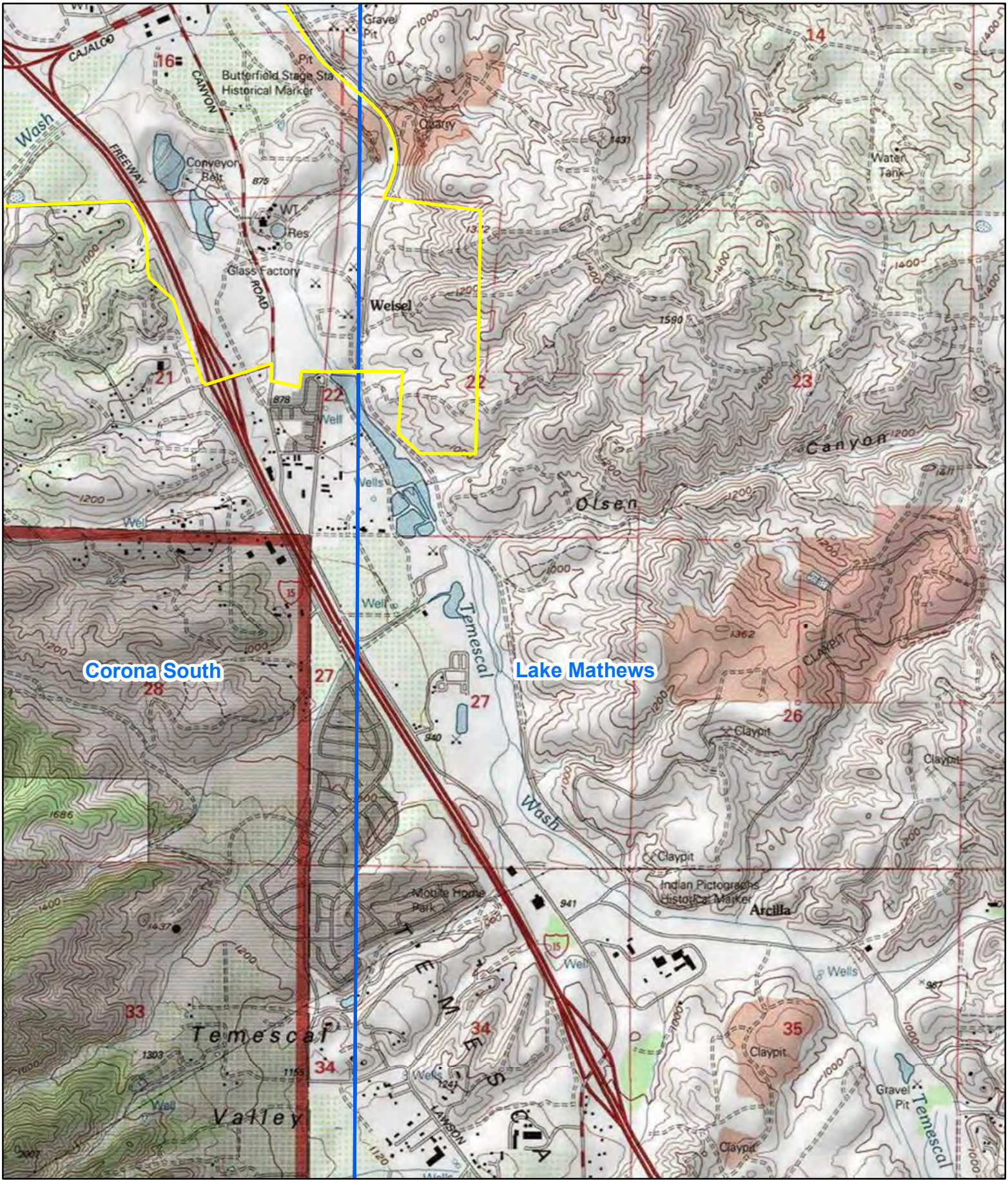


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Ralph Goff
Chairperson
Campo Band of Diegueno Mission Indians
36190 Church Road, Suite 1, Campo, CA, 91906
619-478-9046
rgoff@campo-nsn.gov

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Goff,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

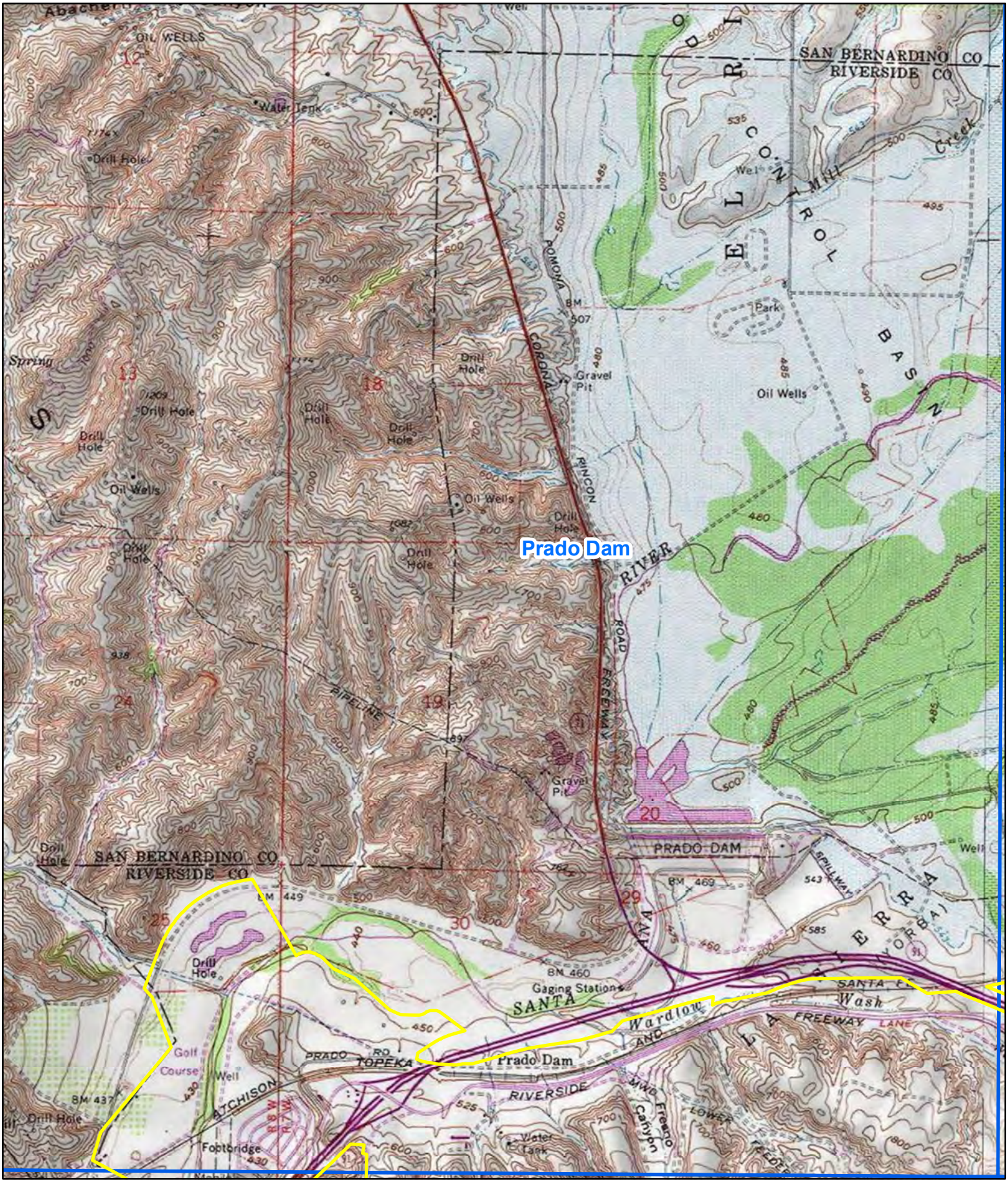


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

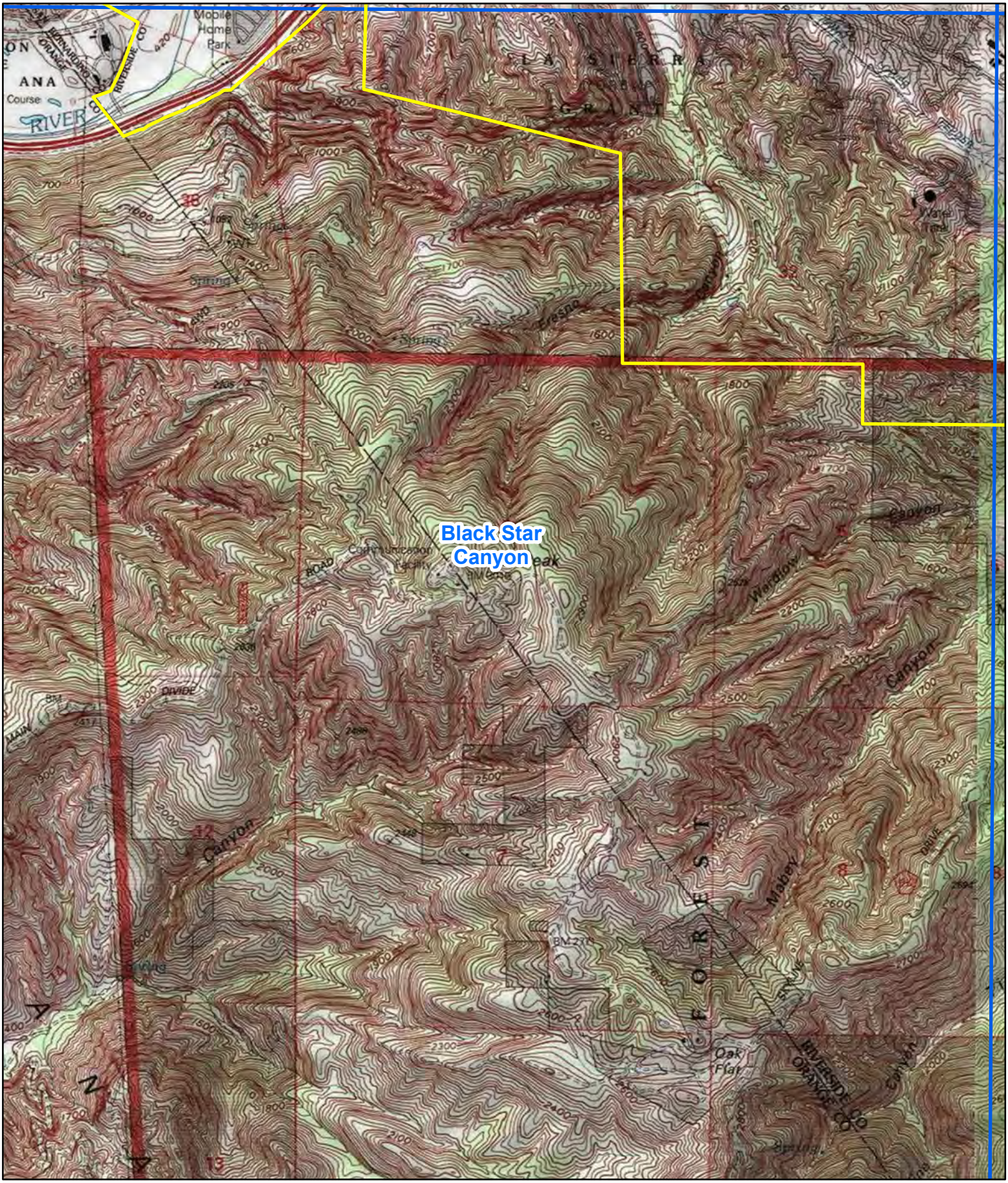
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

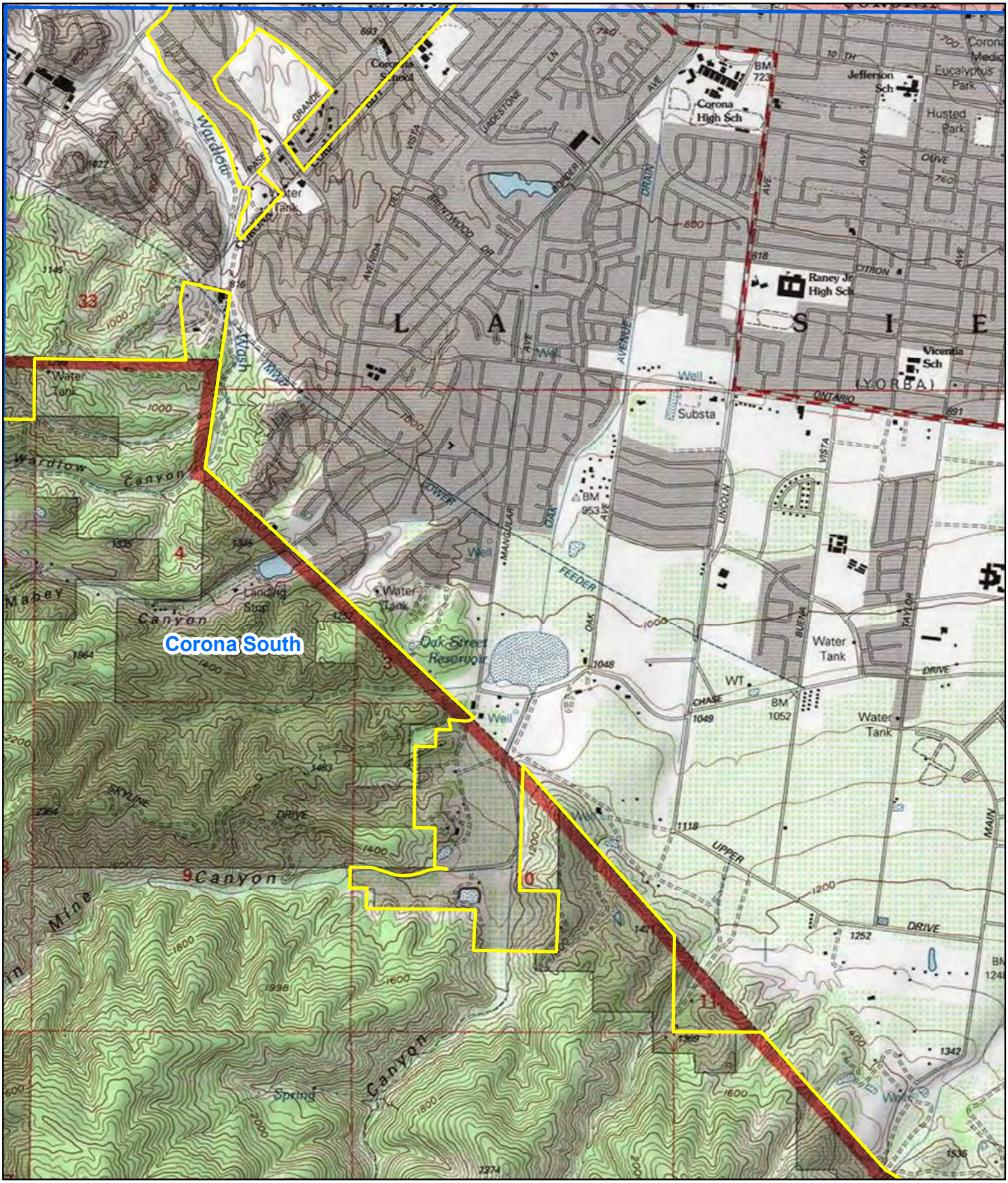
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

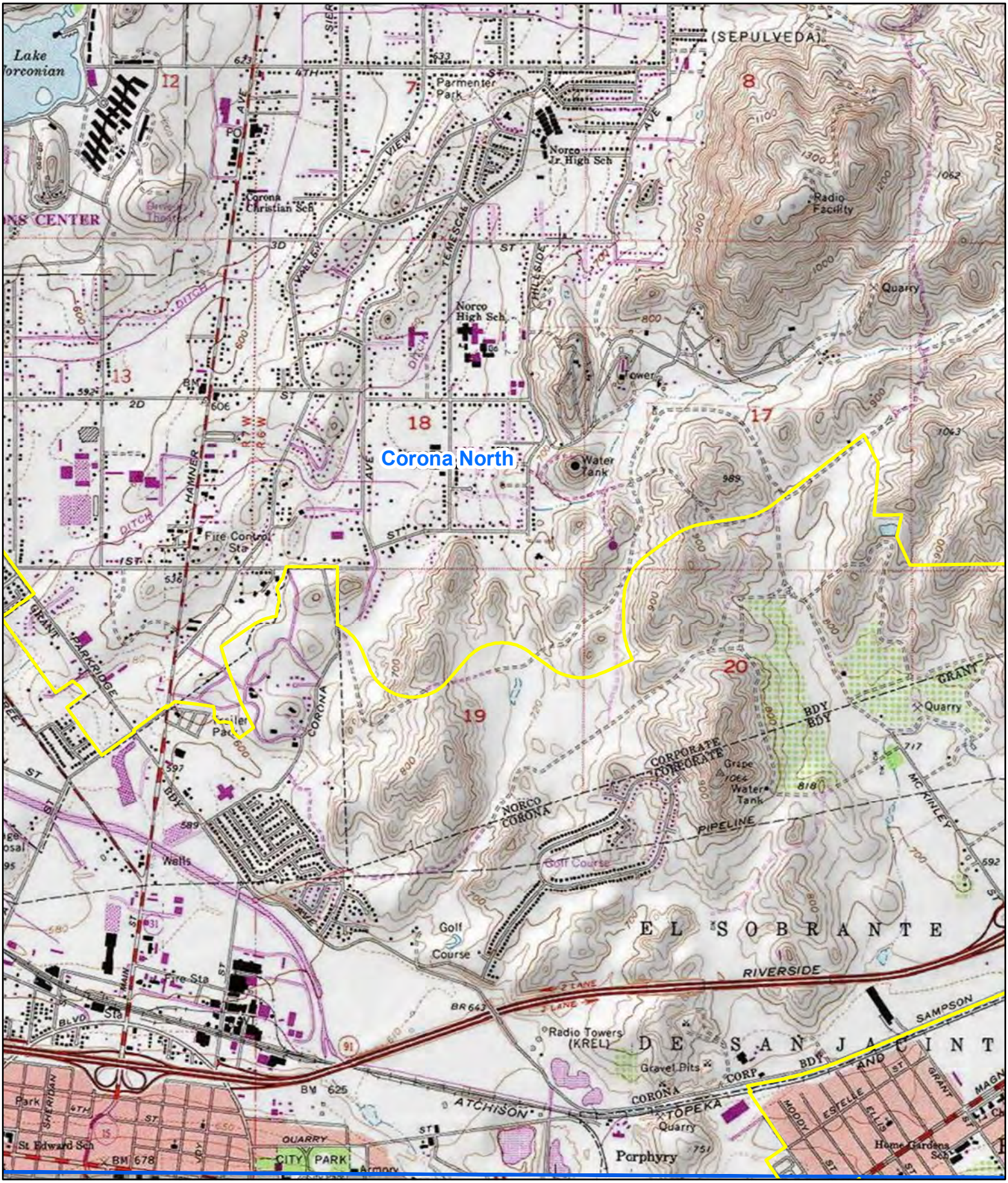
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

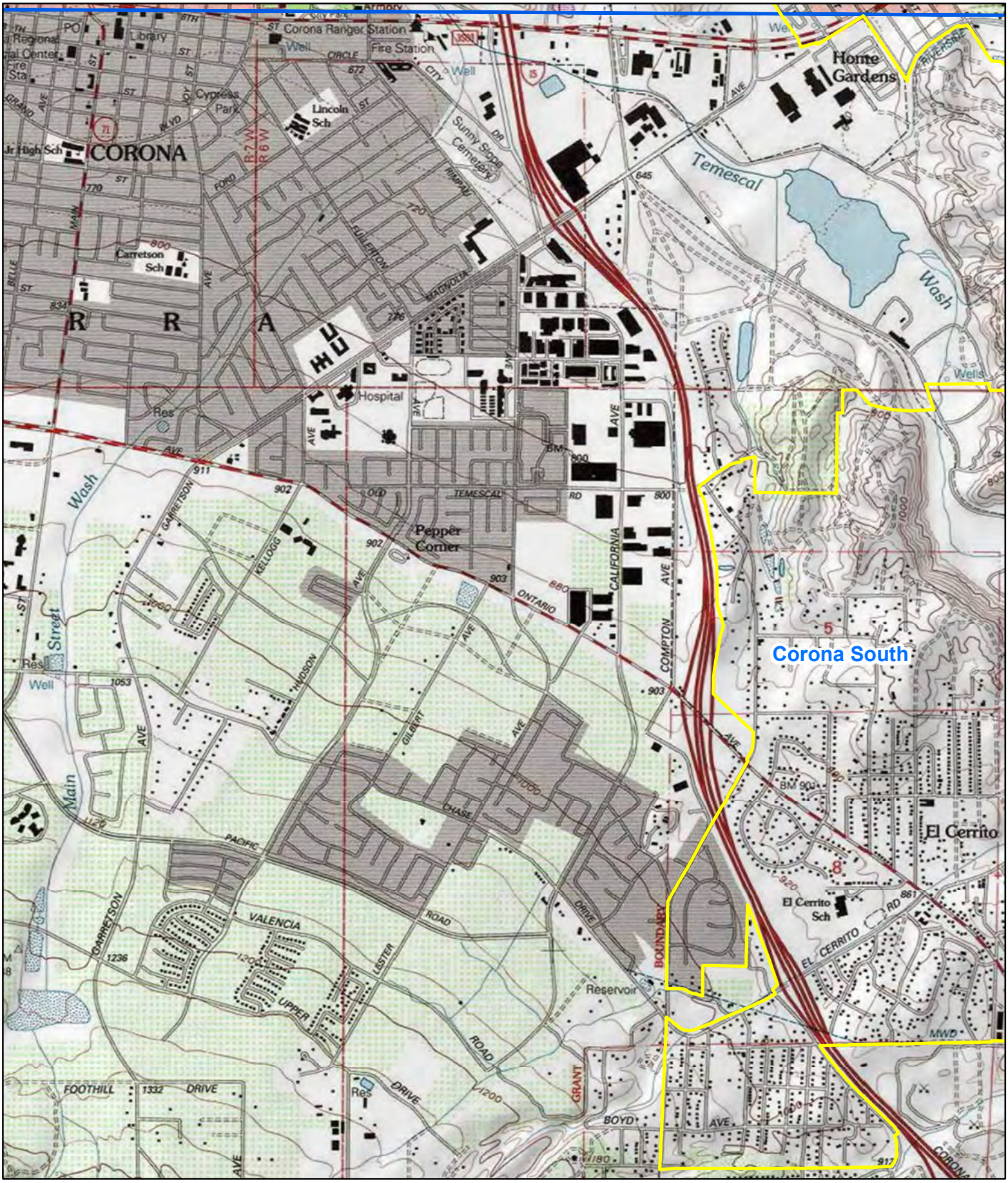


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

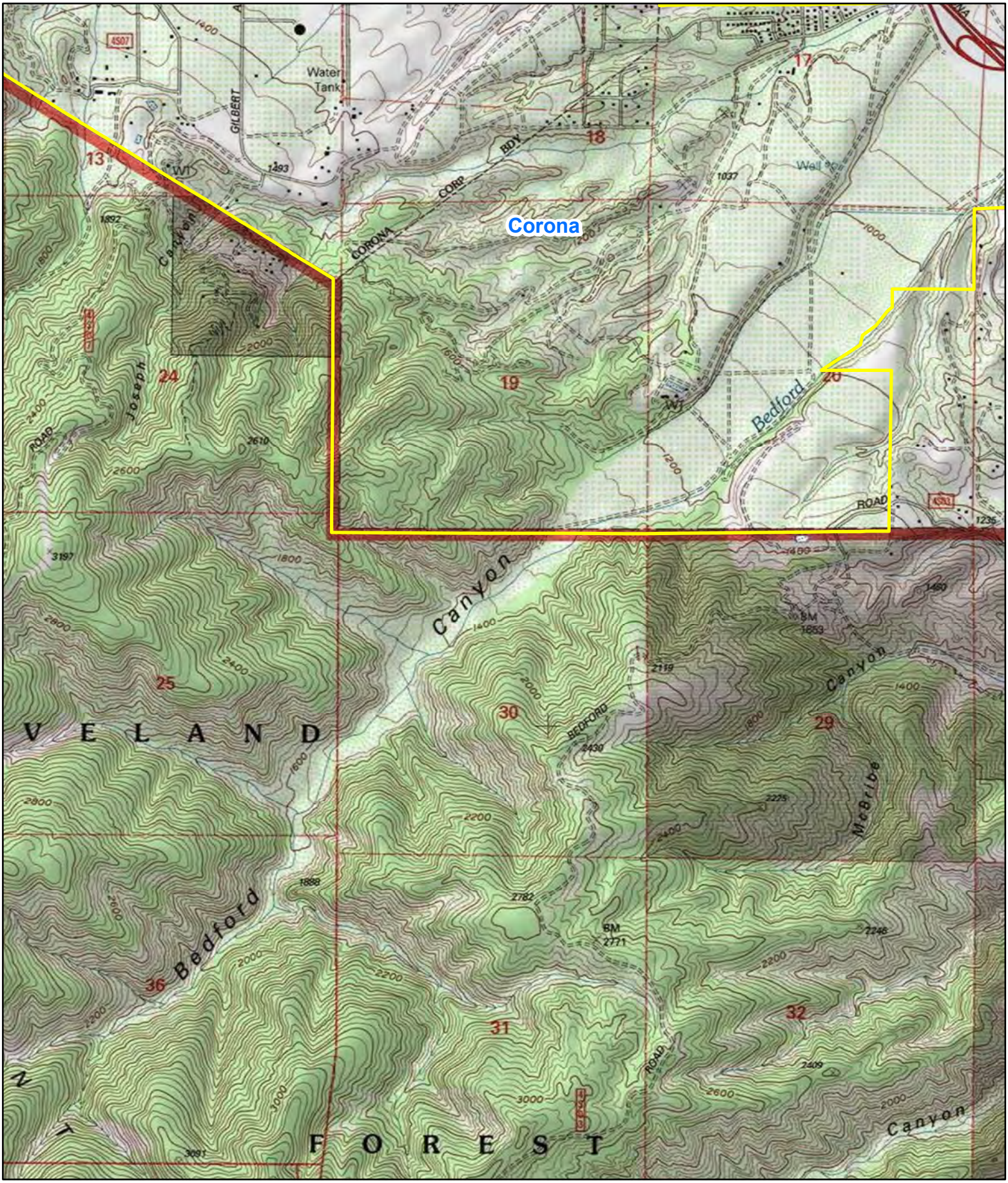
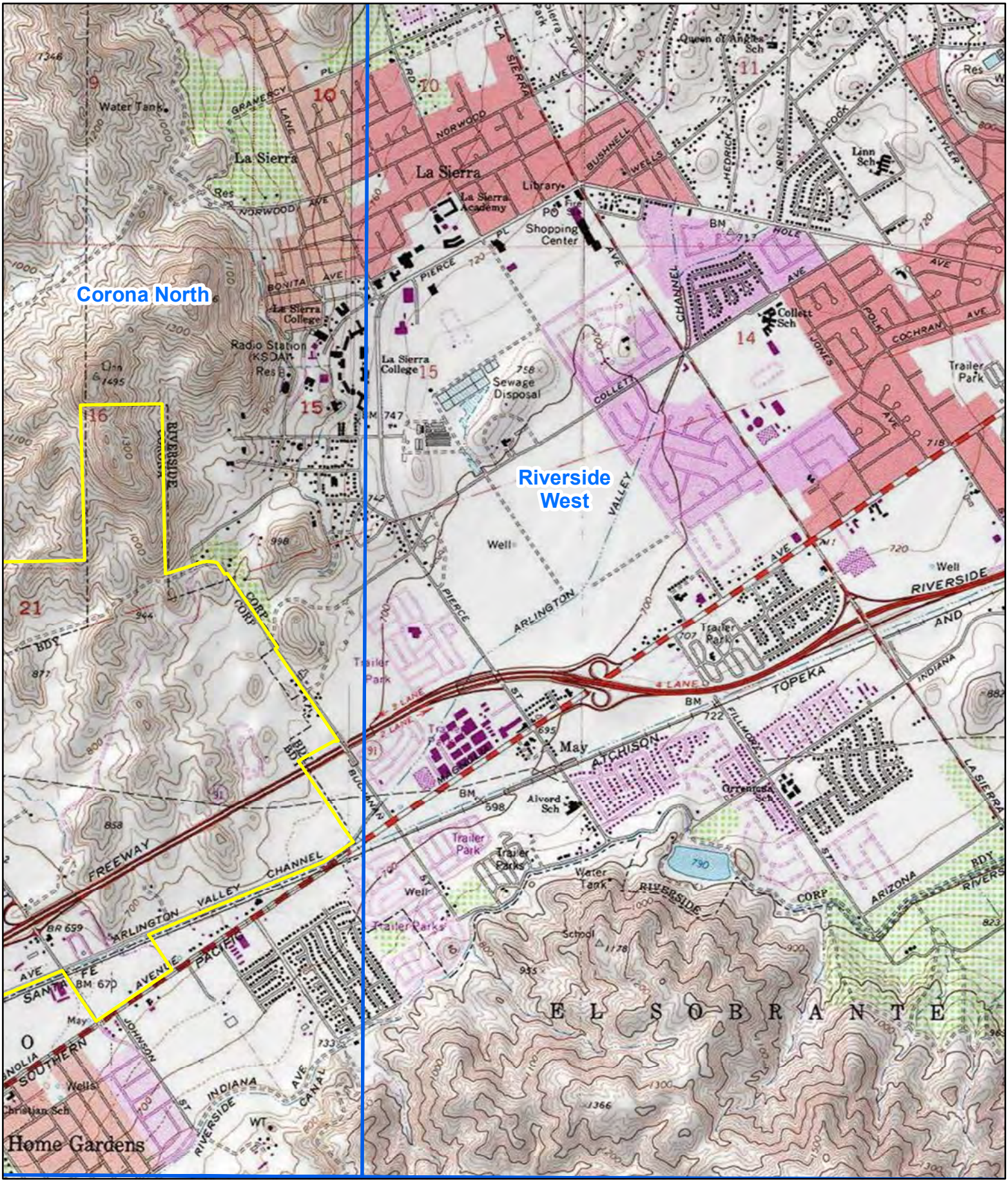


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

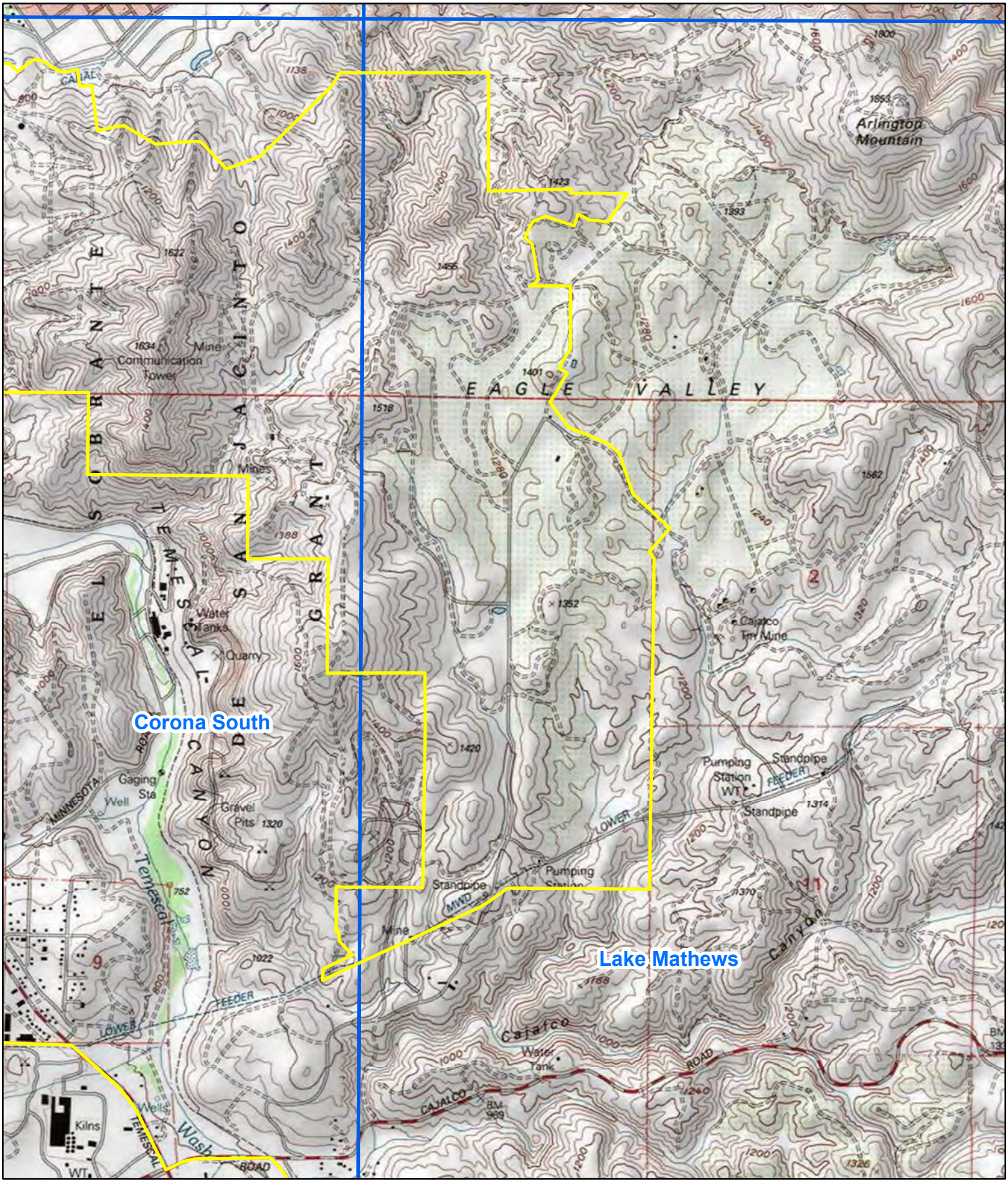
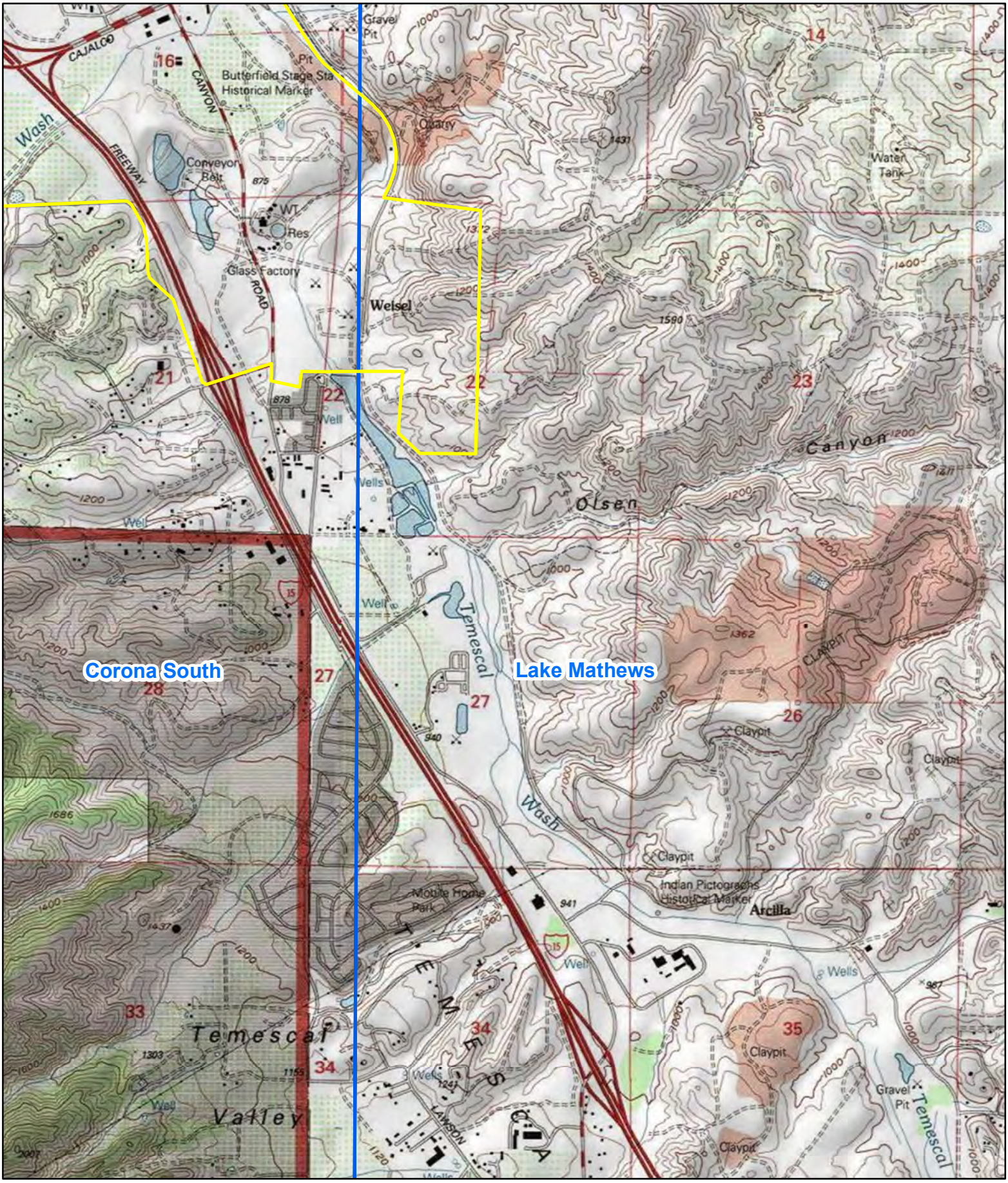


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Robert Martin
Chairperson
Morongo Band of Mission Indians
12700 Pumarra Road, Banning, CA, 92220
951-849-8807
dtorres@morongo-nsn.gov

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Martin,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

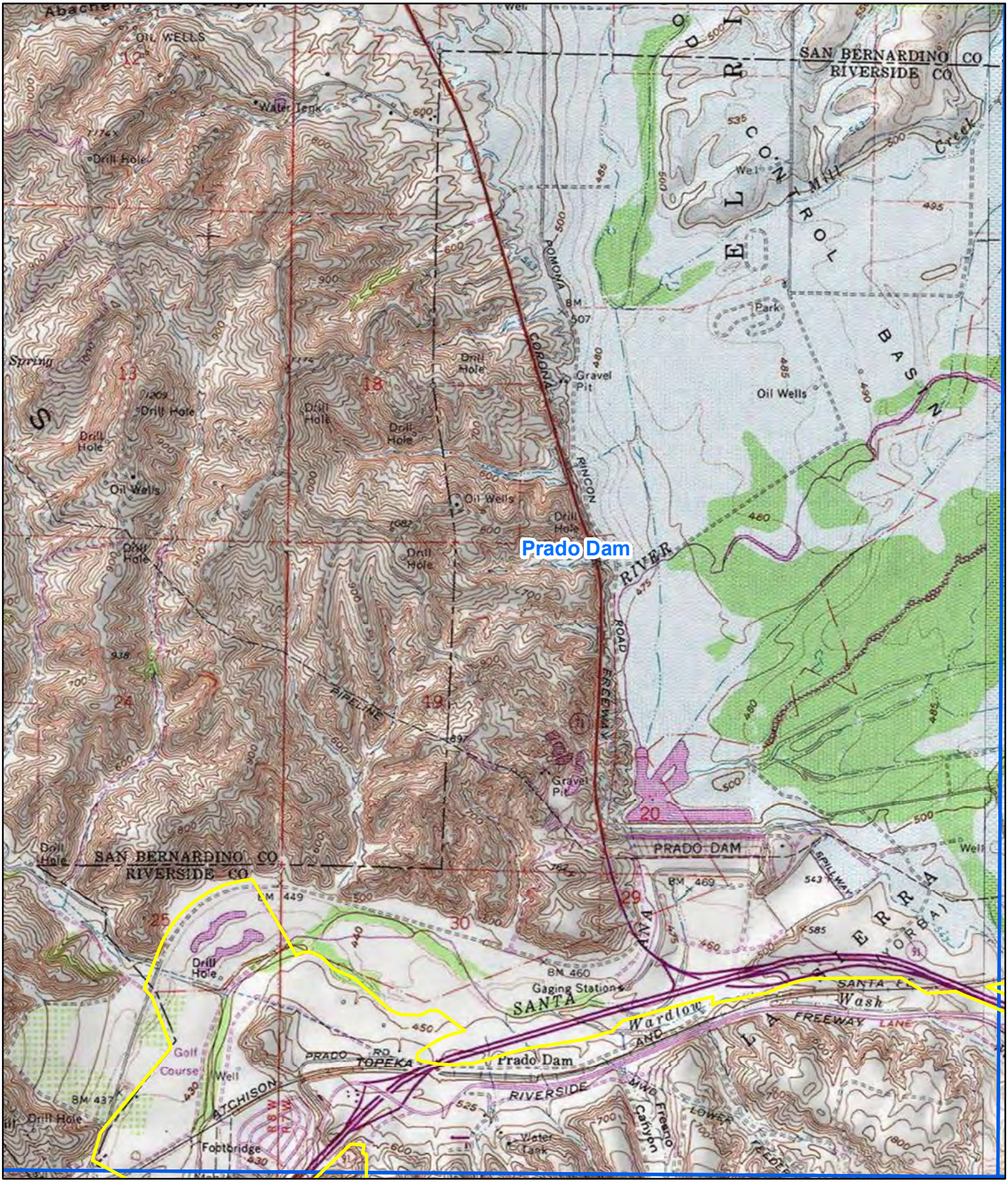


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

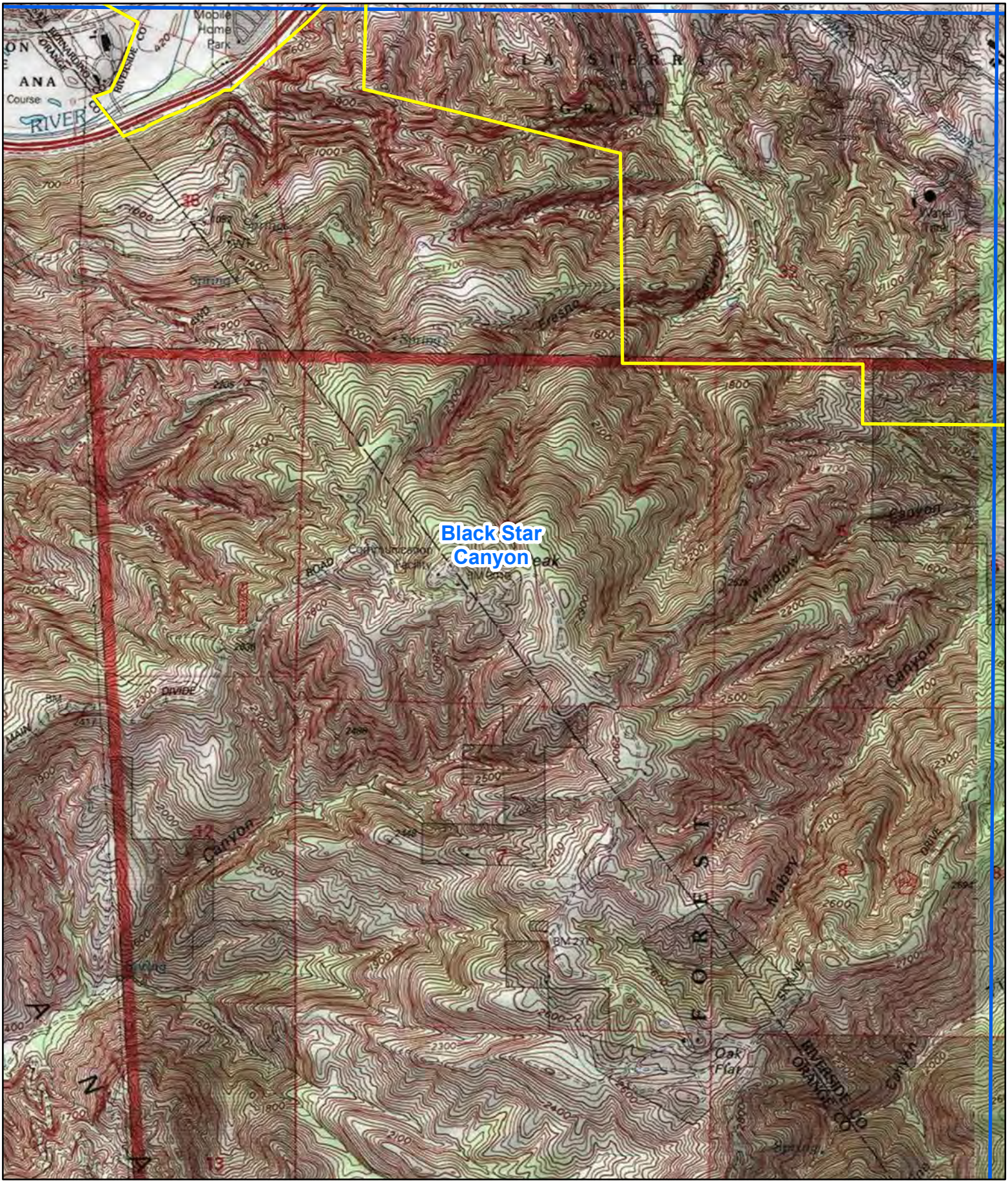
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

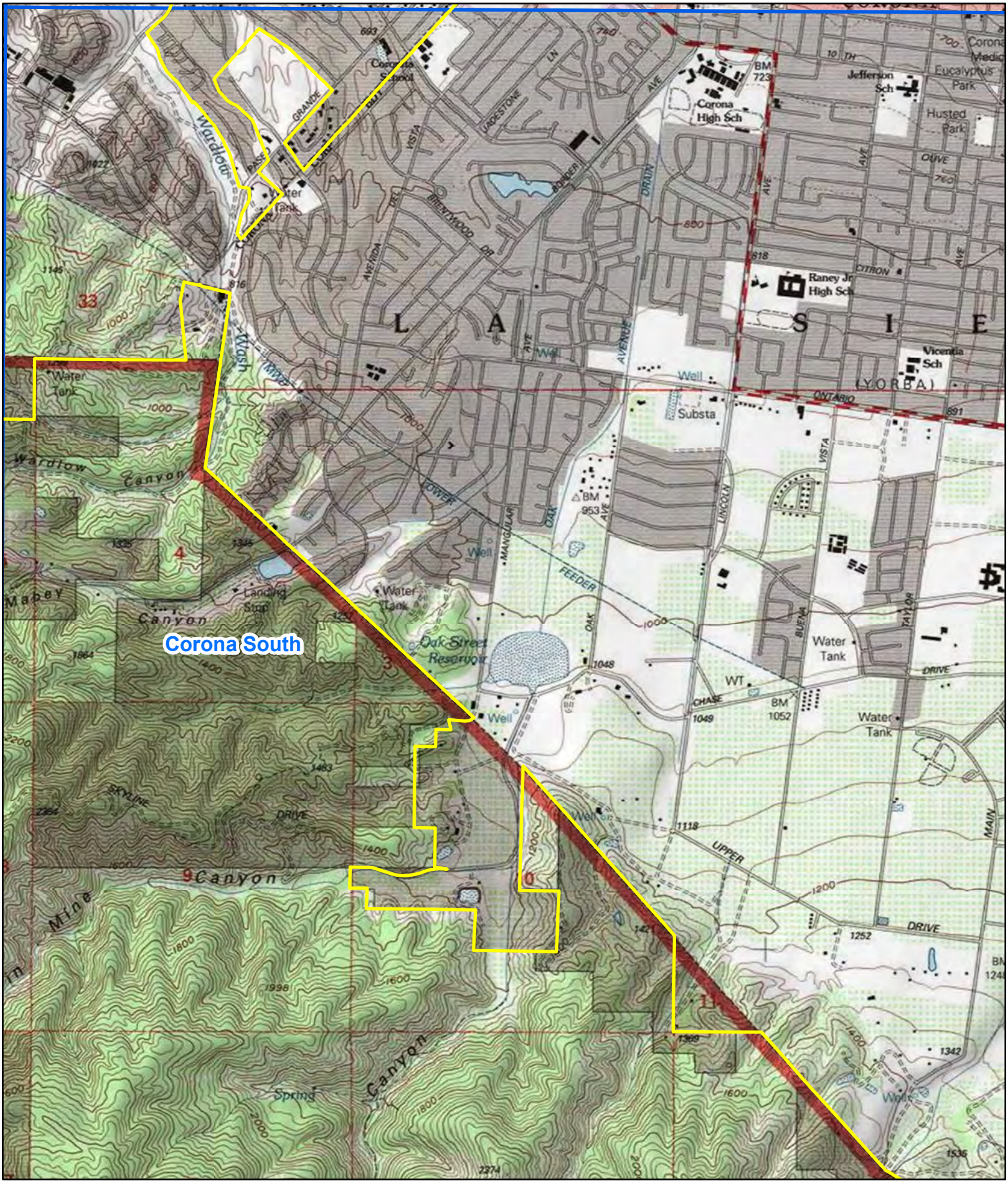
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

