**California High-Speed Rail Authority** 

# Bakersfield to Palmdale Project Section





The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being or have been carried out by the State of California pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated July 23, 2019, and executed by the Federal Railroad Administration and the State of California.



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**EIR** 

# **ACRONYMS AND ABBREVIATIONS**

AJD Approved Jurisdictional Determination
ARDR Aquatic Resources Delineation Report

ARSA Aquatic Resources Study Area

Authority California High-Speed Rail Authority

BARTR Biological and Aquatic Resources Technical Report

**Environmental Impact Report** 

CDFW California Department of Fish and Wildlife

CCNM César E. Chávez National Monument

EIS Environmental Impact Statement

HSR High-Speed Rail

HUC Hydrologic Unit Code

NHD National Hydrography Dataset

NRCS Natural Resources Conservation Service

NWI National Wetlands Inventory
OHWM Ordinary high water mark

Porter-Cologne Act Porter-Cologne Water Quality Control Act

SCS Soil Conservation Service

SR State Route

SWRCB State Water Resources Control Board

UPRR Union Pacific Railroad

U.S. United States

USACE U.S. Army Corps of Engineers

USEPA U.S. Environmental Protection Agency

USGS U.S. Geologic Survey



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#### 1 INTRODUCTION

The planning, design, construction, and operation of the California High-Speed Rail (HSR) System are the responsibility of the California High-Speed Rail Authority (Authority)<sup>1</sup>, a state governing board formed in 1996. The Authority's statutory mandate is to develop an HSR system that is coordinated with the state's existing transportation network, including intercity rail and bus lines, regional commuter rail lines, urban rail and bus transit lines, highways, and airports. The Authority's plans call for high-speed intercity train service on more than 800 miles of track throughout California, connecting the major population centers of Sacramento, the San Francisco Bay Area, the Central Valley, Los Angeles, the Inland Empire, Orange County, and San Diego. The HSR system would meet the requirements of Proposition 1A, including maximum, nonstop service travel time between San Francisco and Los Angeles of two hours and 40 minutes.

The Bakersfield to Palmdale Project Section would be a critical link in the HSR system, connecting San Francisco and the Bay Area to Los Angeles and Anaheim, and will fill a critical gap in California's current north-south passenger rail network. The Bakersfield to Palmdale Project Section is approximately 80 miles in length and ascends some 3,800 feet as it crosses the Tehachapi Mountains from northwest to southeast. It traverses valley, mountain, and high desert terrain, as well as urban, rural, agricultural, and wildlands.

The Authority prepared an Aquatic Resources Delineation Report (ARDR) in 2016 and a Biological and Aquatic Resources Technical Report (BARTR) in 2018, both of which evaluated the location and extent of aquatic resources in the Aquatic Resources Study Area (ARSA), which included all project alternatives known at the time plus a 250-foot buffer. After completion of these technical reports, two design options were finalized to avoid and minimize impacts to the César E. Chávez National Monument (CCNM), located at the Nuestra Señora Reina de La Paz (generally shortened to "La Paz") National Historic Landmark. The Authority circulated a César Chávez National Monument Design Options Aquatic Resources Memorandum with the Bakersfield to Palmdale Project Section Draft Environmental Impact Report/Environmental Impact Statement (Bakersfield to Palmdale Project Section Draft EIR/EIS) (Authority 2020), which presented the methodology used to evaluate the CCNM Design Option and Refined CCNM Design Option for aquatic resources in areas not studied in the ARDR and BARTR, the environmental setting of the CCNM Design Options, the results of this study, and likely jurisdictional status of the aquatic resources present. Following public circulation of the Bakersfield to Palmdale Project Section Draft EIR/EIS, engineering and design refinements have been completed and incorporated into the project. This updated memorandum includes both the CCNM Design Options, as well as the engineering and design refinements.

While portions of the CCNM Design Options and most of the engineering and design refinements fall in areas studied and mapped, not all areas were evaluated previously. This technical memorandum describes the CCNM Design Options and engineering and design refinements, briefly reviews the environmental setting of the ARSA, presents the methodology used to evaluate aquatic resources in areas not studied in the ARDR and BARTR, the results of this study, and likely jurisdictional status of the aquatic resources present. This memorandum provides a summary of aquatic resources in the ARSA with an ordinary high water mark (OHWM) or wetland indicators potentially subject to United States (U.S.) Army Corps of Engineers (USACE) jurisdiction since completion of the CCNM Design Options and engineering and design refinements. These features are not expected to be regulated by the USACE due to isolation but would be regulated by the State Water Resources Control Board (SWRCB) under the Porter-Cologne Water Quality Control Act (Porter-Cologne Act). Additionally, this memorandum provides a summary of aquatic resources such as streambeds and riparian areas that may be regulated by the California Department of Fish and Wildlife (CDFW) under California Fish and Game Code.

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<sup>&</sup>lt;sup>1</sup> Pursuant to 23 USC 327, under the National Environmental Policy Act Assignment Memorandum of Understanding between Federal Railroad Administration and the State of California, effective July 23, 2019, the Authority is the lead agency for the Bakersfield to Palmdale Project Section and this aquatic resources delineation under the National Environmental Policy Act and other federal environmental laws. Under the Memorandum of Understanding, the Authority is the lead agency responsible for environmental reviews and approvals for all Authority Phase 1 and Phase 2 projects.



Effects analysis, impact calculations, and comparison of alternatives are provided in the BARTR (Authority 2018) and the Bakersfield to Palmdale Project Section EIR/EIS (Authority 2020).

# DESCRIPTION OF THE CÉSAR E. CHÁVEZ NATIONAL MONUMENT **DESIGN OPTIONS AND ENGINEERING AND DESIGN REFINEMENTS**

#### 2.1 César E. Chávez National Monument Design Options

The HSR system would pass the CCNM while traversing the Tehachapi Mountains. Figure 2-1 shows the CCNM Design Options in the context of the whole Bakersfield to Palmdale Project Section. Figure 2-2 shows the CCNM Design Options near La Paz in the community of Keene.

In 2017 and 2018, the Authority conducted Section 106 consultation with consulting parties for the National Chavez Center and alignment options were studied that would avoid and minimize adverse noise and visual effects to the National Historic Landmark. In 2018, the Authority issued the Avoidance and Minimization Options Screening Memorandum for the César E. Chávez/Nuestra Señora Reina de la Paz National Historic Landmark (Authority and FRA 2018), which evaluated five options developed to avoid or minimize impacts to the National Chavez Center. This process resulted in the CCNM Design Option for the project section. In response to concerns expressed by consulting parties between June 2017 and February 2019, the Authority developed 10 additional design options that either avoid or minimize adverse effects to the National Historic Landmark. In 2019, the Authority issued the Design Options Screening Report for the César E. Chávez/Nuestra Señora Reina de la Paz National Historic Landmark (Authority 2019a) and the Addendum to the Design Options Screening Report for the César E. Chávez/Nuestra Señora Reina de la Paz National Historic Landmark (Authority 2019b), which evaluated the ten potential design options. This process resulted in the Refined CCNM Design Option for the project section. Alternative 2 with the Refined CCNM Design Option is the Authority's Preferred Alternative for the Bakersfield to Palmdale Project Section.

#### 2.1.1 César E. Chávez National Monument Design Option

The CCNM Design Option's termini are identical for all of the alignment alternatives. The CCNM Design Option's northern terminus would be north of State Route (SR) 58 at Buddy Court, and its southern terminus would be northwest of Marcel Drive and SR 58. Similar to the alignment alternatives, the CCNM Design Option would generally follow SR 58 south to the southern terminus. The CCNM Design Option would also include cut sections, fill sections, tunnels, and viaducts in the Keene area. The cut sections in this area range between 0 and 225 feet in height, while the fill sections range between approximately 0 and 110 feet in height. The CCNM Design Option would also pass through two tunnels approximately 3,320 and 4,300 feet in length in this area. The viaducts would span the Union Pacific Railroad (UPRR) alignment and Tehachapi Creek, an access road, Tweedy Creek, another access road, and SR 58 near Broome Road, on structures ranging from approximately 0 to 160 feet in height. At its closest proximity to La Paz, the CCNM Design Option would be approximately 850 feet northeast of La Paz, compared to 400 feet for the alignment alternatives.

To further reduce anticipated direct visual and audible adverse effects, a noise barrier would be added to the bridge structure to minimize project noise to a level that is considered to have no effect per Federal Railroad Administration guidelines, and some combination of vegetative screening and coloring and/or texturing of the bridge structure could be introduced. Additionally, areas of ground disturbance would be recontoured and revegetated to minimize the visual effects associated with the earthwork required to construct the project.