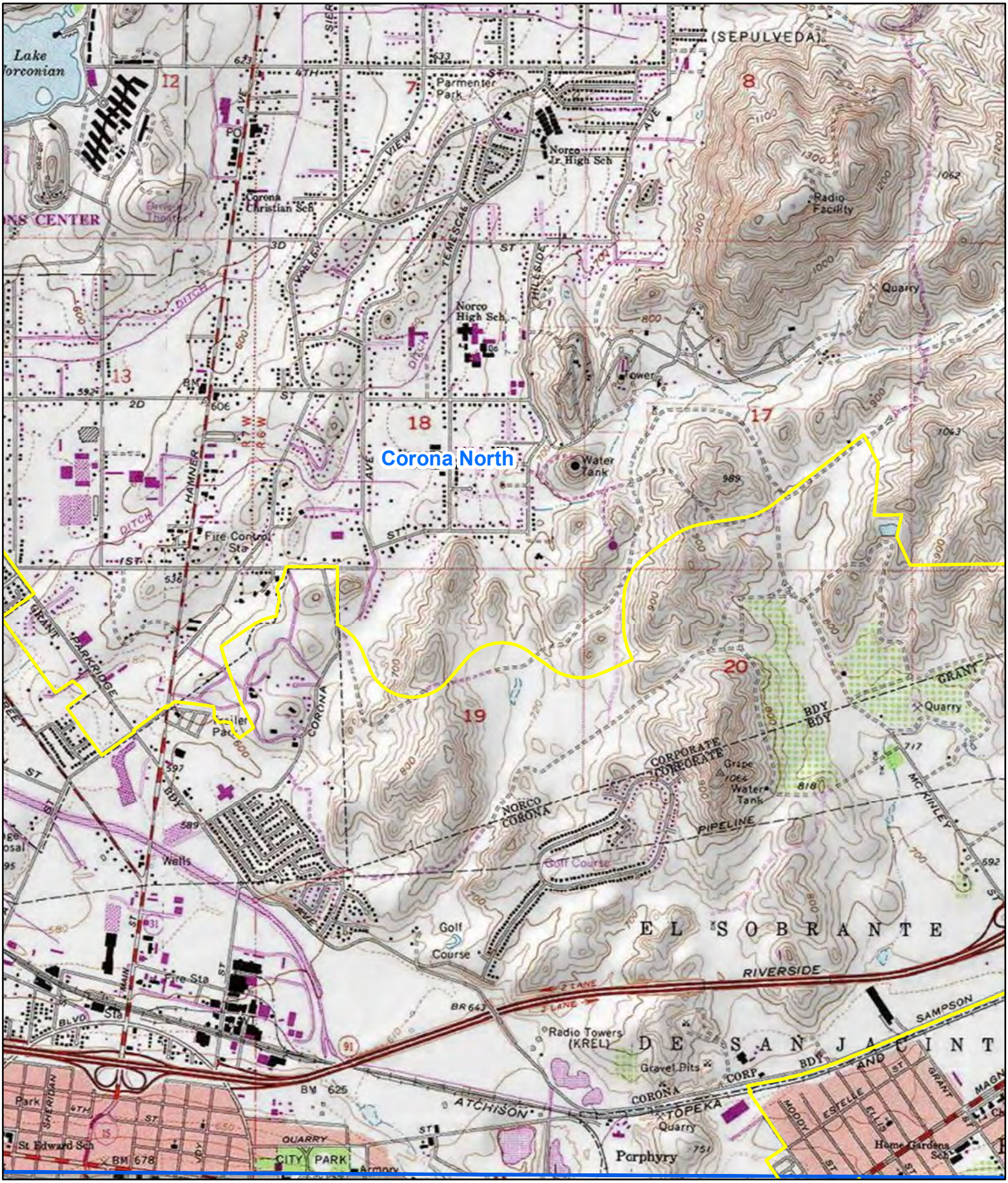
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

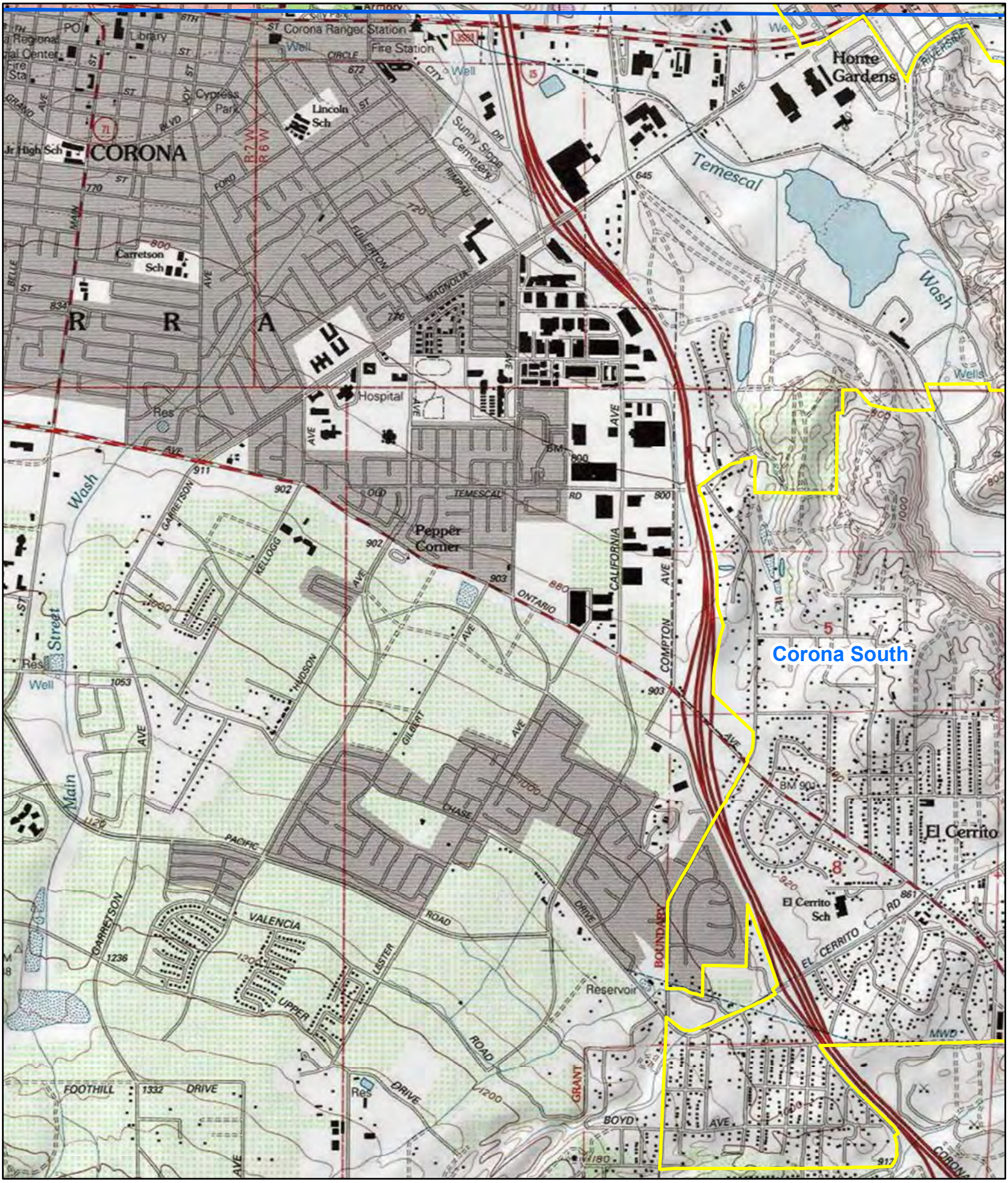


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

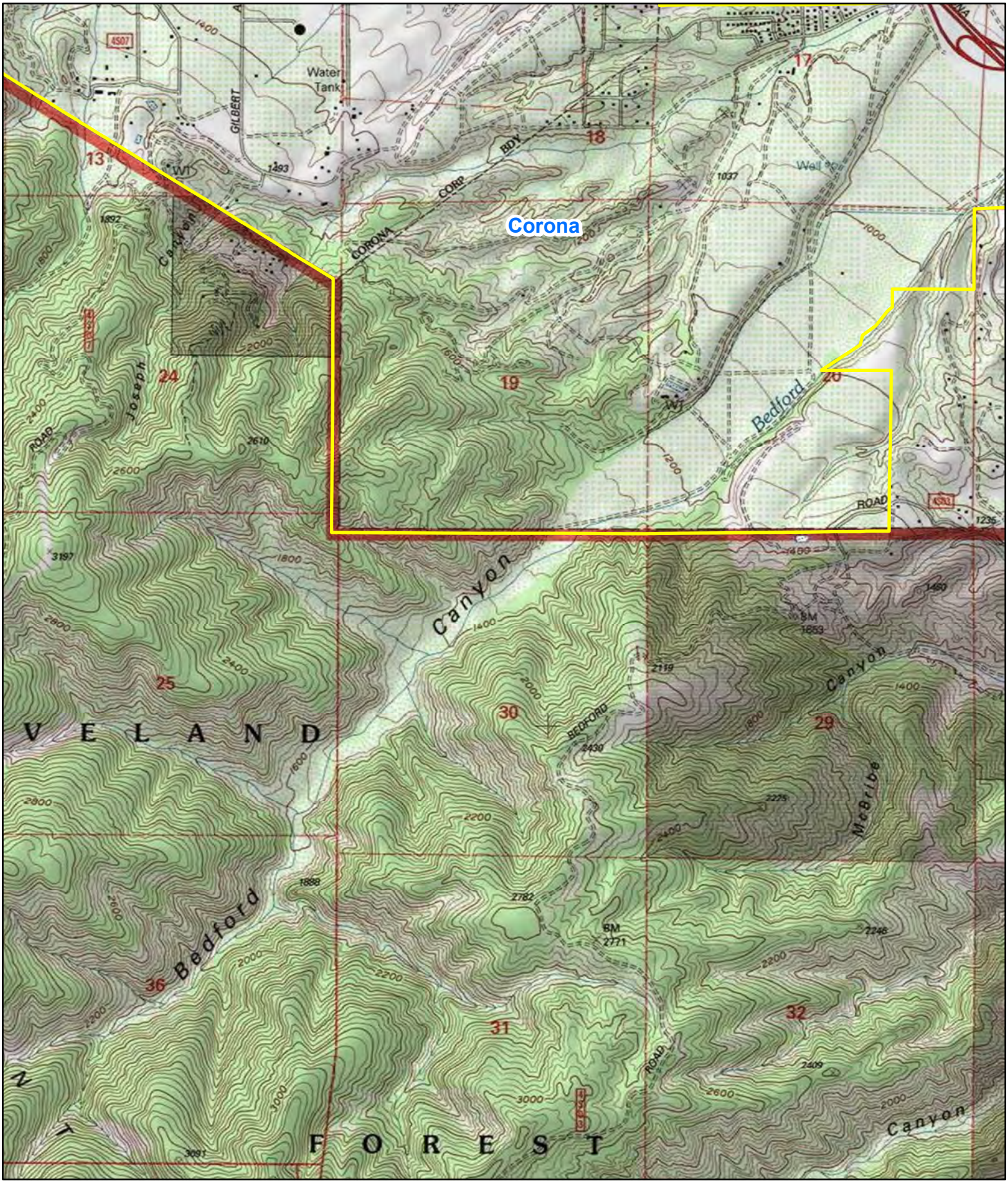
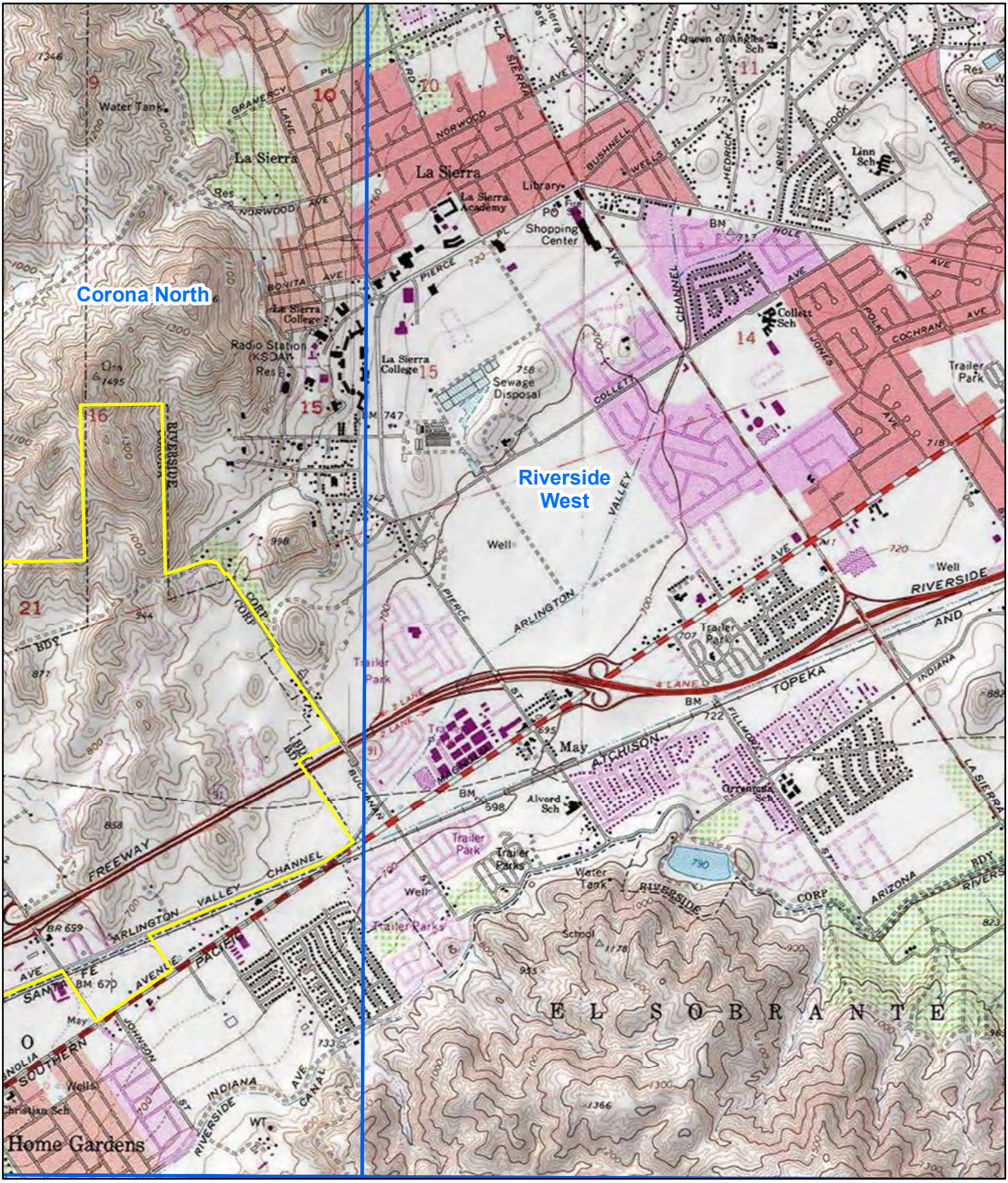


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

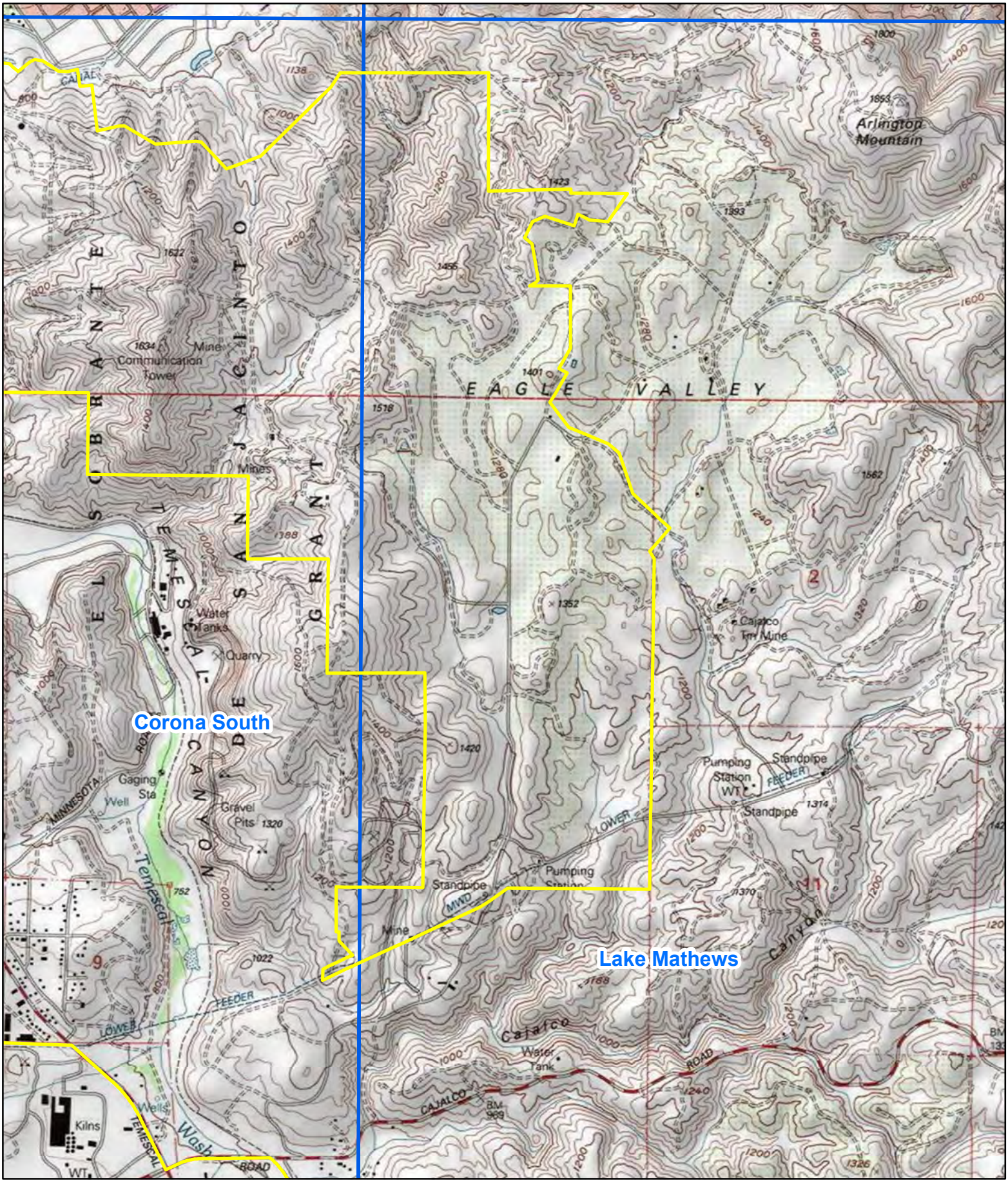
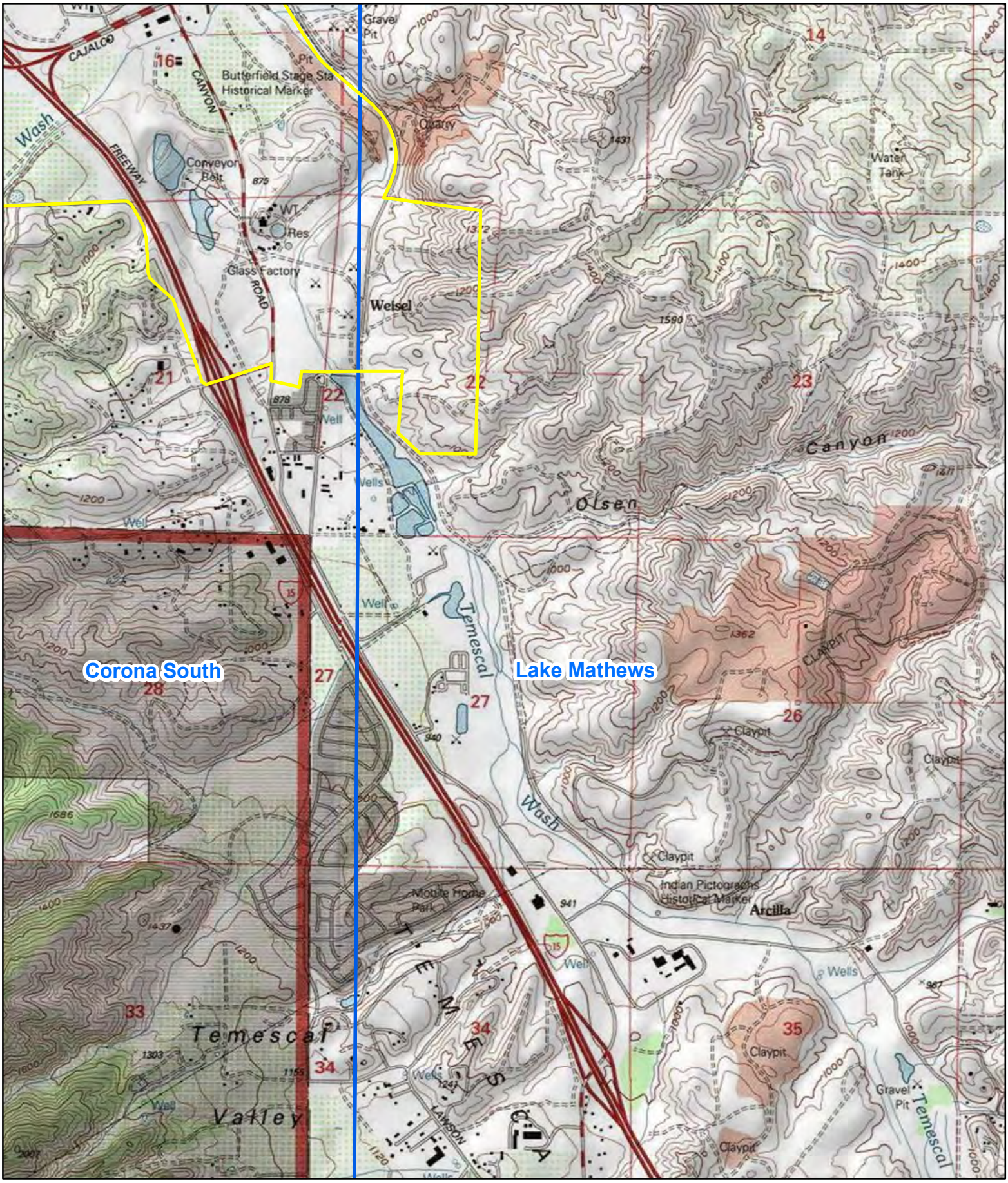


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Robert Pinto
Chairperson
Ewiiaapaayp Tribe
4054 Willows Road, Alpine, CA, 91901
619-445-6315
wmicklin@leaningrock.net

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Pinto,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

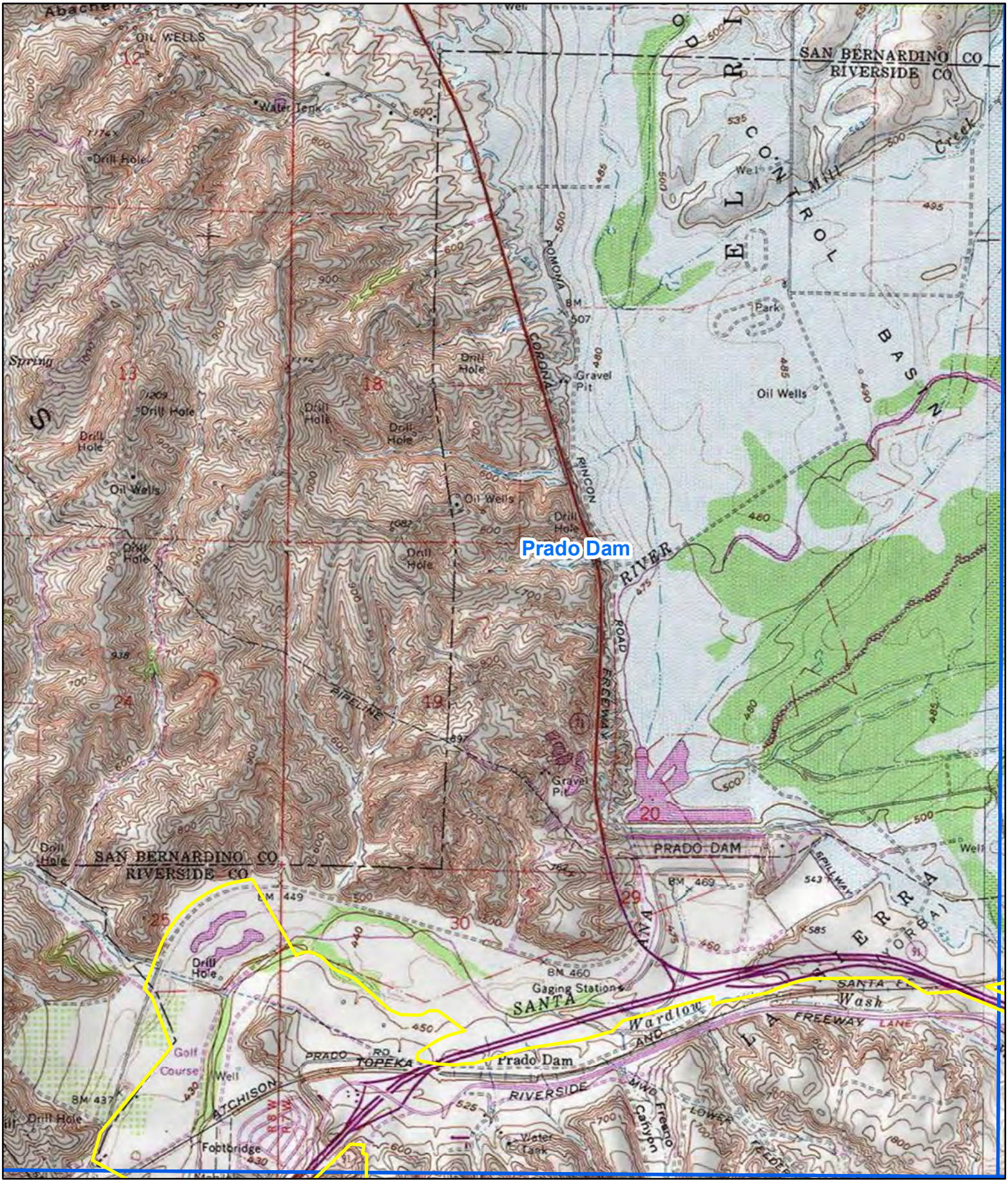


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

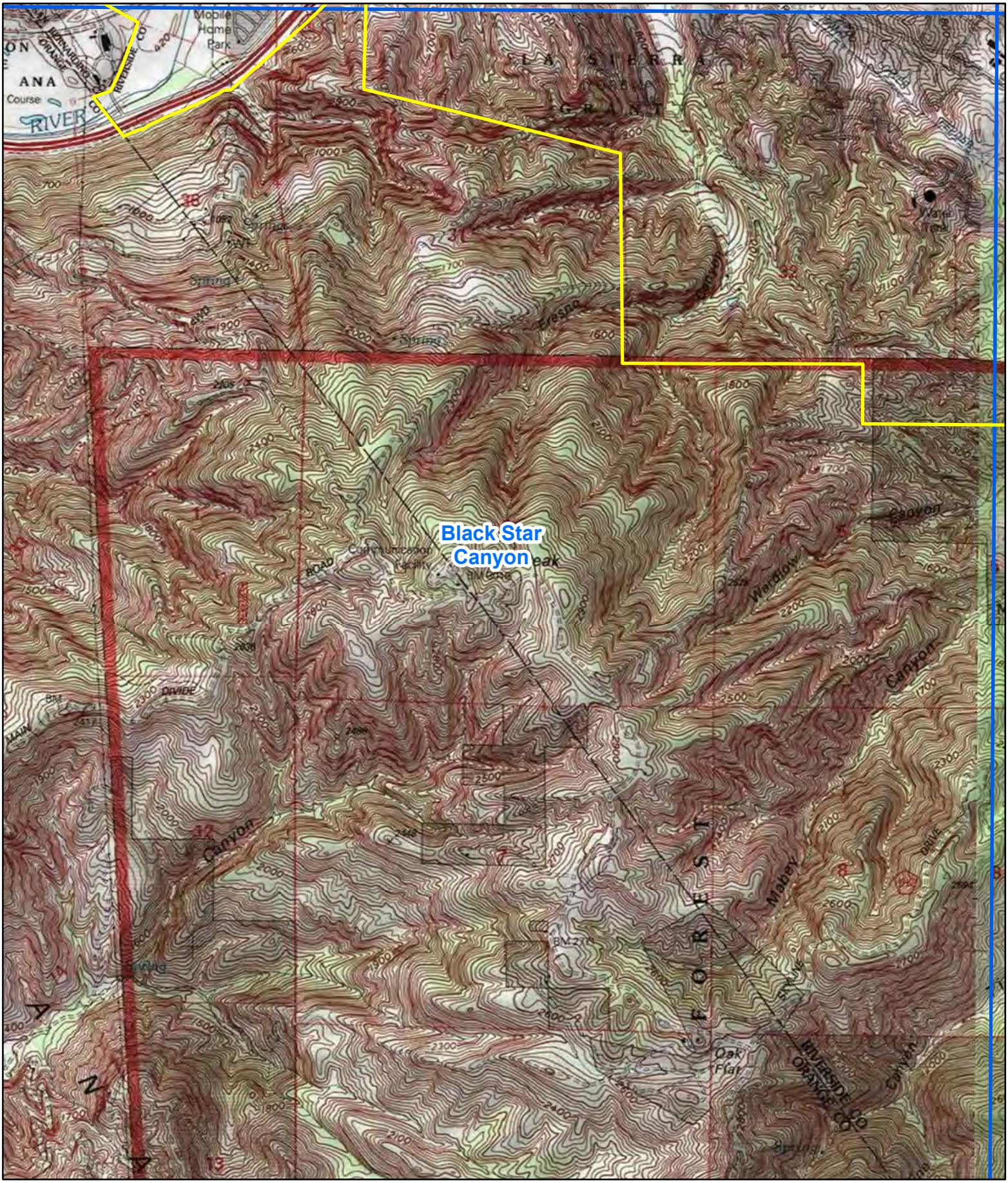
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

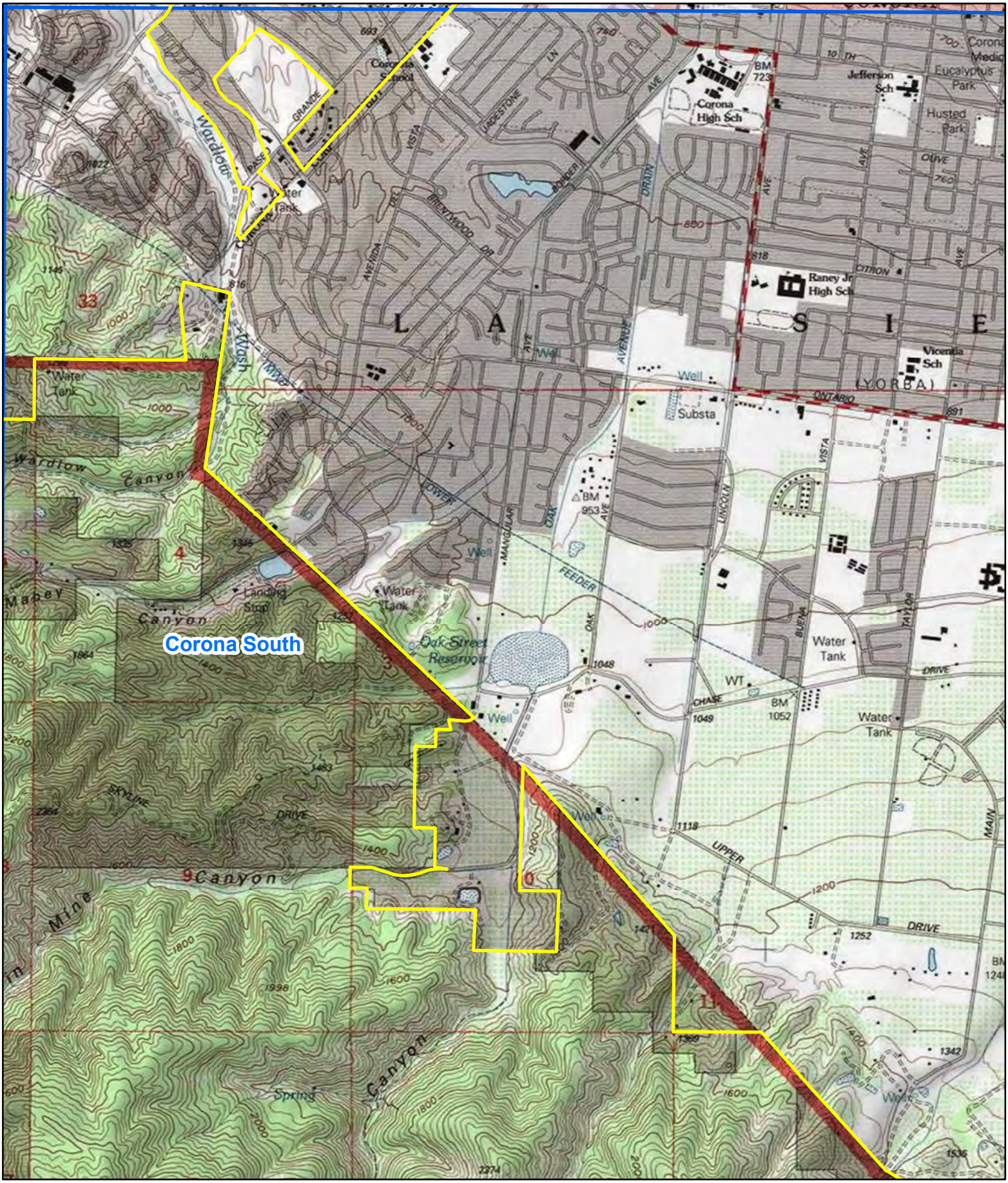
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

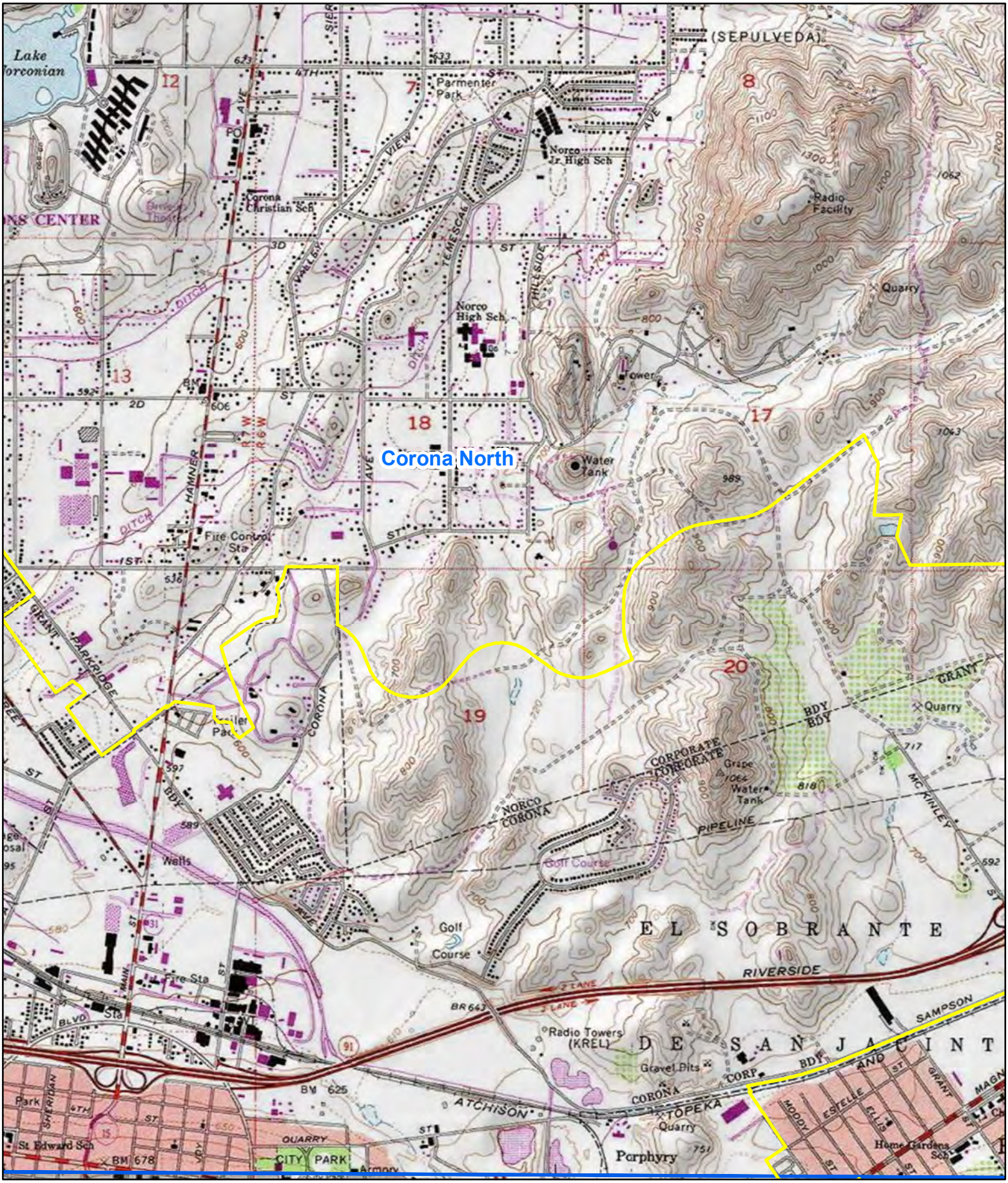
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

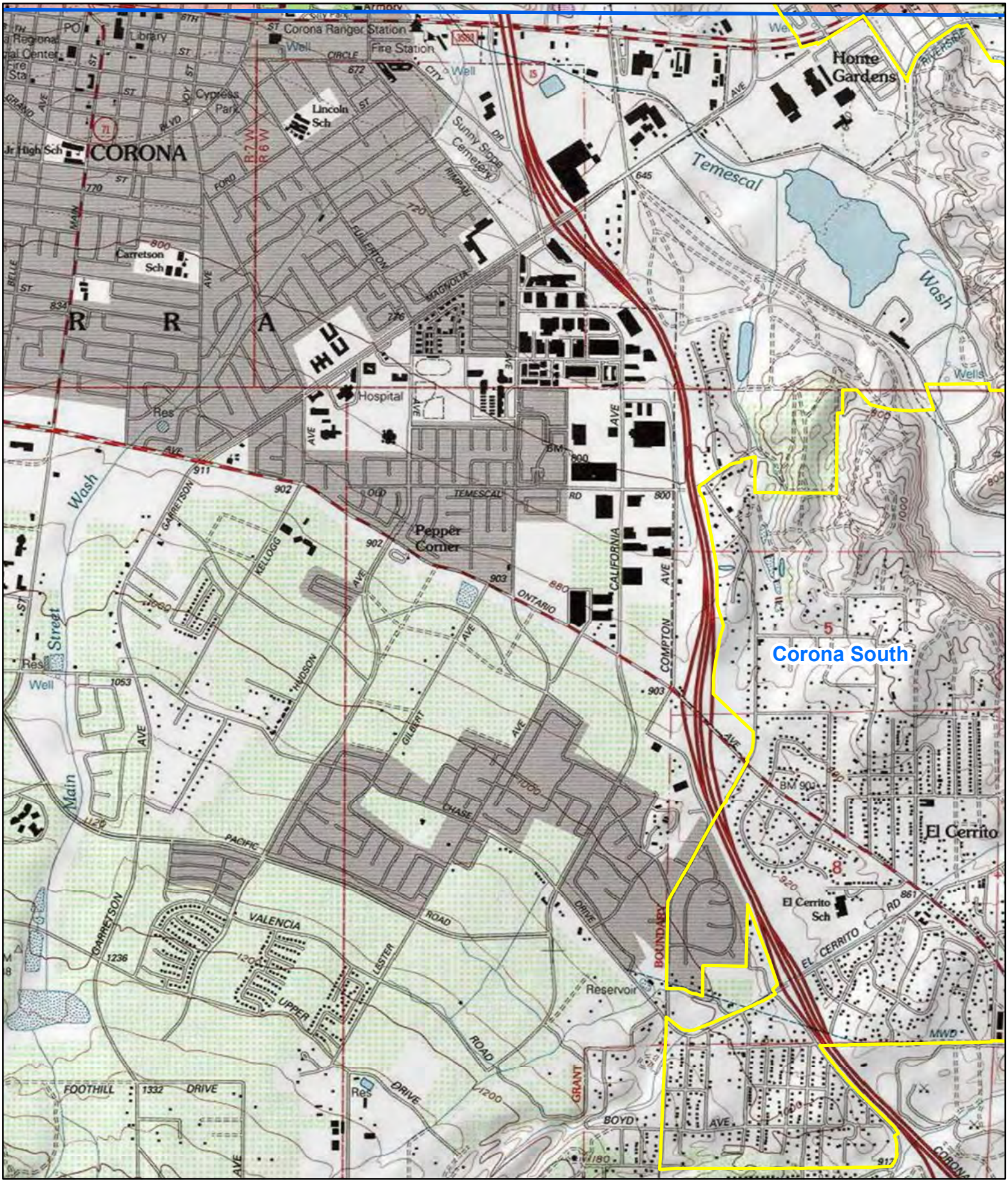


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

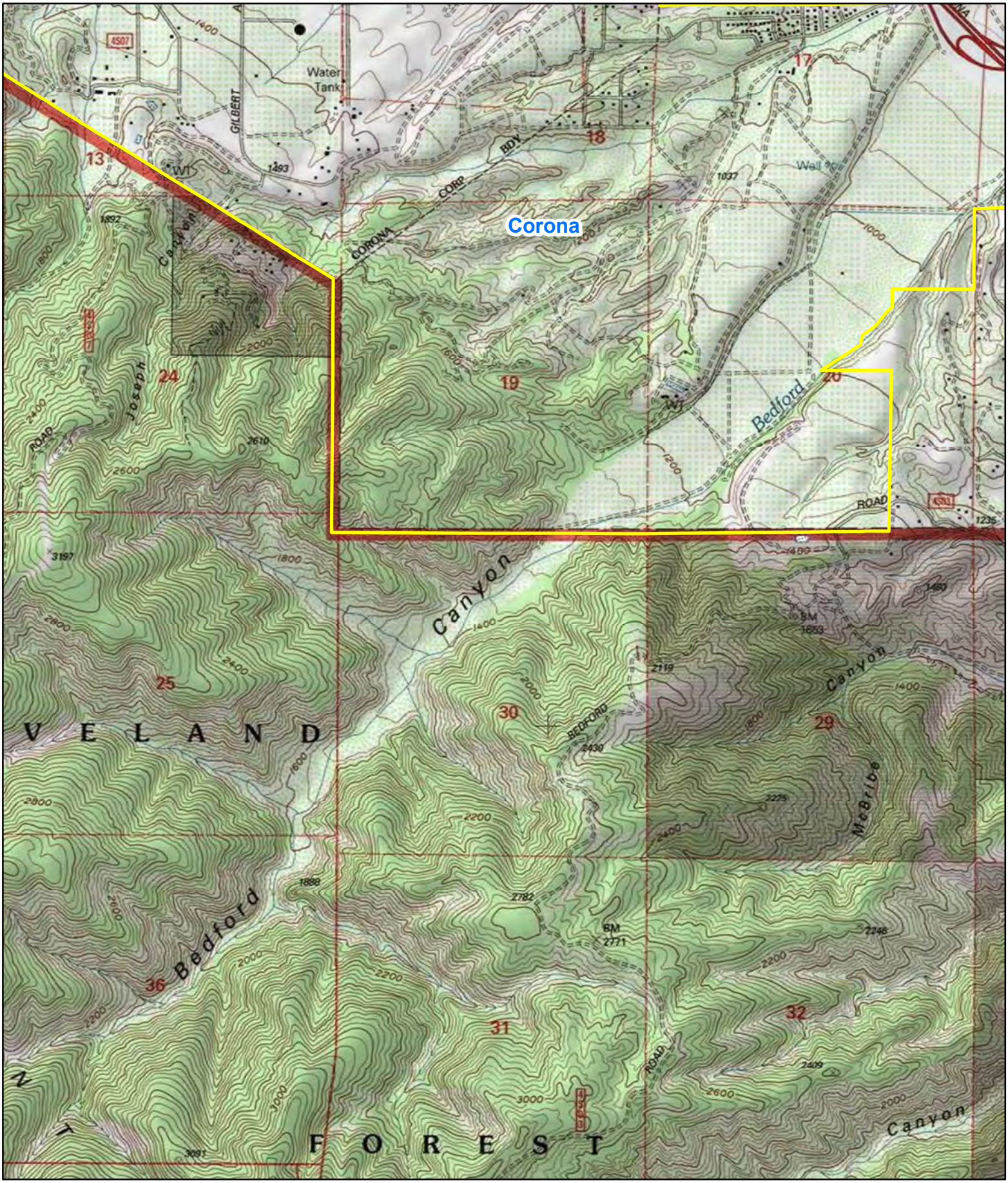
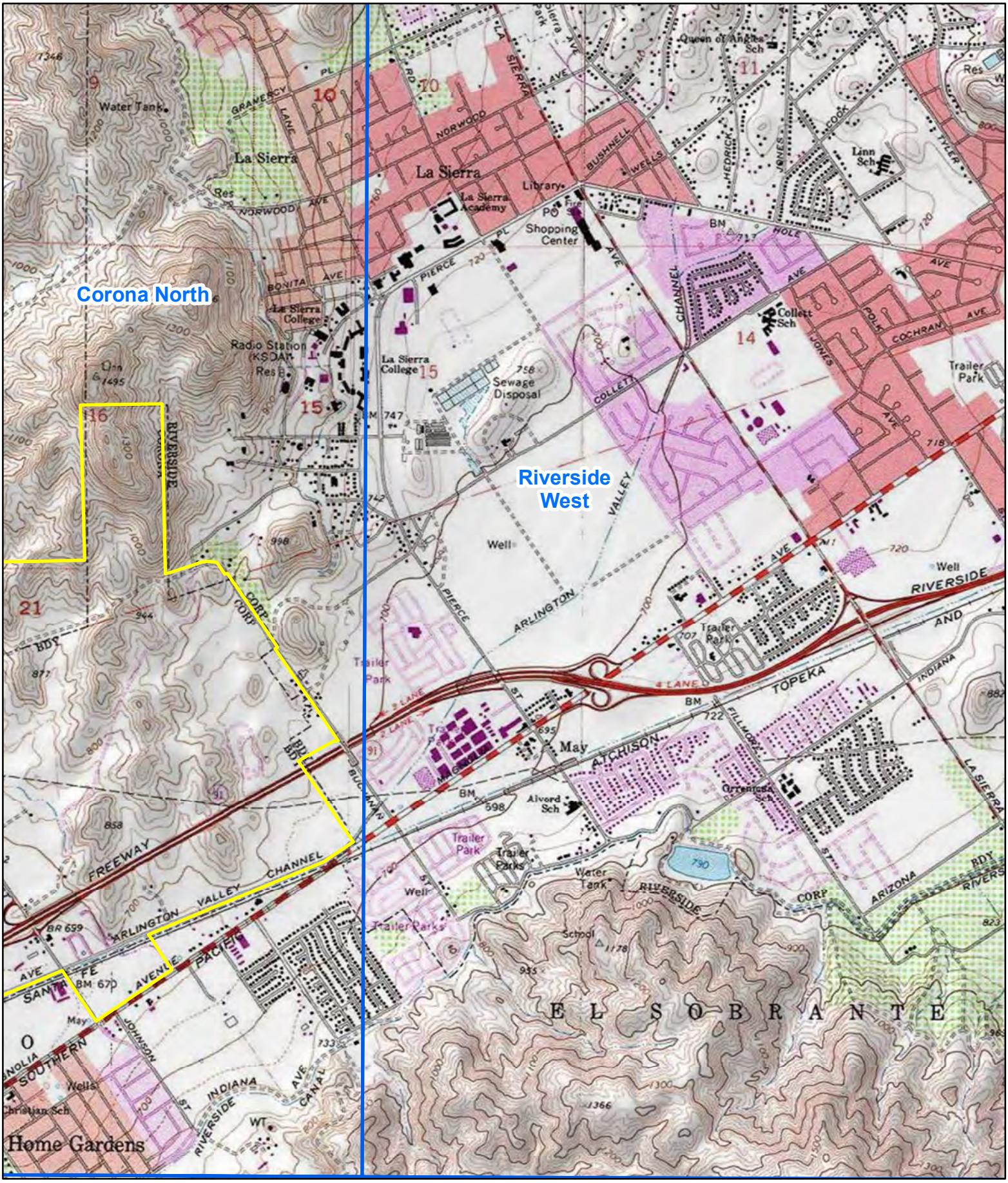