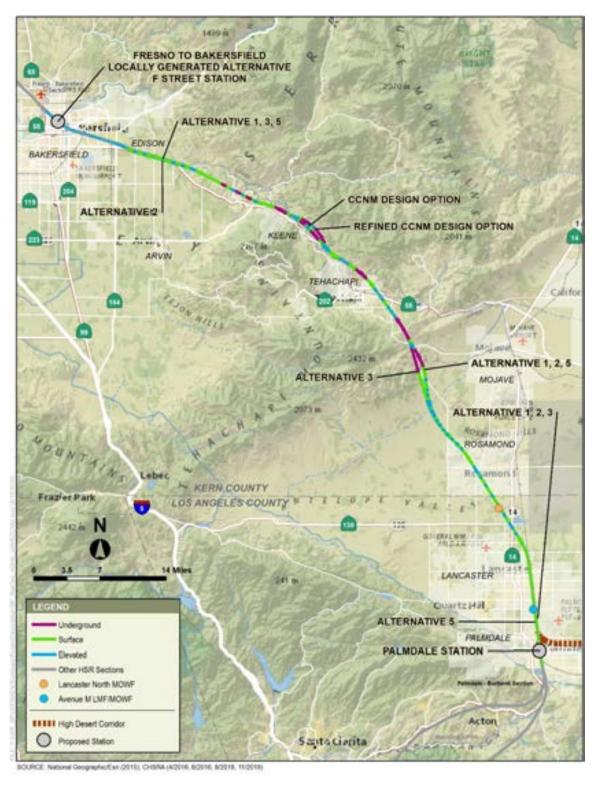


Figure 2-1 Bakersfield to Palmdale Project Section Alignment Alternatives with the CCNM **Design Option and Refined CCNM Design Option** 



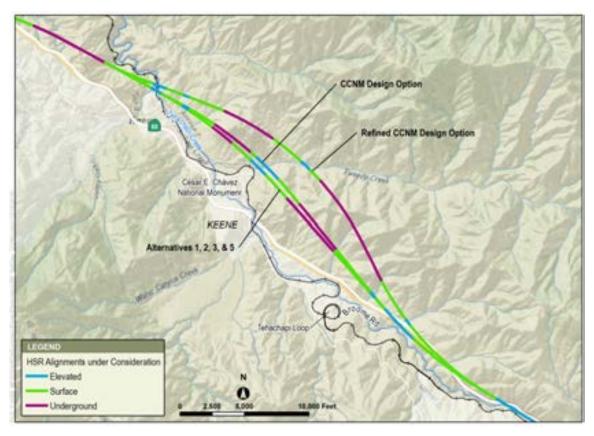


Figure 2-2 CCNM Design Option and Refined CCNM Design Option Focused Map

#### 2.1.2 Refined César E. Chávez National Monument Design Option

The Refined CCNM Design Option would begin 180 feet east of Bealville Road in Keene and would begin at-grade for 1.15 miles and then continue underground for about 1.04 miles. The Refined Design Option would transition to at-grade for 0.81 mile and cross an access road and the UPRR on a 0.17-mile-long viaduct. The Refined CCNM Design Option would then continue east at-grade for 0.30 mile, cross over an existing access road on a 0.06-mile long viaduct, then transition back to at-grade for 0.59 mile where the Refined CCNM Design Option would transition underground for 0.80 mile. The Refined CCNM Design Option would then emerge where it would pass La Paz. The Refined CCNM Design Option would be 0.53 mile (2,798 feet) north of La Paz at its closest proximity when it emerges from the tunnel.

While passing La Paz, the Refined CCNM Design Option would be at-grade for 0.57 mile at a distance ranging from 0.53 mile (2,693 feet) to 0.73 mile (3,860 feet) from the boundary of La Paz before crossing a 0.13-mile viaduct over Tweedy Creek and a local access road. The Refined CCNM Design Option would travel at-grade for approximately 0.25 mile before going underground in a 1.7-mile-long tunnel. The Refined CCNM Design Option would then transition to at-grade for 0.71 mile before crossing over an access road for 0.06 mile and back to at-grade for 1.71 miles. The Refined CCNM Design Option would then go over the SR 58 and Tehachapi Creek on a 0.89-mile-long viaduct, back to at-grade for 0.87 mile before entering a tunnel for 1.68 miles. The Refined CCNM Design Option would emerge from the tunnel north of the city of Tehachapi at-grade for 1.48 miles before finally ending in a 0.13-mile-long viaduct where it would tie back into the Bakersfield to Palmdale HSR Build Alternatives at SR 58 in the city of Tehachapi. To further reduce anticipate direct (visual and audible) adverse effects of the Refined CCNM Design Option on La Pas, an approximately 1,700-foot berm would be constructed to the same height as the catenary for the track. The berm would be an average of 80 feet in height from the



existing ground in order to minimize project noise. Additionally, areas of ground disturbance would be recontoured and revegetated to minimize the visual effects associated with the earthwork required to construct the project.

The Bakersfield to Palmdale Build Alternative alignments would achieve a balanced earthwork condition by use of varying slope ratios; all excavations would be placed within the project limits as embankment. With the addition of the Refined CCNM Design Option, the earthwork balance would not be achievable due to profile changes and would result in a range of about 2 to 14 million cubic yards of excess materials, depending on which of the Bakersfield to Palmdale Build Alternatives the Refined CCNM Design Option is coupled with (for the Preferred Alternative, it would result in 2.5 million cubic yards of excess spoils). Those materials would be stockpiled in the area north of SR 58 in the vicinity of Bealville Road, where additional footprint has been identified and is shown on Figure 2-3. The stockpiled materials would be cut slope excavation and tunnel construction spoils. These materials would be similar to materials excavated throughout the Bakersfield to Palmdale Project Section and could be either processed into soils or conglomerates or be left in the condition they are pulled out of the ground (ripped and dumped). The duration that the materials would be stockpiled at this location is currently unknown; therefore, the impacts at this stockpile site are considered permanent impacts.

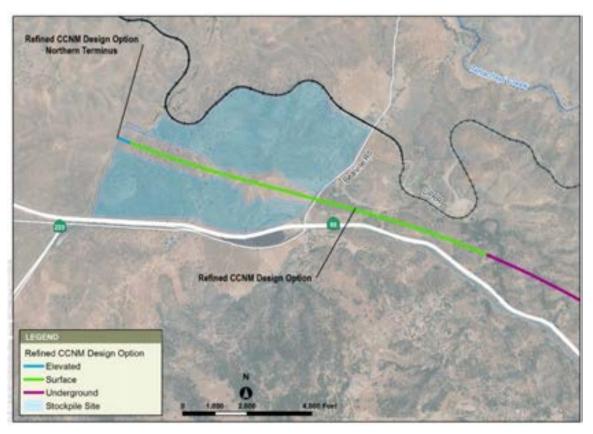


Figure 2-3 Refined CCNM Design Option On-Site Stockpile Site

# 2.2 Engineering and Design Refinements

Engineering and design refinements were completed following public circulation of the Bakersfield to Palmdale Project Section Draft EIR/EIS from February 28, 2020 to April 27, 2020 (Authority 2020). Engineering and design refinements were considered and incorporated for several reasons, including (1) revisions made to reduce environmental impacts through design efficiencies, (2) modifications made in the course of continued engineering development to



reduce project costs or improve constructability, or (3) revisions made in response to either comments on the Bakersfield to Palmdale Project Section Draft EIR/EIS or to requests/suggestions from project stakeholders. These refinements are summarized below.