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

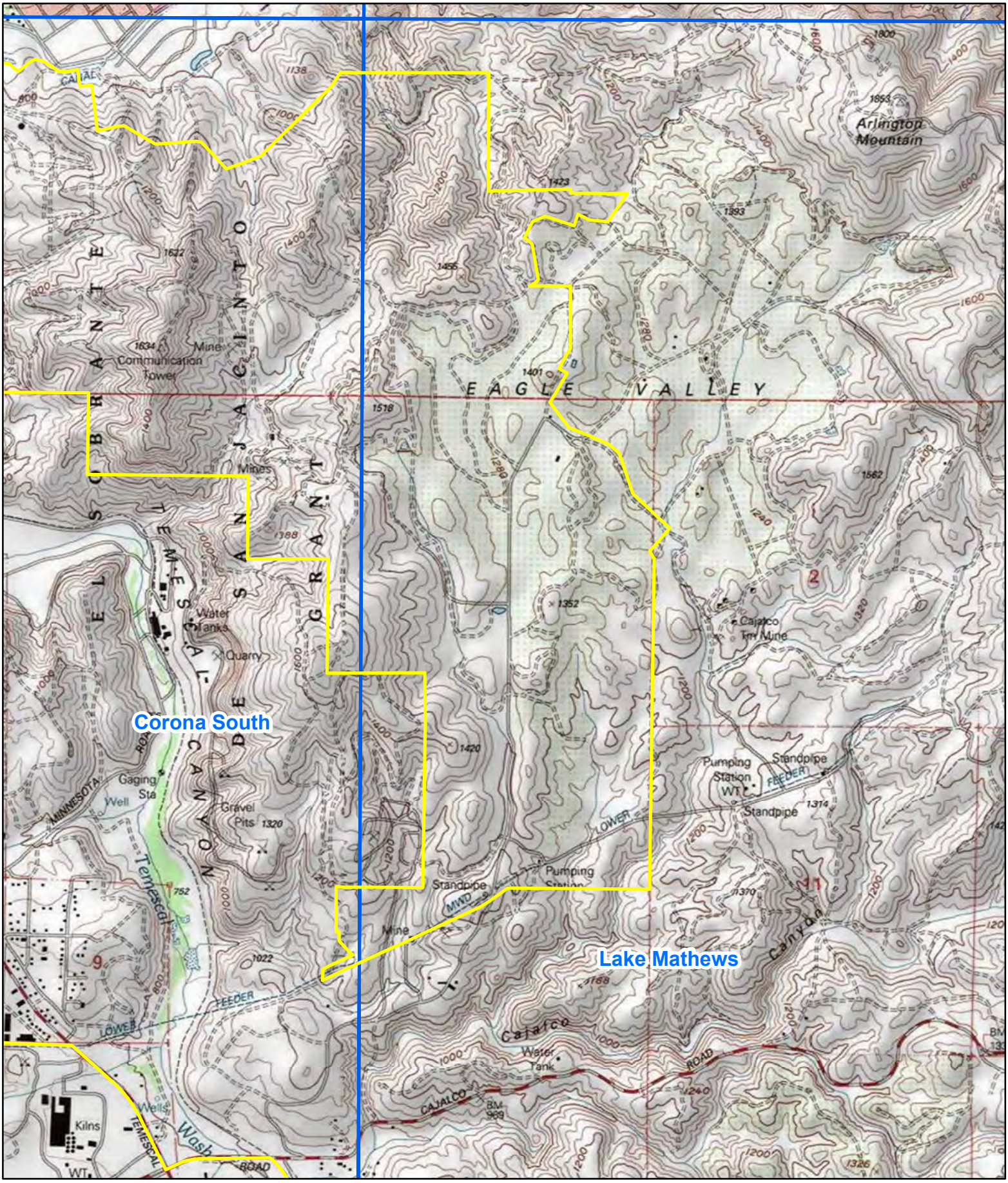
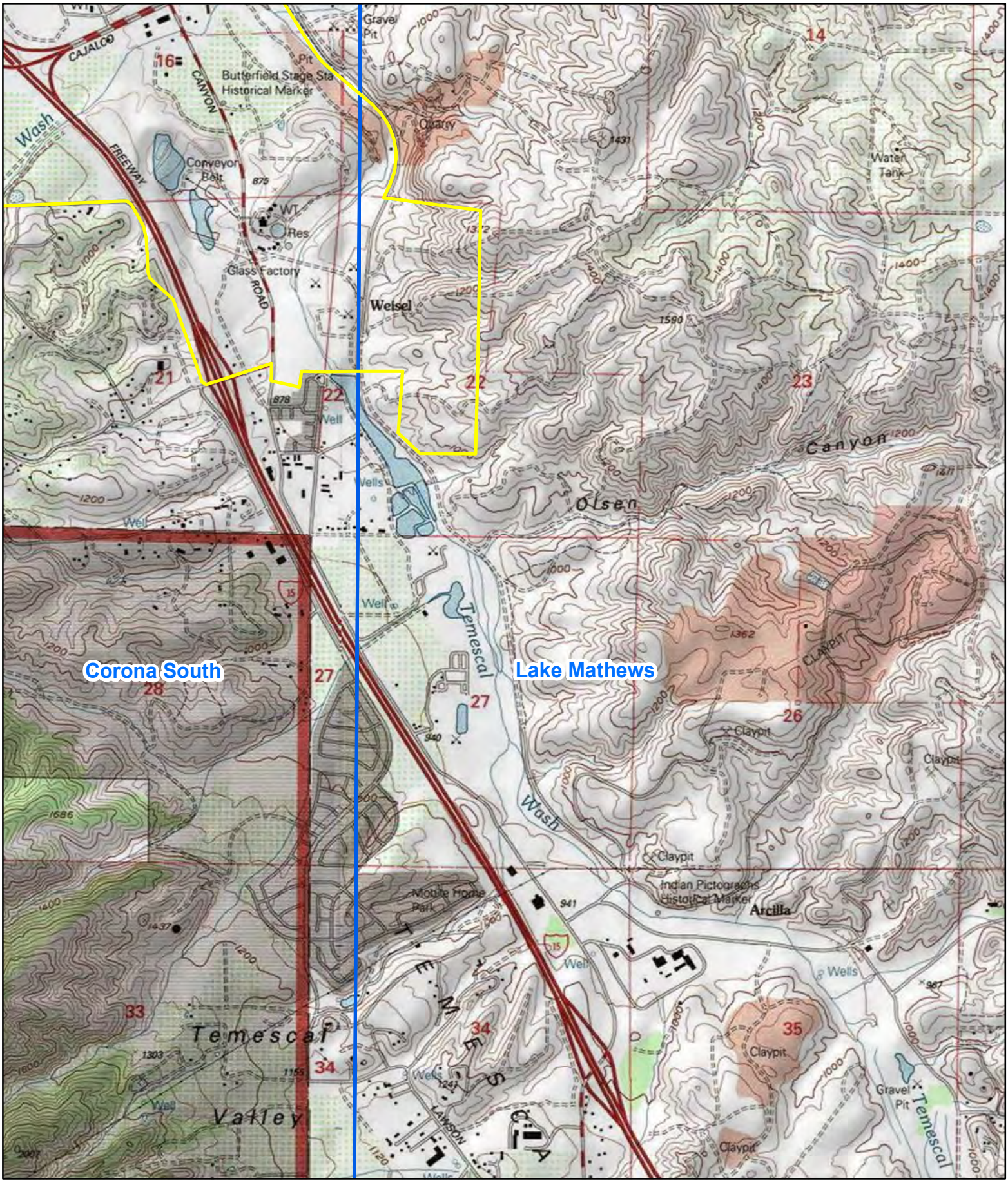


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Shane Chapparosa
Chairperson
Los Coyotes Band of Cahuilla and Cupeño Indians
PO Box 189, Warner Springs, CA, 92086-0189
760-782-0711

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Chapparosa,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

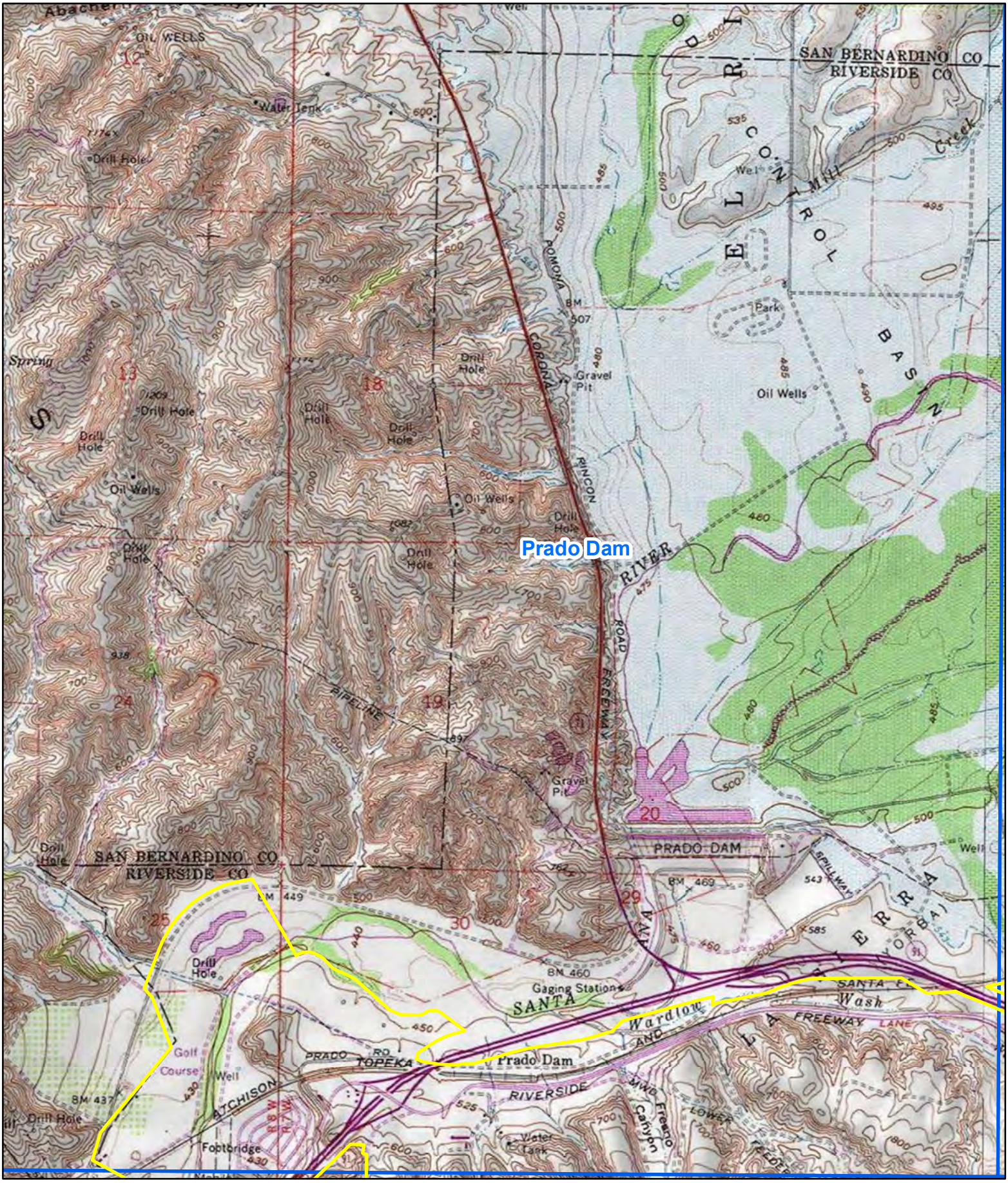


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

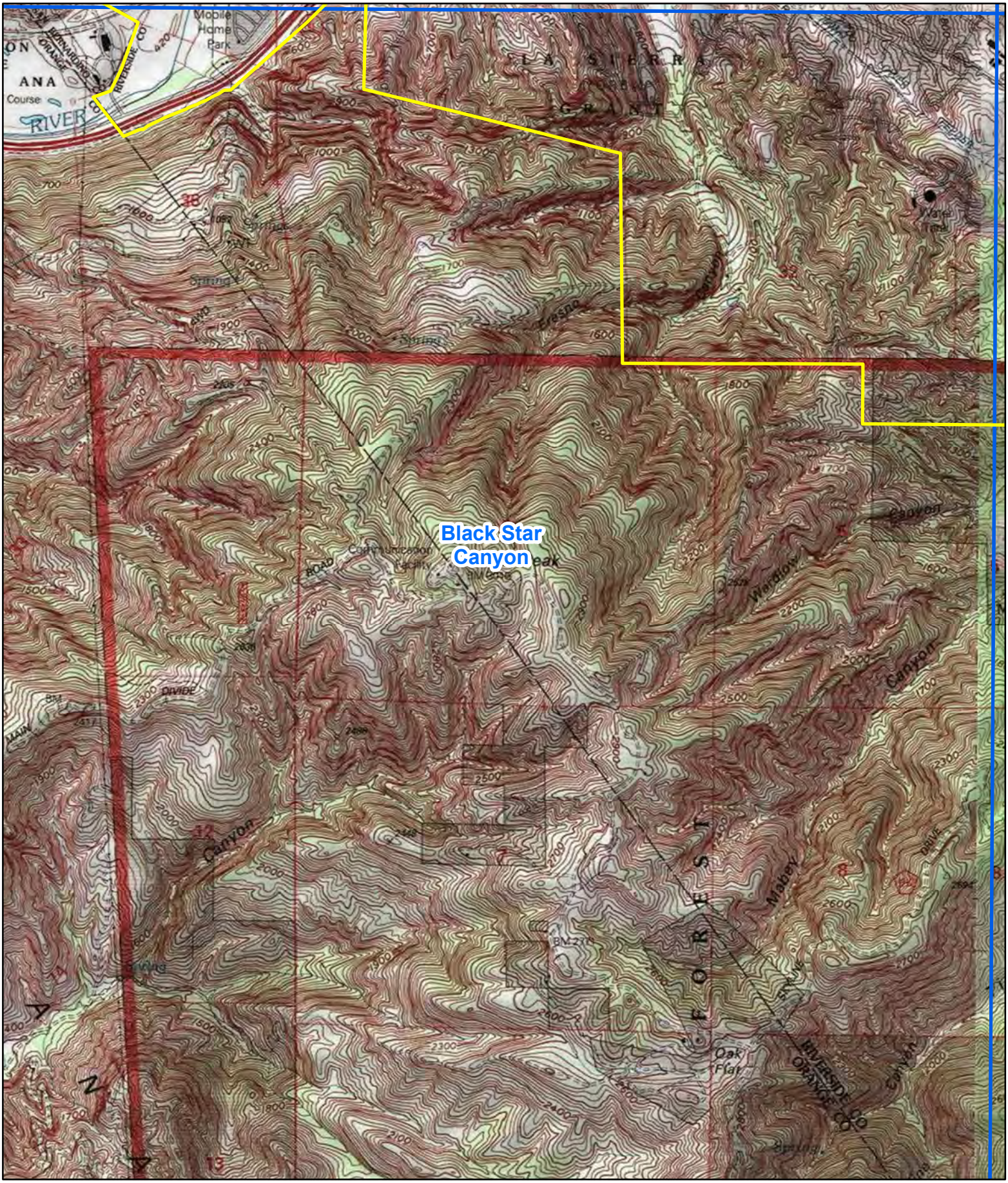
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

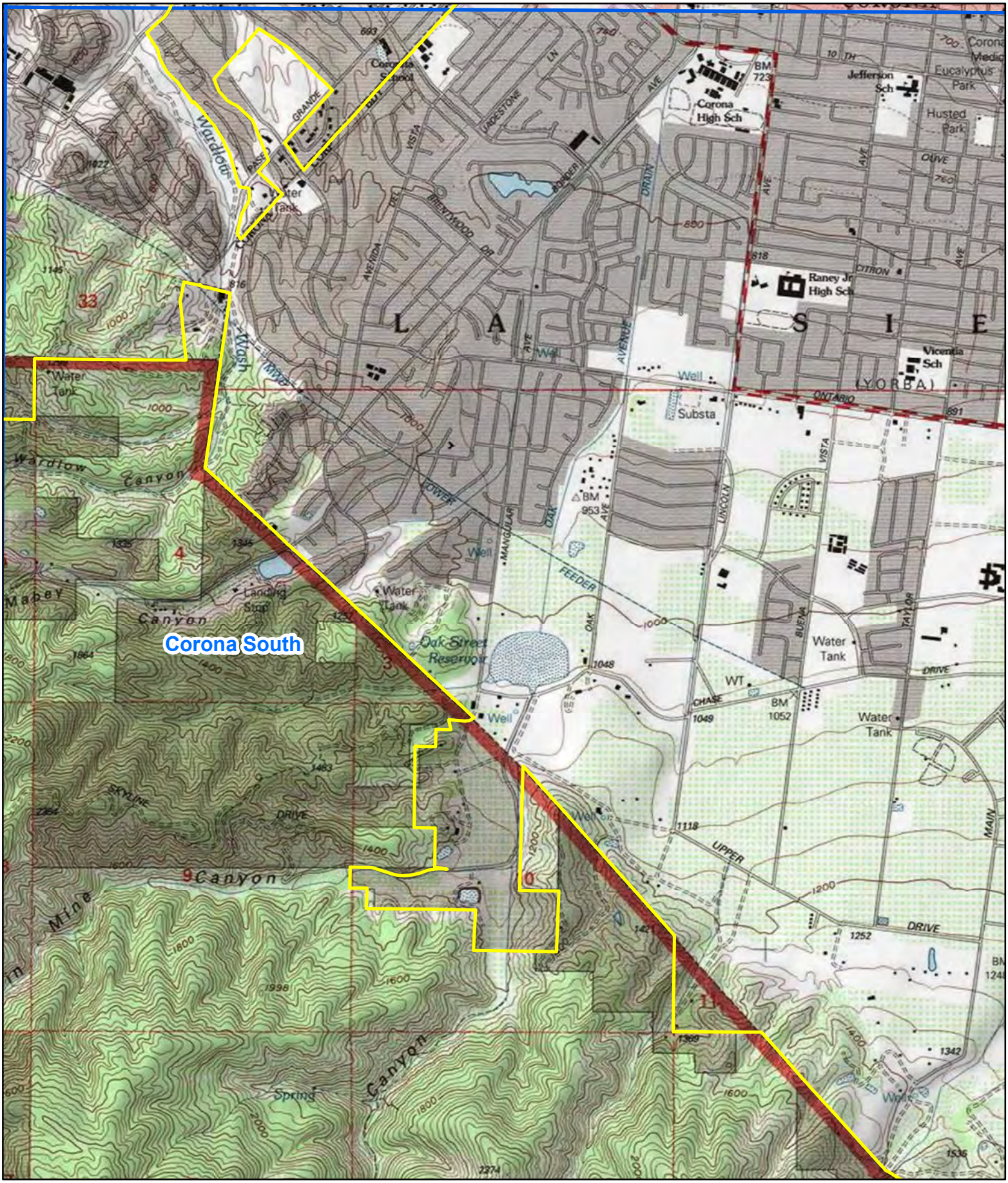
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

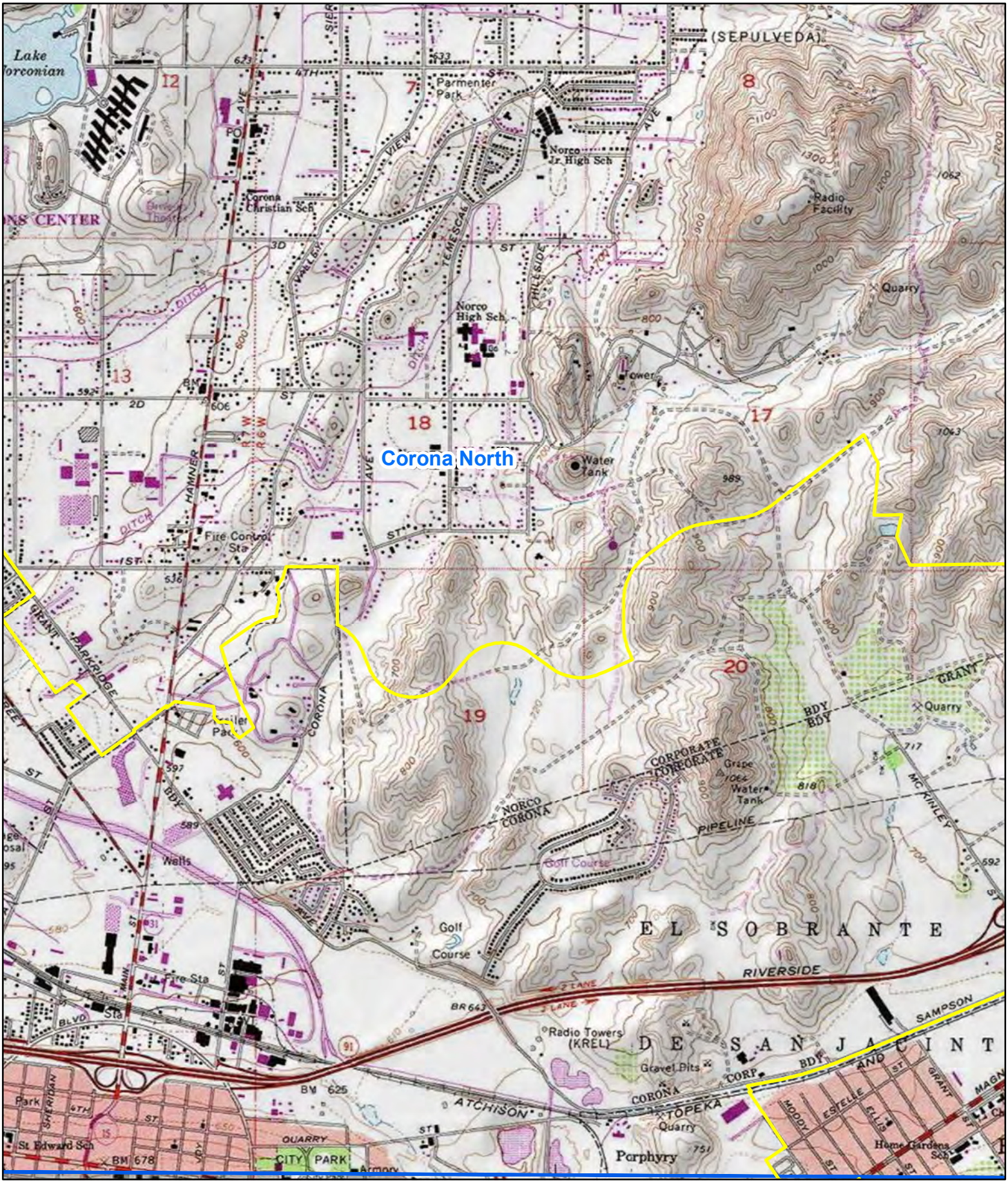
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

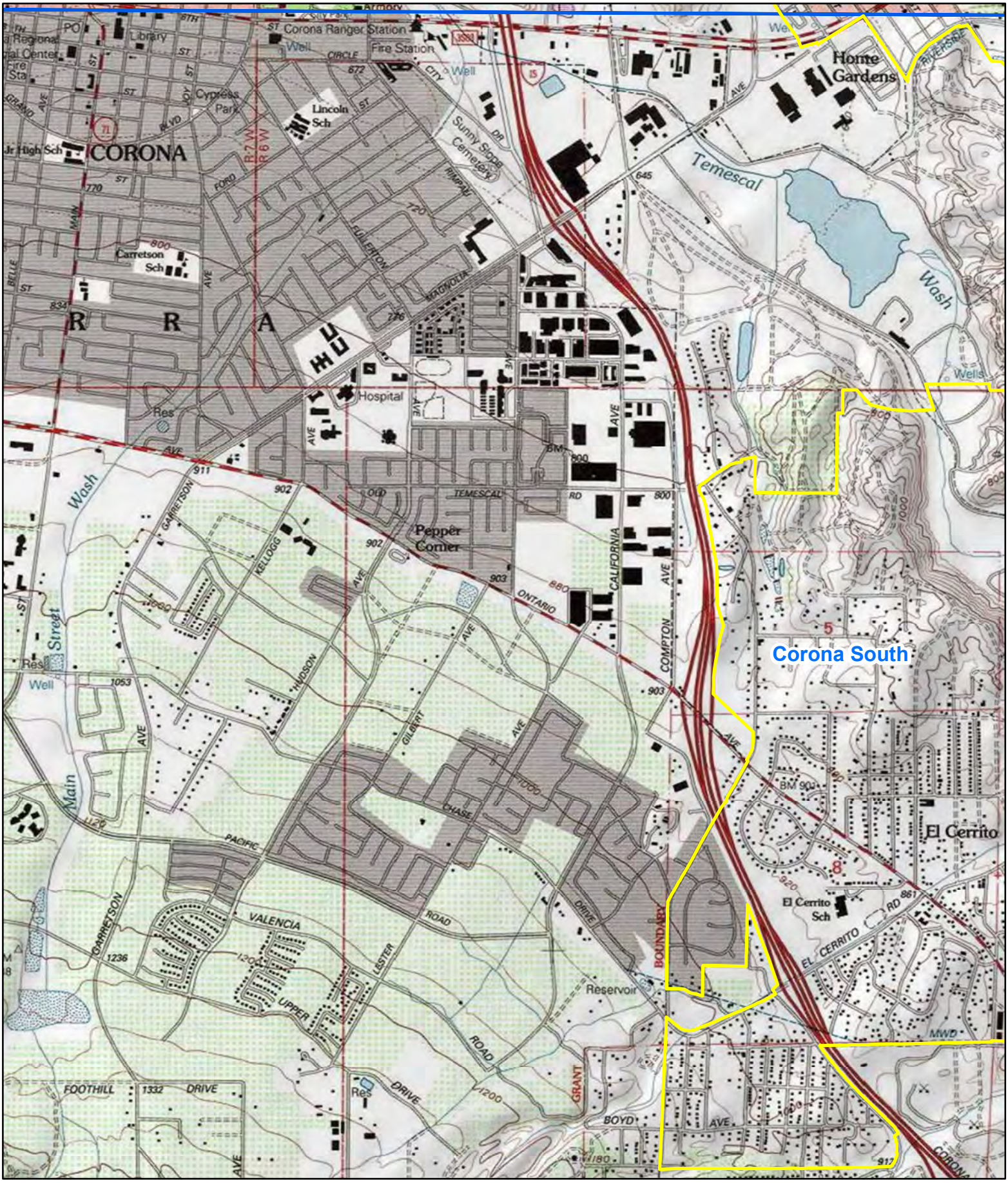


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

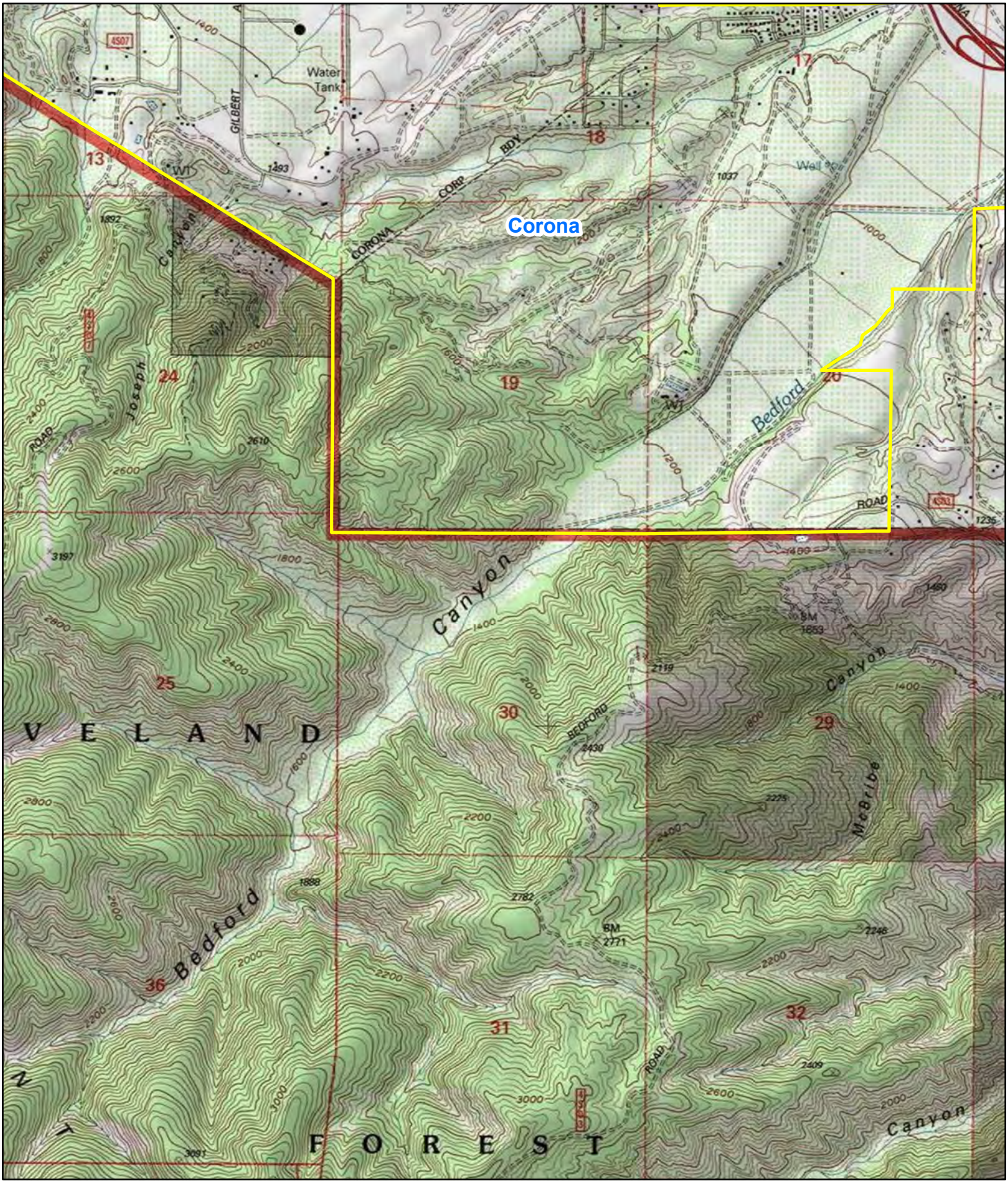
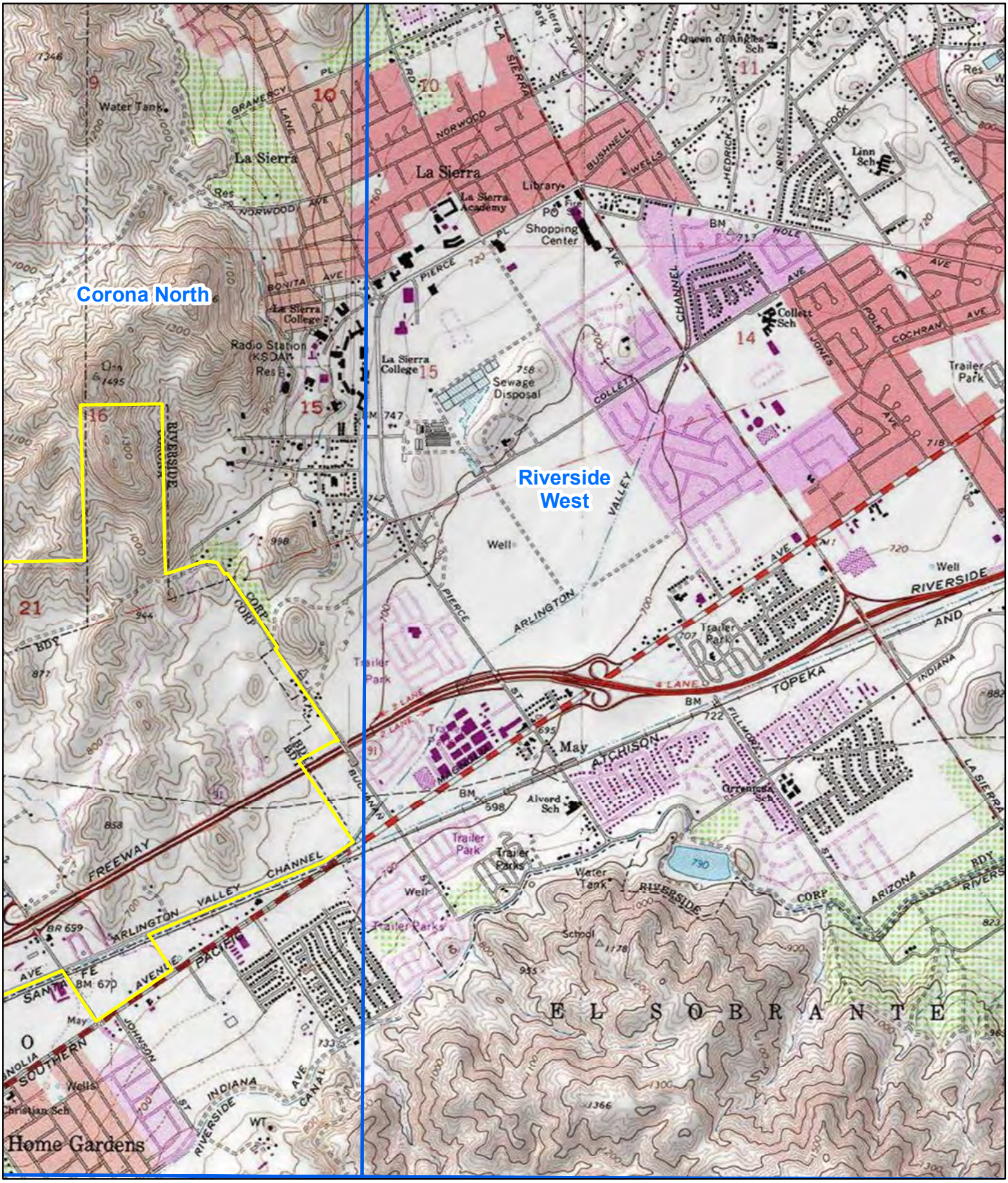


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

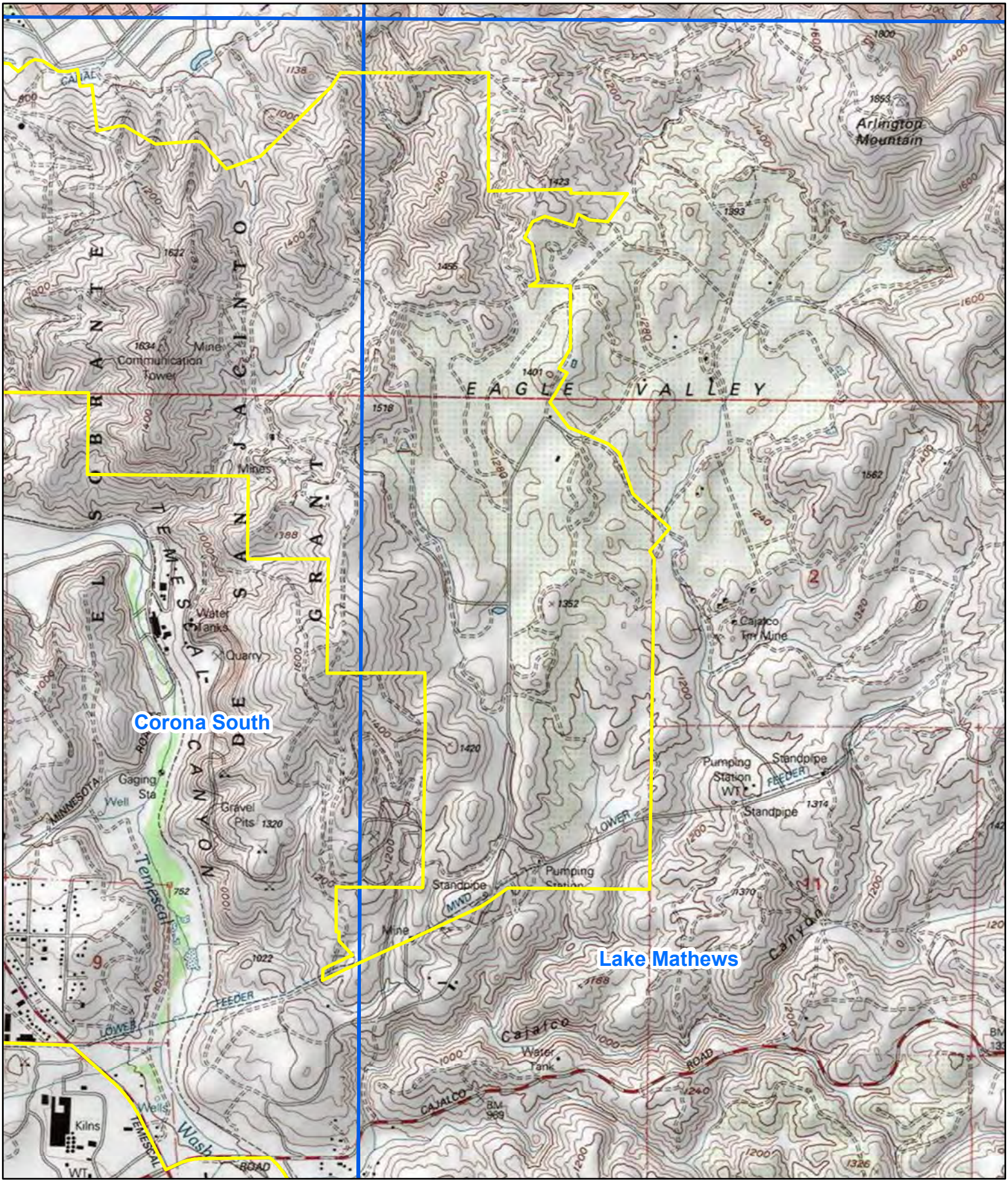
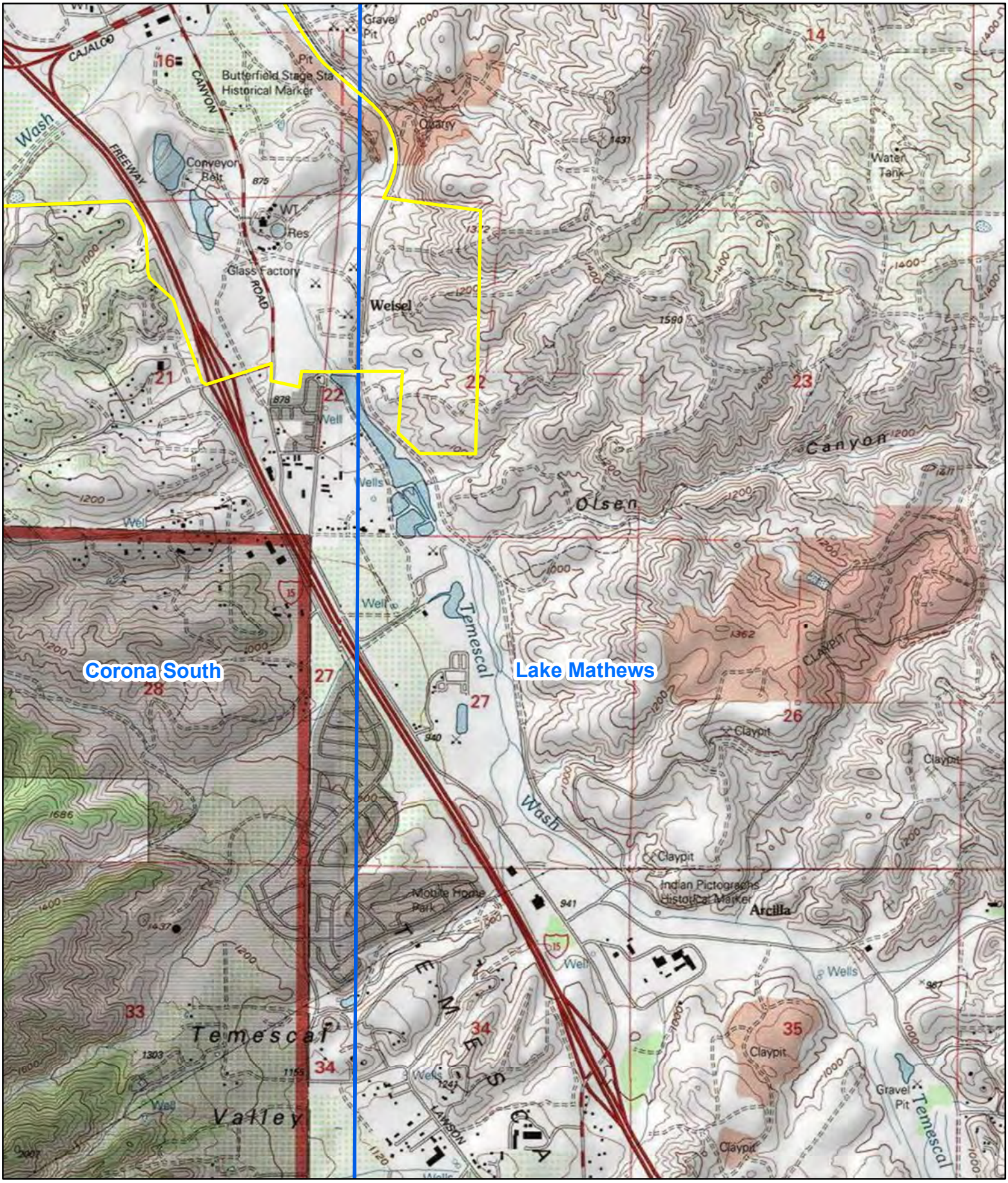


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Scott Cozart
Chairperson
Soboba Band of Luiseno Indians
PO Box 487, San Jacinto, CA, 92583
951-654-2765
jontiveros@soboba-nsn.gov

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Cozart,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

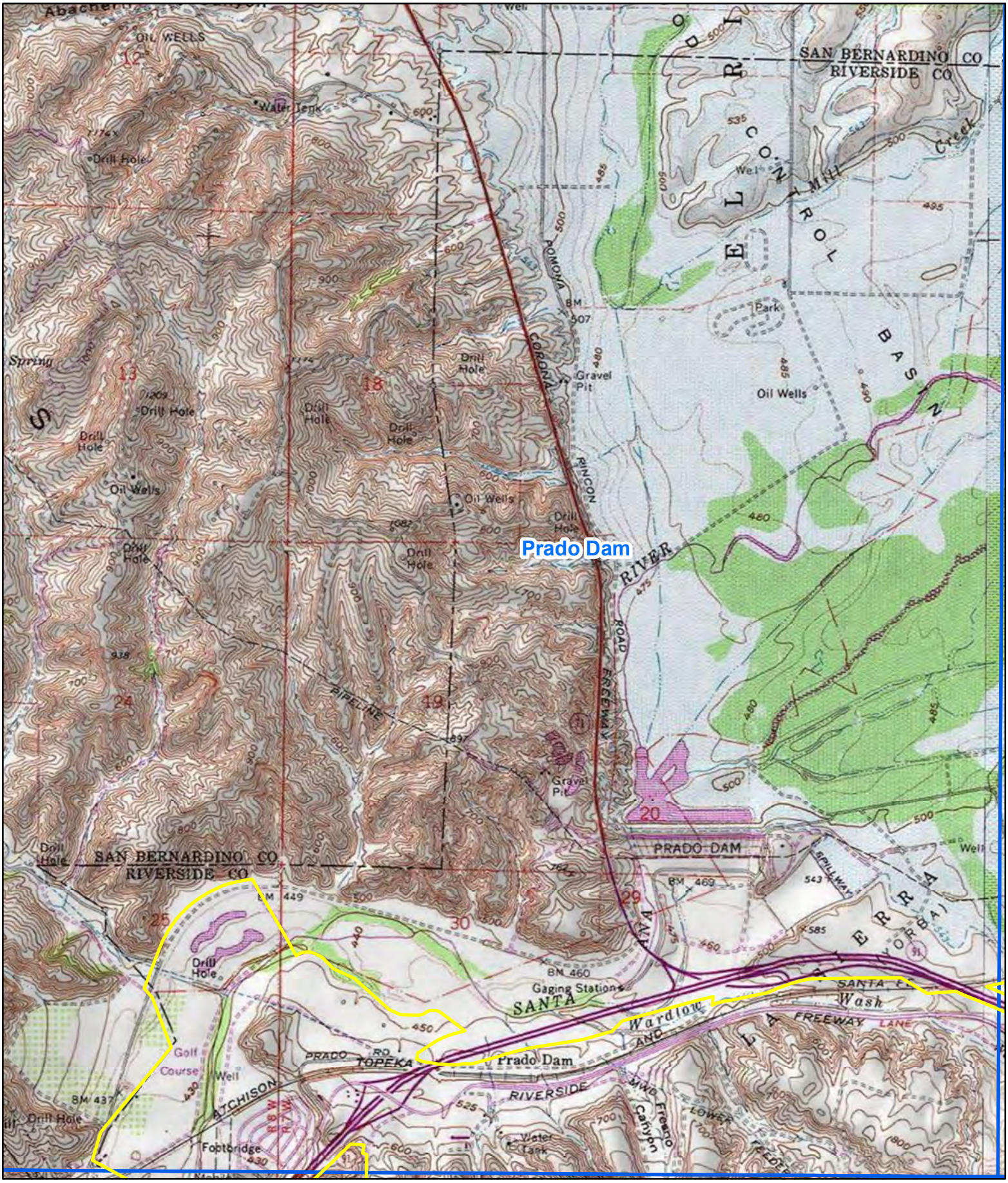


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

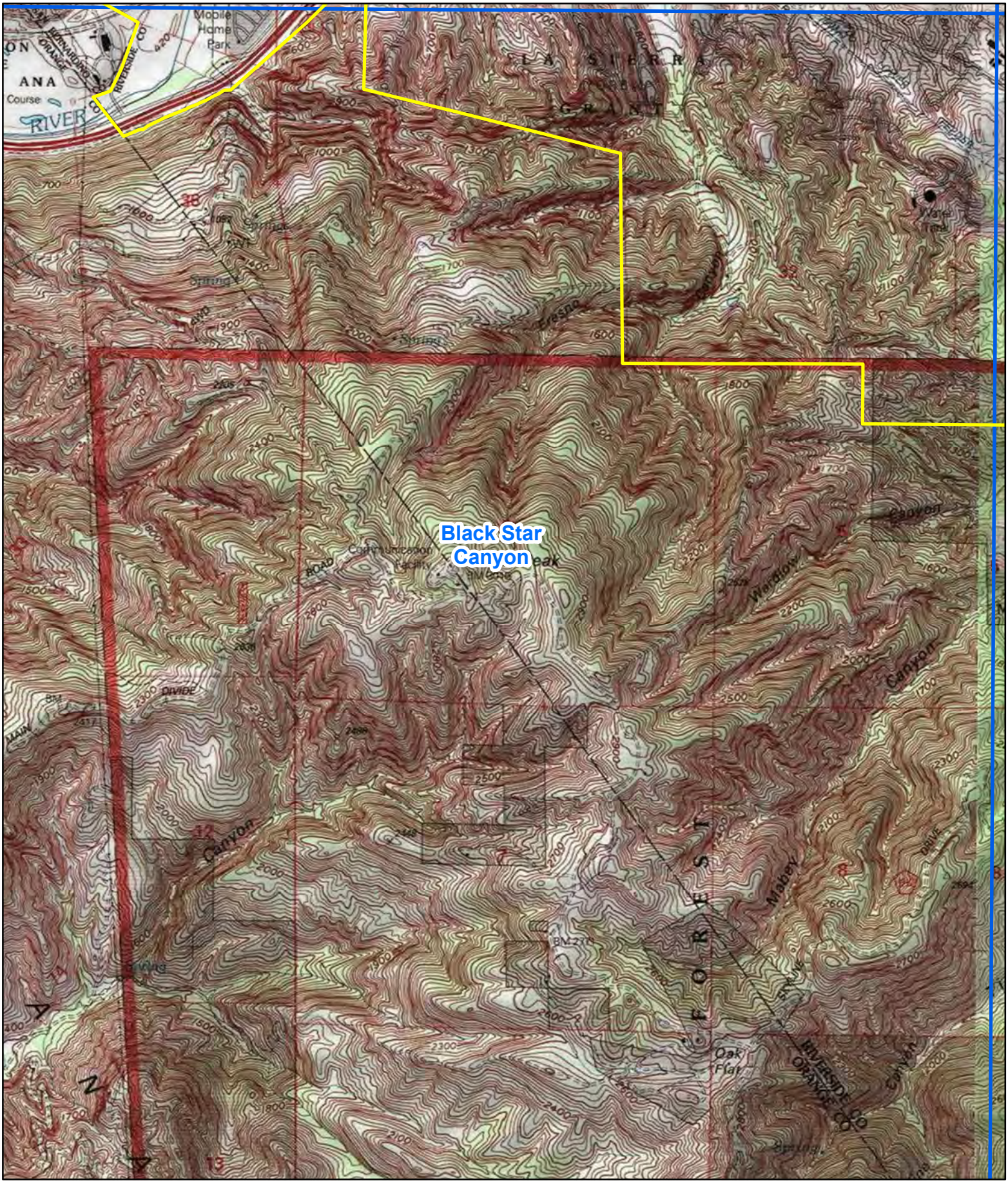
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