- The Authority has committed to meet local jurisdiction design standards to the greatest extent feasible. As such, revisions to the design of the alignment were made for consistency with local government requirements and HSR standards. These revisions represent generally minor additions to the project footprint and consist of realigning access roads, adjusting grade and profiles, adding cul-de-sacs, radius adjustments, adding hammerhead turnarounds at viaduct locations for emergency and/or maintenance vehicle access, and implementing Americans with Disabilities Act compliance improvements.
- Refinements to the alignment were made to allow for changes in grading associated with emergency and maintenance access as well as standardization of the HSR cross-section. These revisions generally consist of allowance for or modifications to access roads (including refinements to profiles, ensuring all-weather access, and connection adjustments), typical cross-section adjustments, and paving of access roadways where necessary (including drainage). Generally, these refinements resulted in additions to the project footprint.
- Refinements were made to the project footprint (both temporary and permanent) at more than 100 locations to minimize and reduce impacts through design efficiencies. The overall footprint area was reduced by approximately 100 acres.
- Minor increases to the project footprint resulted from adjustments at traction power facilities for consistency with HSR system-wide facility design, to accommodate an emergency and/or maintenance access road, or to adjust the HSR profile required for phase breaks.
- The project footprint was increased from adjustments to the alignment throughout its length to provide rock slope protection that would prevent erosion at drainage outlets and sufficiently size on-site drainage basins, and to accommodate turnarounds for emergency and/or maintenance vehicle access.
- The project footprint was increased in the vicinity of Tehachapi Willow Springs Road to facilitate removal of wind turbines determined to be too close to the HSR alignment. These wind turbines had been identified for removal but the project footprint was not large enough to accommodate the necessary equipment.
- Minor increases to the project footprint occurred from adjustments to the relocation of utilities.
- The Authority revised the design and expanded the project footprint of the Avenue M maintenance facility site to accommodate a combined light maintenance facility/maintenanceof-way facility, rather than just a light maintenance facility site as identified in the Draft EIR/EIS. In Bakersfield, the HSR profile was lowered in the area of Morning Drive (Weedpatch Highway/SR 184), thereby shortening the HSR viaduct structure and realigning Edison Highway and resulting in a project footprint reduction.
- In the area of Marcel, the HSR alternative crosses over SR 58 from north to south, and then back again. At the first crossing from north to south, the footprint was corrected to accurately reflect the area needed to accommodate the straddle bent for the HSR viaduct. A straddle bent was also added to the design of the HSR viaduct crossing back over SR 58 from the south side to the north side.
- Two locations northwest of the community of Rosamond were identified for the addition of an overcrossing (Highgate Avenue and Champagne Avenue), resulting in an increase in footprint to accommodate those structures.
- The Authority consulted with the City of Palmdale and modified the local grade separation at Palmdale Boulevard to be an undercrossing, rather than an overcrossing as was identified in the Draft EIR/EIS. The reconfiguration of the grade separation entails adjusting the profile of

Palmdale Boulevard, Sierra Highway, and the UPRR and Metrolink track corridor, which in turn requires modifications to the project footprint.

- The following refinements were made in Tehachapi:
  - Revisions to access roads were made, including the adjustment of the access road where it ties into Voyager Drive in north Tehachapi, connection of the HSR access road to Challenger Drive in Tehachapi, and provision of an access road from the relocated paralleling station to Tehachapi Willow Springs Road. Each of these revisions increased the project footprint.
  - An access road was added around the tunnel portal just northeast of the Adventist Health Tehachapi Valley facility and the tunnel portal grading was revised.
  - The Challenger Drive Traction Power Substation site and associated access road and the interconnect at the site were shifted to a different location north of the alignment.
  - The profile of the HSR within Tehachapi Valley was lowered, which resulted in an overall footprint reduction. The profile was lowered from near the south portal of tunnel 7, north of Tehachapi, through the city, to the southern portal of tunnel 8. Due to the lowered profile, the maintenance of infrastructure siding facility site in Tehachapi, near the Tehachapi Willow Springs Road crossing location, was shifted from the west side of the alignment to the east side of the alignment. Additionally, two existing roadways that were intended to pass under the HSR on a viaduct structure (Highline Road and Tehachapi Willow Springs Road) were redesigned to cross over the HSR alignment. Valley Boulevard was realigned to tie into Steuber Road.
  - A viaduct was added to allow connectivity from Challenger Drive/Dennison Road to the east side of the HSR alignment.
  - The north portal of tunnel 9, immediately south of the Pacific Crest Trail crossing and Oak Creek Road, was moved 500 feet north. This shift in the tunnel portal does not represent a change in footprint.
- The following refinements were made in Lancaster:
  - Several modifications were made to roadway crossings within the city limits. As originally designed, W Lancaster Boulevard would be closed between the intersection of Sierra Highway and the UPRR tracks, and the HSR alignment would be located between Sierra Highway and the UPRR. Furthermore, Milling Street would be connected across the HSR and UPRR by constructing a new roadway overpass that spans Beech Avenue, Sierra Highway, the HSR alignment, the Metrolink and UPRR tracks, and Yucca Avenue. The Authority refined the project design to retain the connectivity of Lancaster Boulevard as an underpass. With the connection at Lancaster Boulevard, the connection of Milling Street across HSR is no longer proposed.
  - As originally designed, W Avenue I would be grade-separated with an overpass spanning Sierra Highway, HSR, and UPRR, with modifications to retain access between W Avenue I and Sierra Highway via a signalized intersection. The Authority redesigned the W Avenue I crossing to become an underpass rather than an overpass and the project footprint at the underpass was reduced.
  - Modifications were made to the design at the W Avenue H/7th Street W intersection to allow for the relocation of an existing driveway to the parking lot at the northeast corner of that intersection.
  - Temporary construction access roads were proposed for purposes of building the HSR viaduct over SR 14 and for construction along Avenue K and Challenger Way. These elements represent an addition of temporary footprint.



#### 3 REGULATORY SUMMARY

The federal Clean Water Act serves as the primary federal law protecting the quality of the nation's surface waters, including wetlands. Under Clean Water Act Section 404, the USACE and the U.S. Environmental Protection Agency (USEPA) regulate the discharge of dredged and fill materials into the waters of the U.S. Project sponsors must obtain a permit from USACE for discharges of dredged or fill materials into jurisdictional waters over which USACE determines that it will exert jurisdiction. Based on the geographic location of the Bakersfield to Palmdale Project Section, in an area where waters were deemed previously to be isolated by the USACE and USEPA, the USACE recommended the Authority request an Approved Jurisdictional Determination (AJD) to evaluate status of jurisdiction in the section formally. The Authority requested an AJD for the Bakersfield to Palmdale Project Section on January 6, 2017. The USACE responded with an AJD confirming the isolation of all waters in this study area on December 11, 2017 based on geographic location. Because waters in the CCNM Design Options and engineering and design refinement areas adjoin or flow into waters determined to be isolated in the USACE's AJD, these waters are also presumed isolated.

The Porter-Cologne Act requires the regulation of all pollutant discharges, including wastes in Project runoff that could affect the quality of the state's water. Any entity proposing to discharge a waste must file a Report of Waste Discharge with the SWRCB or appropriate Regional Water Quality Control Board. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Waters potentially subject to the Porter-Cologne Act are present in the CCNM Design Options and engineering and design refinement areas.

Section 1602 of the California Fish and Game Code requires an entity to notify the CDFW before conducting any activity that would "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake." Once notified, CDFW may require a Streambed Alteration Agreement be executed before the activity may proceed. Streambeds and associated riparian areas potentially subject to CDFW jurisdiction are present in the CCNM Design Options and engineering and design refinement areas.

More detailed discussions of laws, regulations and orders governing aquatic resources were provided in the ARDR and BARTR reports and are included here by reference (Authority 2016, Authority 2018).

# 4 AQUATIC RESOURCES STUDY AREA AND ENVIRONMENTAL SETTING

#### 4.1 Aquatic Resources Study Area

The CCNM Design Options and engineering and design refinements overlap portions of the ARSA for Alternatives 1, 2, 3 and 5 evaluated for the ARDR and BARTR; however, not all areas were included in the original ARSA. Therefore, for this evaluation, a refined ARSA was developed by generating a polygon that encompassed all components of the CCNM Design Options and engineering and design refinements, including tracks, power and station facilities, utility connections, and access routes for use during operations and maintenance, plus a 250-foot buffer around these features, from the southern terminus of the F Street Station near 34th Street and L Street in Bakersfield to Spruce Court in Palmdale. This polygon was clipped to remove areas studied previously or that were removed as part of the engineering and design refinements. Figures provided in Appendix C and Appendix D differentiate areas already studied from the areas that were added for the CCNM Design Options and added or removed as part of the engineering and design refinements. With incorporation of the CCNM Design Options and engineering and design refinements, the ARSA varies in width from approximately 0.1 to 1.5 miles and encompasses approximately 21,344 acres.



## 4.2 Environmental Setting

The Bakersfield to Palmdale Project Section of the HSR system spans several ecological subregions, extending from the southeastern edge of the San Joaquin Valley, through the Tehachapi-Piute Mountains subregion of the southern Sierra Nevada ecoregion, into the Antelope Valley in the western Mojave Desert (Cleland et al. 2007, Miles and Goudey 1998).