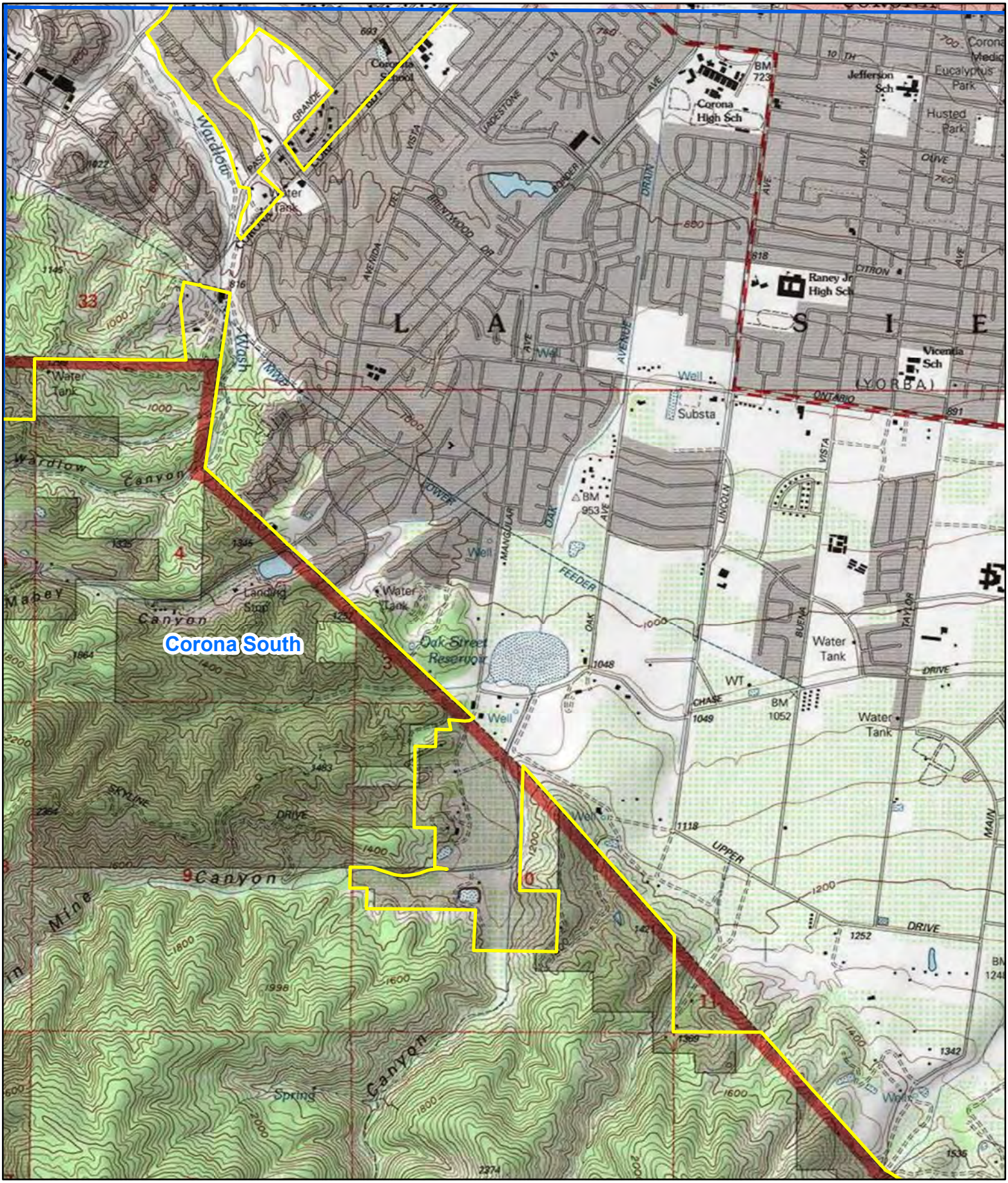
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

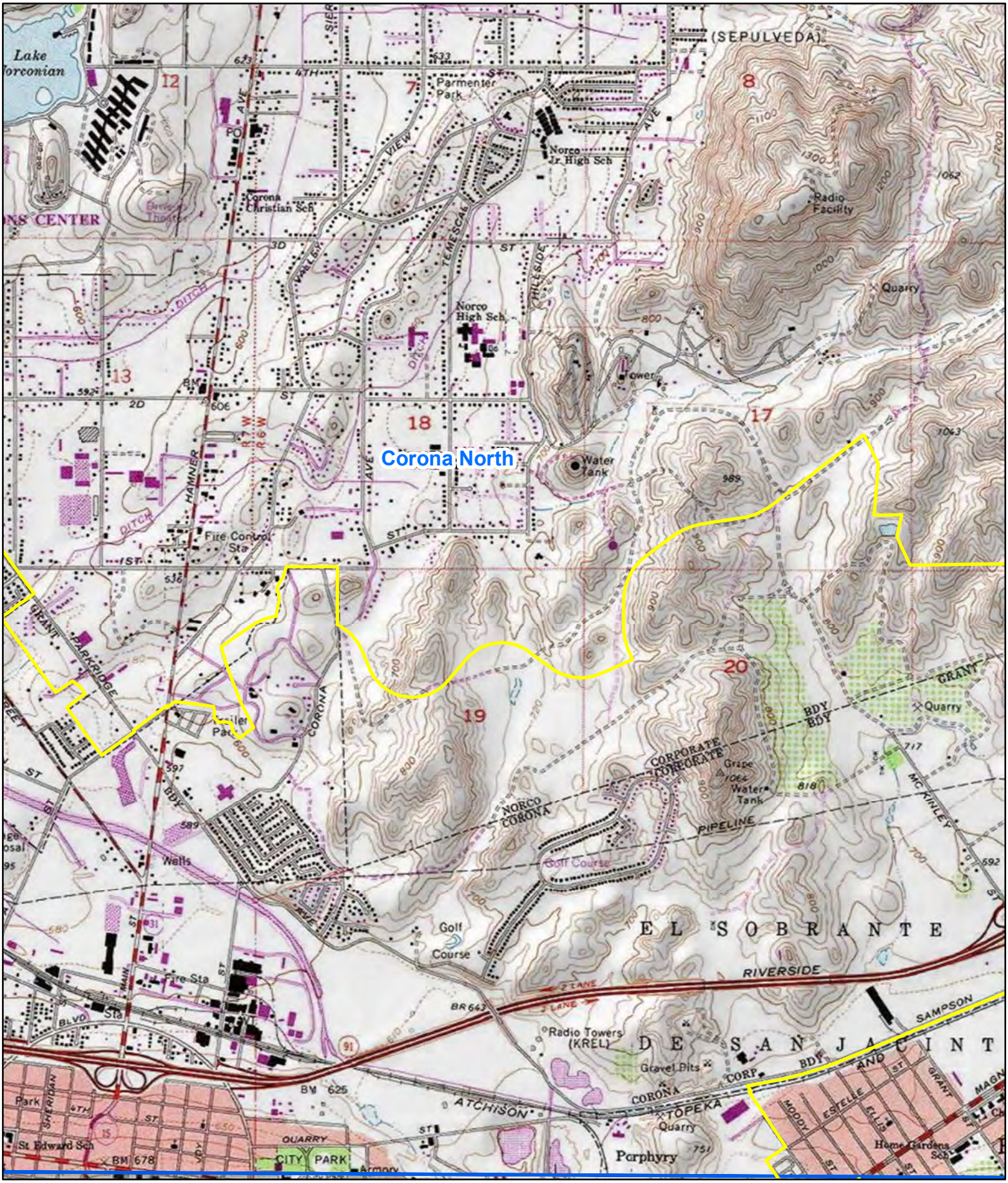
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

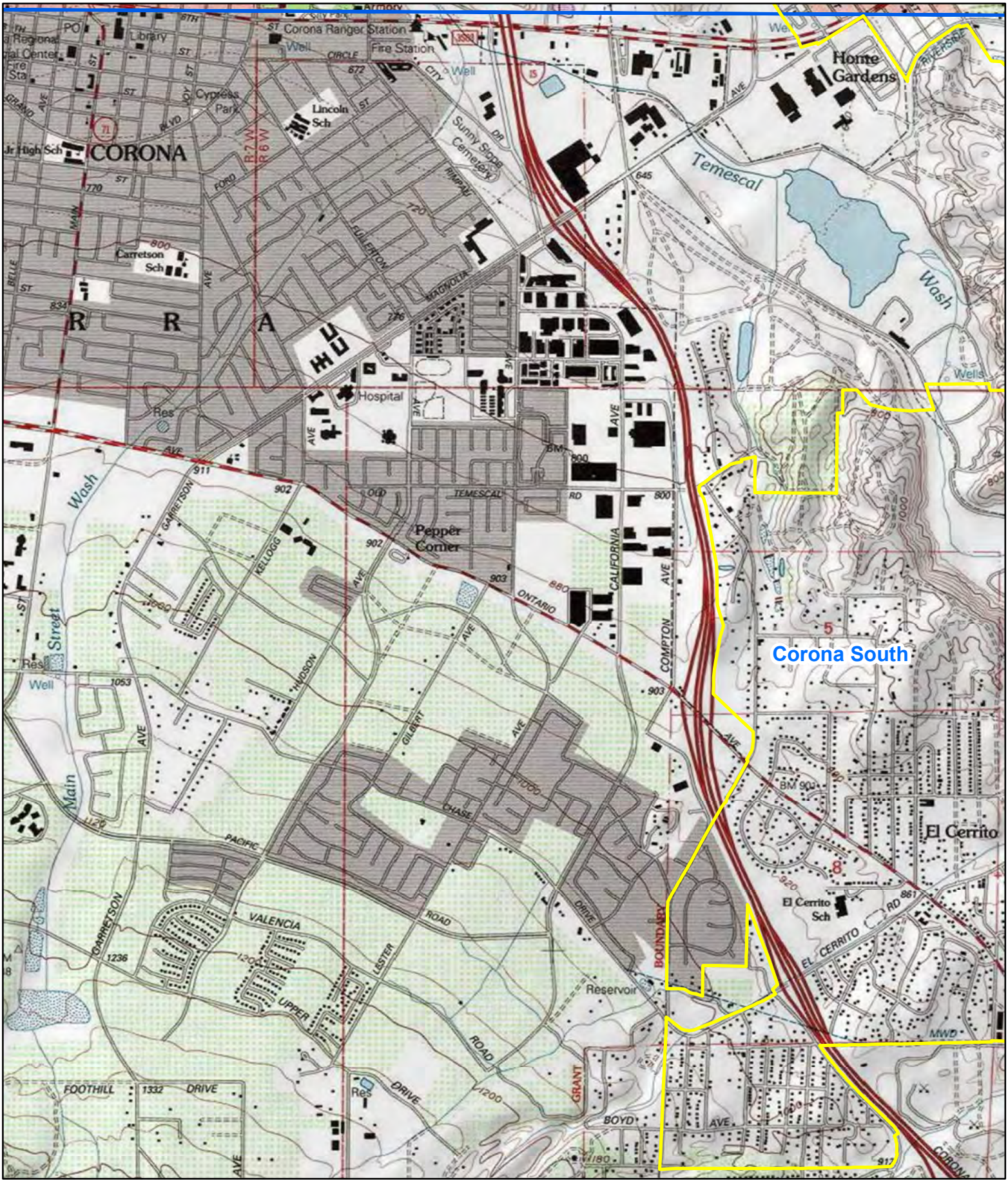


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

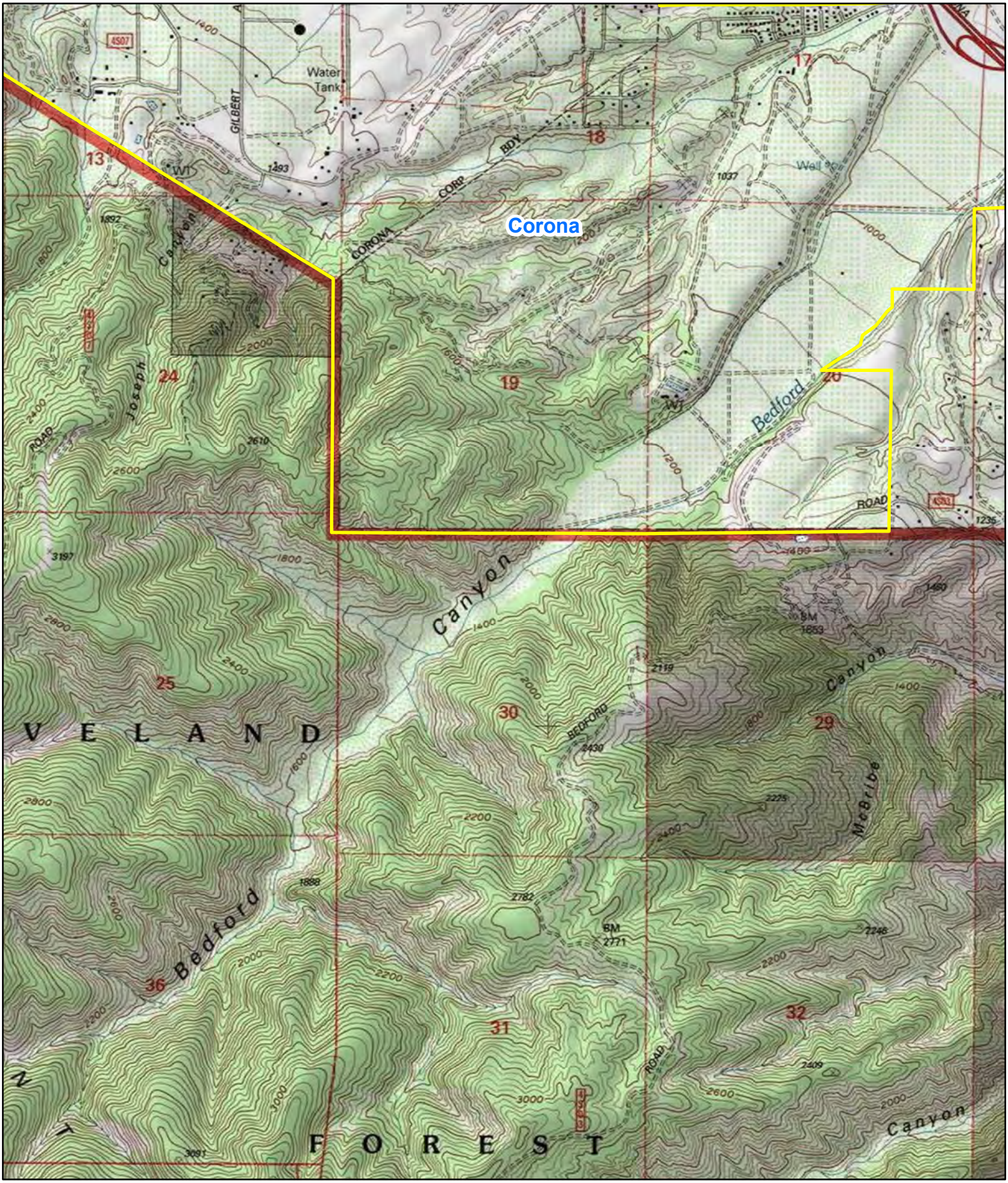
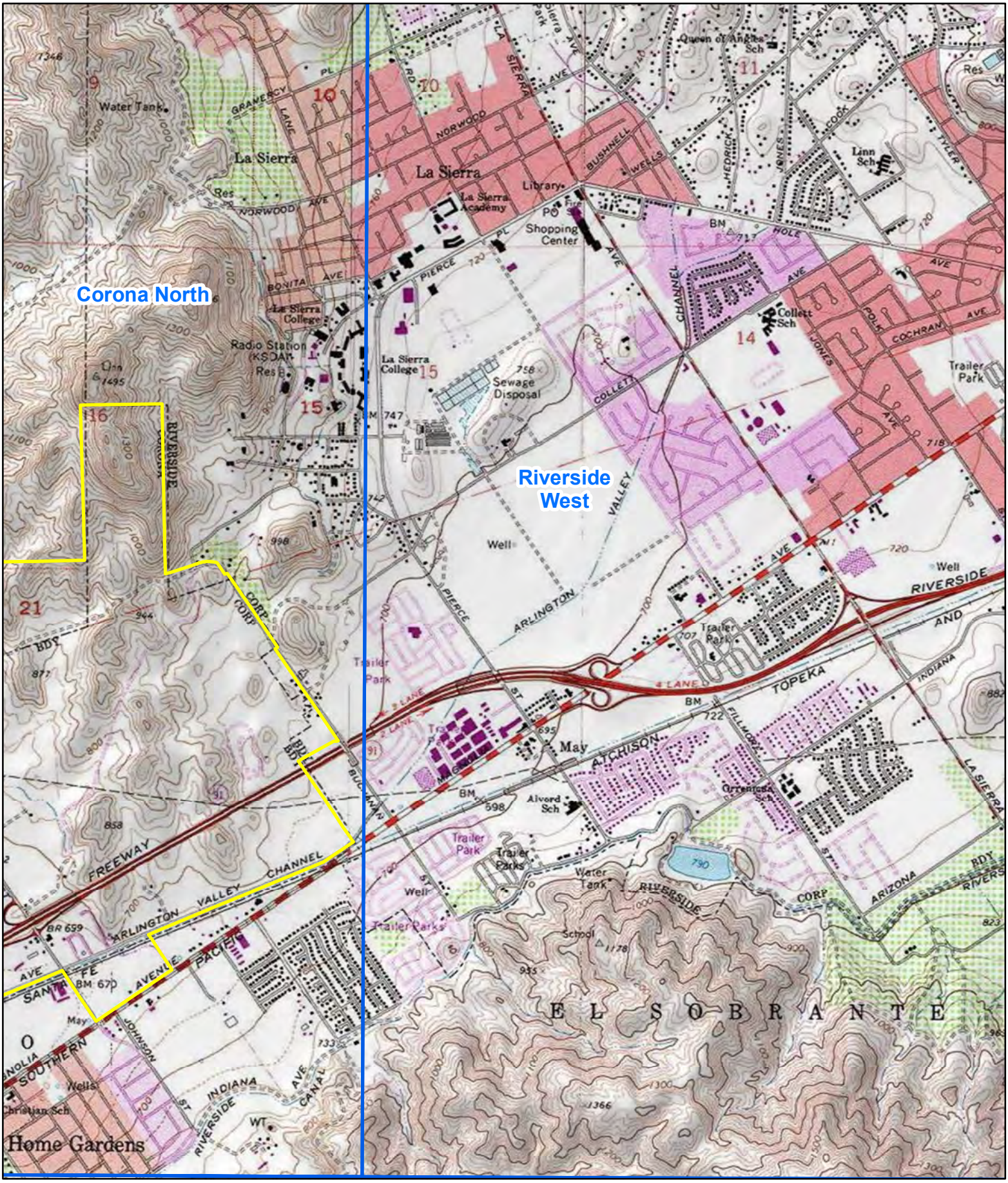


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

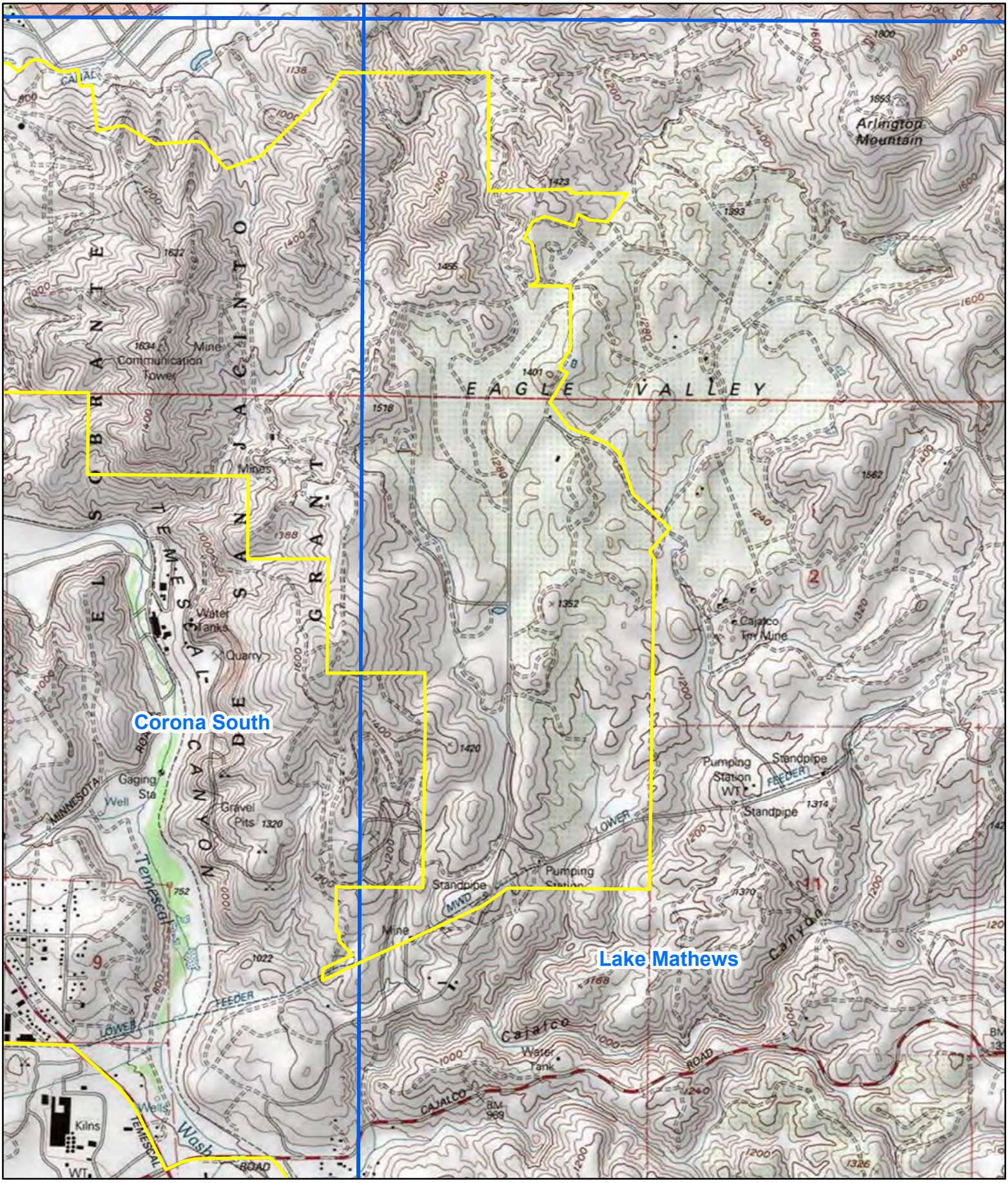
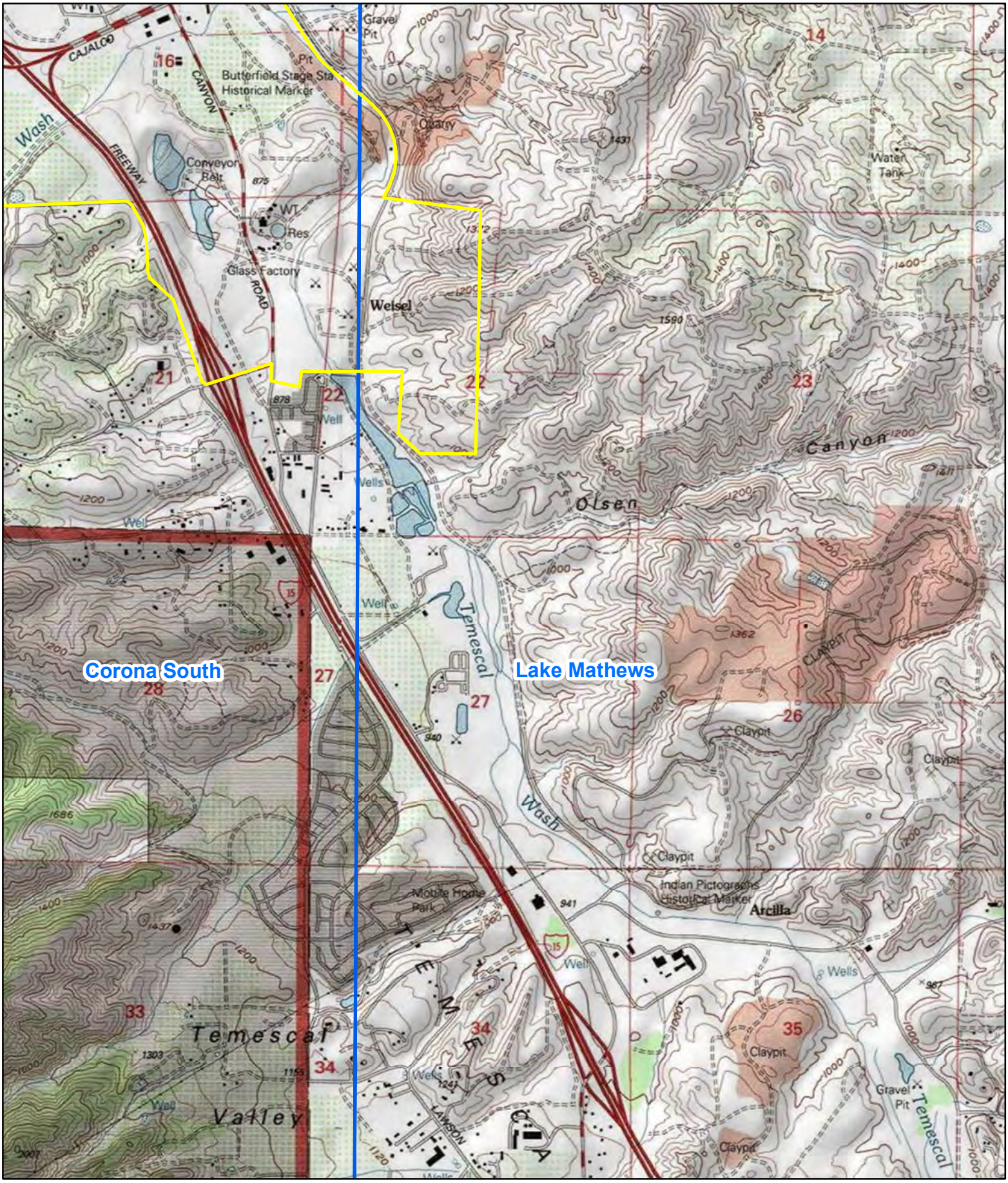


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Steven Estrada
Chairperson
Santa Rosa Band of Cahuilla Indians
PO Box 391820, Anza, CA, 92539
951-659-2700
mflaxbeard@santarosacahuilla-nsn.gov

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Estrada,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

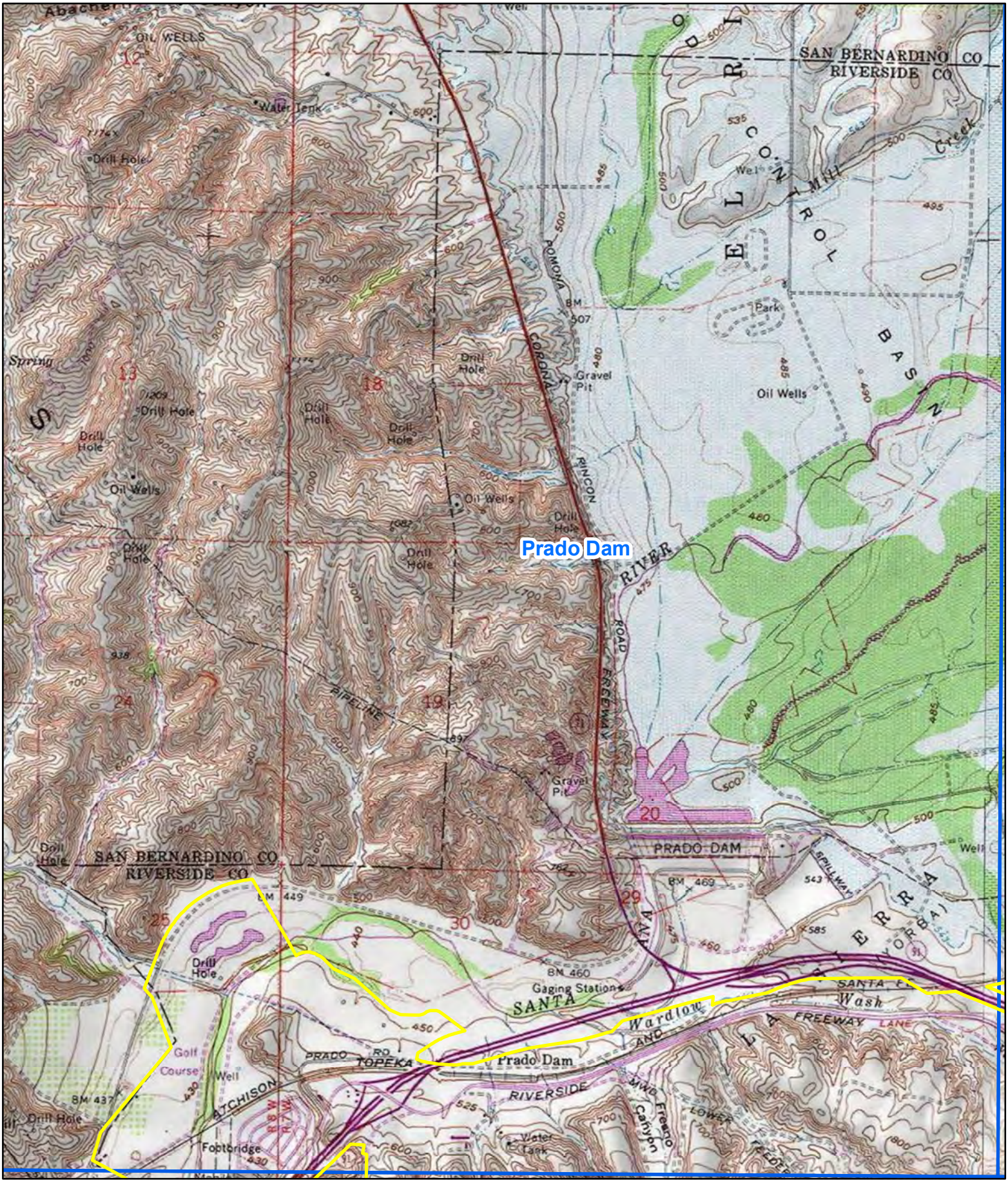


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

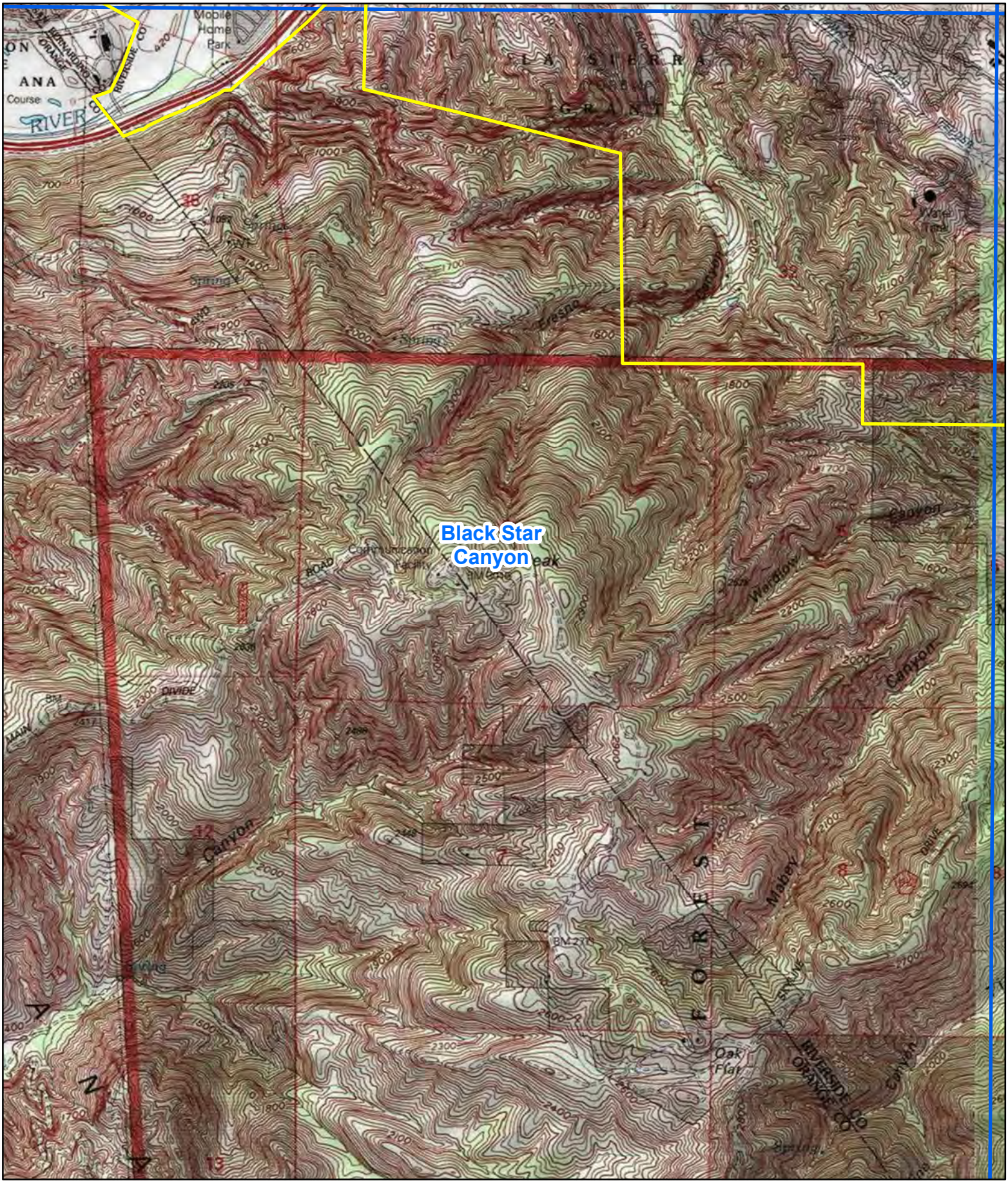
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

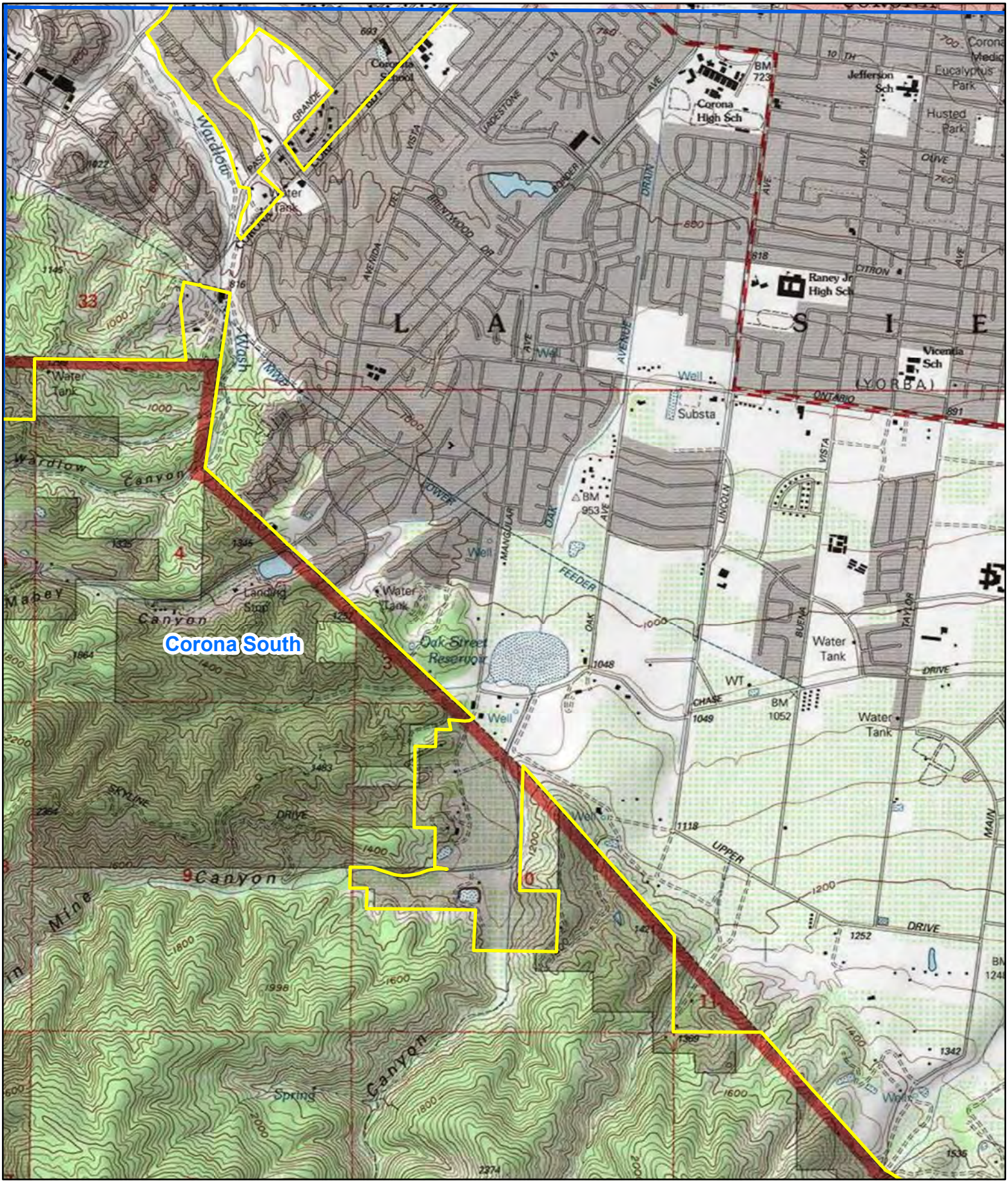
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

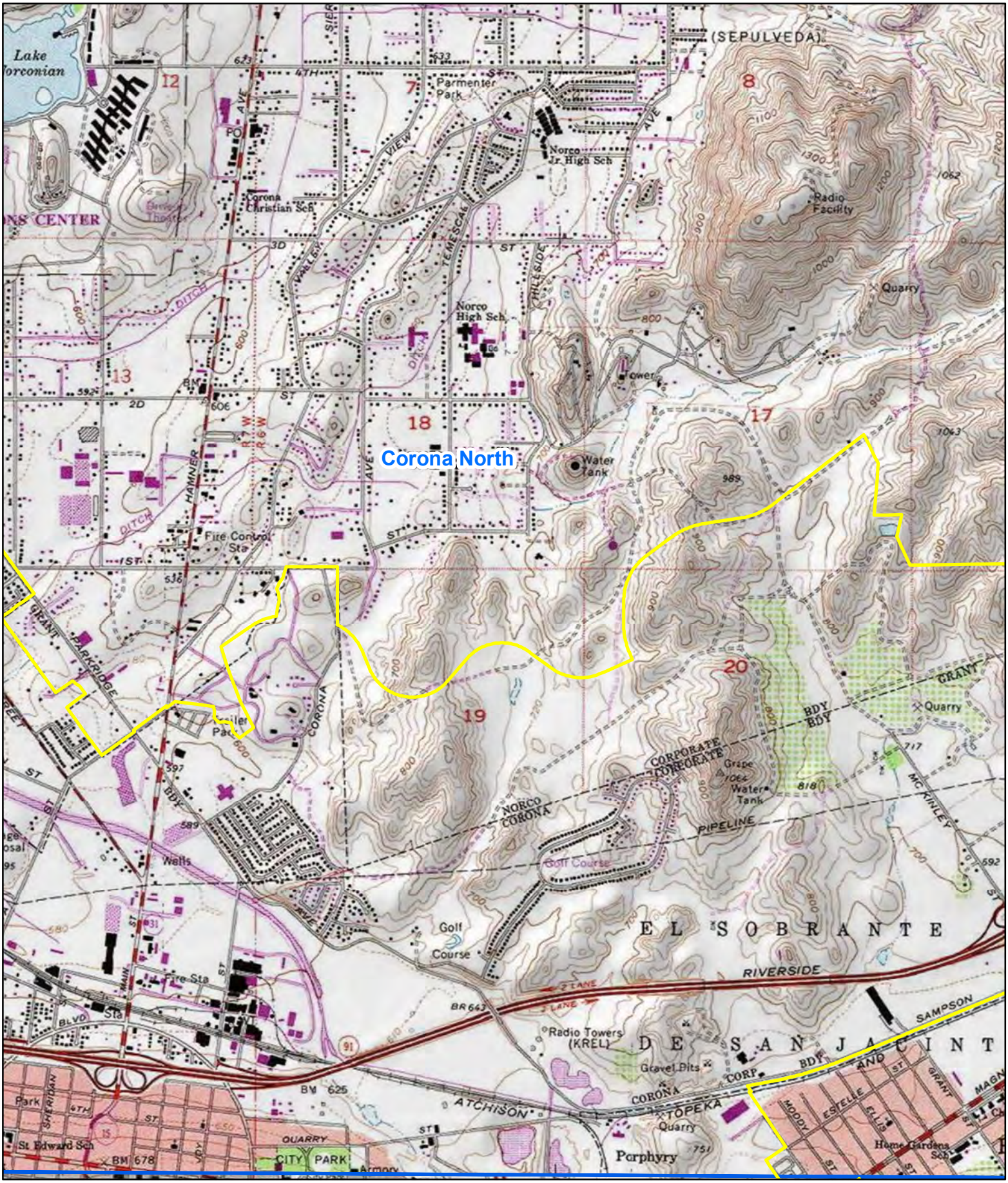
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