#### 4.2.1 Vegetation Communities

Predominant vegetation communities in the ARSA include agricultural, developed, and urban lands, woodlands, scrublands, and grassland and herbaceous communities. The last three categories comprise many vegetation alliances, including some wetland vegetation types. These vegetation communities are described in the ARDR and BARTR (Authority 2016, Authority 2018); no new vegetation communities occur in the CCNM Design Options area or where engineering and design refinement changes occurred.

## 4.2.2 Hydrology and Climate

The ARSA occurs in two major subbasins based on the United State Geological Survey (USGS) National Hydrography Dataset's (NHD) Watershed Boundary Dataset at the 8-digit Hydrologic Unit Code (HUC) level: the Middle Kern-Upper Tehachapi-Grapevine Subbasin (HUC 18030003), and the Antelope-Fremont Valleys Subbasin (HUC 18090206) (USGS 2015). The western portion of the ARSA from Bakersfield to the city of Tehachapi is in the Middle Kern-Upper Tehachapi-Grapevine Subbasin. The eastern portion of the ARSA crosses into the upper portion of the Antelope-Fremont Valleys Subbasin at the summit east of Tehachapi.

Figure 4-1 and Figure 4-2 depict the subbasins, subwatersheds, and major waterways in the vicinity of ARSA. Subbasins and subwatersheds in vicinity of the ARSA are described in the ARDR (Authority 2016); no new subbasins, subwatersheds, or named creeks occur in the CCNM Design Options area or where engineering and design refinement changes occurred.

The ARSA encompasses three distinct climate and hydrologic areas: the San Joaquin Valley segment leading out of Bakersfield, the foothills and Tehachapi Mountains, and the Antelope Valley. Elevation ranges from approximately 400 feet above mean sea level in the city of Bakersfield to approximately 4,250 feet in the Tehachapi Mountains, where snowfall normally occurs during the winter months. Average annual precipitation between 1997 and 2015 ranged from approximately 6.1 inches to 12.7 inches (Western Regional Climate Center 2020). Most of the annual precipitation (over 80 percent) occurs between November and March. Mean annual temperatures ranged from a low of 29.2 °F in January to a high of 96.5 °F in July between 1997 and 2015.

#### 4.2.3 Soils

The ARSA overlaps portions of four U.S. Department of Agriculture (USDA) soil survey areas mapped by the Natural Resources Conservation Service (NRCS): the Antelope Valley Area Soil Survey Area; the Kern County, Southeastern Part Soil Survey Area; the Kern County, Northwestern Part Soil Survey Area; and the Kern County, Northeastern Part, and Southeastern Part of Tulare County, California Soil Survey Area. Summaries of soil descriptions are based on information in the soil surveys, official series descriptions, Web Soil Survey, and hydric soils lists. The NRCS has mapped and inventoried soils resources at both landscape (coarse) and detailed (fine) scales. These data are catalogued in previously published soil surveys, the Soil Survey Geographic Database, and the U.S. General Soil Map. These can be accessed through the Web Soil Survey Application and NRCS websites (NRCS 2020a, Soil Conservation Service 1981).

Figure 4-3 shows soil associations in the ARSA. Appendix A provides a list of all fine-scale soil map units in the ARSA and includes information pertaining to map unit drainage class, runoff class, infiltration (formerly referred to as permeability), and hydric rating. General soil associations in the ARSA are described in the ARDR (Authority 2016); no new soils occur in the CCNM Design Options area or where engineering and design refinement changes occurred.



# 4.2.3.1 Hydric Soils

Hydric soils are defined by the National Technical Committee for Hydric Soils as soils that in their undrained condition, are saturated, flooded, or ponded long enough during a growing season to develop anaerobic conditions that support the growth and regeneration of hydrophytic vegetation (59 Federal Register 16835). Soils sufficiently wet to support the growth and regeneration of hydrophytic vegetation due to artificial measures are included in the concept of hydric soils on "Soil Data Access (SDA) Hydric Soils List" (using Query by State Tool) (NRCS 2020b). Soils are identified for inclusion on the list based on specific criteria established by law (67 Federal Register 58756).