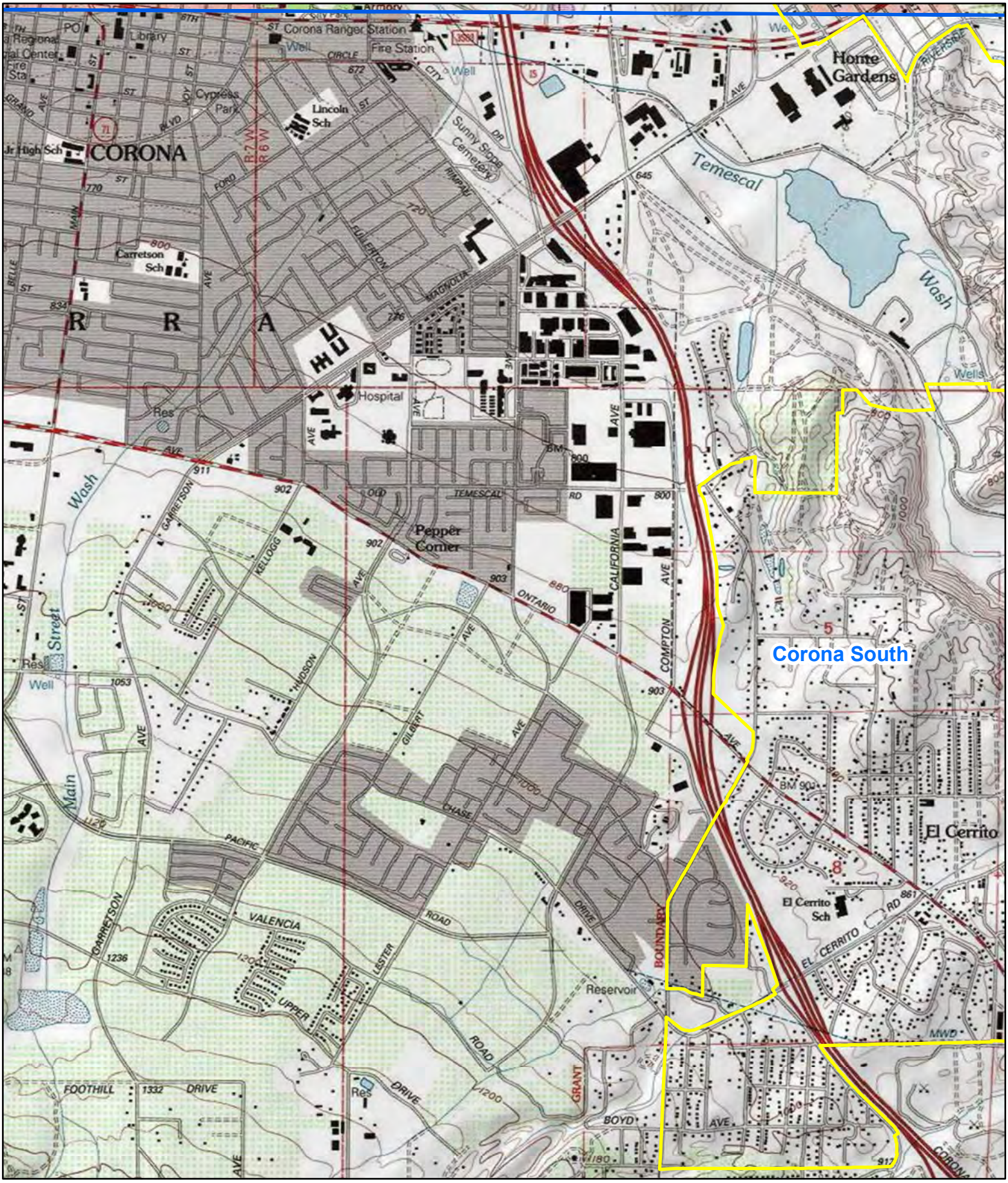


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

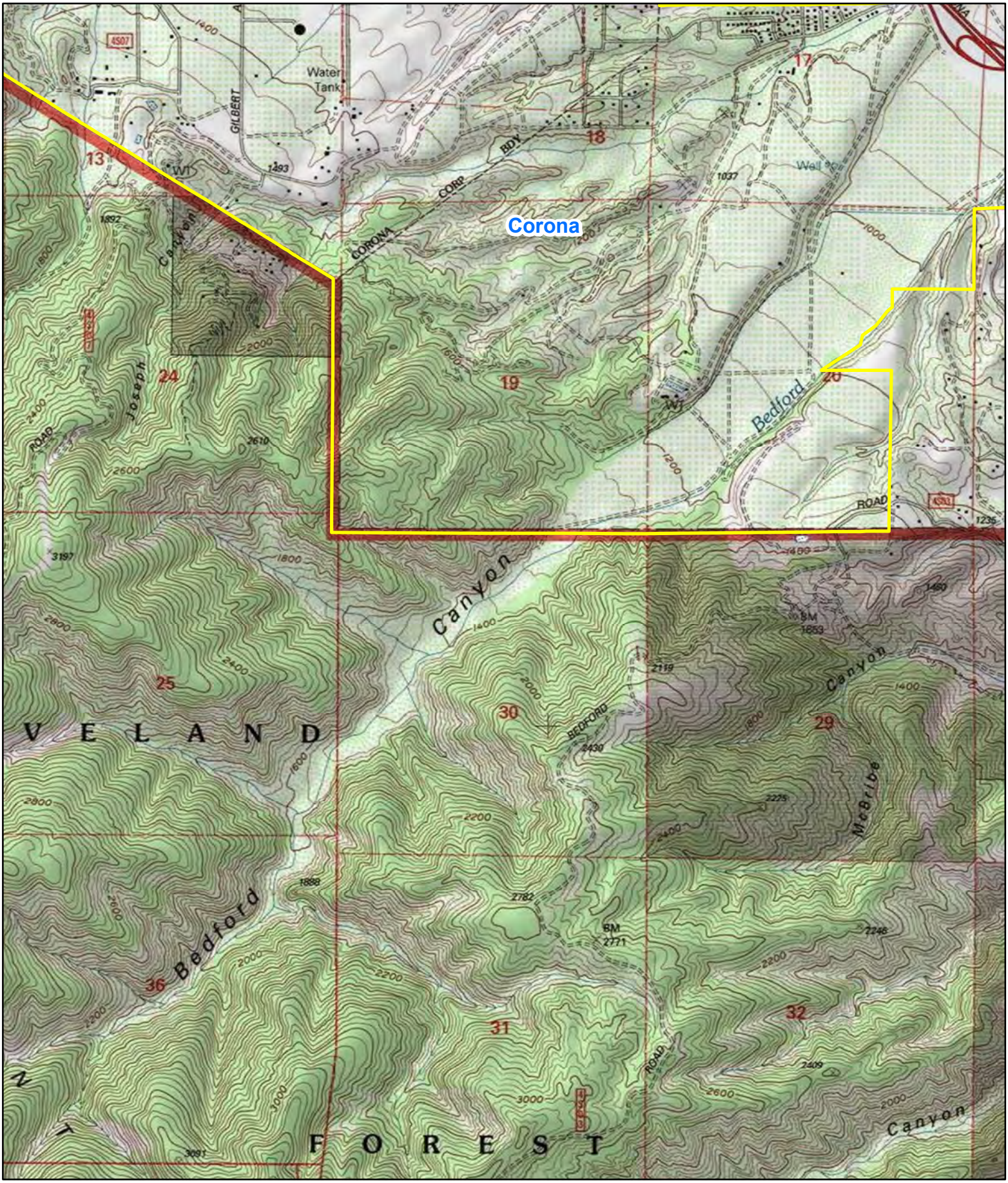
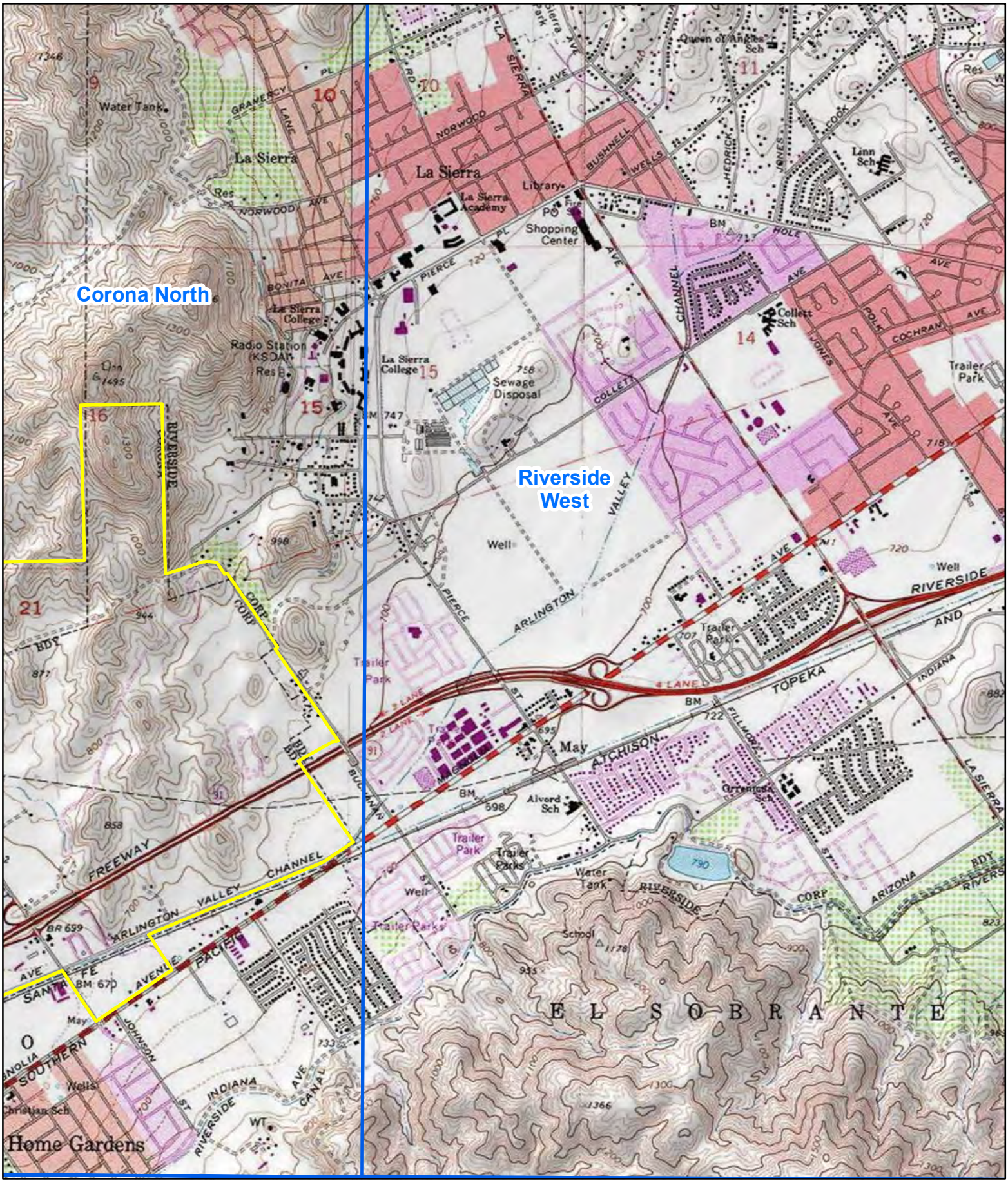


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

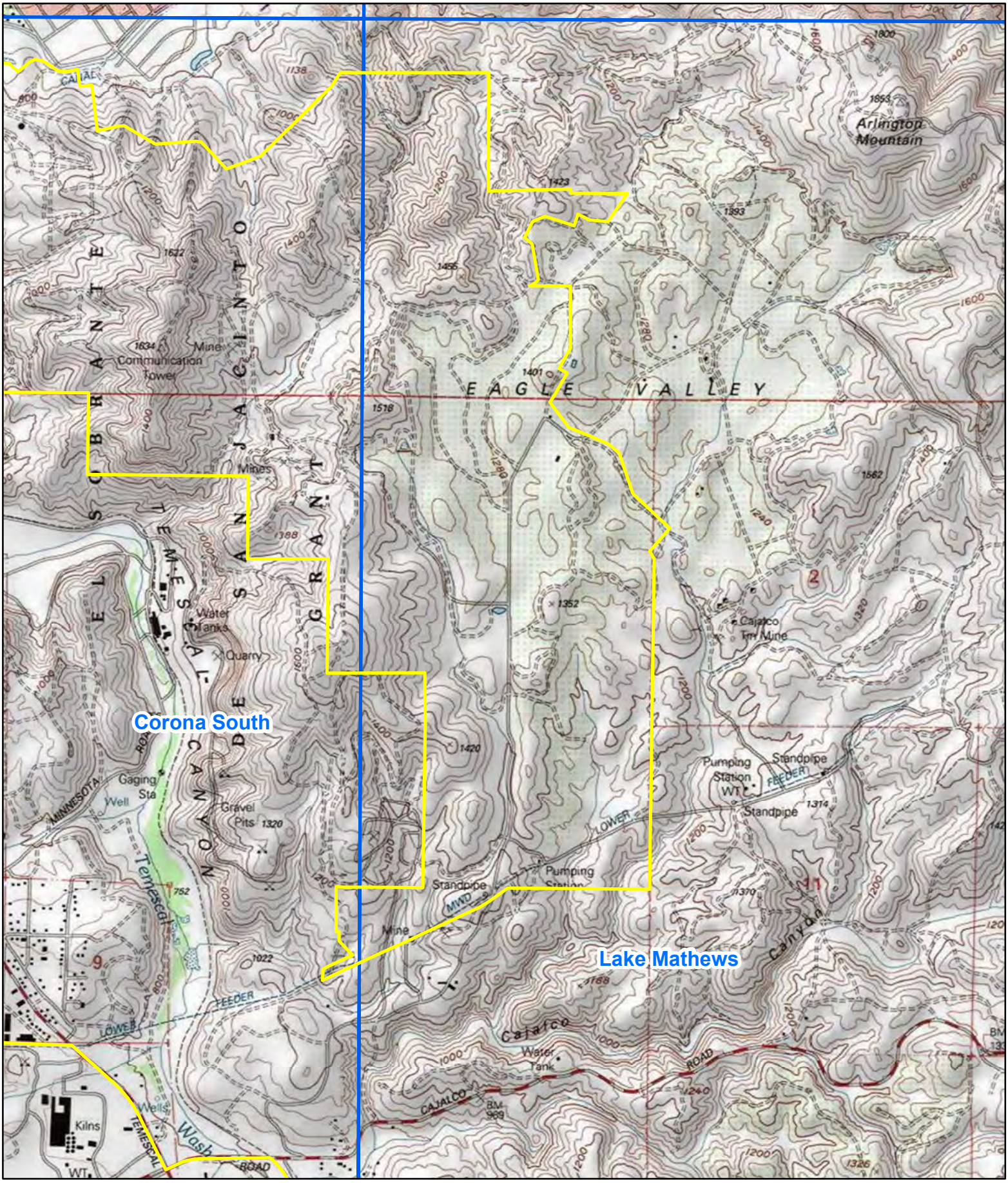
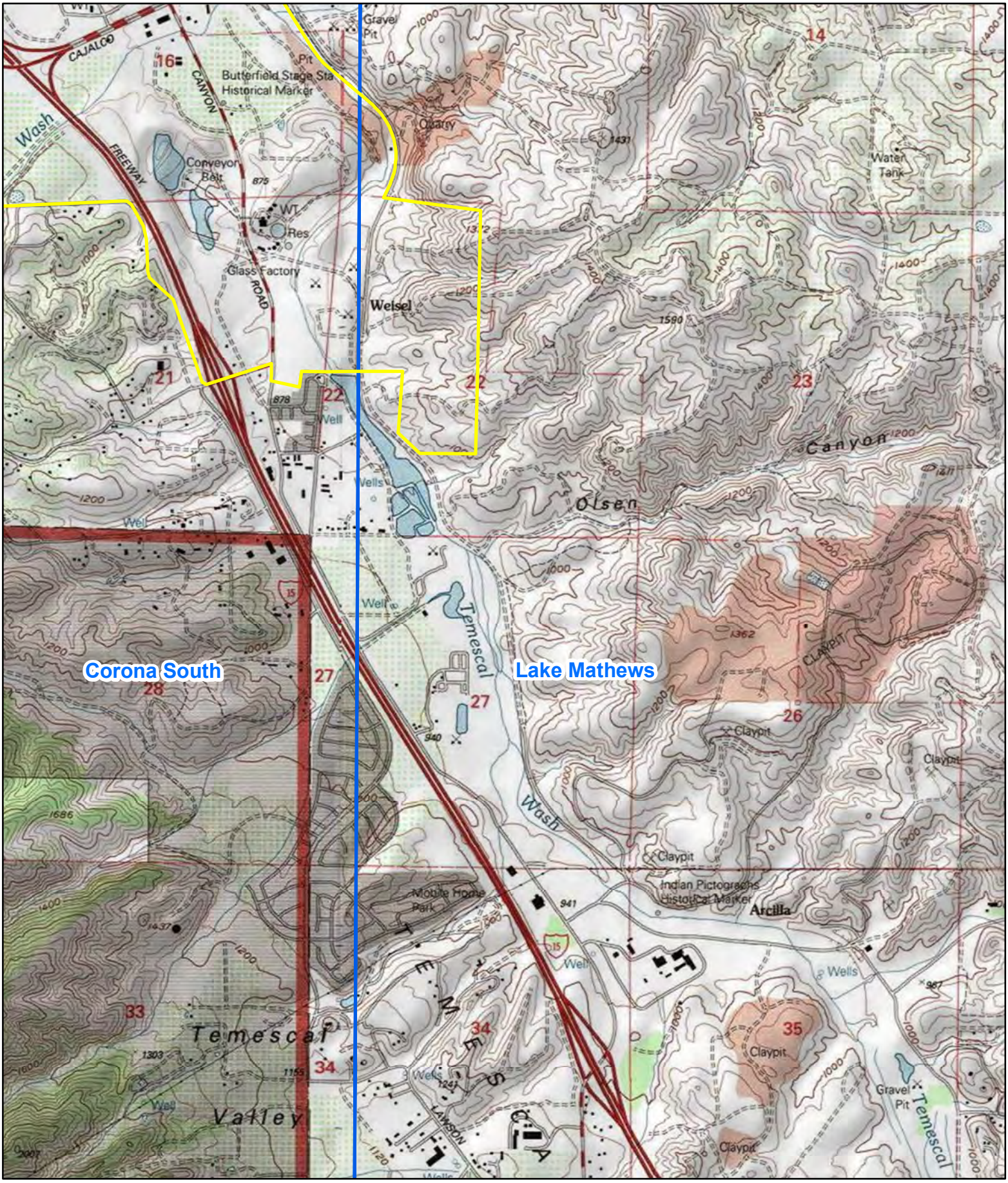


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Shasta Gaughen
Tribal Historic Preservation Officer
Pala Band of Mission Indians
PMB 50, 35008 Pala Temecula Road, Pala, CA, 92059
760-891-3515
sgaughen@palatribe.com

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Ms. Gaughen,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

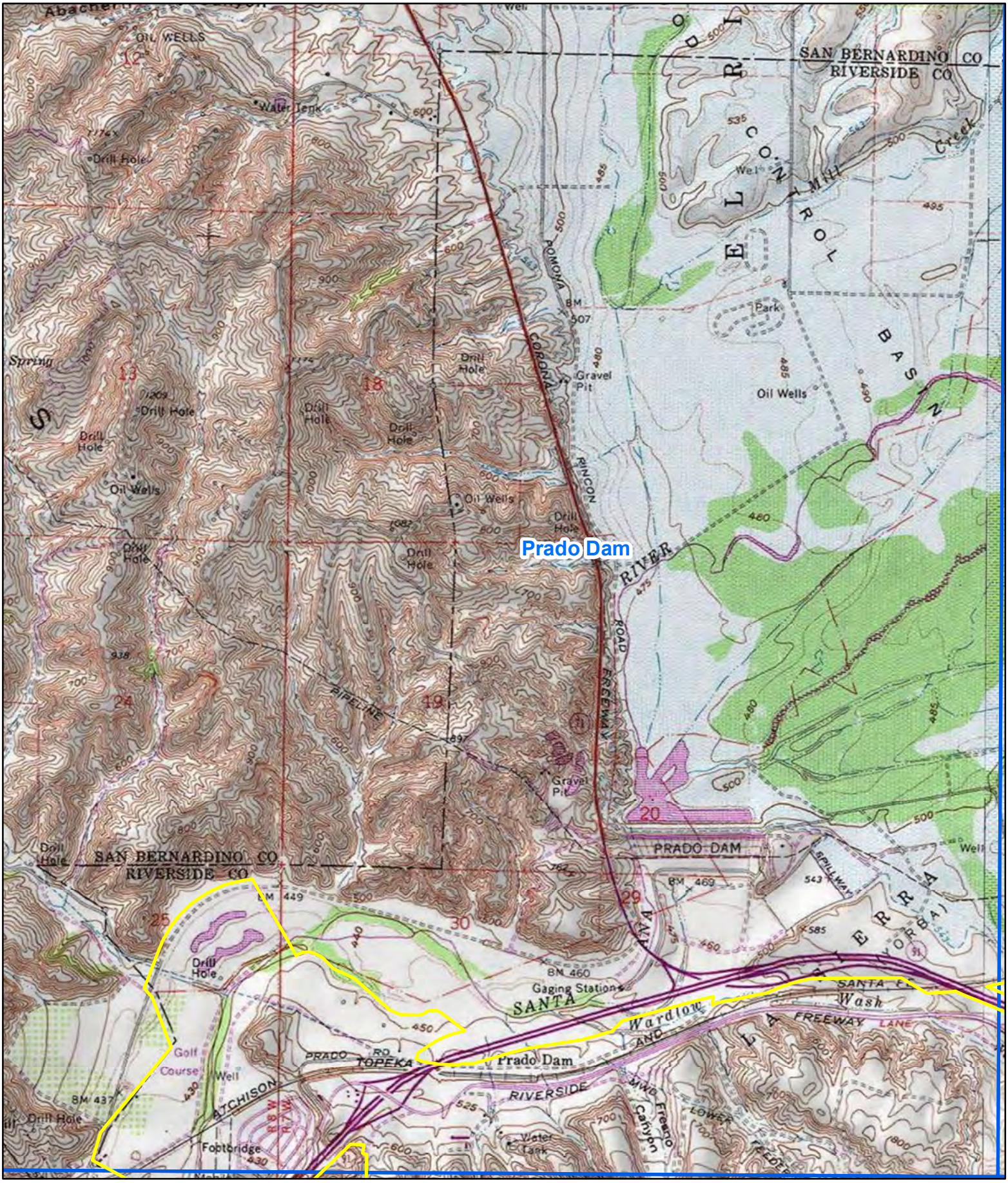


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

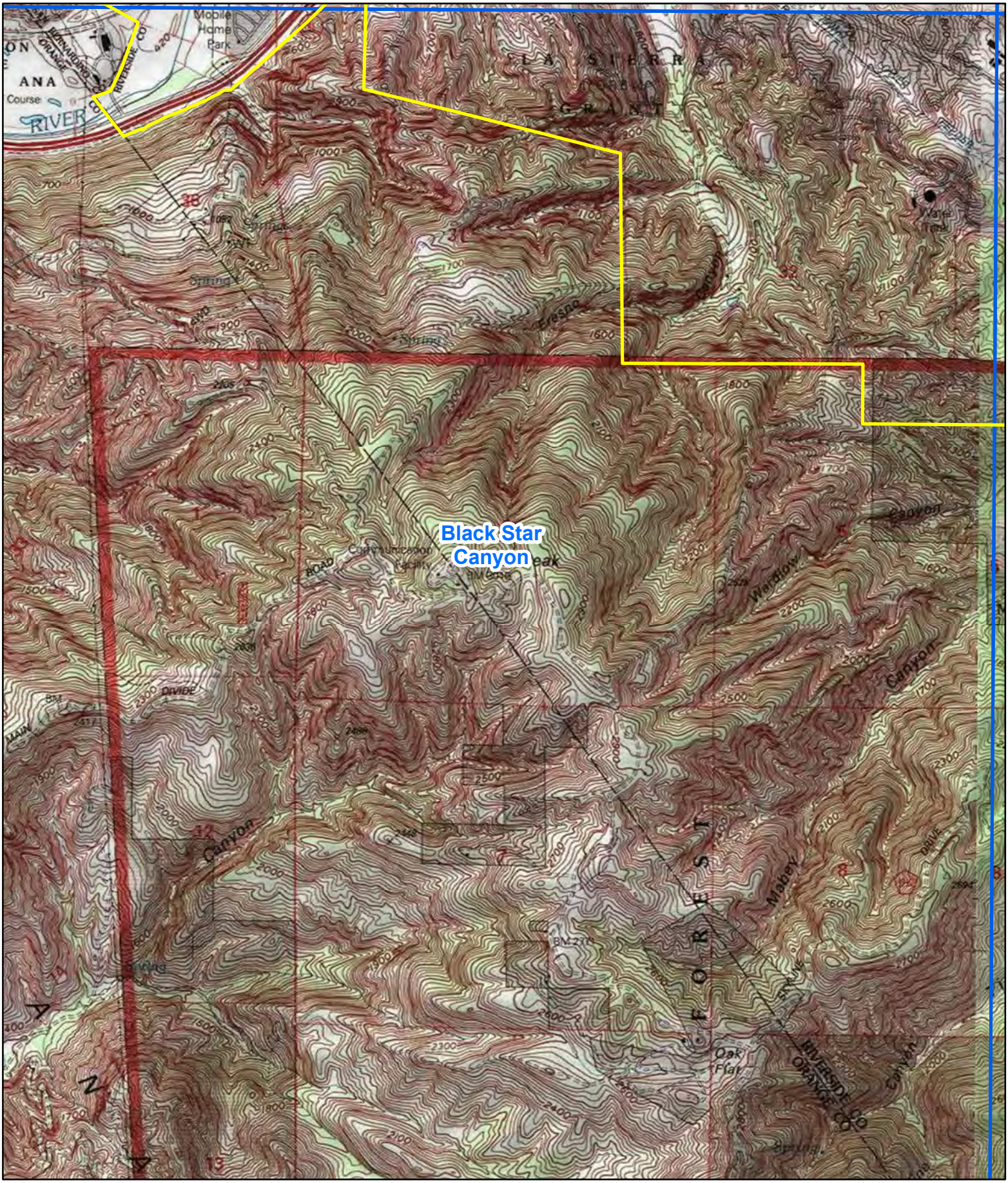
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

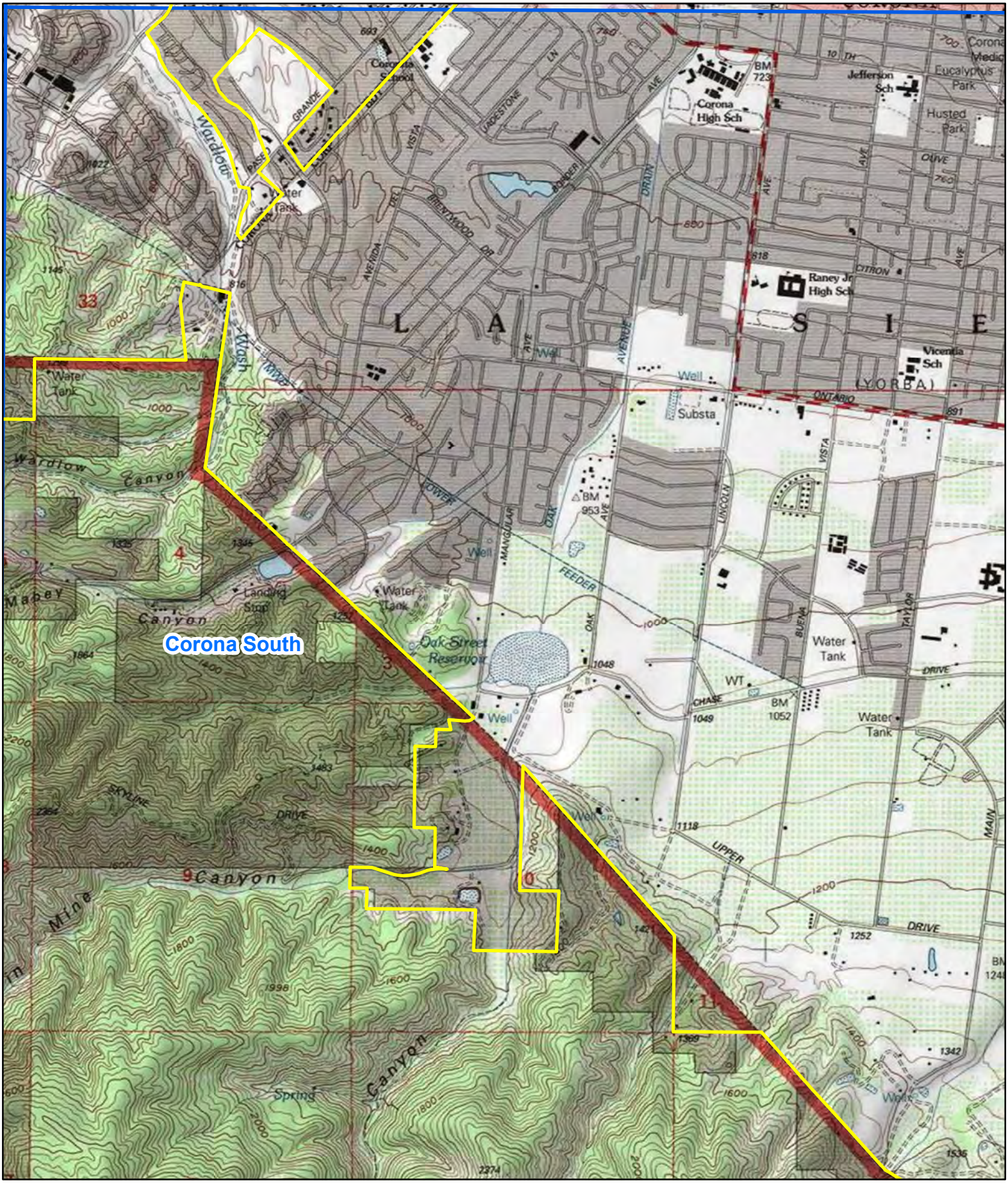
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

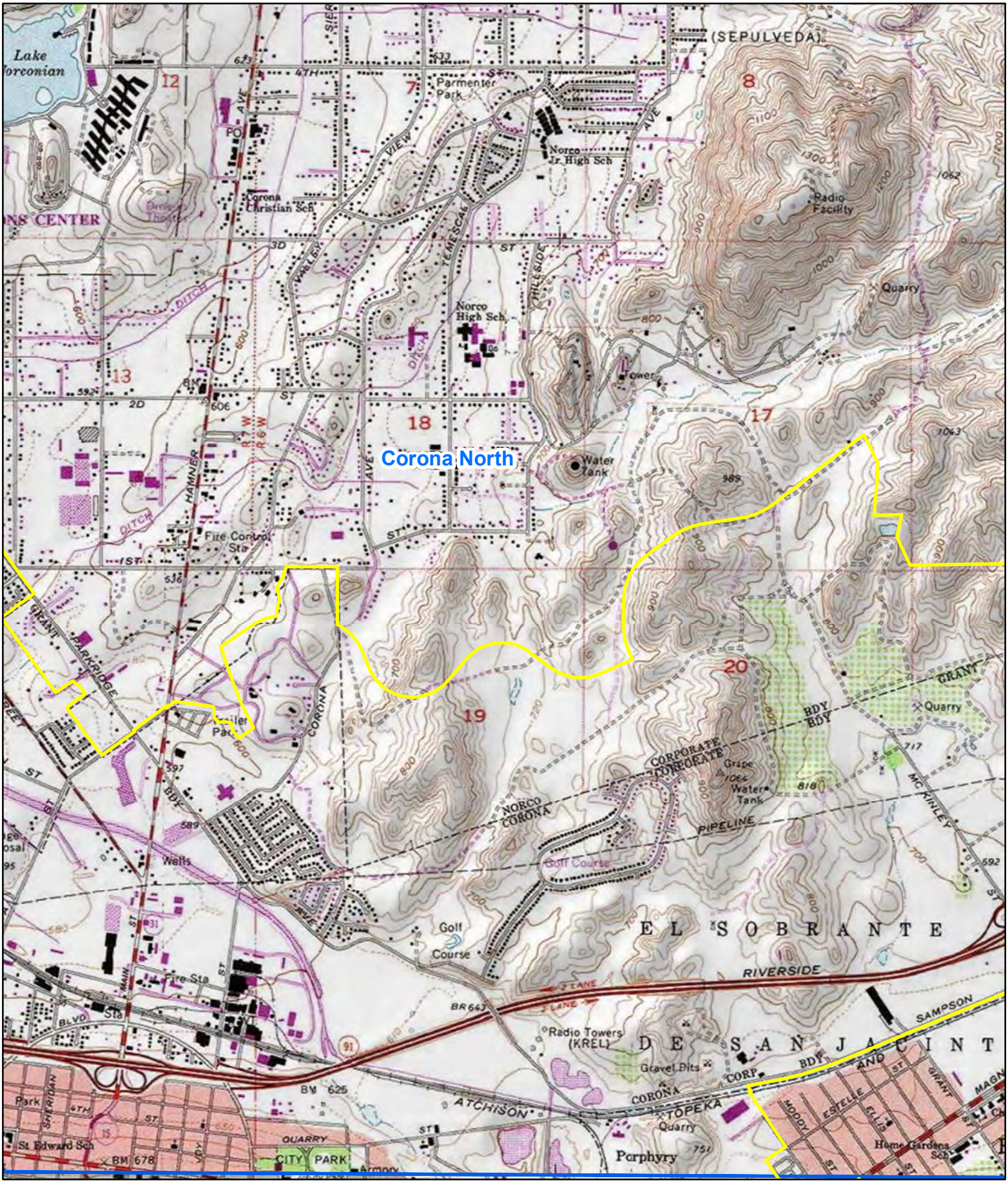
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

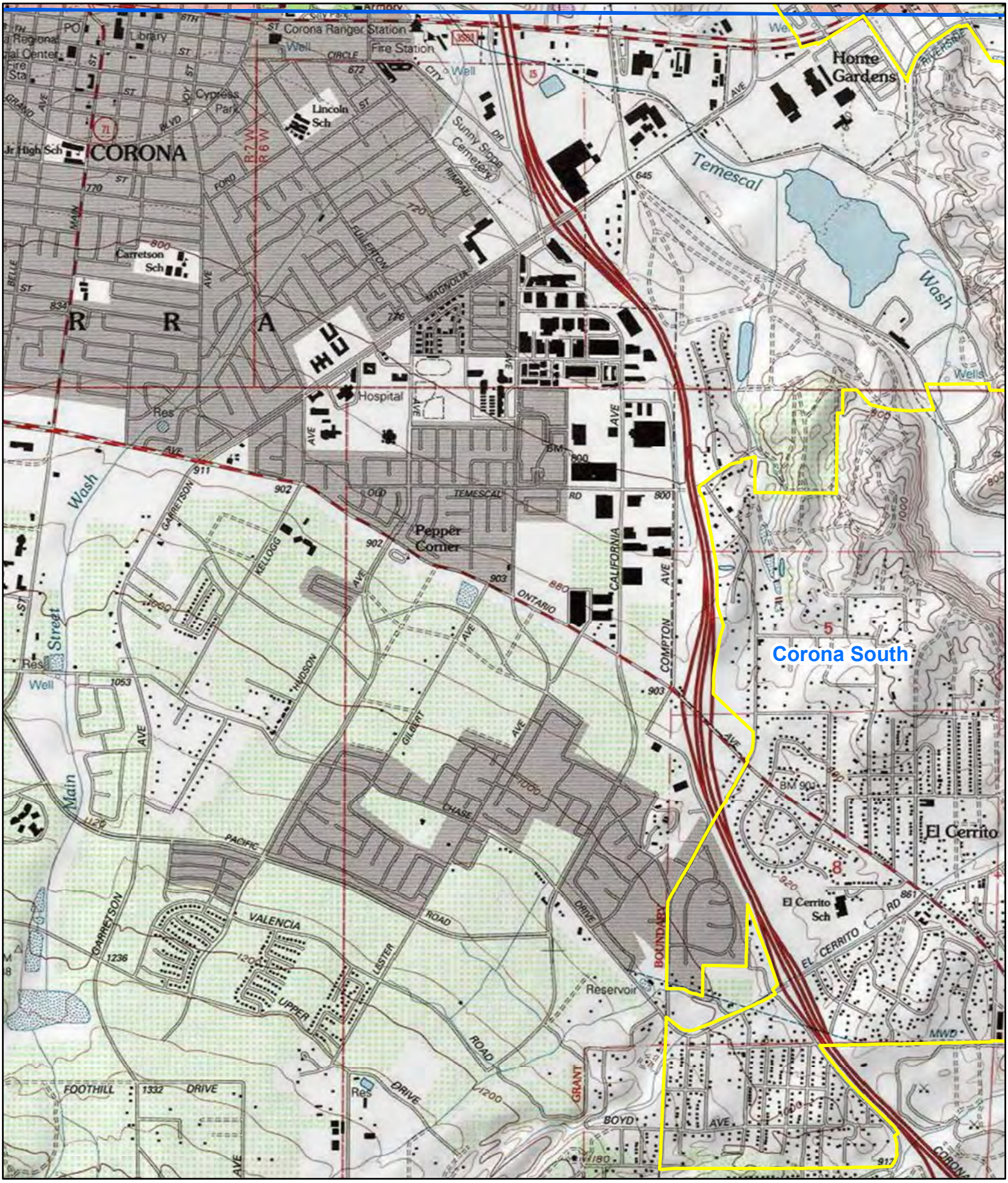


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

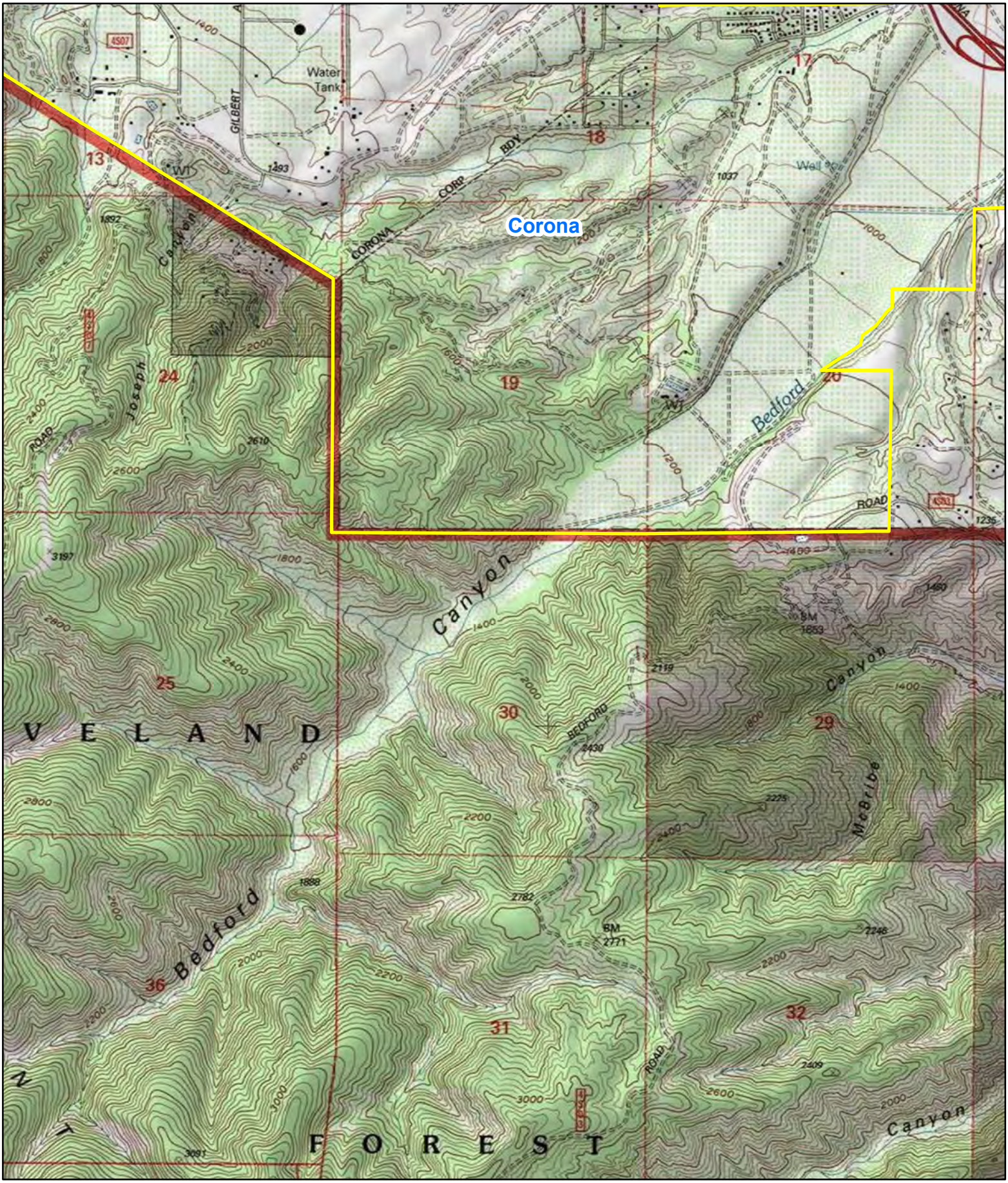
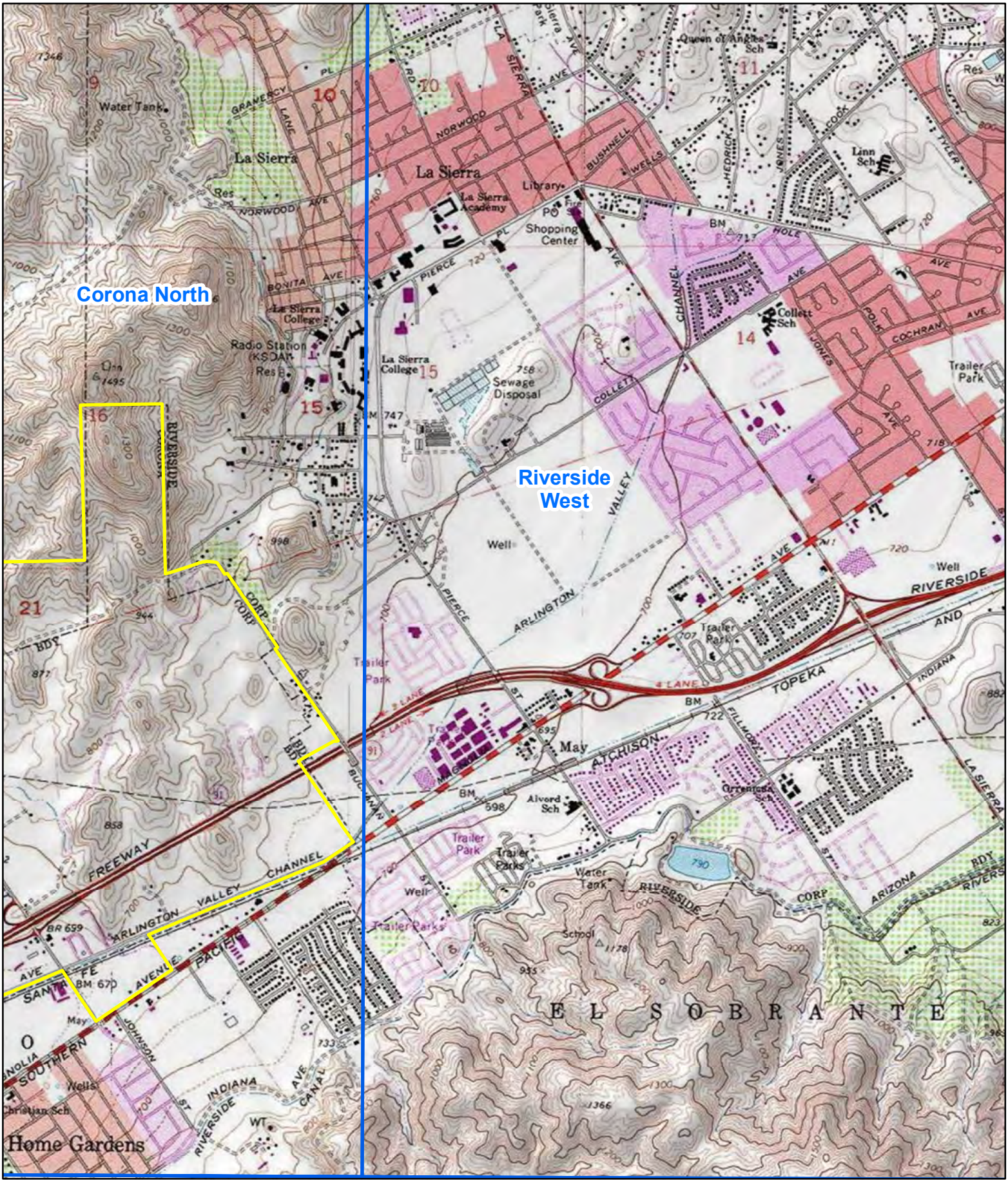


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

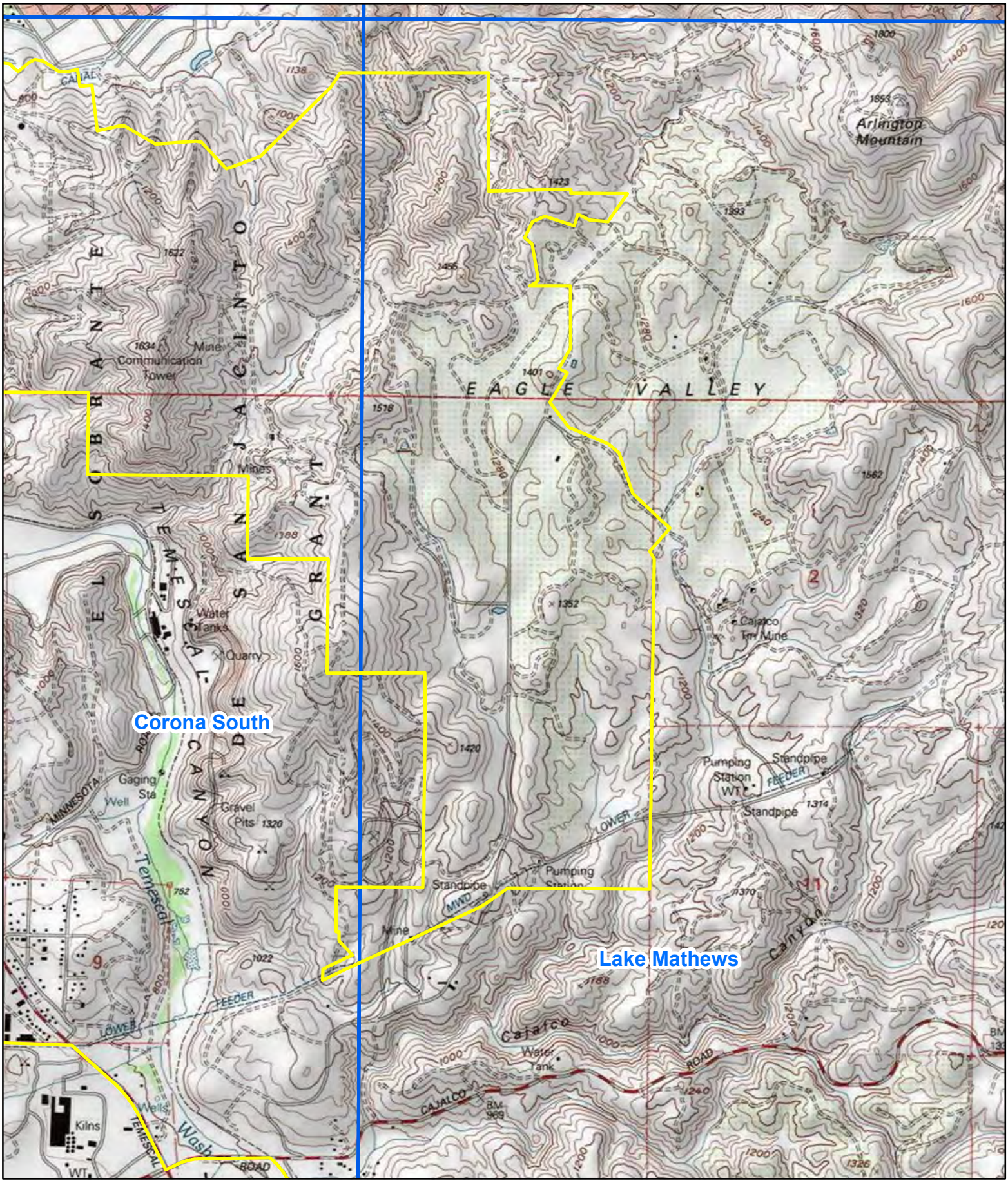
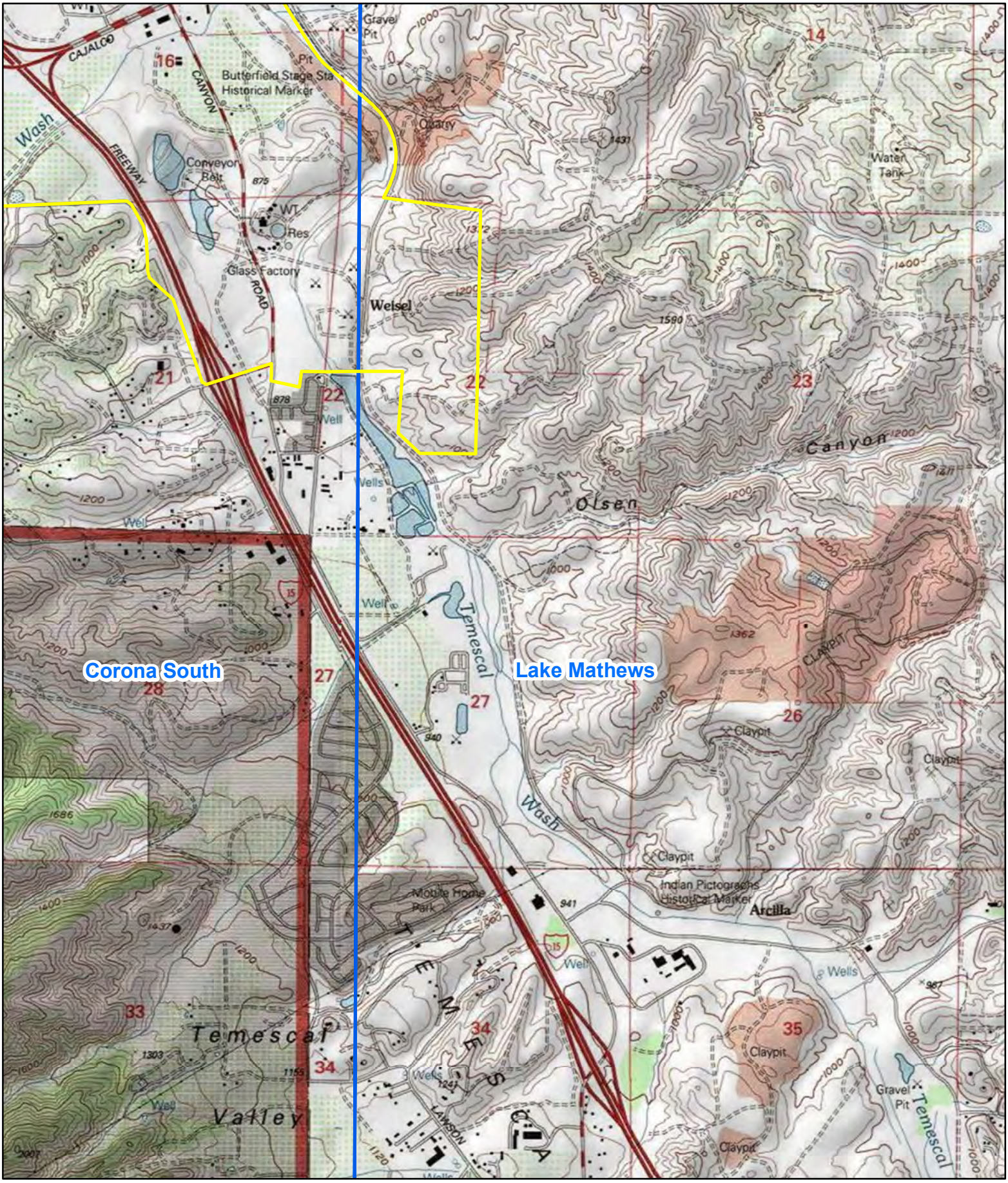


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Sandonne Goad
Chairperson
Gabrielino/Tongva Nation
106 1/2 Judge John Aiso St. #231, Los Angeles, CA, 90012
951-807-0479
sgoad@gabrielino-tongva.com

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Ms. Goad,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

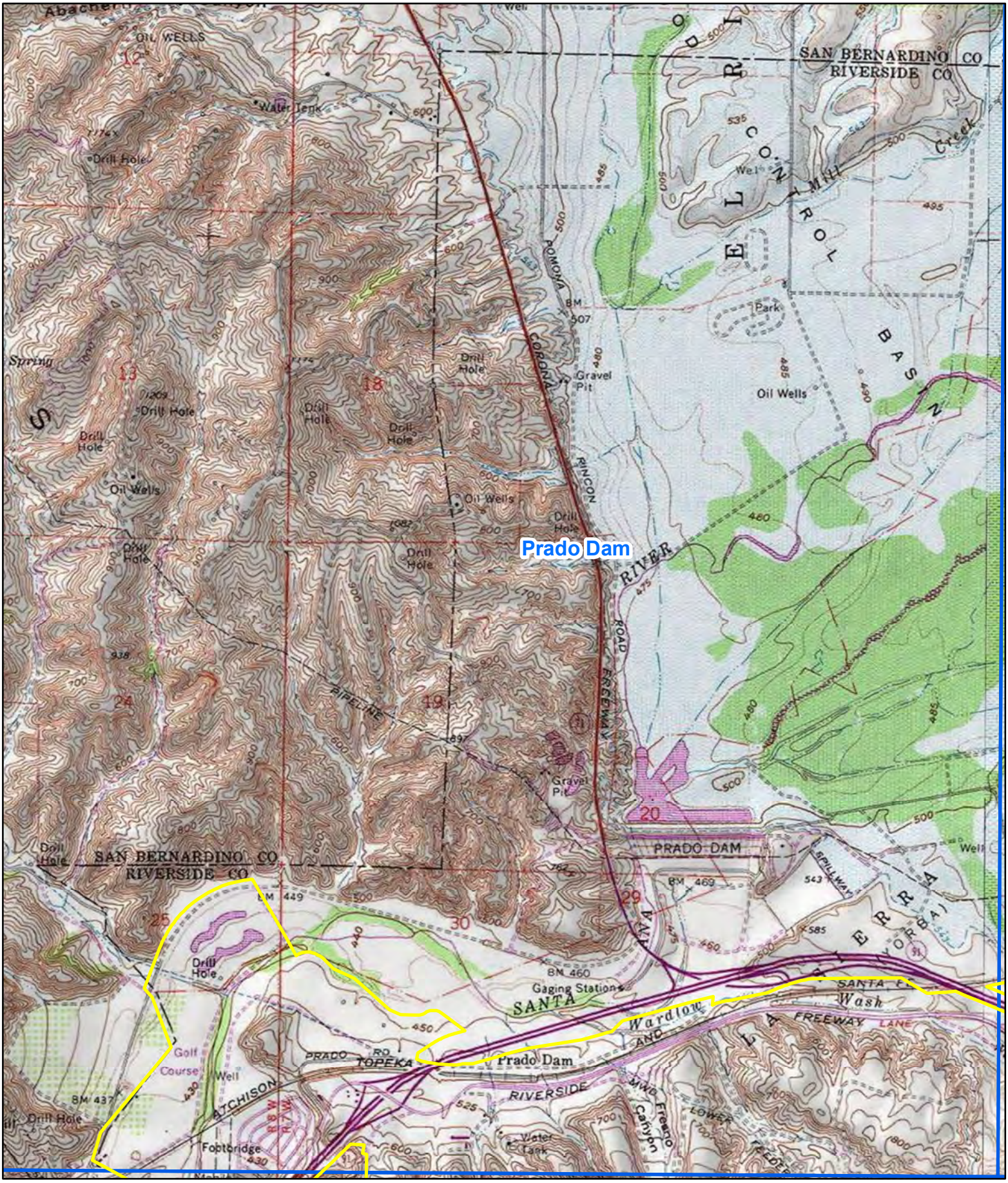


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

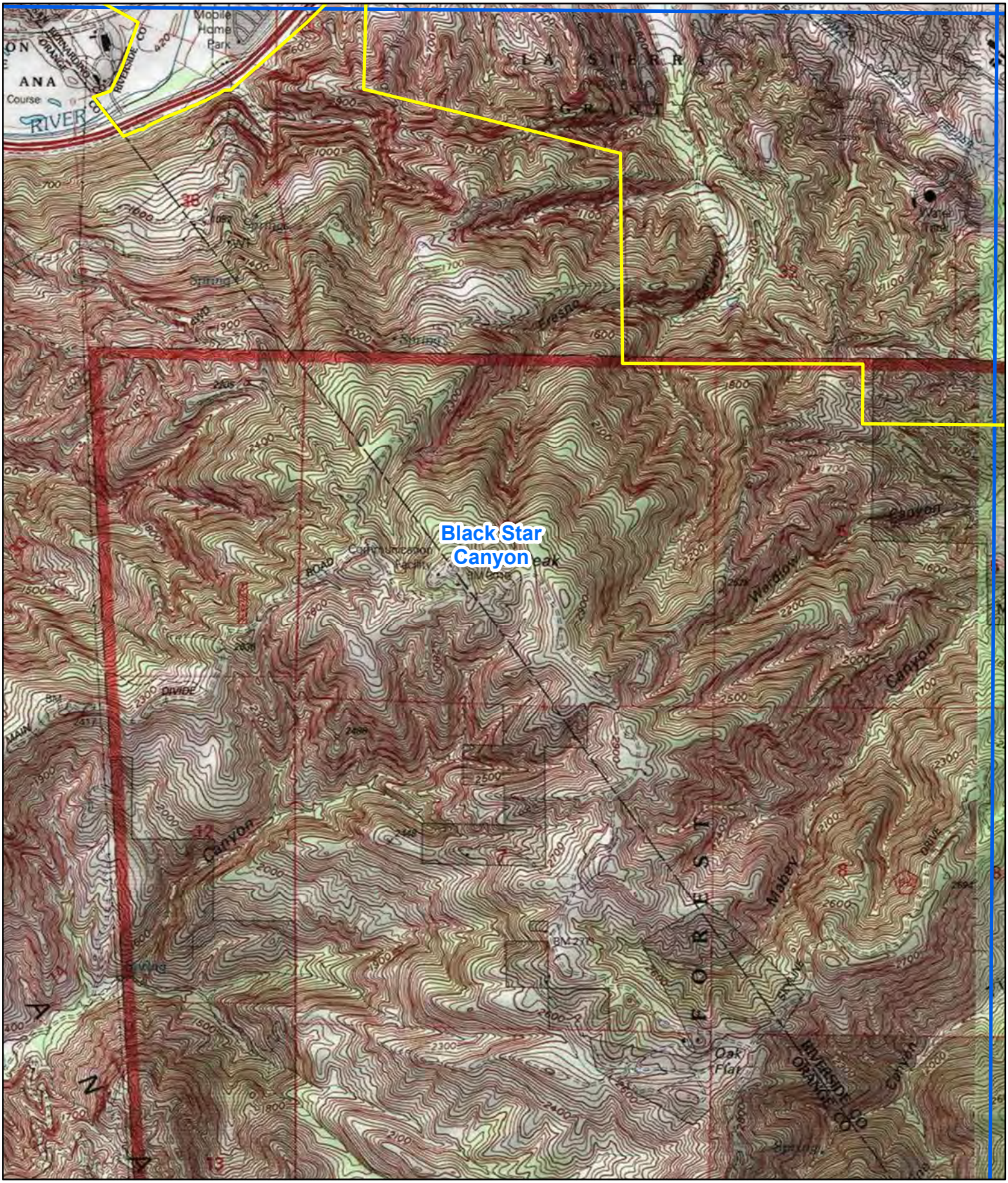
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

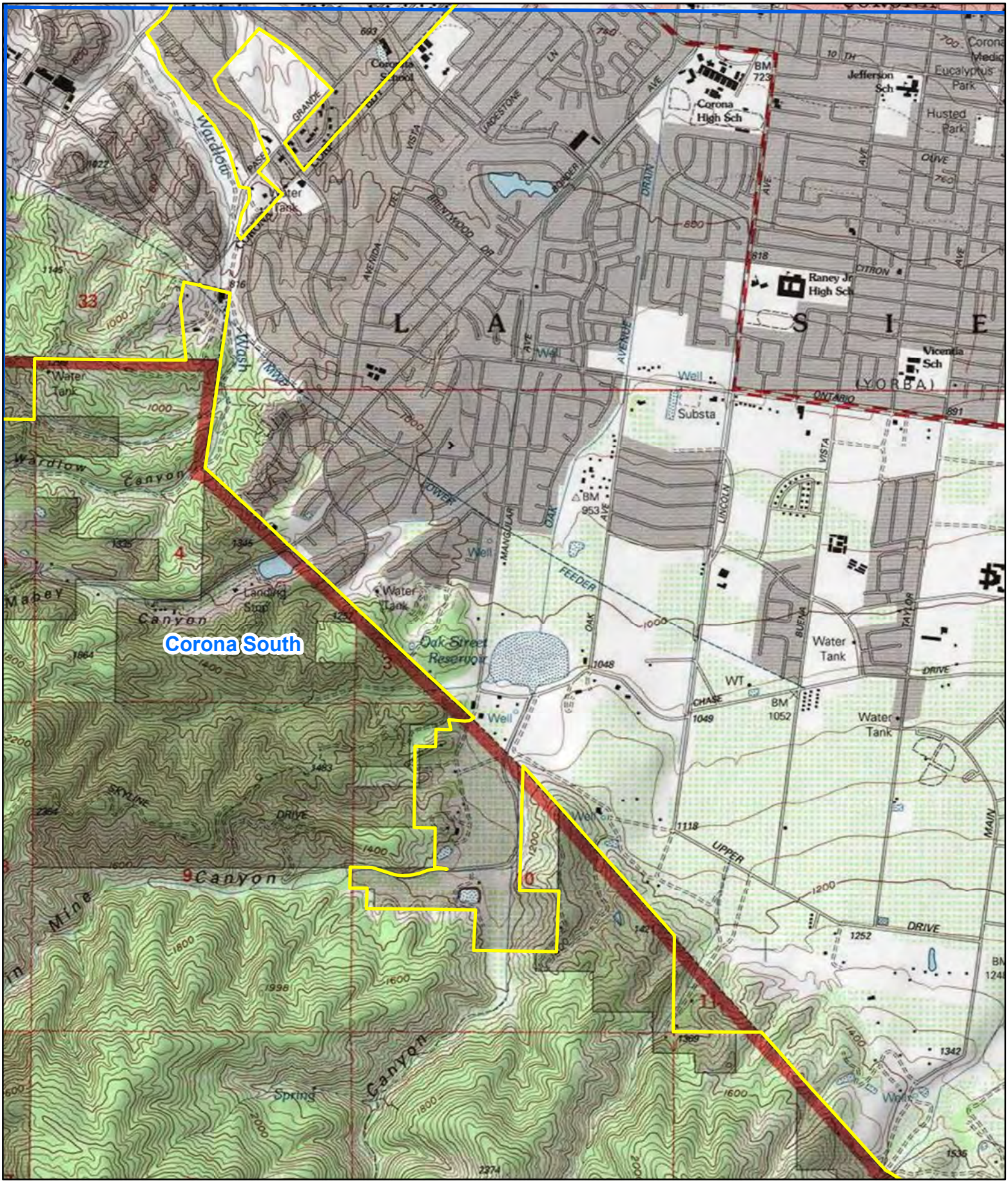
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

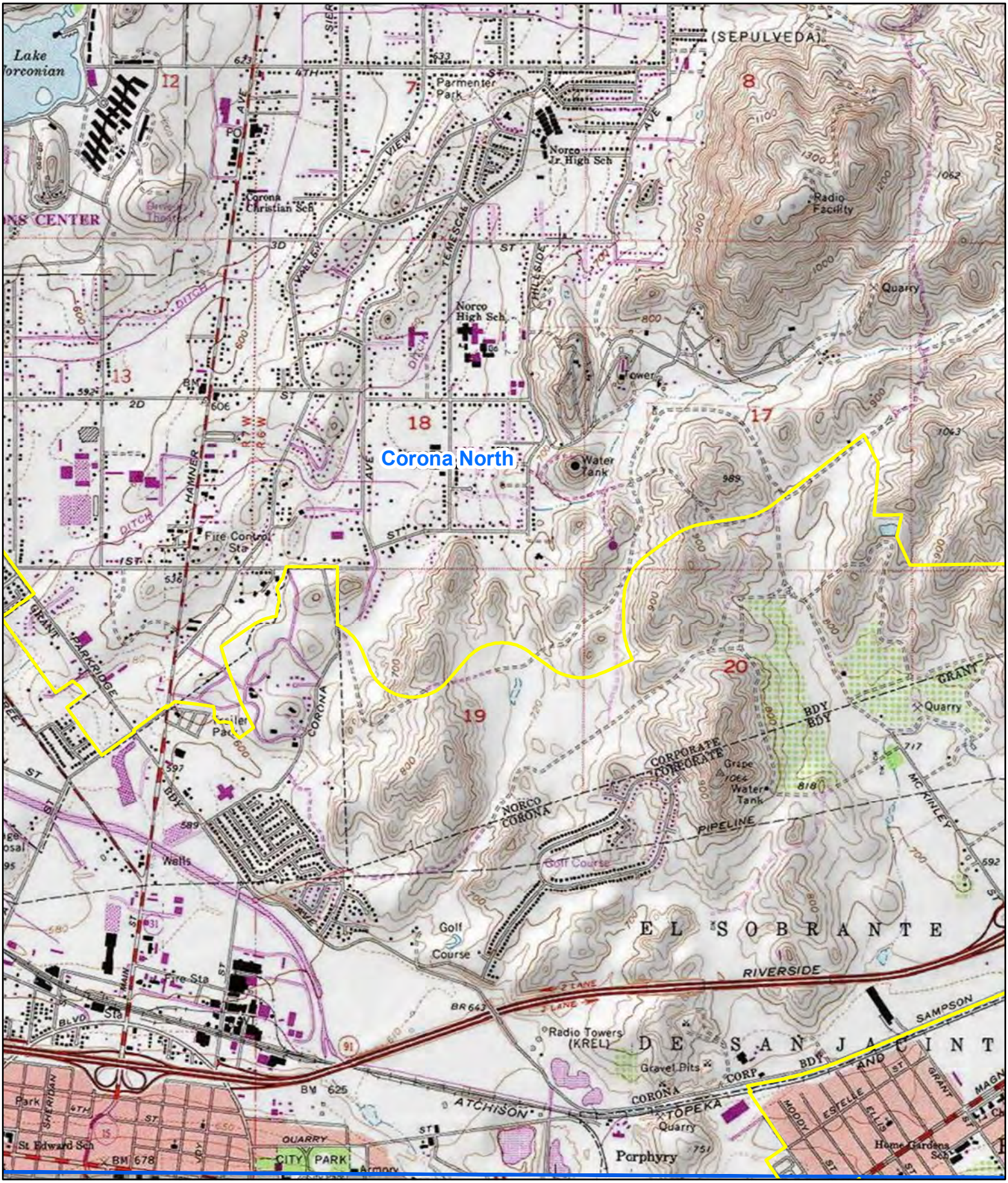
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

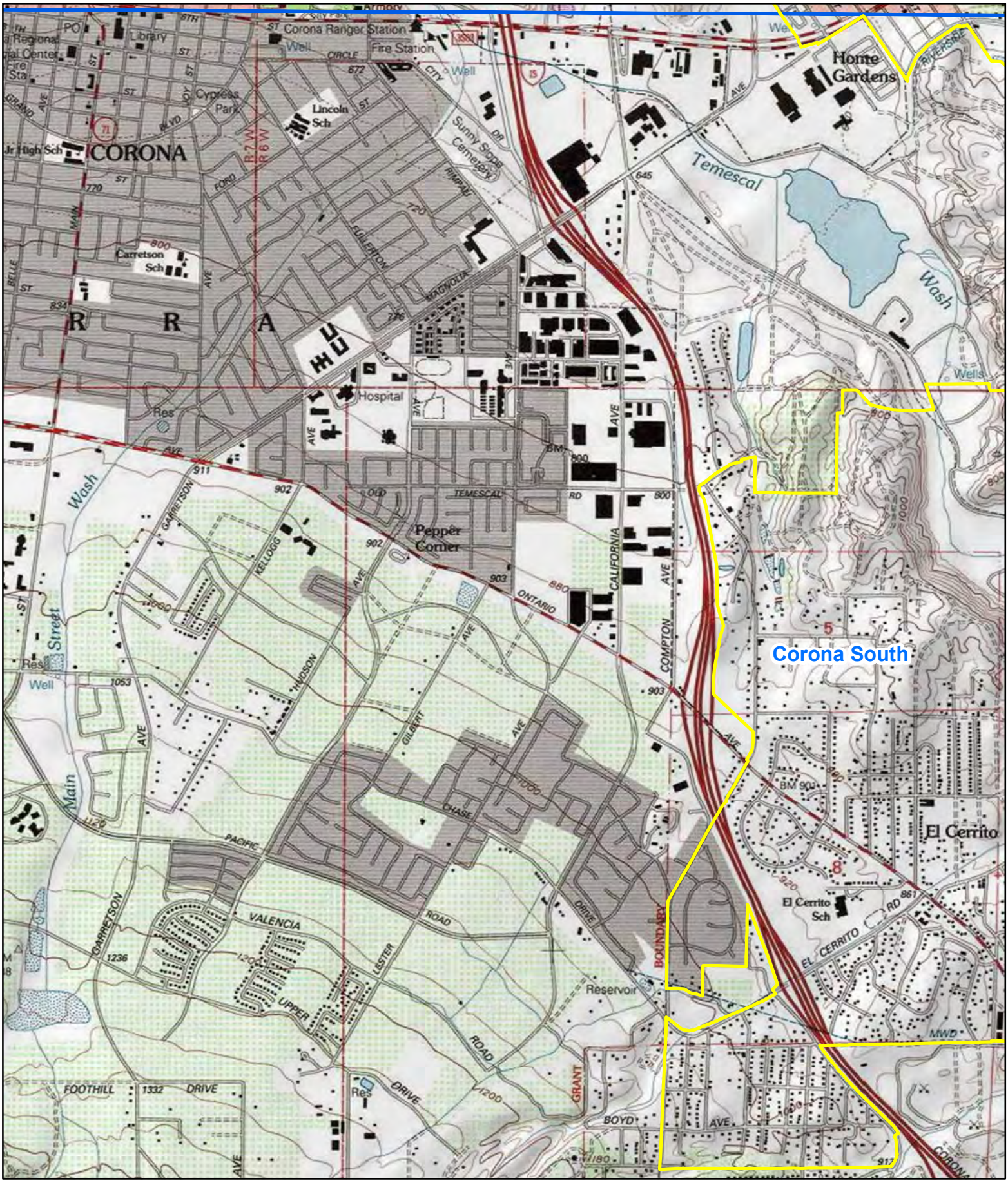


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

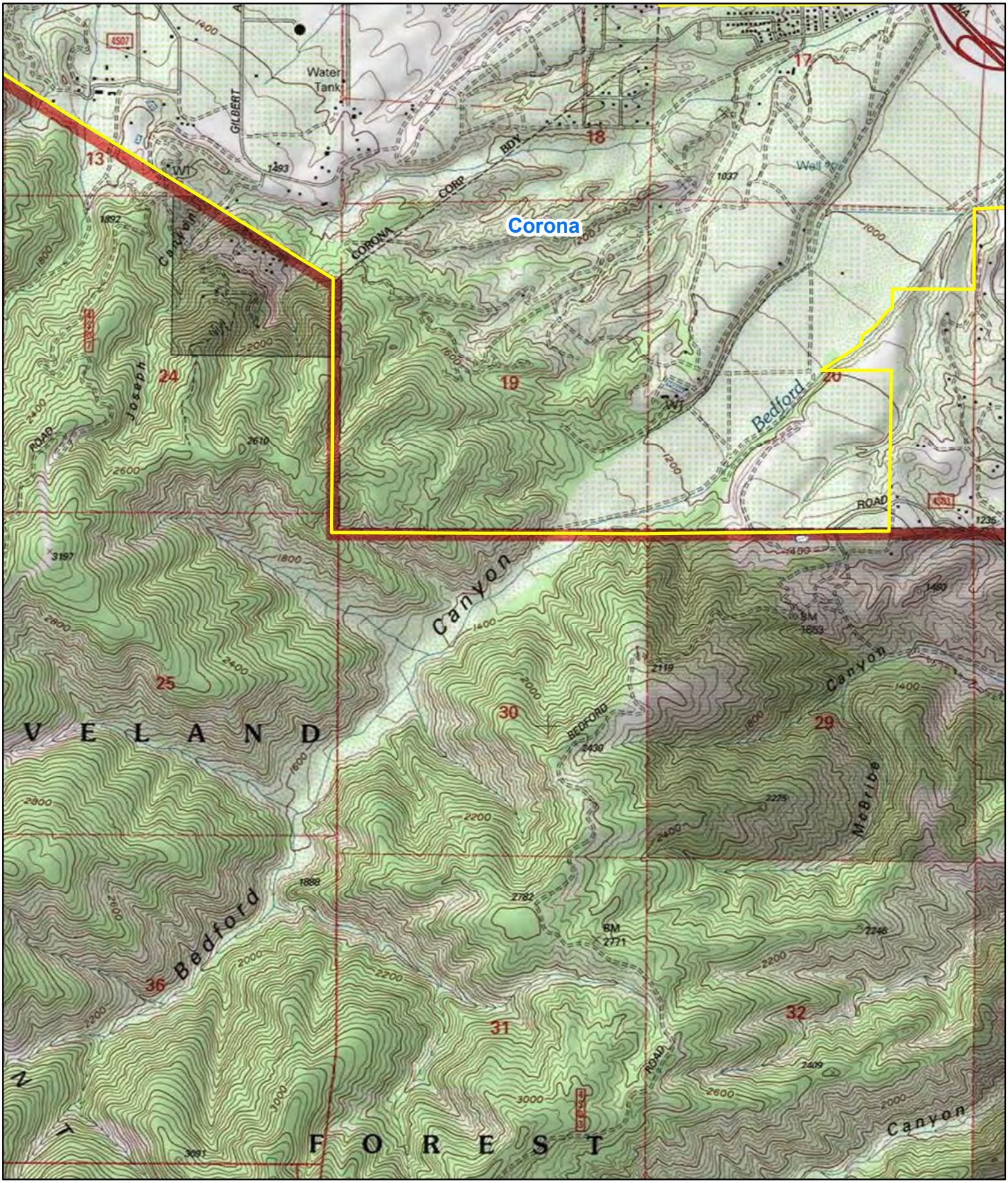
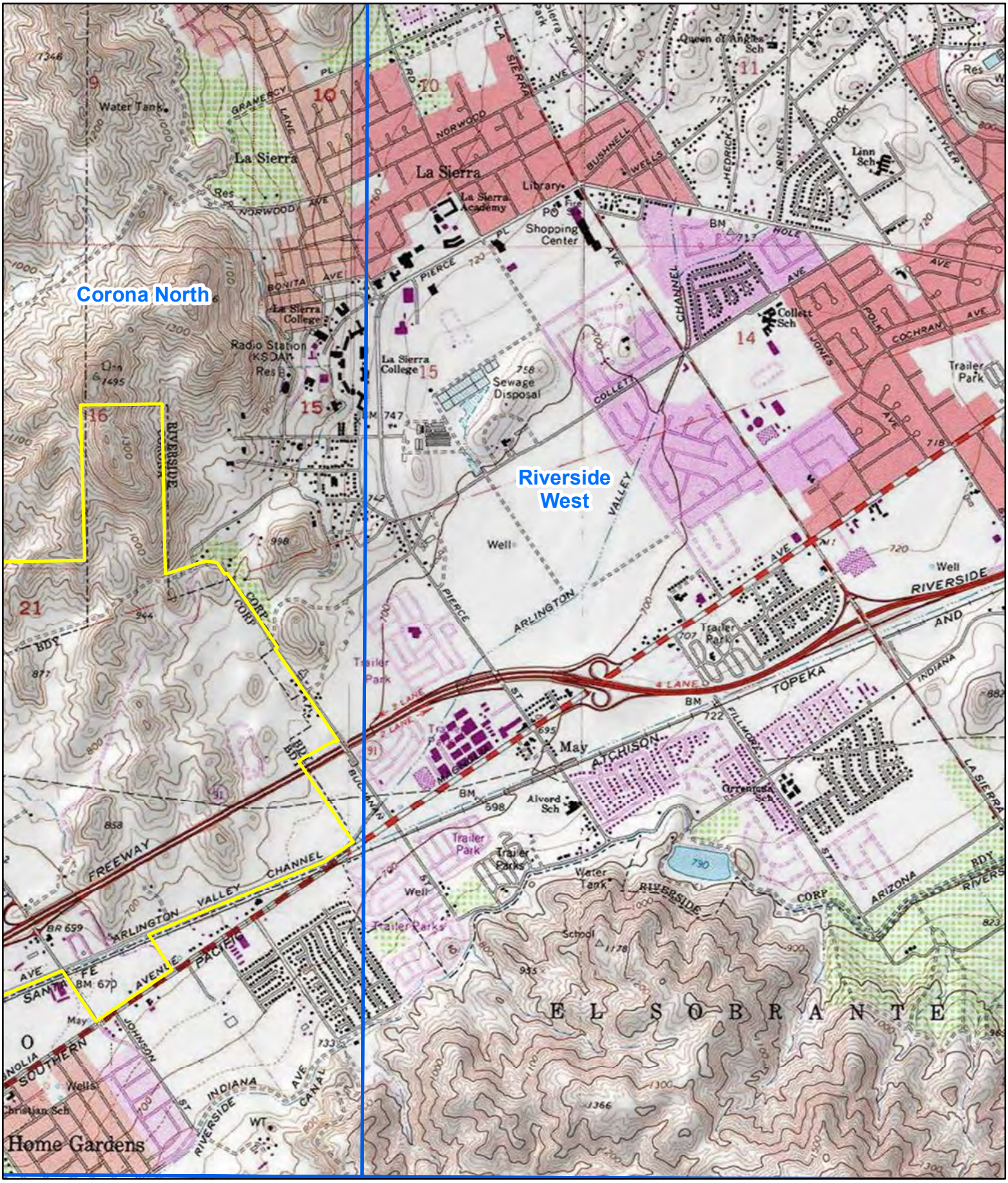


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

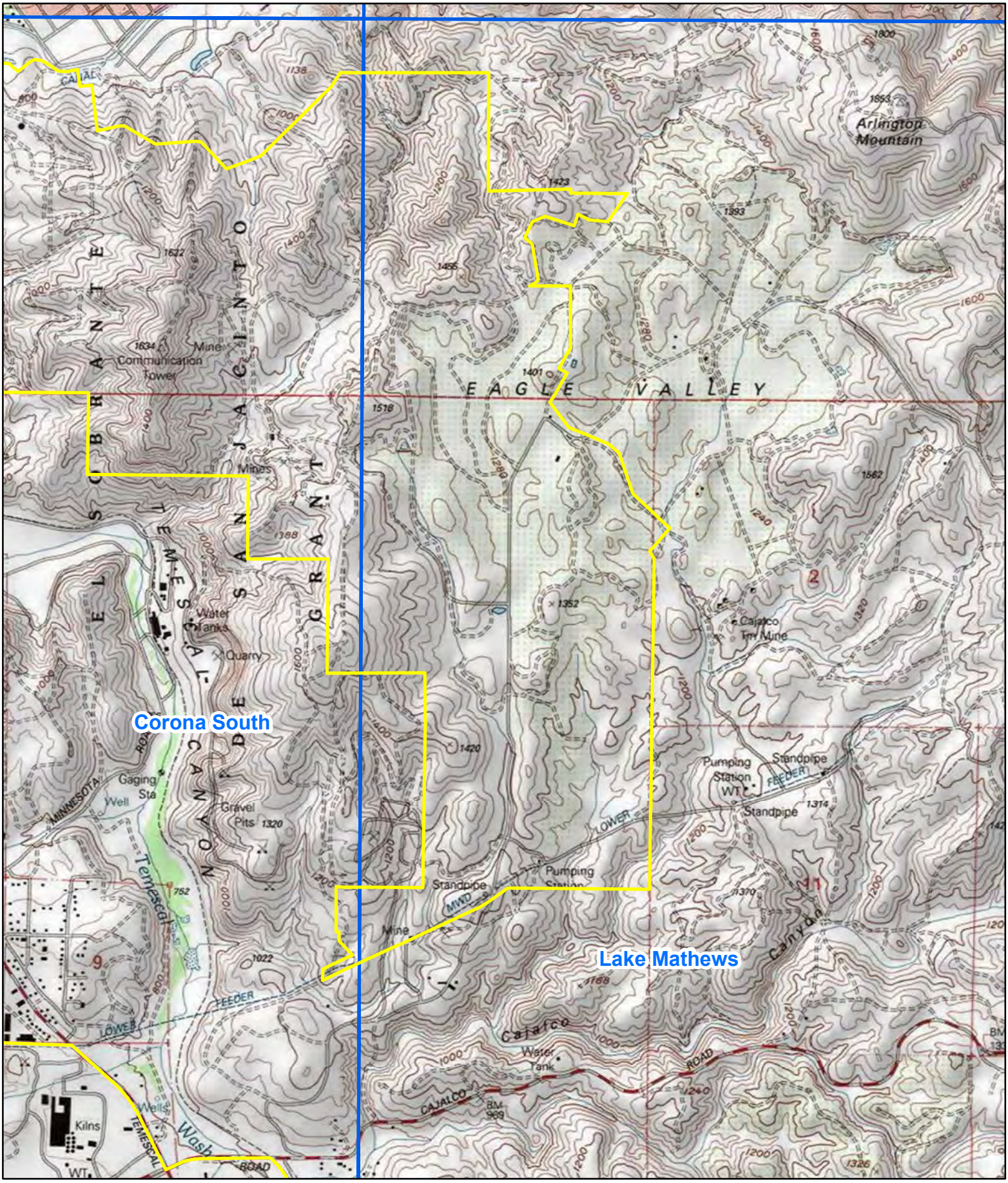
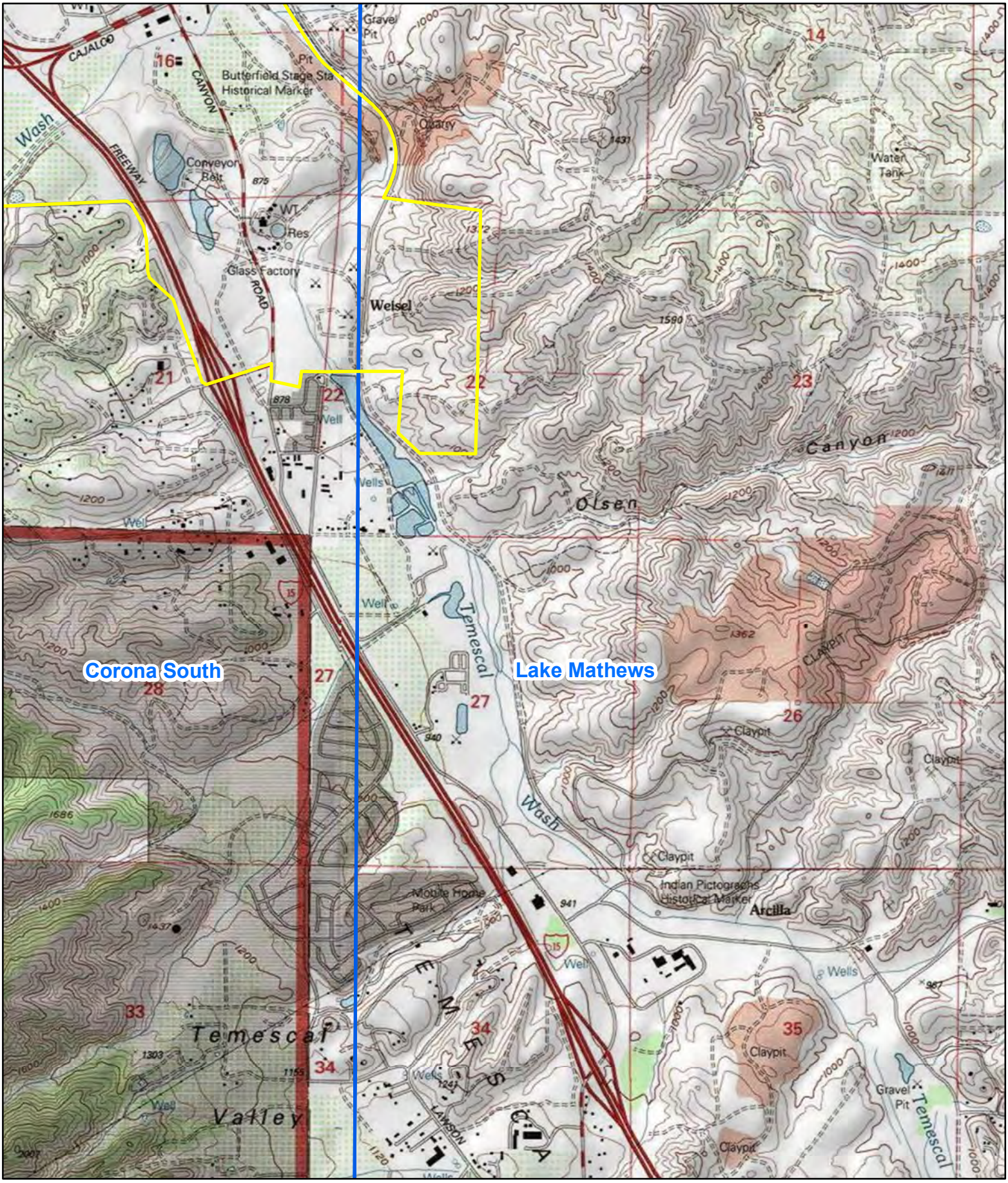


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

San Luis Rey Tribal Council
San Luis Rey Band of Mission Indians
1889 Sunset Drive, Vista, CA, 92081
760-724-8505
cjmojado@slrmissionindians.org

Re: City of Corona Reclaimed Water Project, Riverside County, California

To Whom It May Concern,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

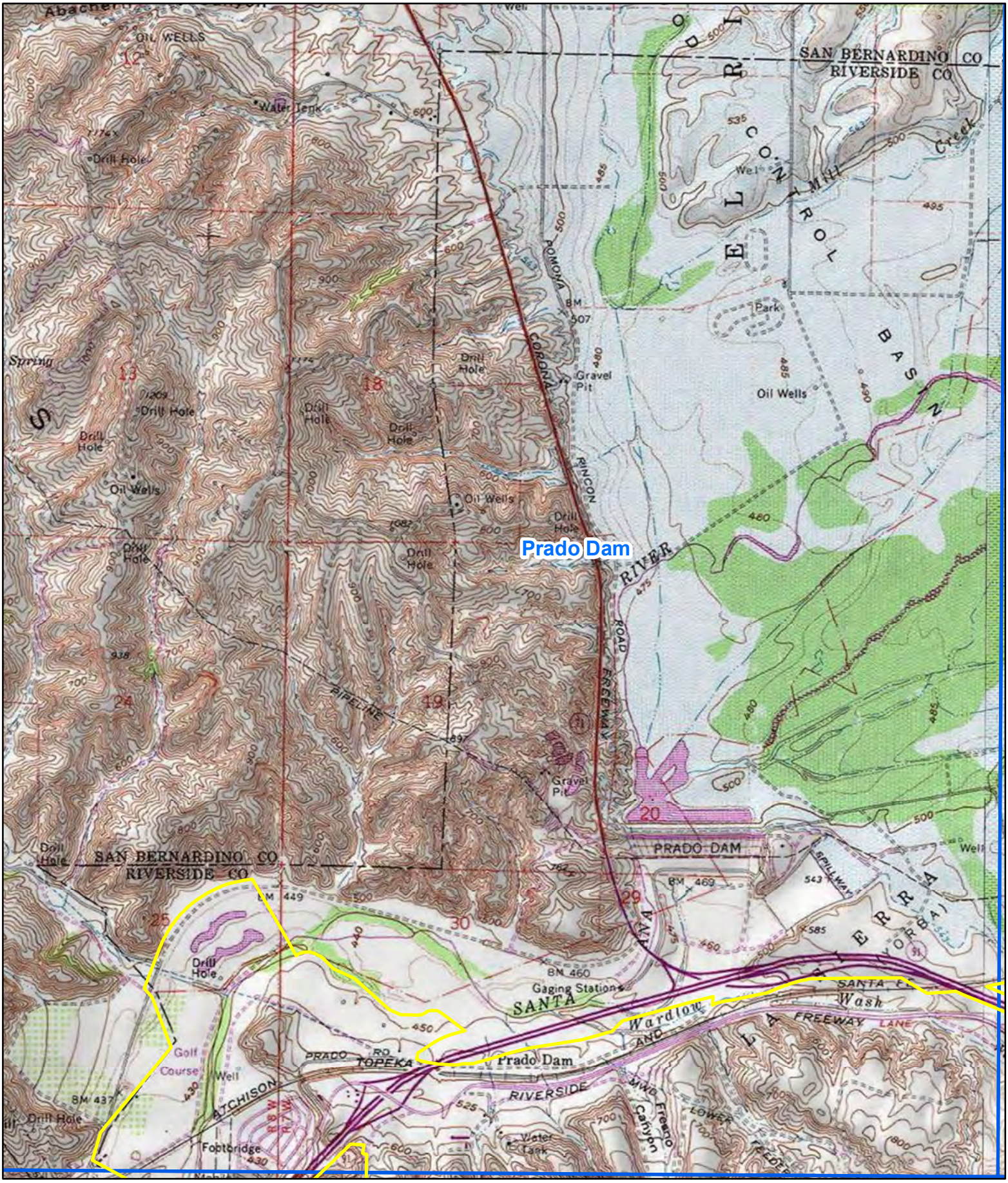


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

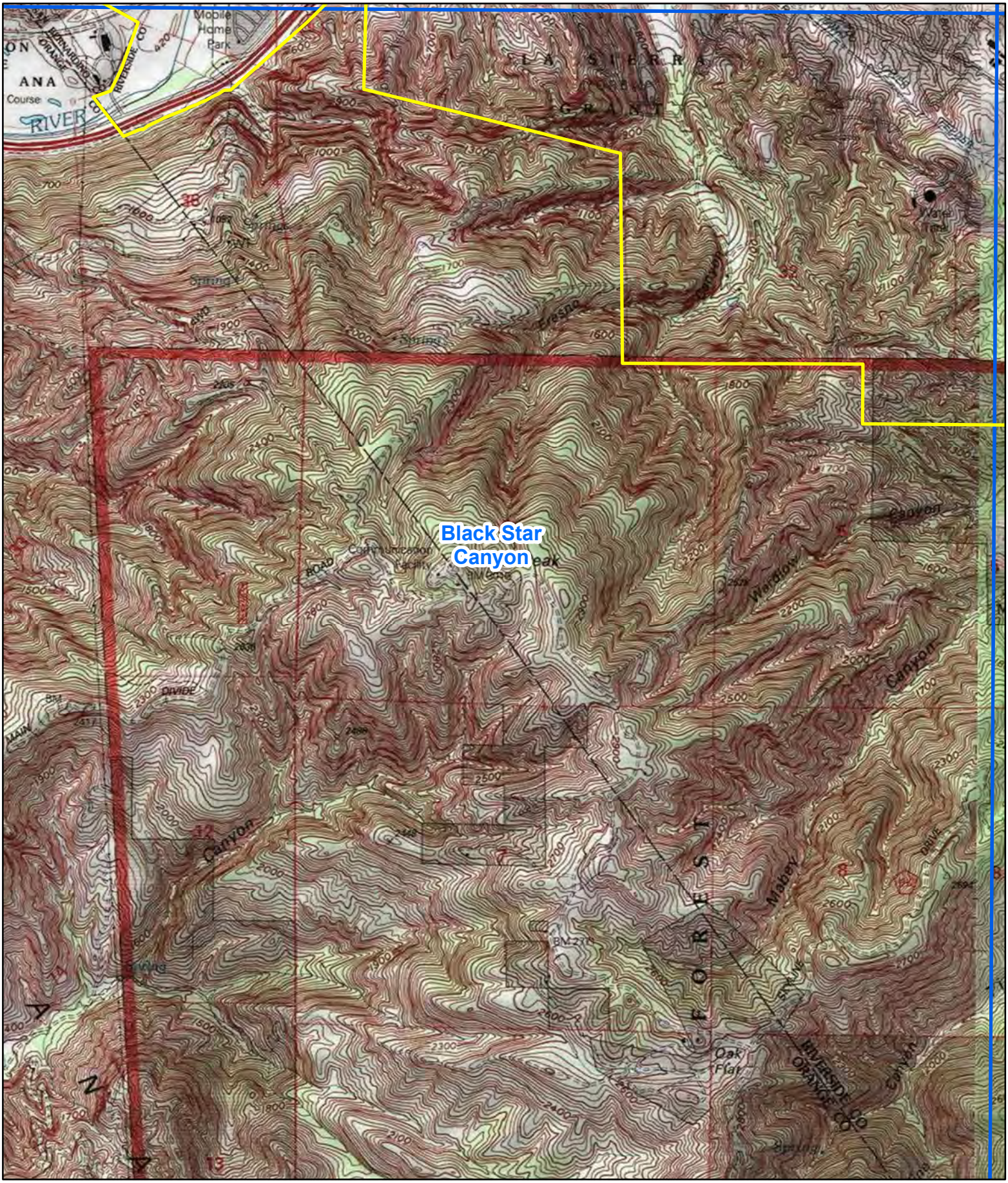
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

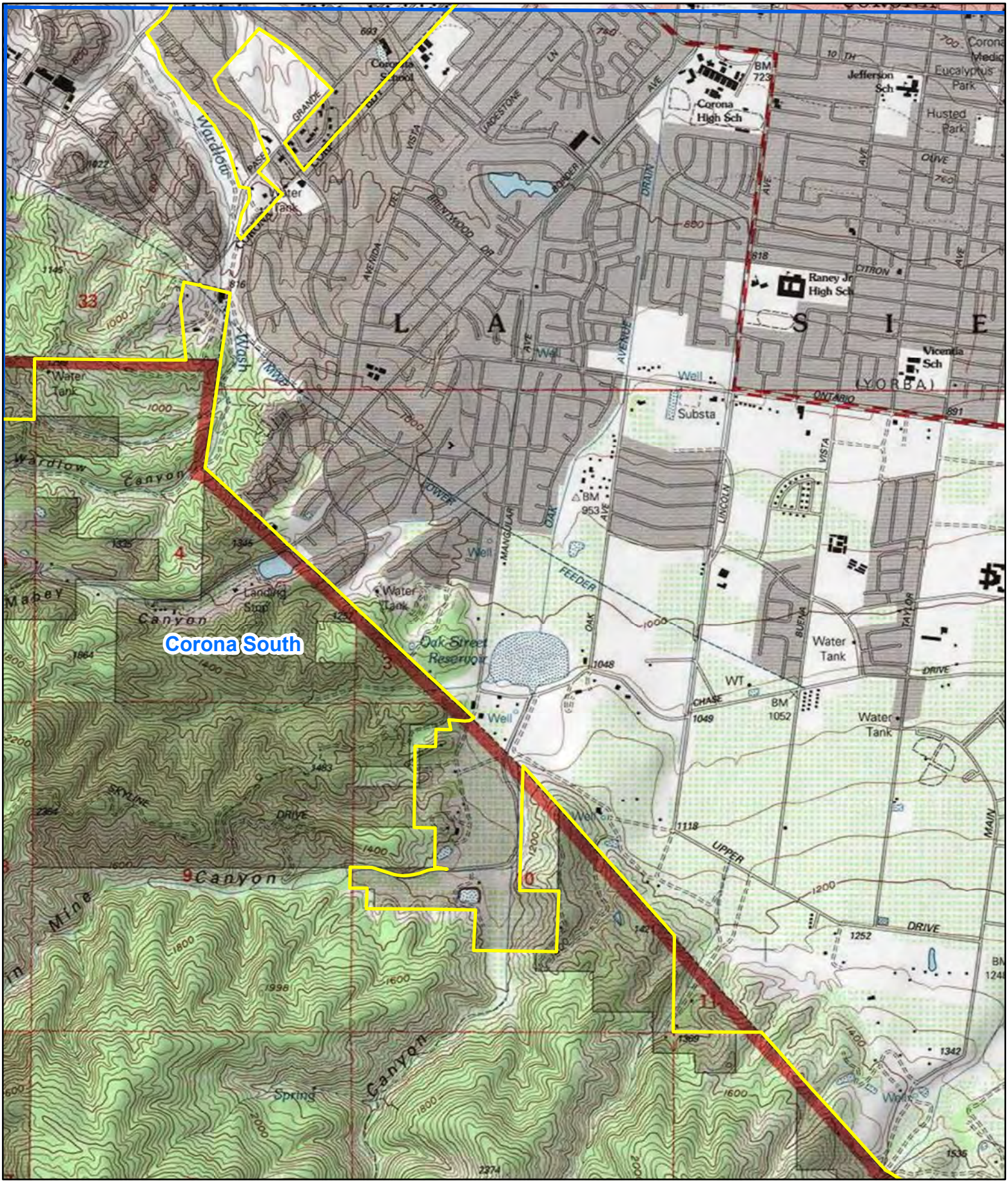
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

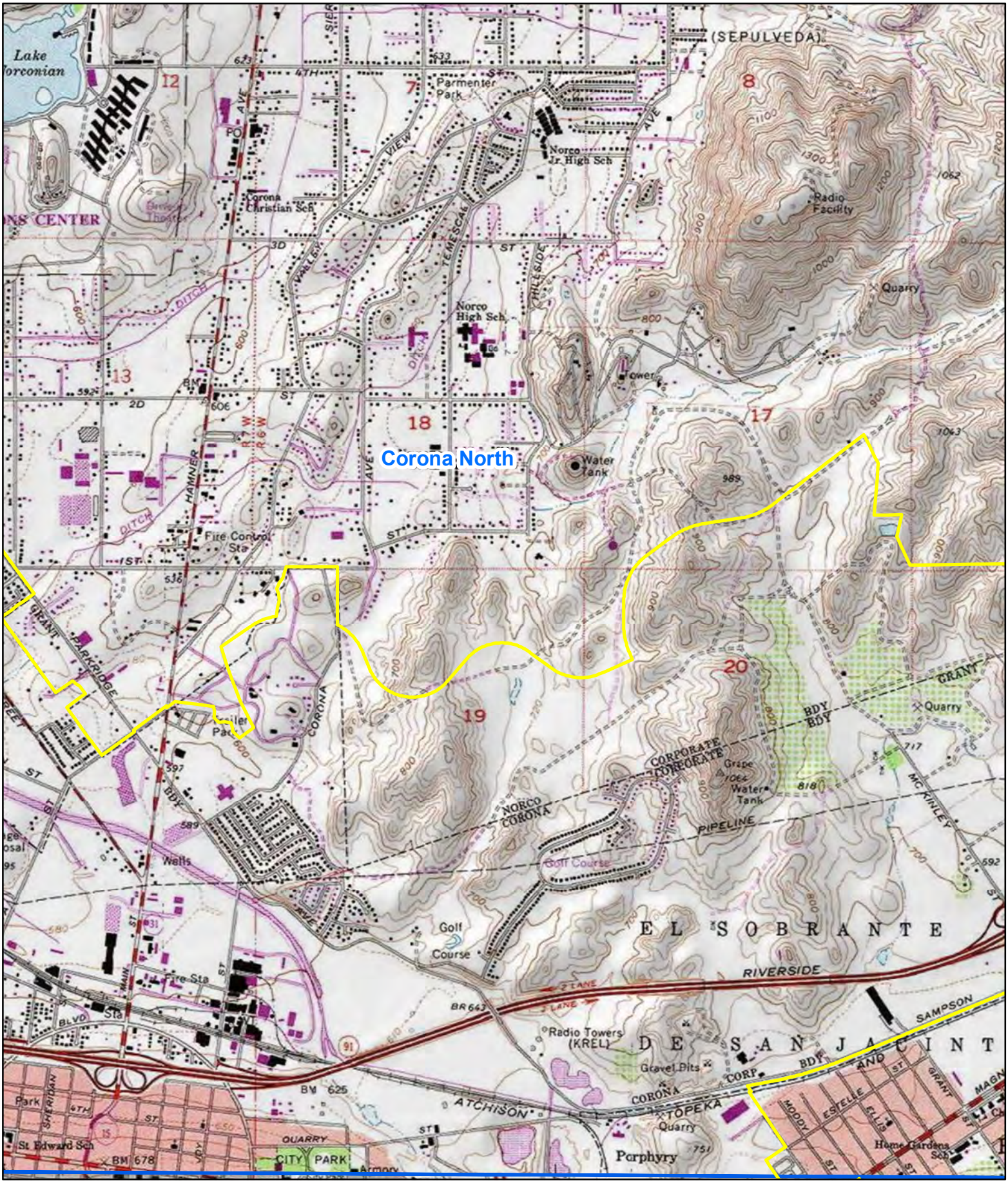
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

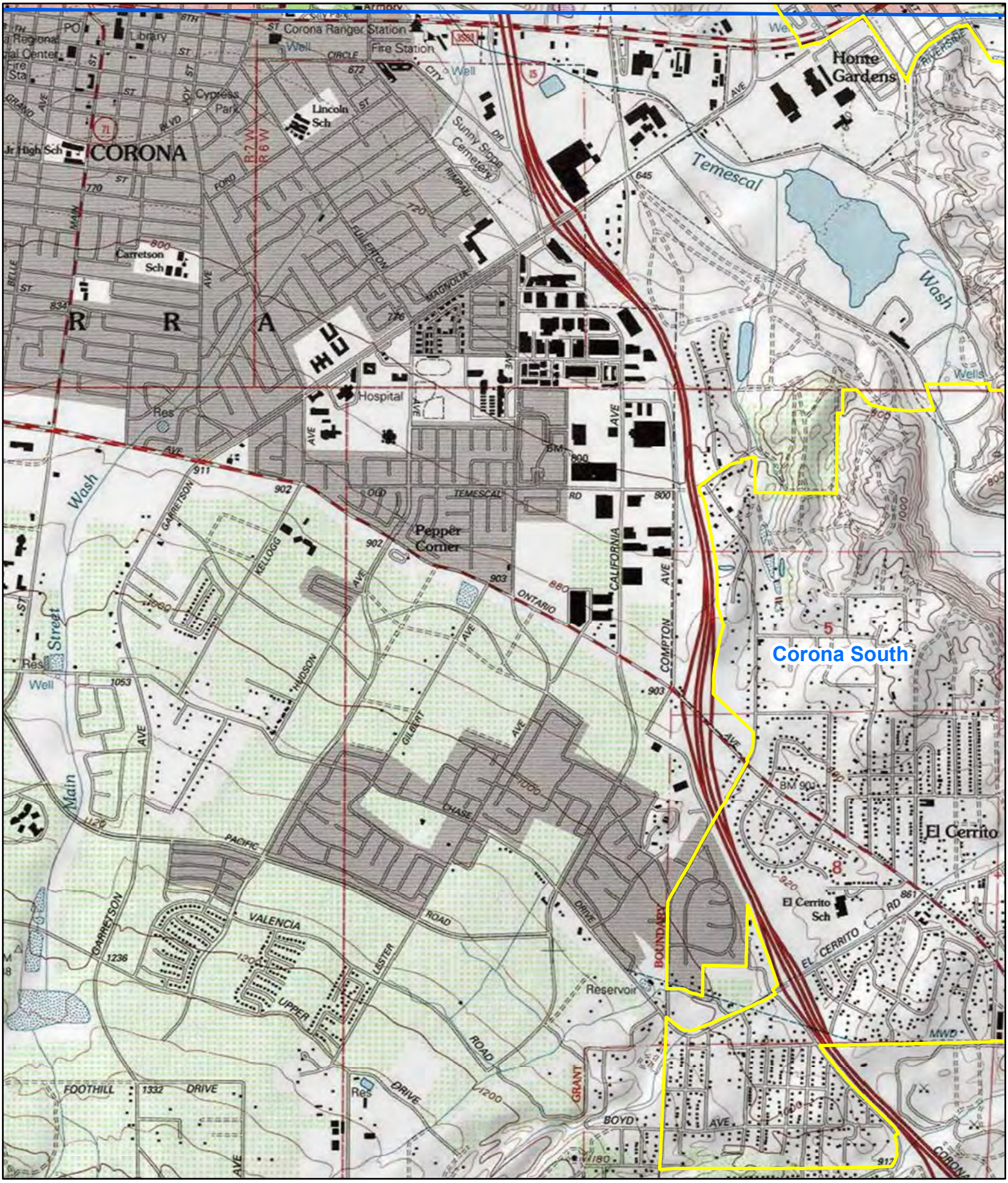


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

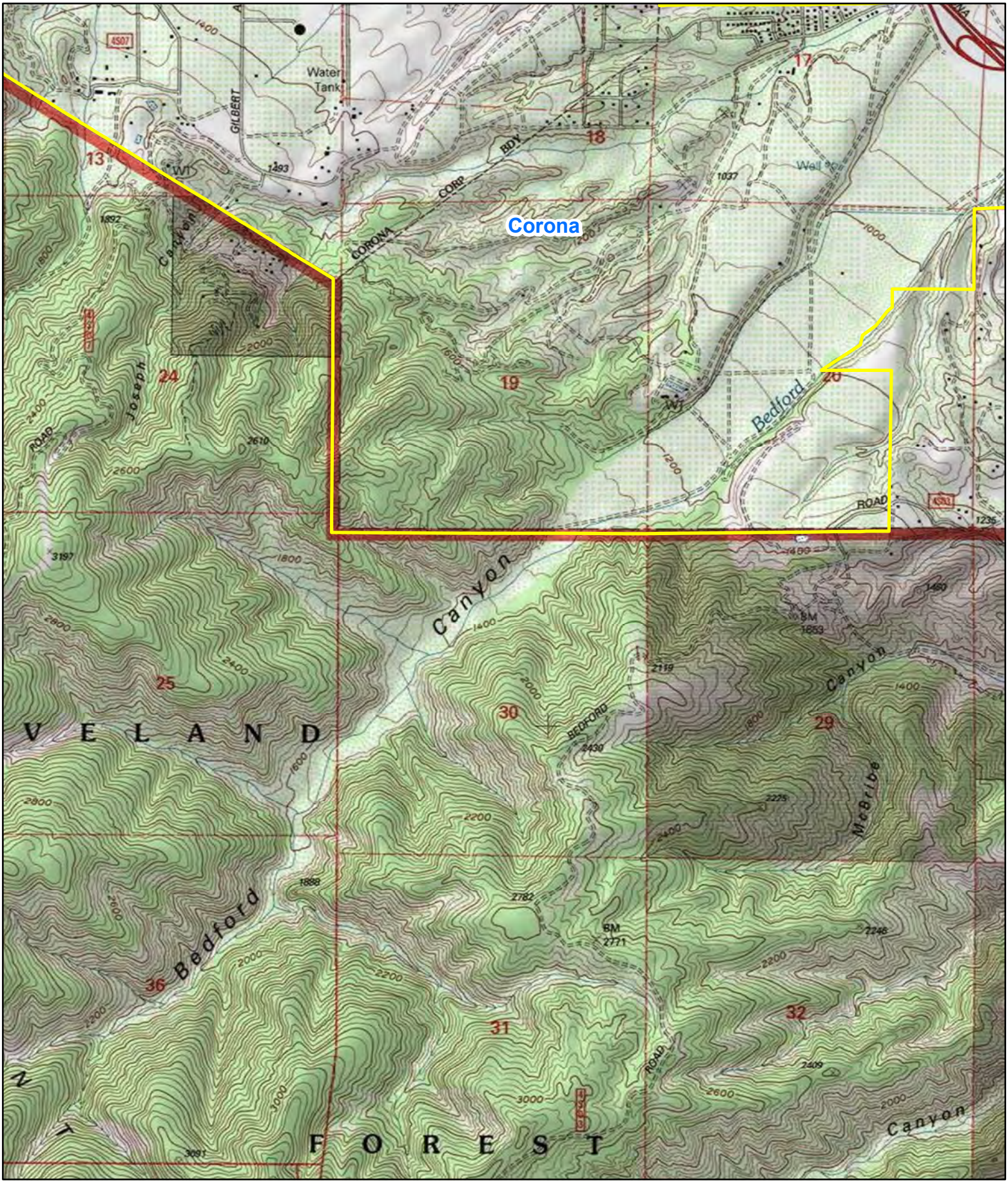
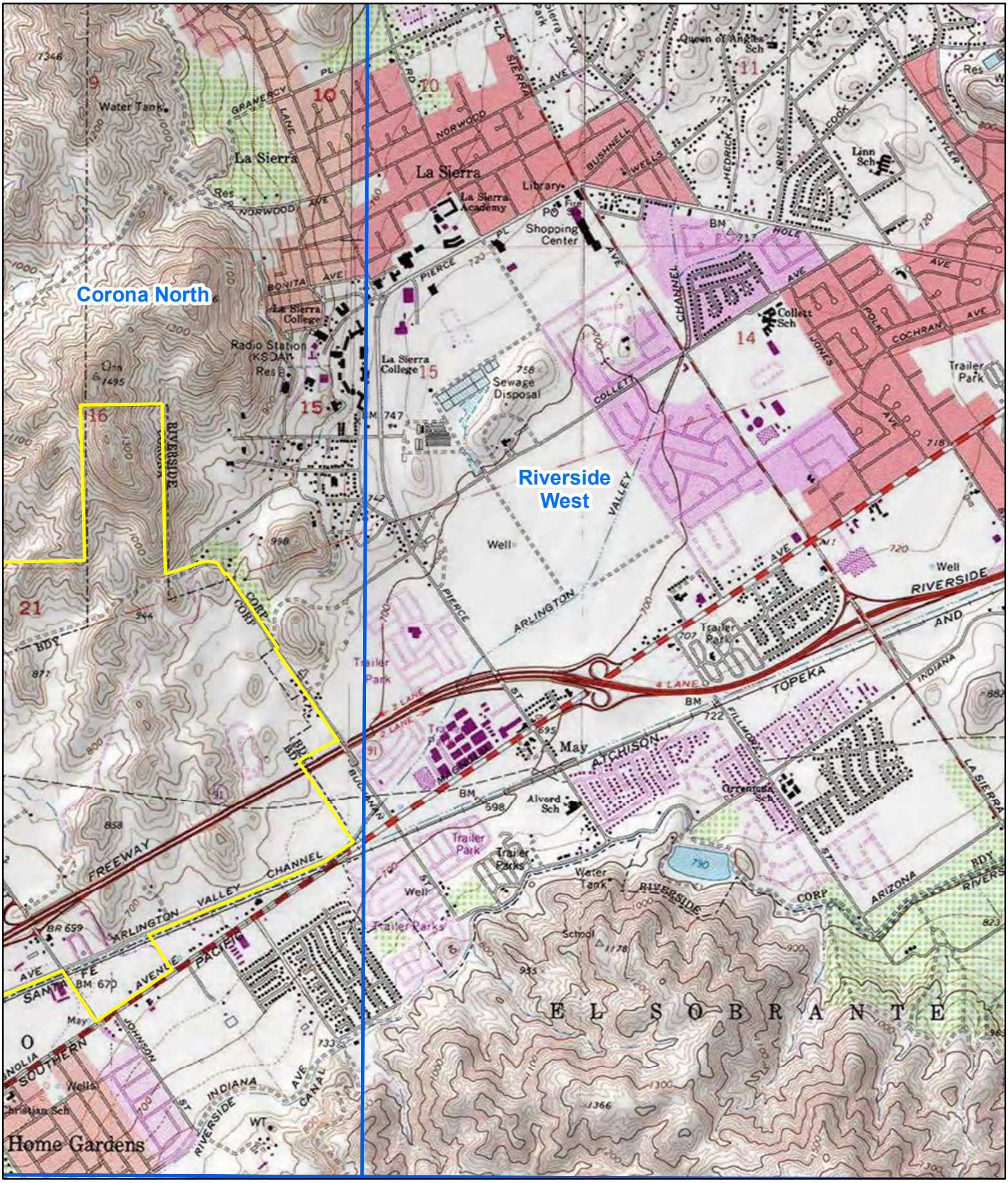


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

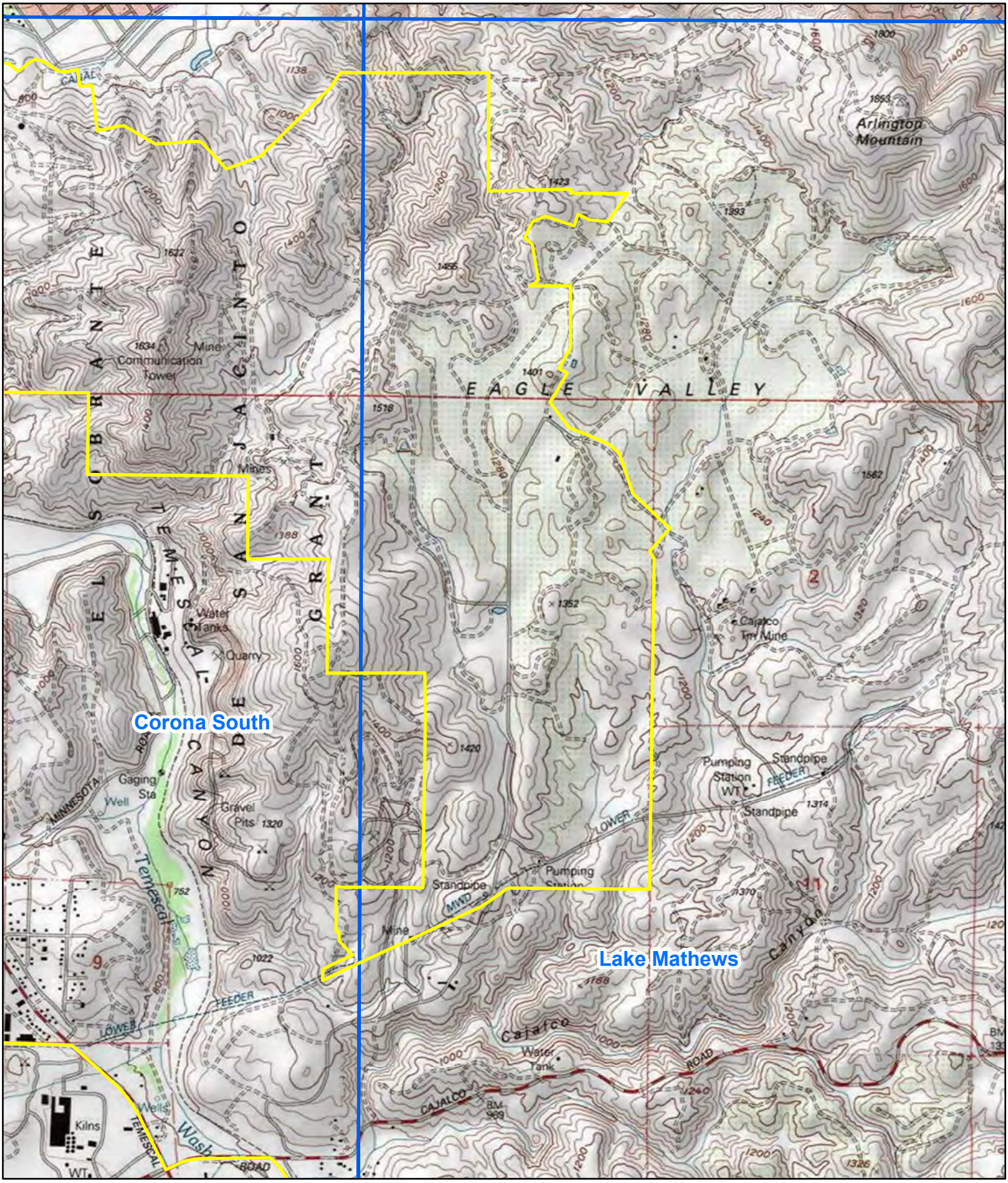
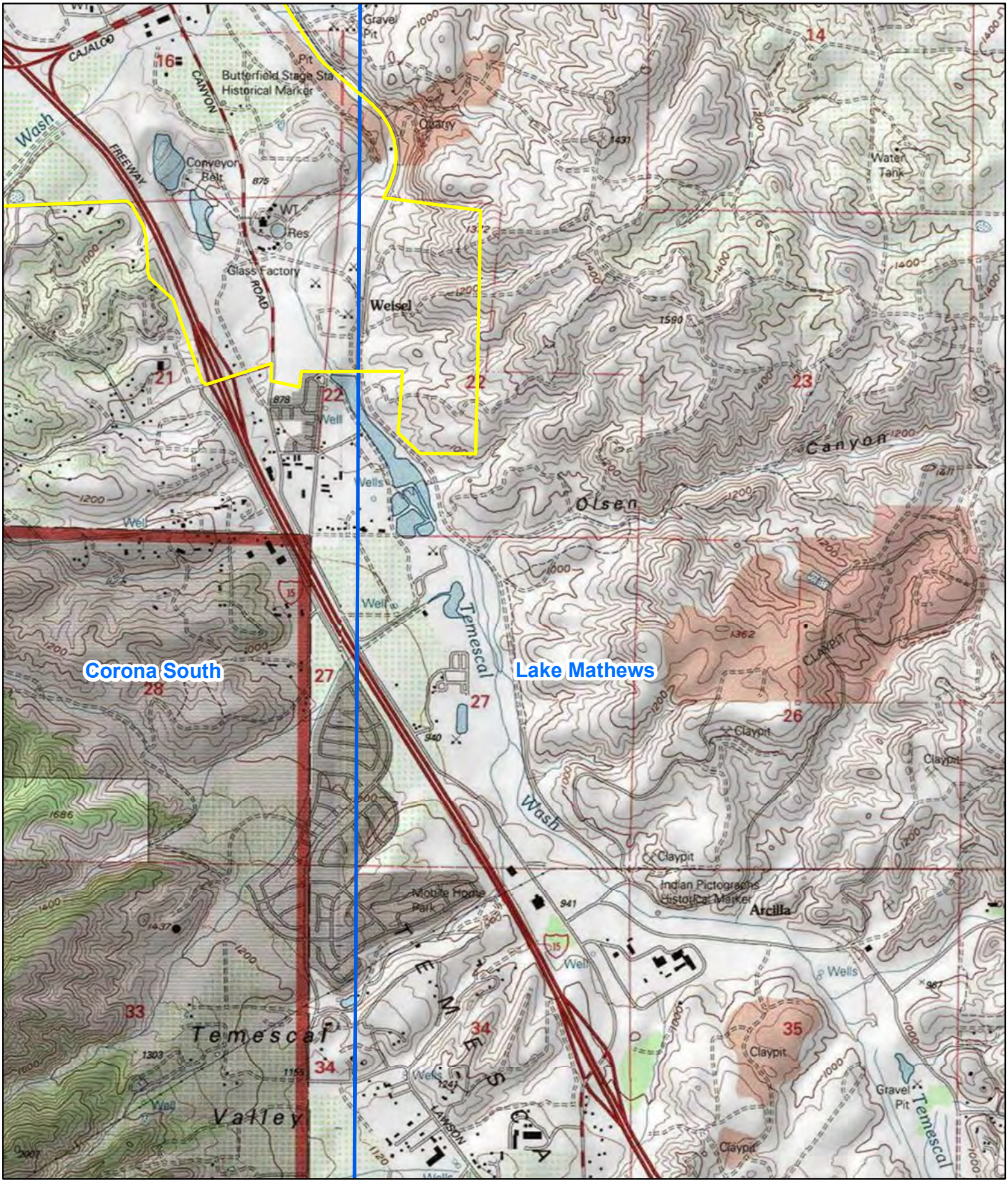


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Temet Aguilar
Chairperson
Pauma Band of Luiseno Indians
PO Box 369, Pauma Valley, CA, 92061
760-742-1289
bennaecalac@aol.com

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Aguilar,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

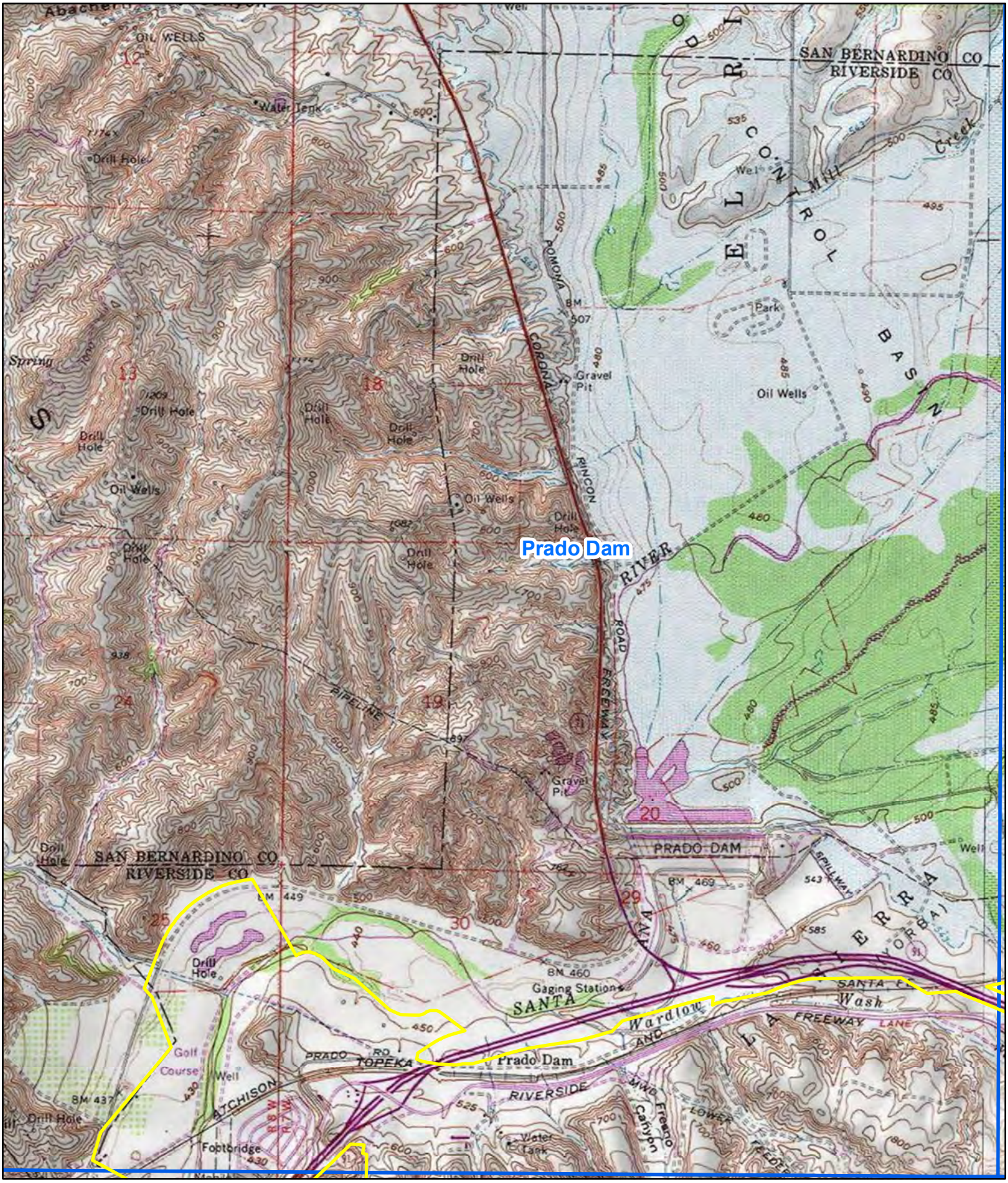


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

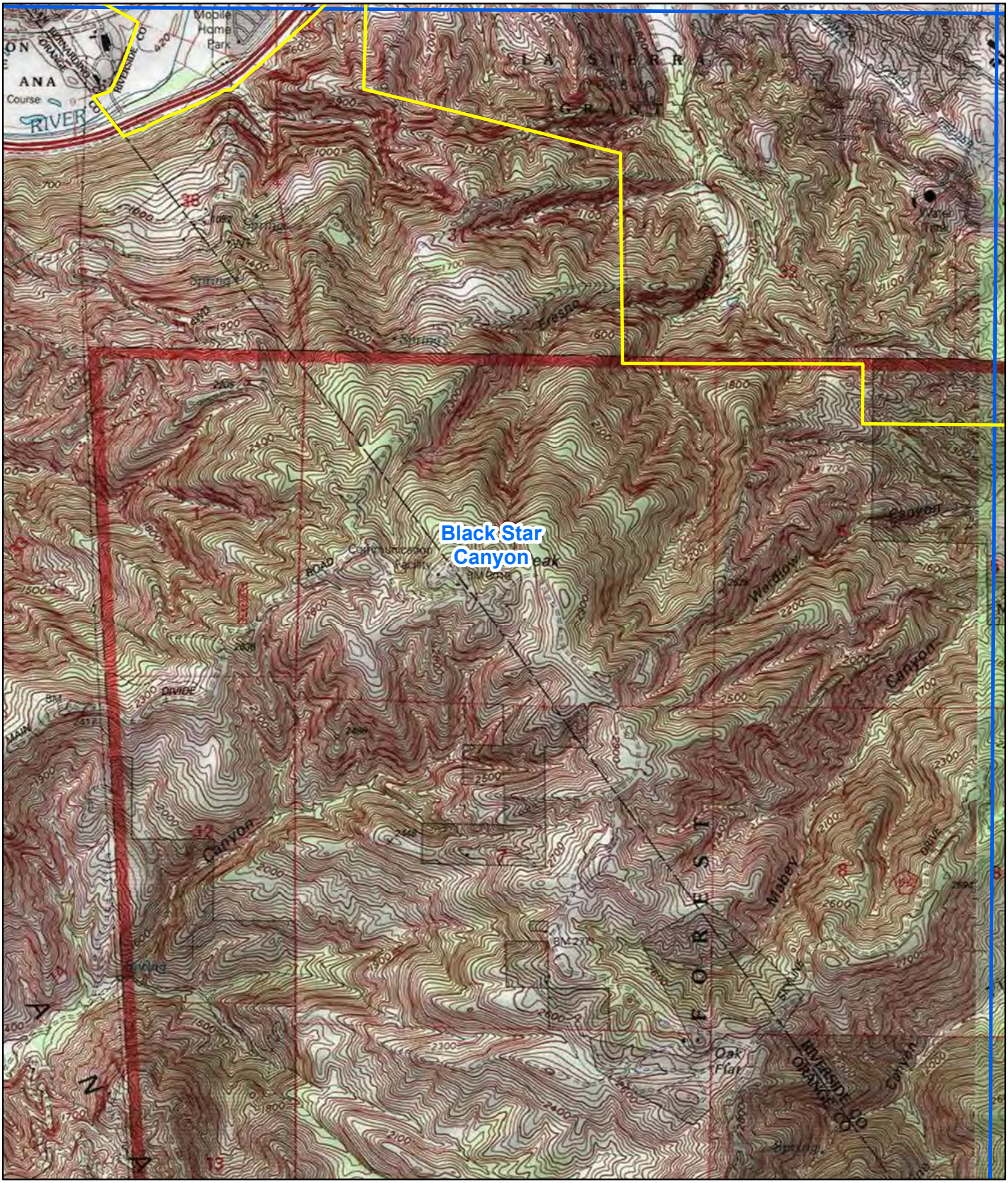
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

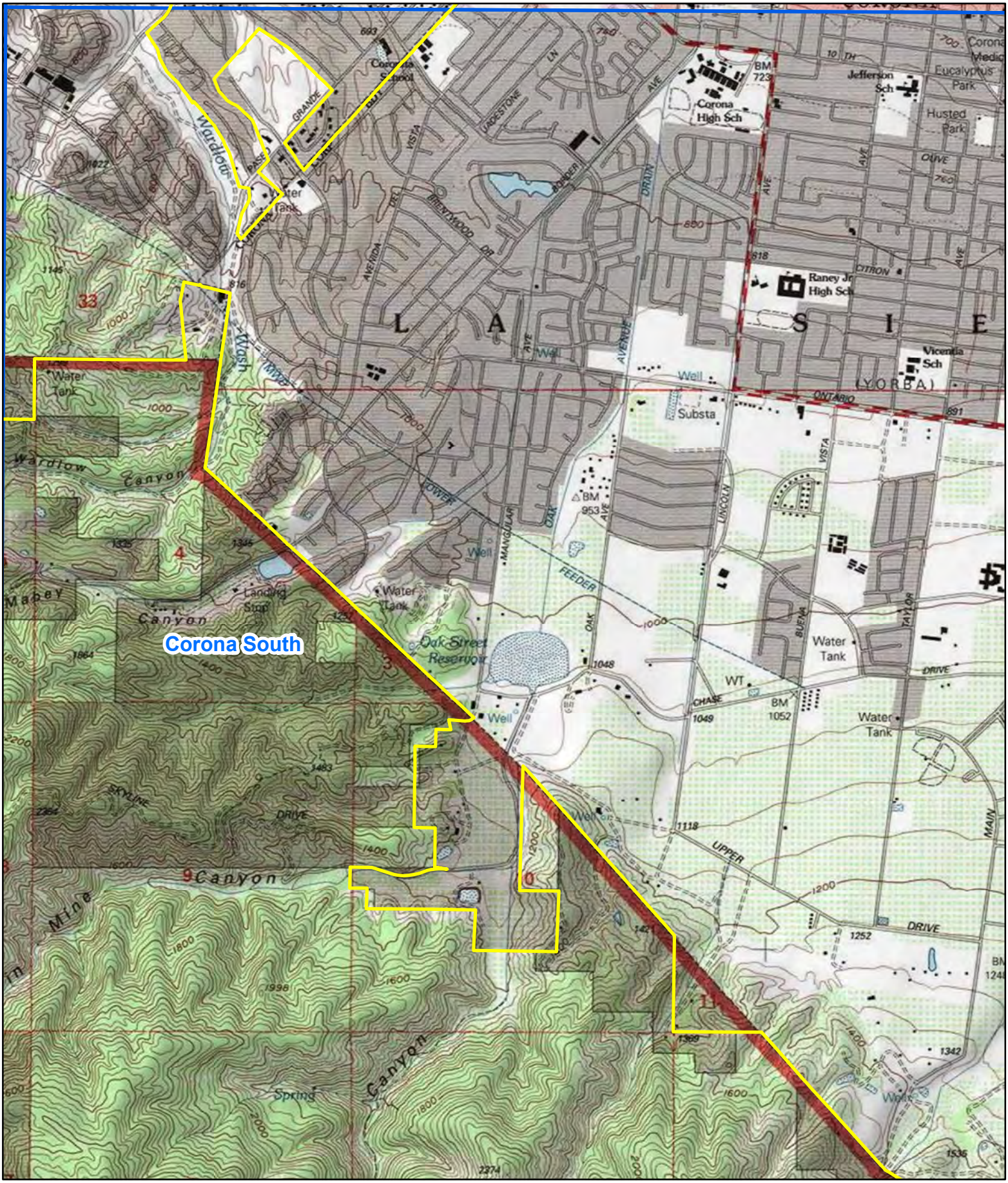
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

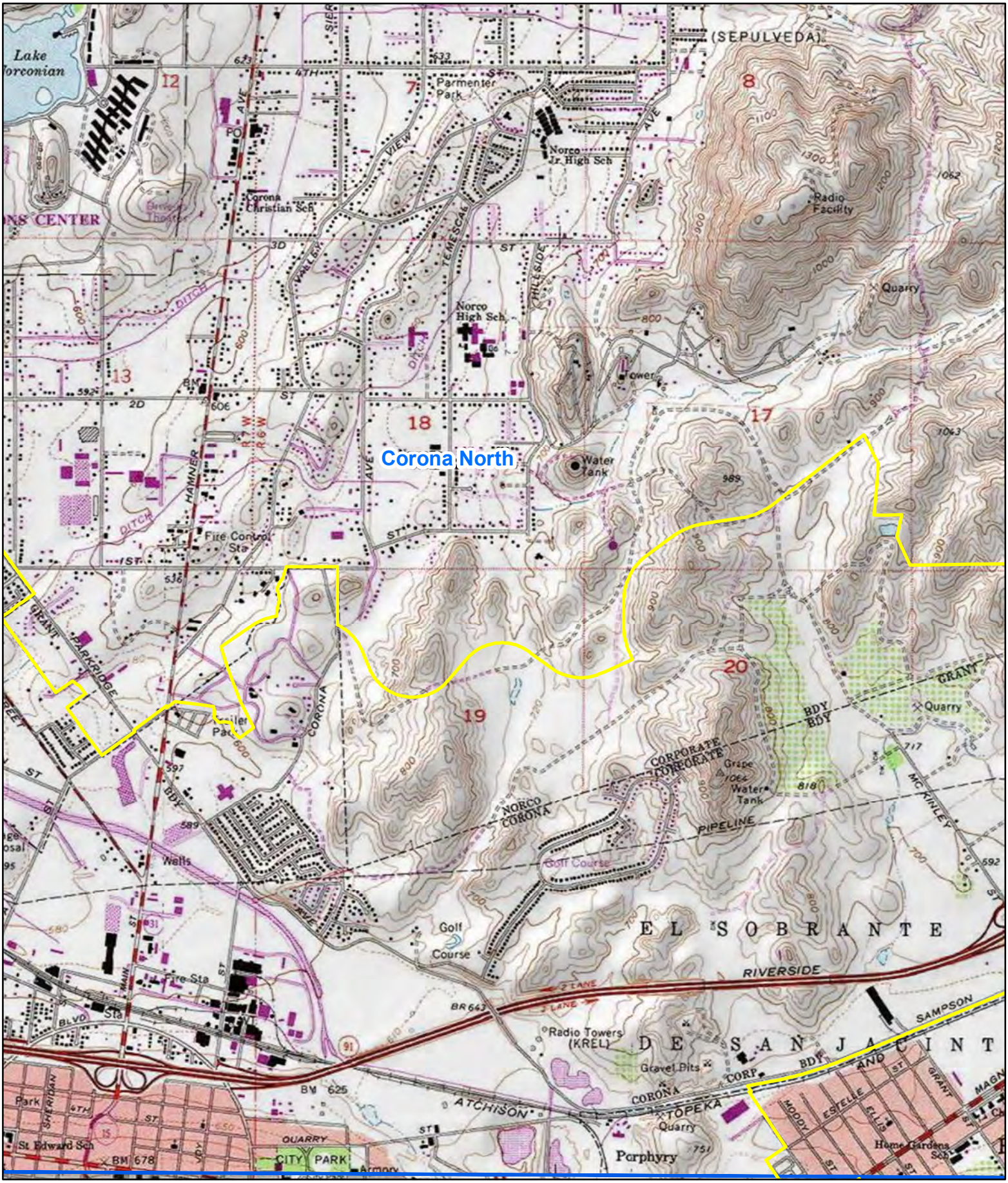
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

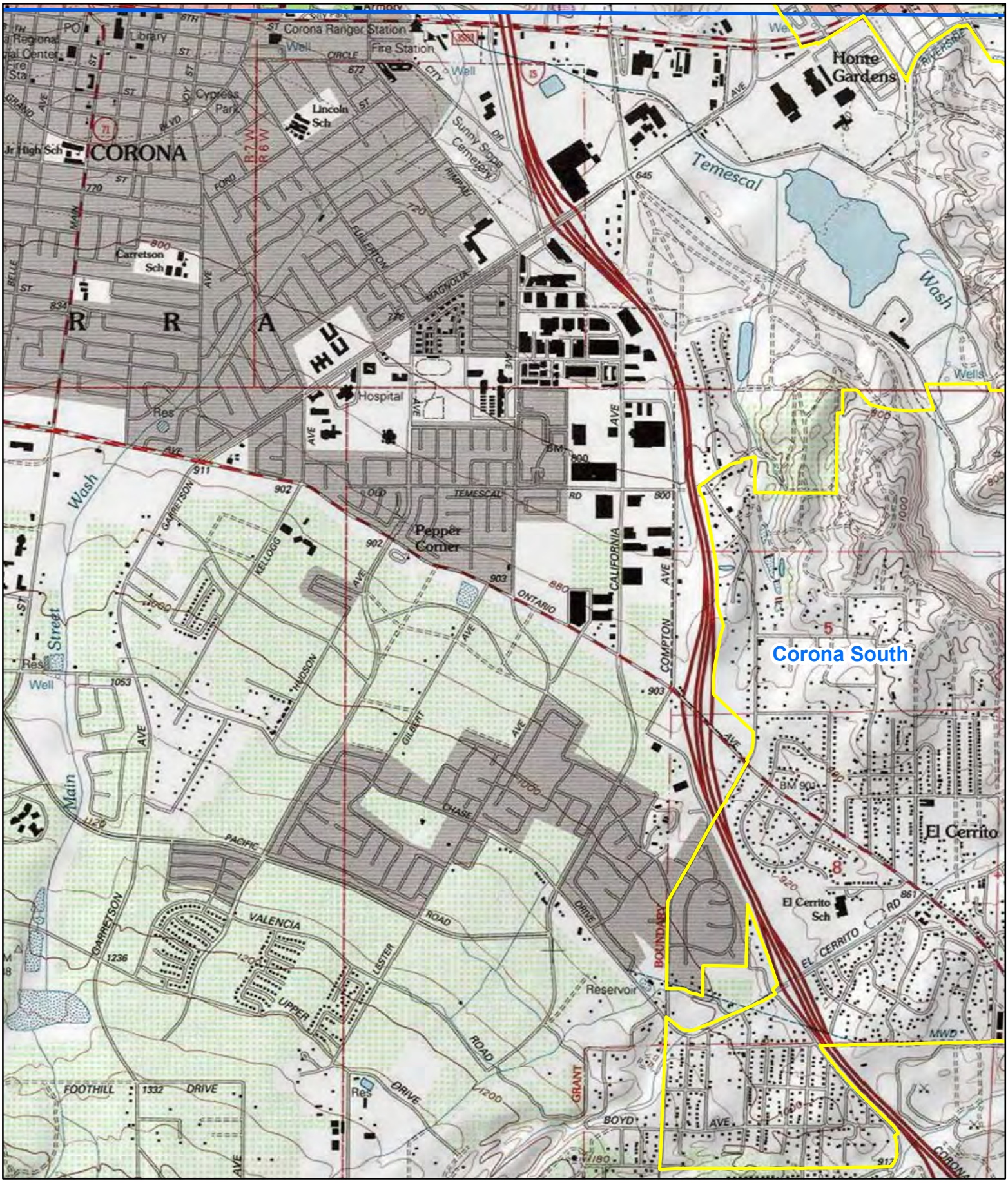


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

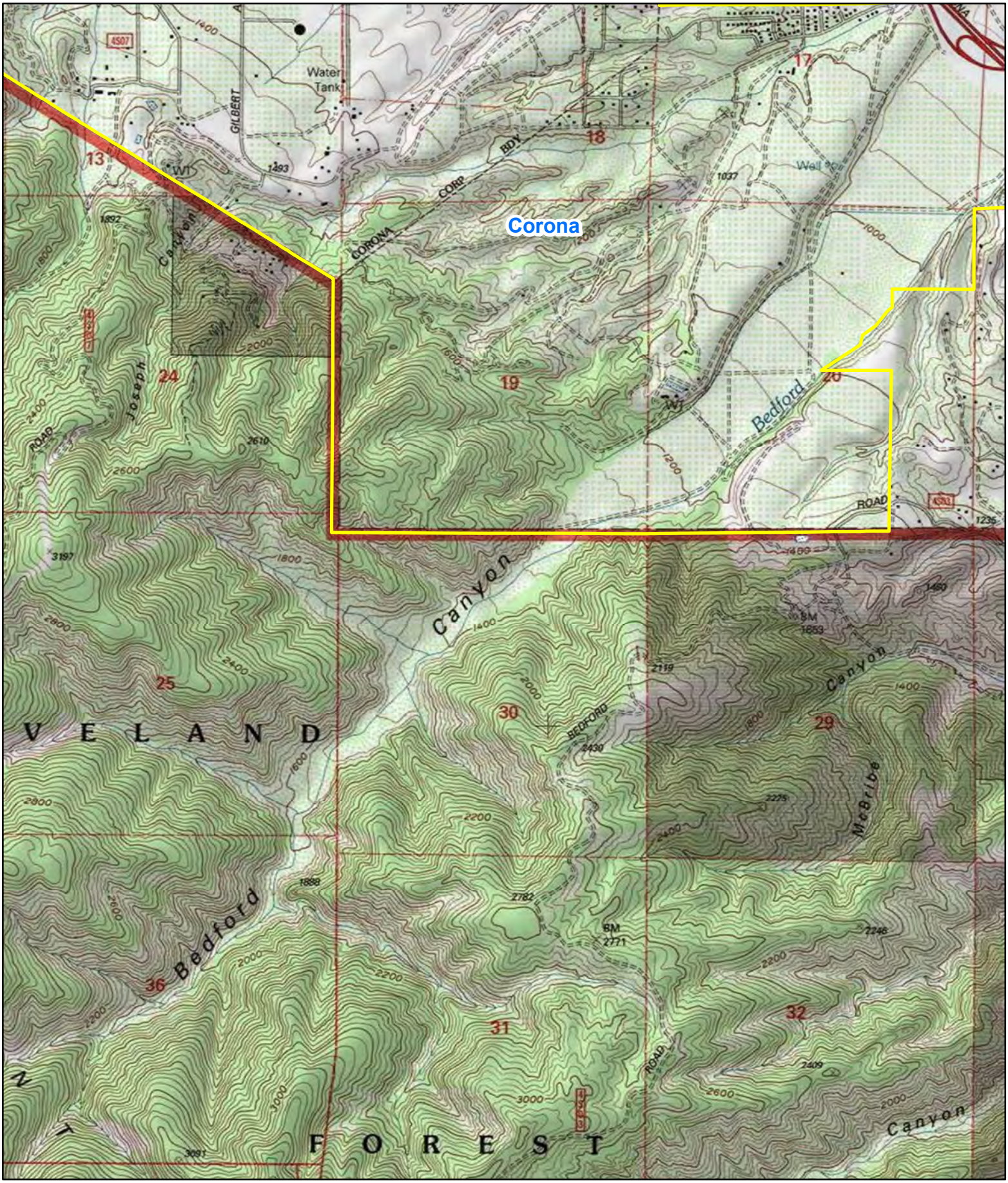
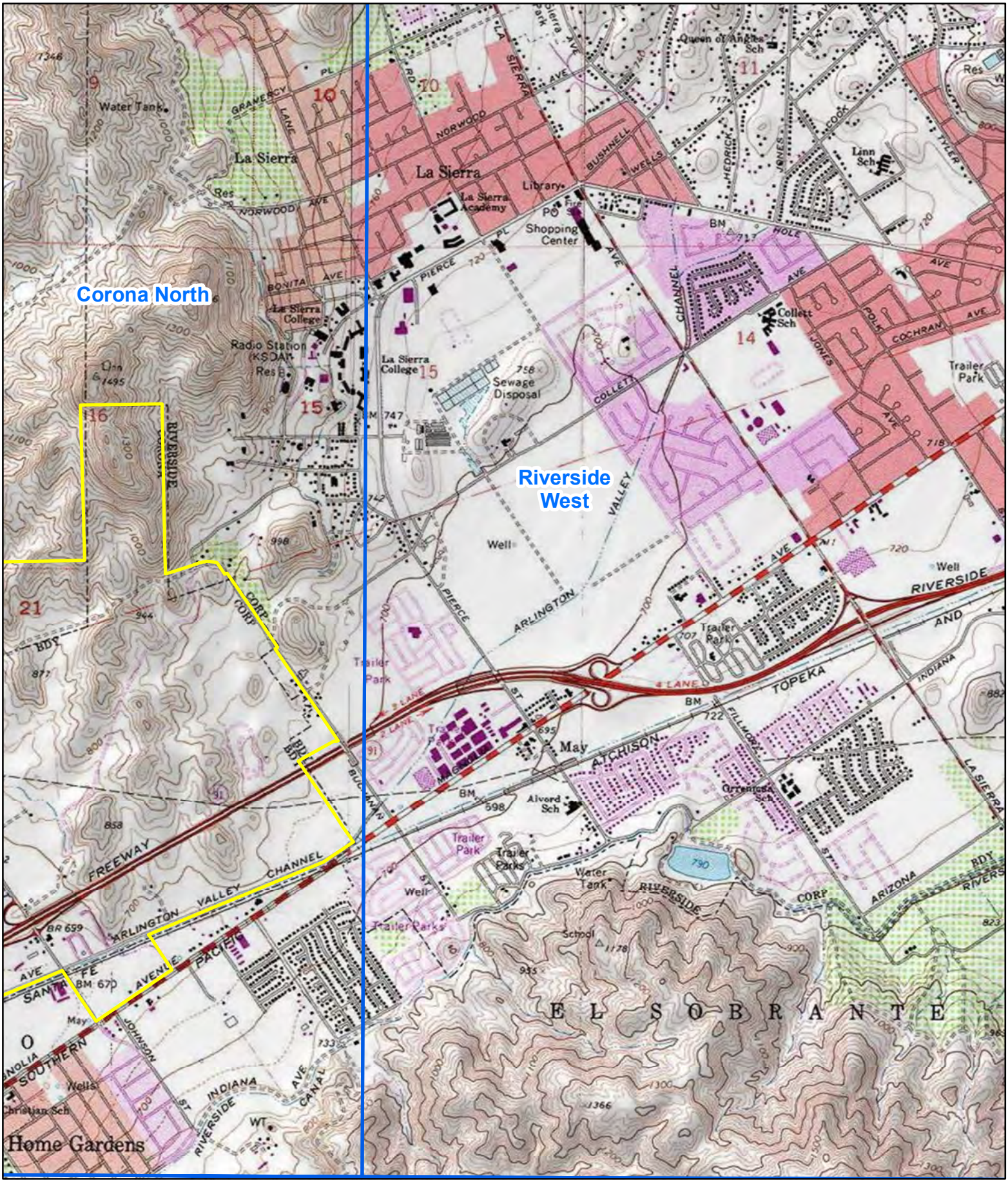


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

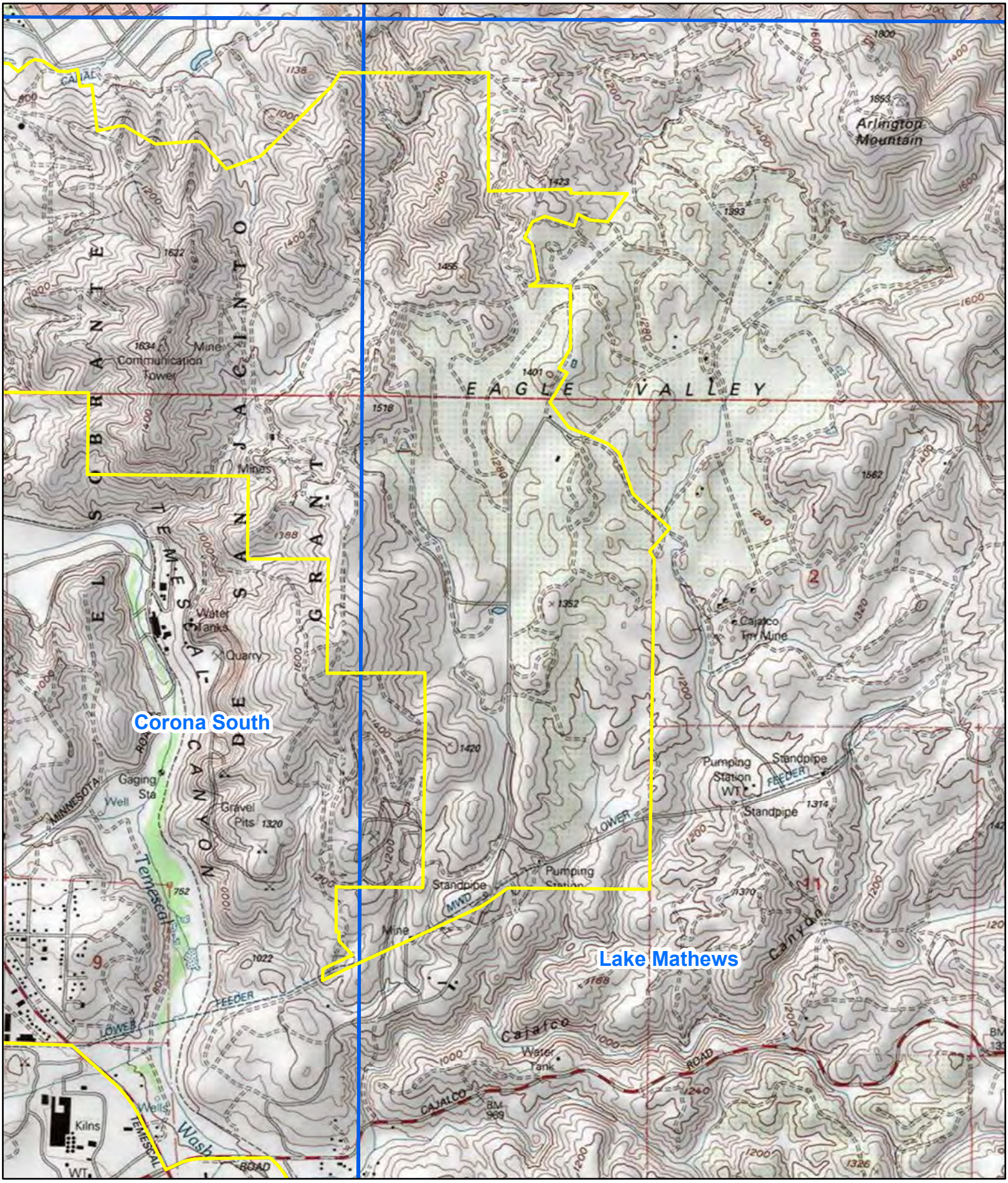
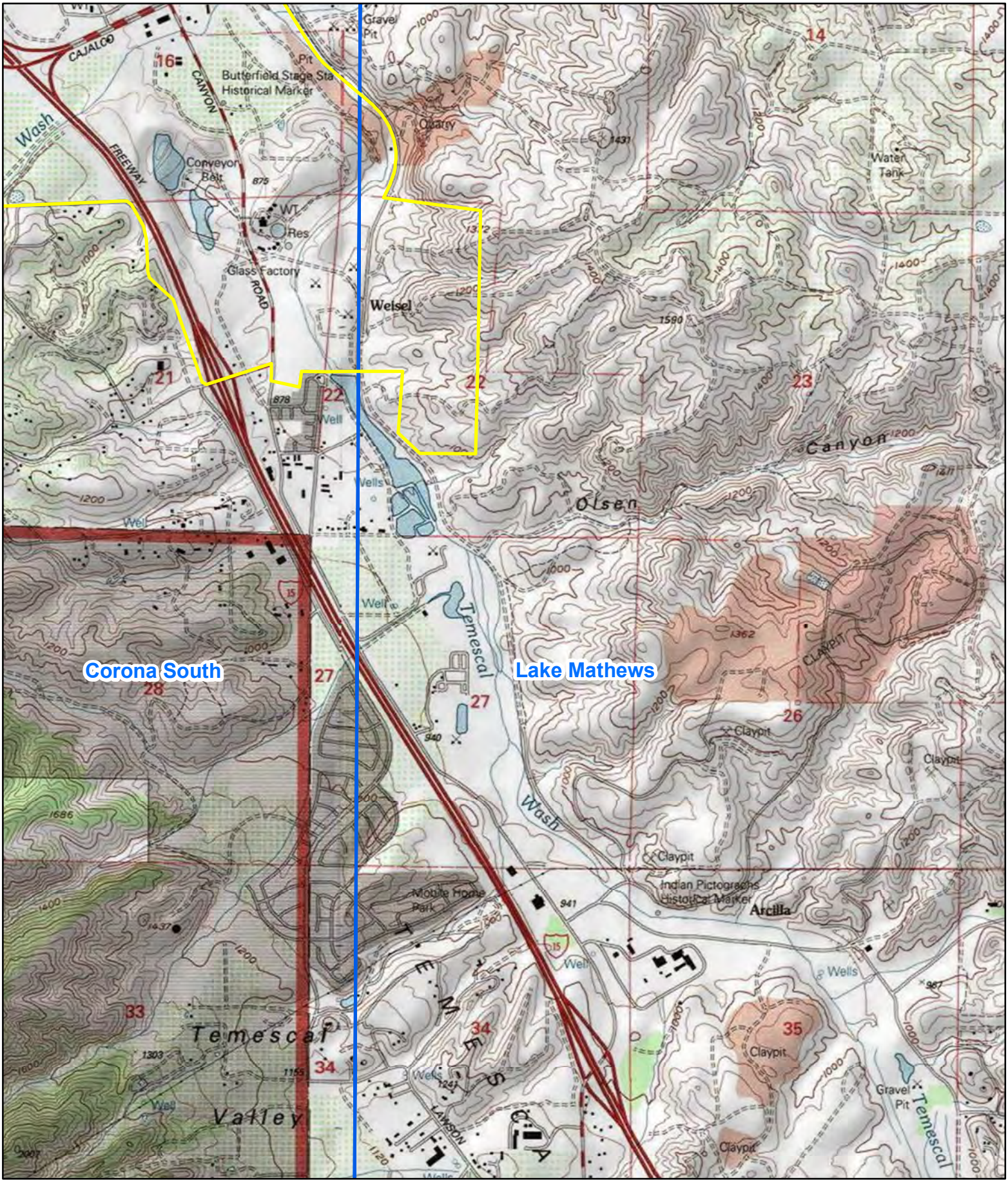


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL

April 6, 2020

Thomas Tortez
Chairperson
Torres-Martinez Desert Cahuilla Indians
PO Box 1160, Thermal, CA, 92274
760-397-0300
tmchair@torresmartinez.org

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Mr. Tortez,

Red Tail Environmental (Red Tail) is conducting an archaeological study for the City of Corona Reclaimed Water Project (project), located within the City of Corona, Riverside County, California. The project area includes the entire City of Corona and the city's sphere of influence. The project is subject to the California Environmental Quality Act (CEQA) and will assess the environmental impact of the City of Corona's Reclaimed Water Master Plan. The City of Corona is the lead agency. The project area is shown on the following USGS 7.5' Quad Maps:

- USGS 7.5' Prado Dam Quad map within:
  - Township 3 South Range 7 West Section 30,
  - Township 3 South Range 8 West Section 25,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Black Star Canyon Quad map within:
  - Township 3 South Range 7 West Sections 32 and 33,
  - Township 3 South Range 8 West Section 36,
  - Township 4 South Range 7 West Section 5,
  - Unsectioned portions of the La Sierra Yorba Land Grant.
- USGS 7.5' Corona South Quad map within:
  - Township 3 South Range 7 West Section 33,
  - Township 4 South Range 6 West Sections 5, 8, 16, 17, 18, 19, 20, 21, and 22,
  - Township 4 South Range 7 West Sections 5, 9, and 10,
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.
- USGS 7.5' Lake Matthews Quad map within:
  - Township 4 South Range 6 West Section 22,
  - Unsectioned portions of the Sobrante De Sa Jacinto Land Grant.
- USGS 7.5' Corona North Quad map within:
  - Unsectioned portions of the La Sierra Yorba Land Grant,
  - Unsectioned portions of the Sobrante De San Jacinto Land Grant.

A record search of the Sacred Lands File with the California Native American Heritage Commission was positive. Red Tail also conducted a record search at the Eastern Information Center.

We are contacting you to request additional information regarding the Project area, if you are aware of any issues of cultural concern regarding the area shown on the enclosed map. In particular, we would like to know if you have knowledge of any Traditional Cultural Properties, Sacred Sites, Tribal Cultural Resources, resource collecting areas, or any other areas of concern of which you would wish us to be aware. If you have any questions or concerns regarding the proposed Project, please contact me at the address or phone number listed below, or via email at Shelby@redtailenvironmental.com. We appreciate any input you may have on this project.

Sincerely,



Shelby Castells, M.A., RPA
Director of Archaeology
Attachments: Project Area Maps (1-10)

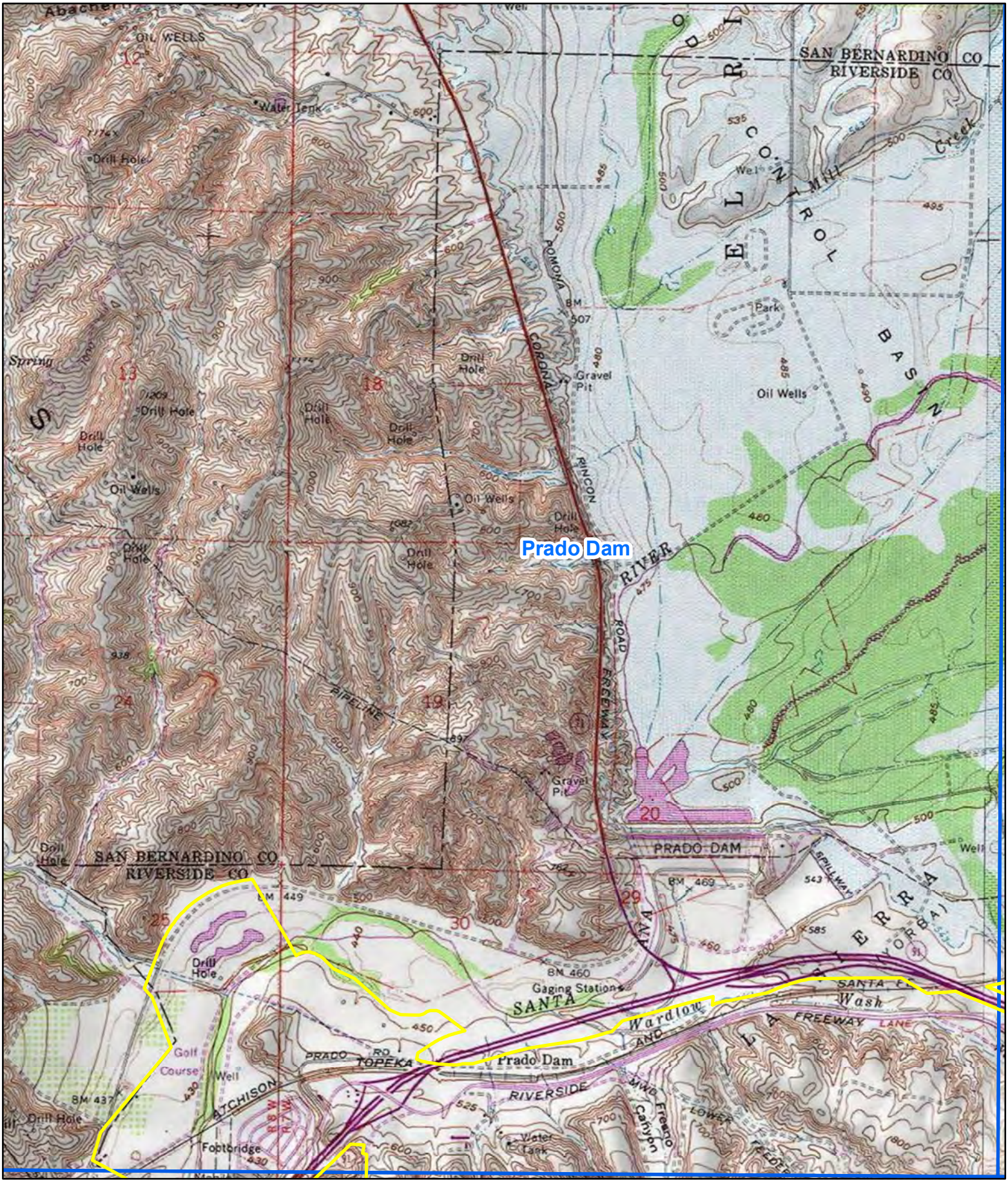


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

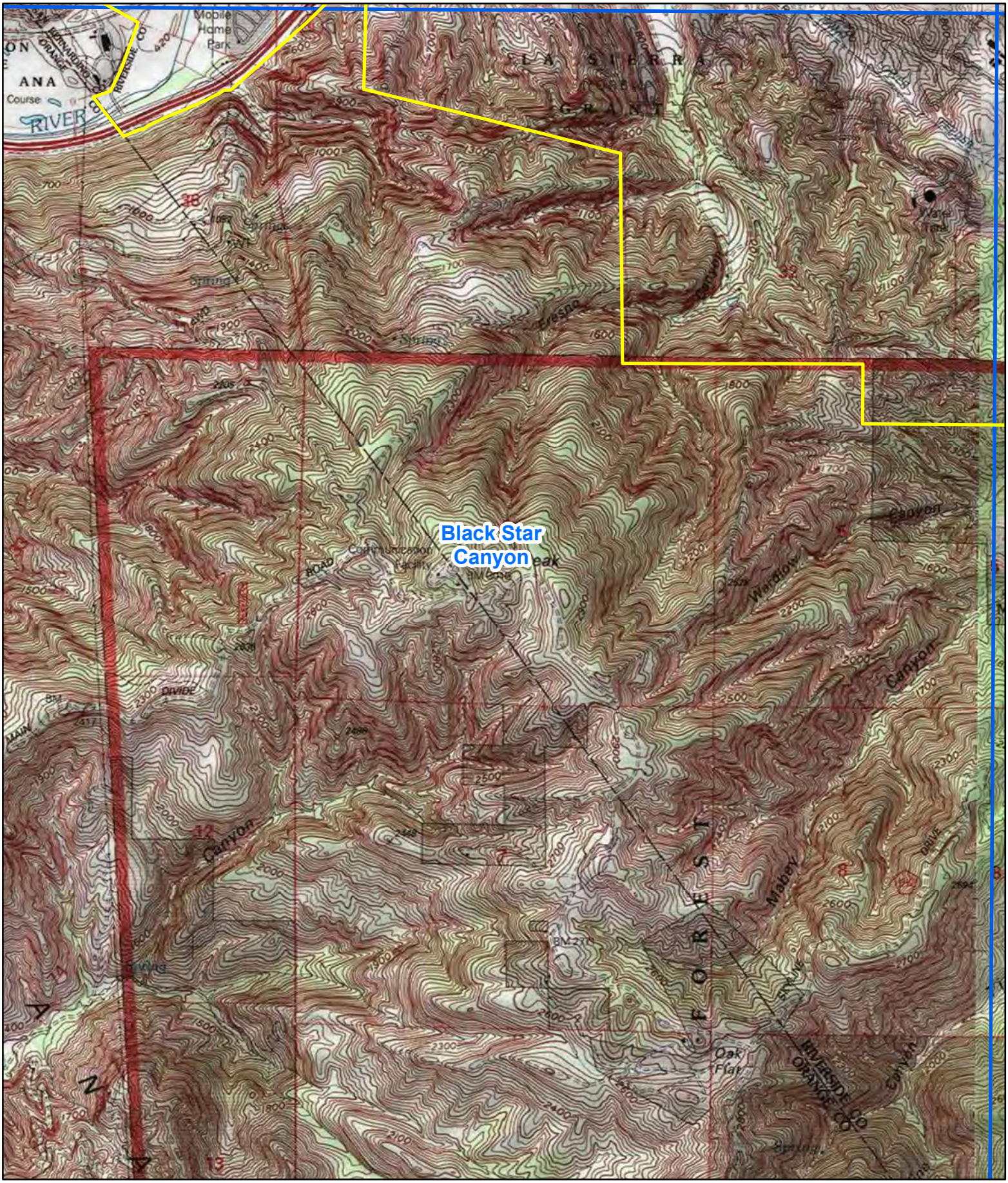
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

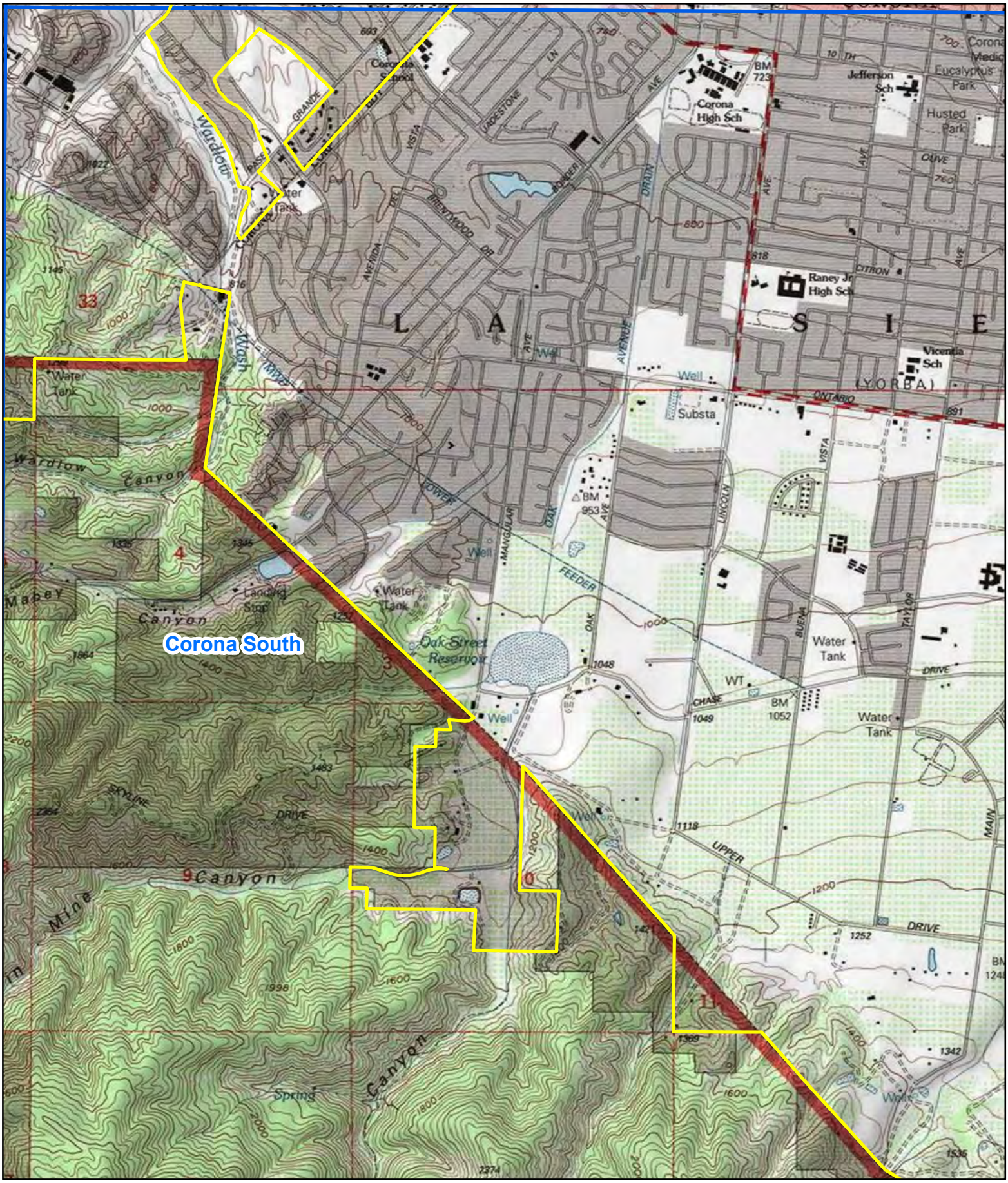
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

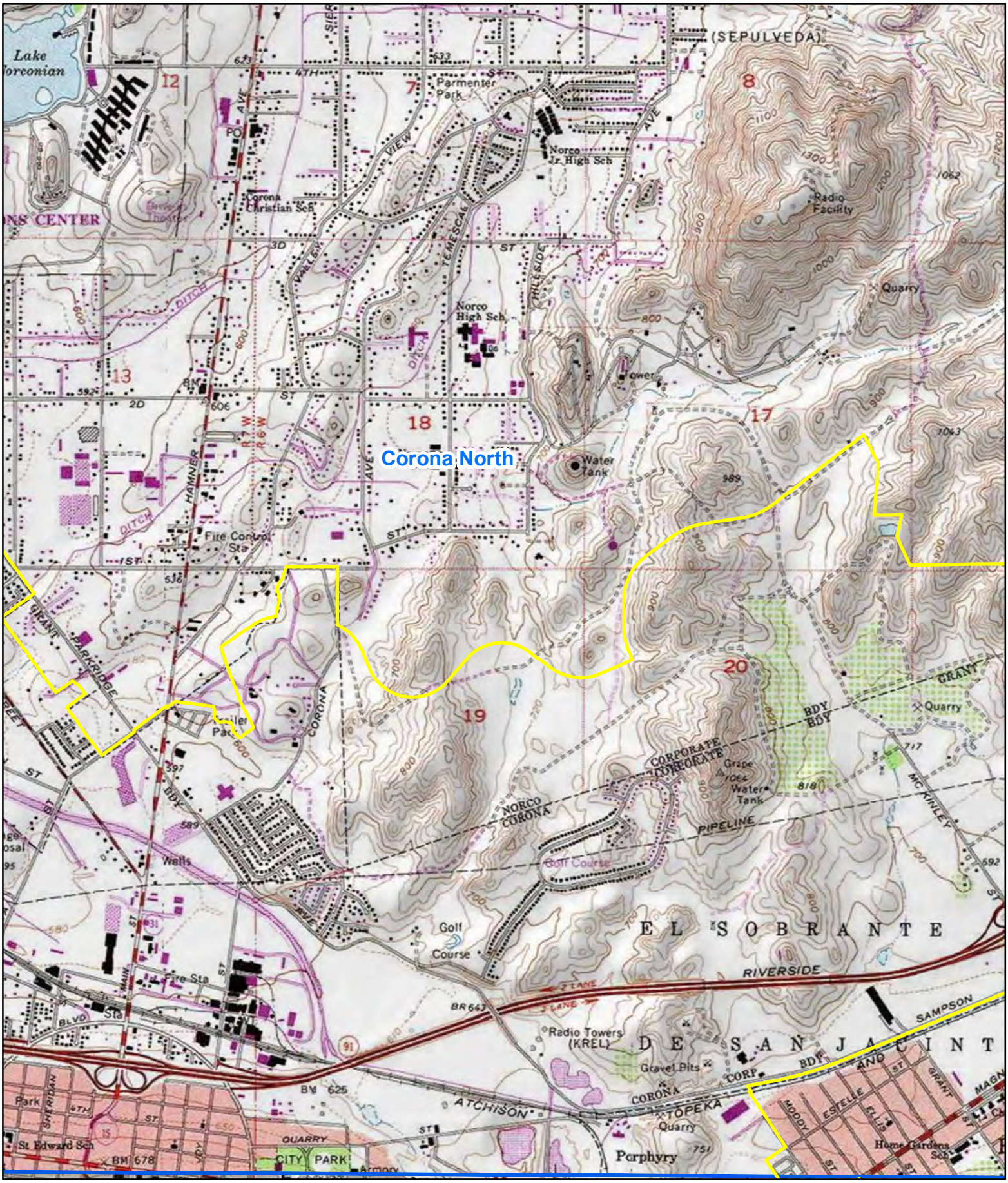
0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

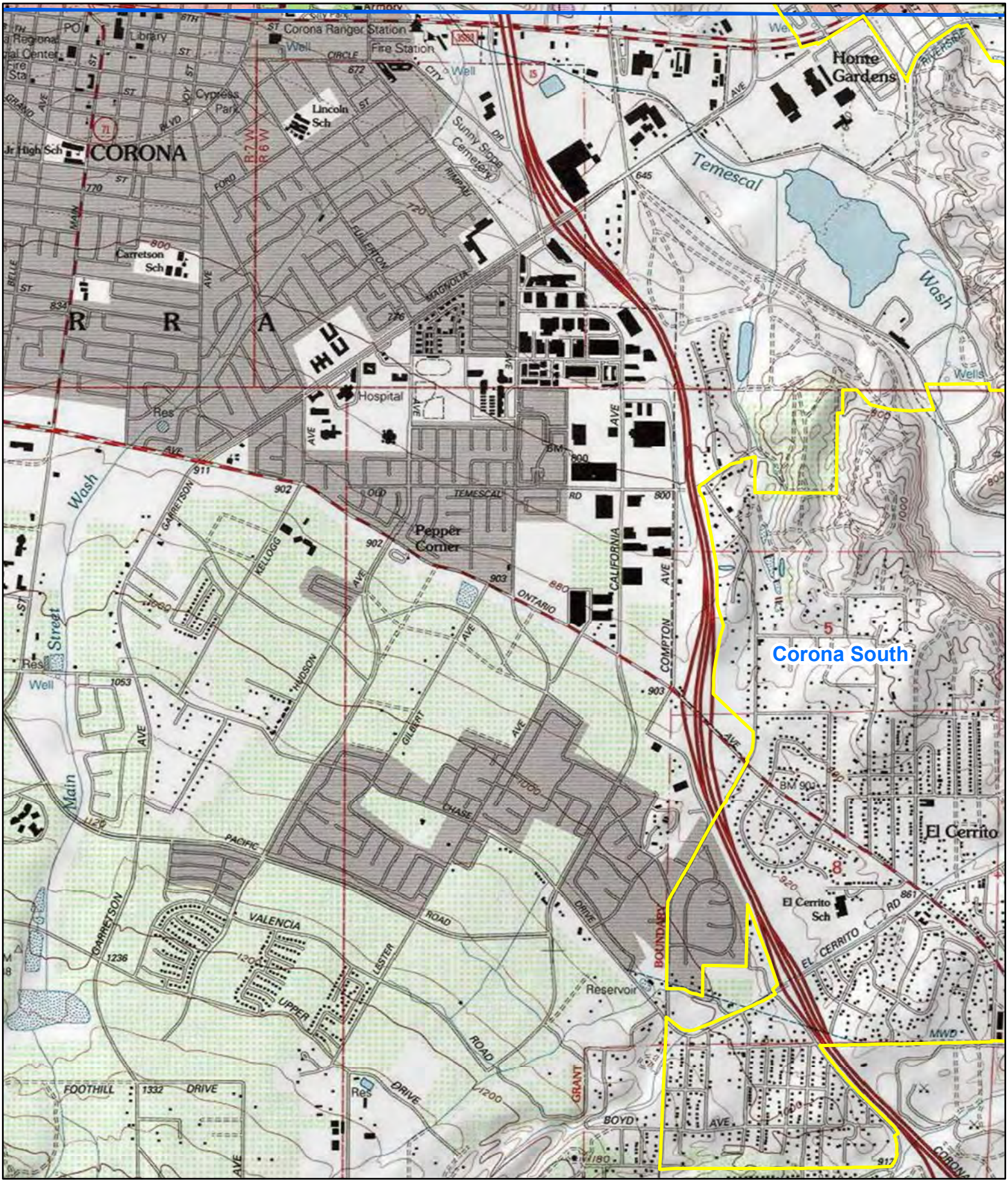


Figure 1. Project Area

RED TAIL ENVIRONMENTAL

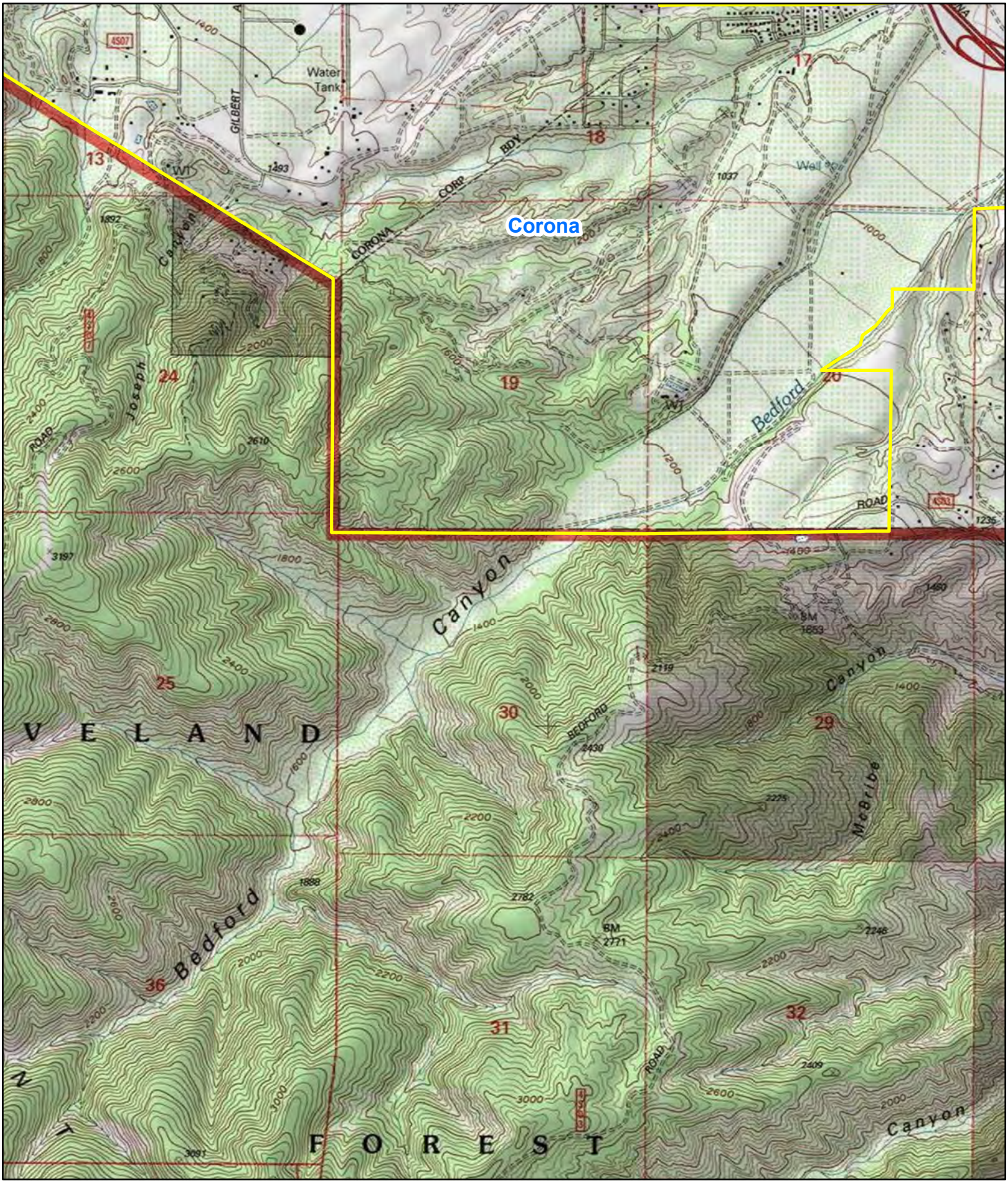
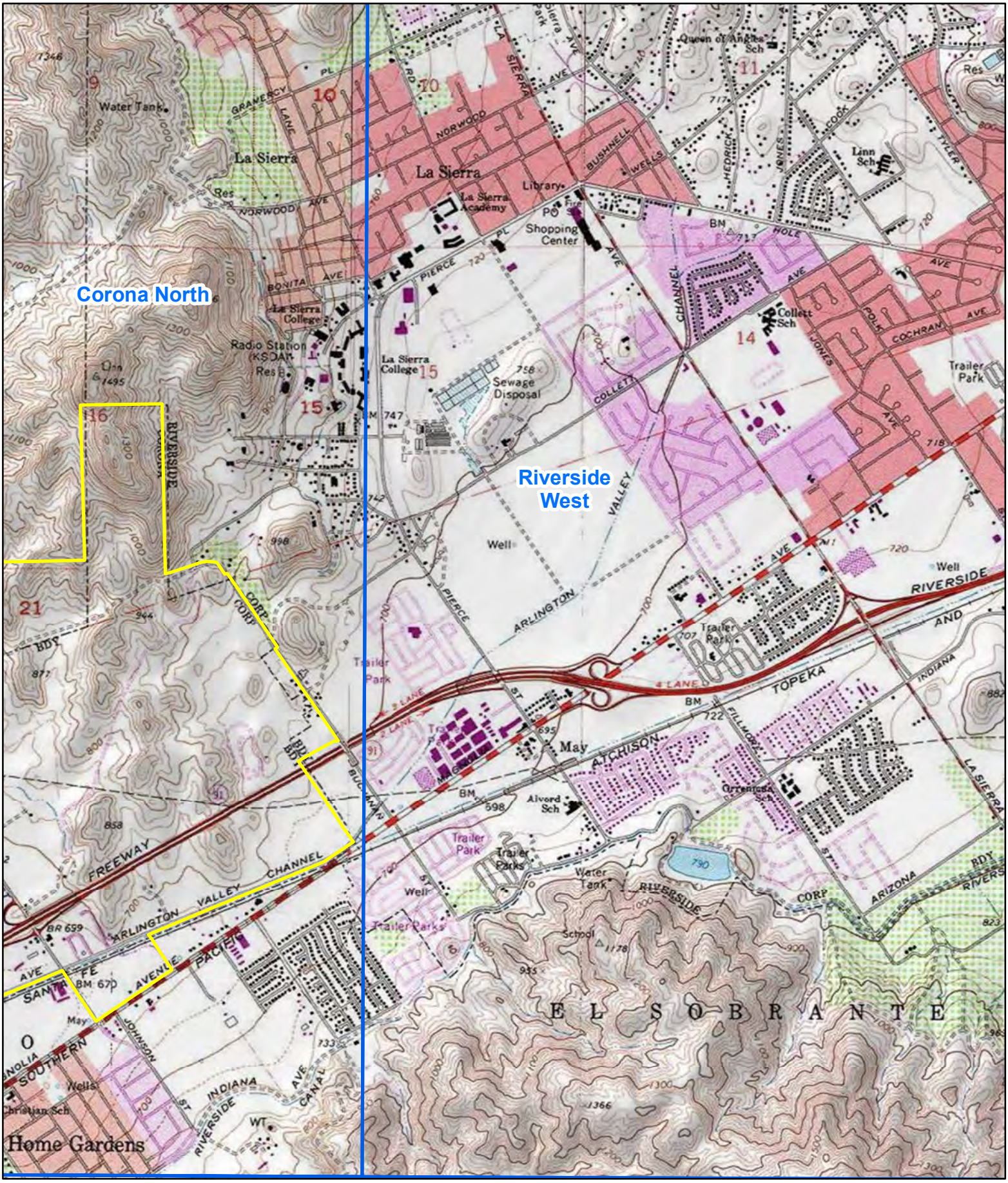


Figure 1. Project Area



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

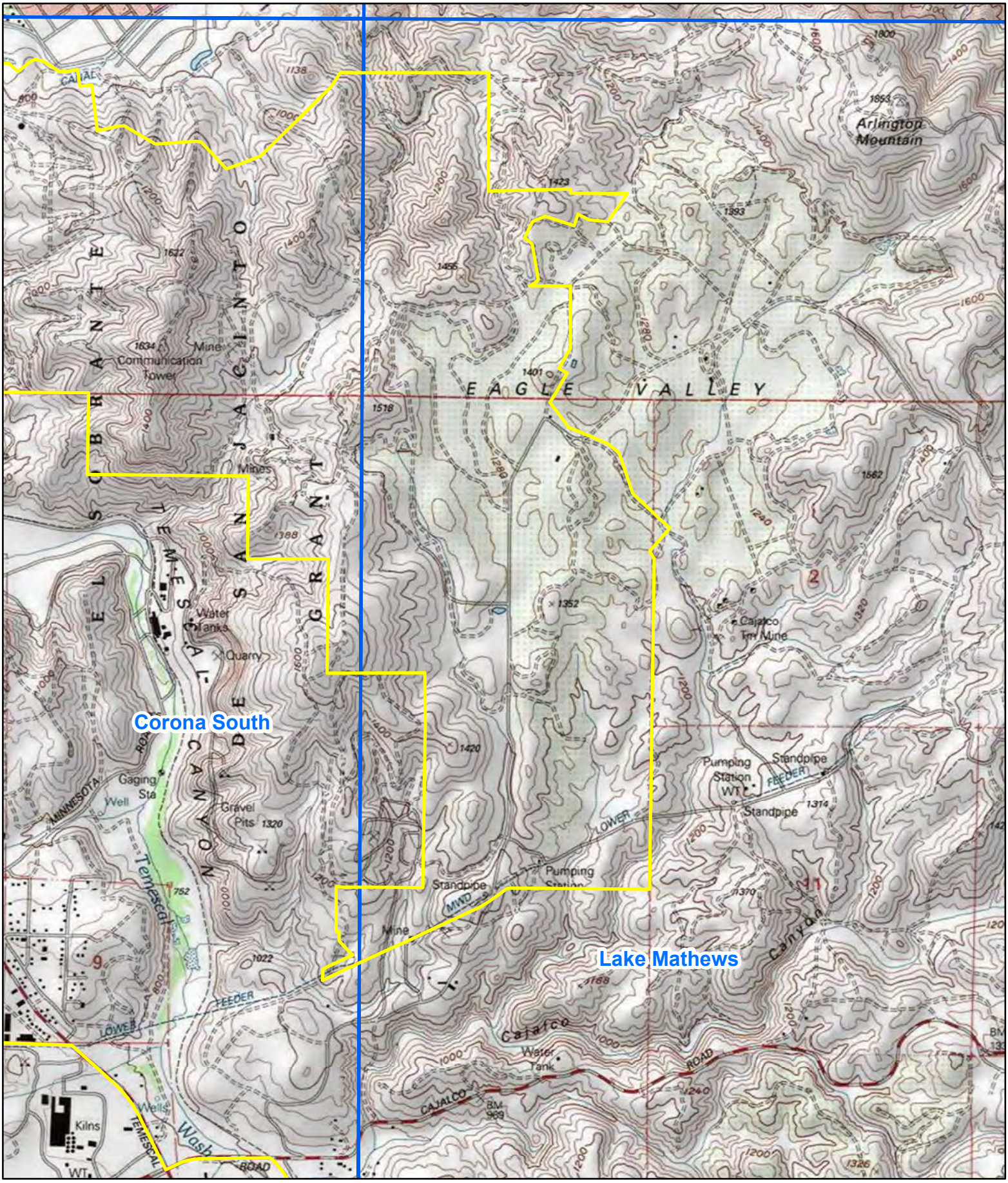
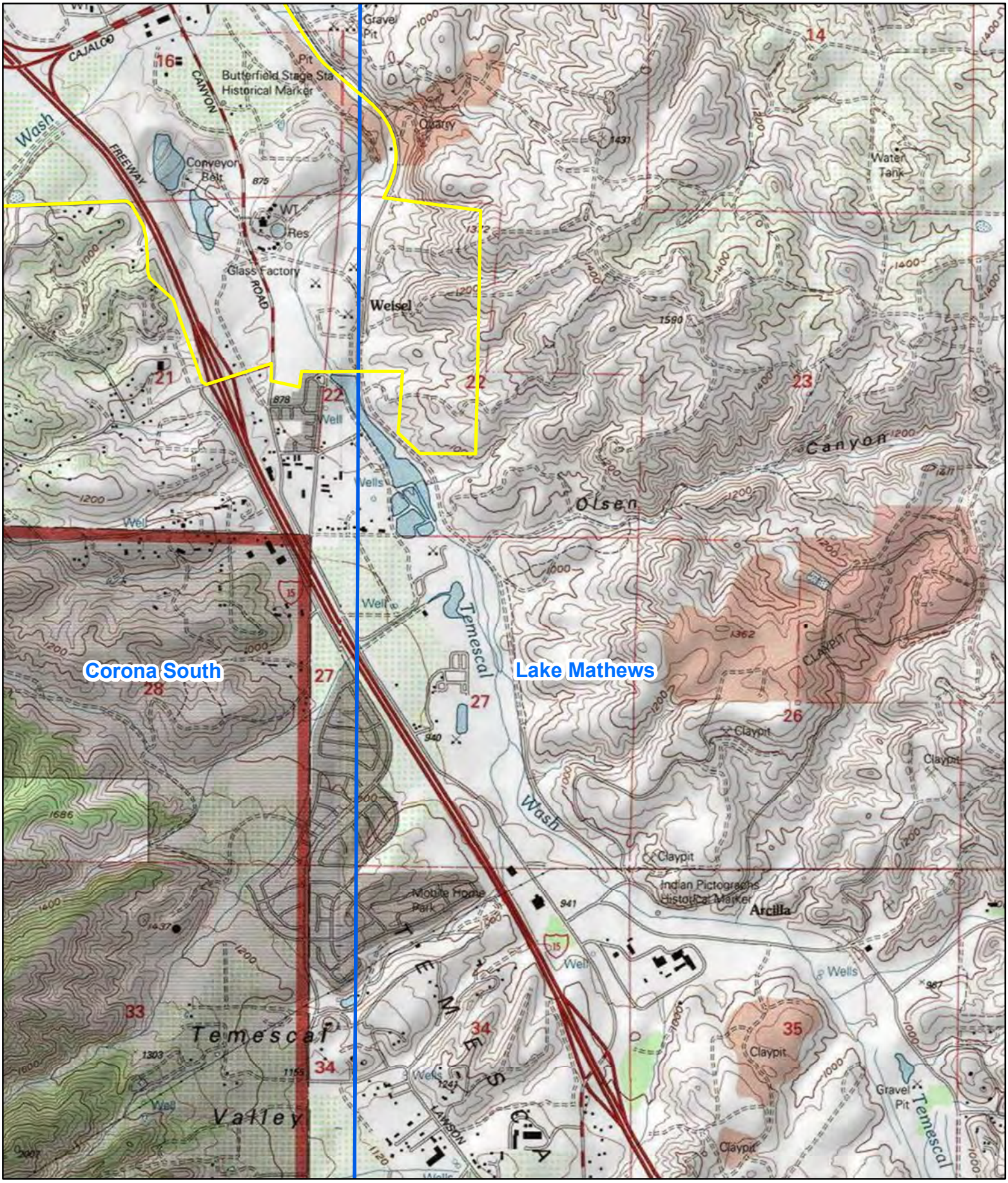


Figure 1. Project Area

RED TAIL ENVIRONMENTAL



1:24,000

0 250 500 1,000 Meters

0 1,000 2,000 4,000 Feet

Legend

- Project Area
- 7.5' USGS Quads

Figure 1. Project Area

RED TAIL ENVIRONMENTAL

RED TAIL ENVIRONMENTAL
Powered by Google

Shelby Castells <shelby@redtailenvironmental.com>

City of Corona Reclaimed Water Project, Riverside County, California

1 message

Quechan Historic Preservation <historicpreservation@quechantribe.com> Tue, Apr 14, 2020 at 2:39 PM
To: Shelby@redtailenvironmental.com

This email serves to inform you that we wish to make no comments on this project.

H. Jill McCormick, M.A.

Historic Preservation Officer

Ft. Yuma Quechan Tribe

350 Picacho Road

Yuma, AZ 85366

Office: 760-572-2423

Cell: 928-261-0254

Virus-free. www.avast.com

Rincon Band of Luiseño Indians
CULTURAL RESOURCES DEPARTMENT

One Government Center Lane | Valley Center | CA 92082
(760) 749-1051 | Fax: (760) 749-8901 | rincon-nsn.gov

April 20, 2020

Sent via email: Shelby@redtailenvironmental.com
Shelby Castells
Redtail Environmental
328 State Place
Escondido, CA 92029

Re: City of Corona Reclaimed Water Project, Riverside County, California

Dear Ms. Castells,

This letter is written on behalf of the Rincon Band of Luiseño Indians ("Rincon Band" or "Band"), a federally recognized Indian Tribe and sovereign government in response to your request for additional information on the above referenced project.

The Rincon Band wishes to inform Redtail Environmental that the location identified in the transmitted project documents is situated within the Territory of the Luiseño people and within the Band's specific Area of Historic Interest (AHI). As such, Rincon is traditionally and culturally affiliated to the project area.

After review of the provided documents and our internal information, we have identified Luiseño place names within the proposed project area but no known Tribal Cultural Resources (TCRs) or Traditional Cultural Properties (TCPs) have been recorded within or surrounding the project area. However, the Band believes that the potential exists for cultural resources to be identified during further research and survey work. Therefore, the following is recommended:

- An archaeological/cultural resources study be conducted by a Secretary of the Interior qualified archaeologist for this project, to include an archeological record search and complete intensive survey of the property;
- A final copy of the study to be provided to the Rincon Band for our review and comment

It is important to note that the Band is not opposed to development projects per se, but is opposed to direct, indirect, and cumulative impacts that projects may have to TCRs, TCPs, and sovereign lands, and requests that the Redtail Environmental also clearly address these types of impacts to cultural resources in the final environmental report.

Furthermore, Rincon requests from Redtail Environmental inclusion of appropriate provisions for inadvertent discoveries as required by every major Federal and state law (See CEQA (Cal. Pub. Resources Code §21083.2(i); 14 CCR §15064.5(f)); Section 106 (36 CFR §800.13); NAGPRA (43 CFR §10.4)). Please also include language outlining the formal State process for the discovery of human remains and grave goods for the final report (CA Health and Safety Code §7050.5; Cal. Pub Resources Code §5097.98).

Bo Mazzetti, Chairman | Tishmall Turner, Vice Chair | Laurie E. Gonzalez, Council Member | Alfonso Kolb, Sr., Council Member | John Constantino, Council Member

The Rincon Band reserves its right to fully participate in the environmental review process and to review and submit additional information after the above documentation has been received during our consultation meeting(s) with the lead agency. The Band thanks Redtail Environmental for submitting this project for Tribal review and thoughtfully addressing the Band's requests and recommendations in the final cultural resources report.

If you have additional questions or concerns, please do not hesitate to contact our office at your convenience at (760) 297-2635 or via electronic mail at cmadrigal@rincon-nsn.gov. We look forward to working together to protect and preserve our cultural assets.

Sincerely,



Cheryl Madrigal
Tribal Historic Preservation Officer
Cultural Resources Manager

RED TAIL ENVIRONMENTAL
Powered by Google

Shelby Castells <shelby@redtailenvironmental.com>

City of Corona Water Project

1 message

Croft, Katherine (TRBL) <kcroft@aguacaliente.net> Tue, Jun 9, 2020 at 2:04 PM
To: "Shelby@redtailenvironmental.com" <Shelby@redtailenvironmental.com>

Greetings,

A records check of the Tribal Historic Preservation Office's cultural registry revealed that this project is not located within the Tribe's Traditional Use Area. Therefore, we defer to the other tribes in the area. This letter shall conclude our consultation efforts.

Thank you,

Patricia Garcia Plotkin

Agua Caliente Band of Cahuilla Indians

Director of Historic Preservation

**Due to COVID-19 the THPO is operating remotely with a reduced staff. Please send all correspondence to our department email address ACBCI-THPO@aguacaliente.net*

APPENDIX C: CONFIDENTIAL MAPS, CULTURAL RESOURCE LOCATIONS (provided separately)