To determine whether a specific soil is a hydric soil or non-hydric soil, criteria that identify soil properties unique to hydric soils have been established. These criteria are used by NRCS to identify soil map unit components that typically have hydric features. The National List is "a compilation of all map units with either a major or minor component that is at least in part hydric. ...Because the list includes both major and minor (small) percentages for map units, in some cases most of the map unit may not be hydric... Some components may be phases of soil series that have a range of characteristics... therefore, only a portion of that component's concept (or range in characteristics) may in fact be hydric. The list is useful in identifying map units that may contain hydric soils" (NRCS 2020b).

During preparation of soil surveys from which soil map units are drawn, not all soils are directly surveyed, and estimates of the extent and location of hydric soils are based on mapping that includes significant portions interpreted remotely from available aerials, vegetation, topographic, and hydrology data. Note that soil conditions in the field often vary somewhat from mapped units due to the scale at which maps are made. Map units that predominantly make up hydric soils may have small areas, or inclusions, of non-hydric soils in the higher positions (elevations) on the landform and map units. Conversely, soil map units that are not classified as hydric may include hydric soils in low-lying areas.

Soil map units that were identified as containing hydric components were evaluated during desktop review. Appendix A lists soil map units as mapped by the NRCS Soil Surveys and identifies map units for which at least one minor component has been identified as hydric. It also includes the percentage of the map unit that may be hydric and the landform on which it occurs. No soil map units with a major component listed as hydric are present in the CCNM Design Options area. Figure 4-4 shows soil map units in the ARSA that contain a major component identified as potentially hydric on the National List. Those soil map units for which only minor components and low percentages are potentially hydric are not displayed.

# 4.2.4 National Wetlands Inventory, National Hydrography Dataset, and Other Previous Mapping

The National Wetlands Inventory (NWI) was reviewed for the ARSA and vicinity (within approximately 0.25 mile) to ascertain the range of potential resources previously identified in the vicinity (USFWS 2020). These features were located on aerial imagery to assist with the identification of sites during desktop review and mapping. Note that NHD and NWI mapping has been conducted at a coarse scale in some areas of the state. Not all mapping in these datasets is based on field surveys or on the ground-truthing of map results. It thus provides a useful background dataset but does not offer a fine-grained evaluation as not all features mapped are wetlands or other waters, and the datasets do not map all wetlands and other waters. Appendix B provides the NWI-mapped wetlands and the NHD flowline and waterbody features. Previously mapped aquatic resources identified during the ARDR and BARTR technical studies were also reviewed, as many of the riverine features extend into the CCNM Design Options and engineering and design refinement areas.



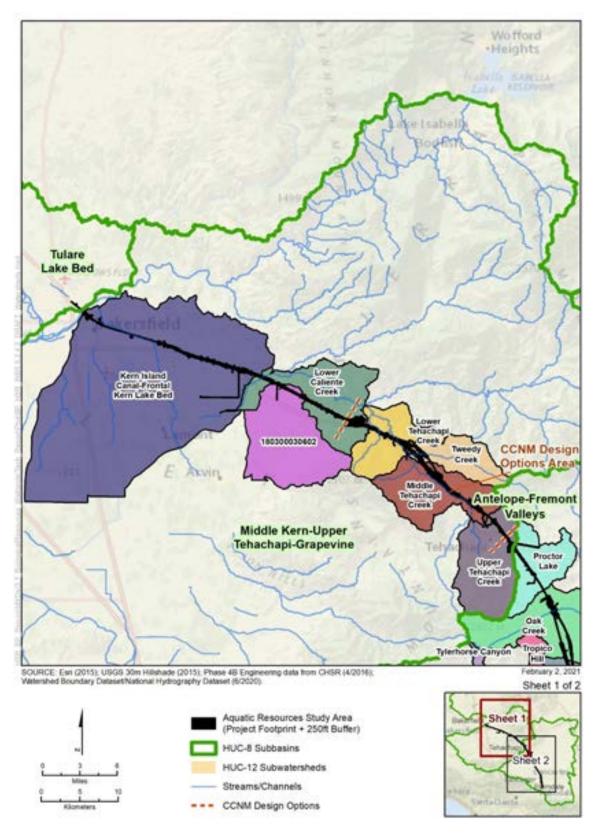


Figure 4-1 HUC-8 and HUC-12 Watersheds in the Aquatic Resources Study Area: Sheet 1



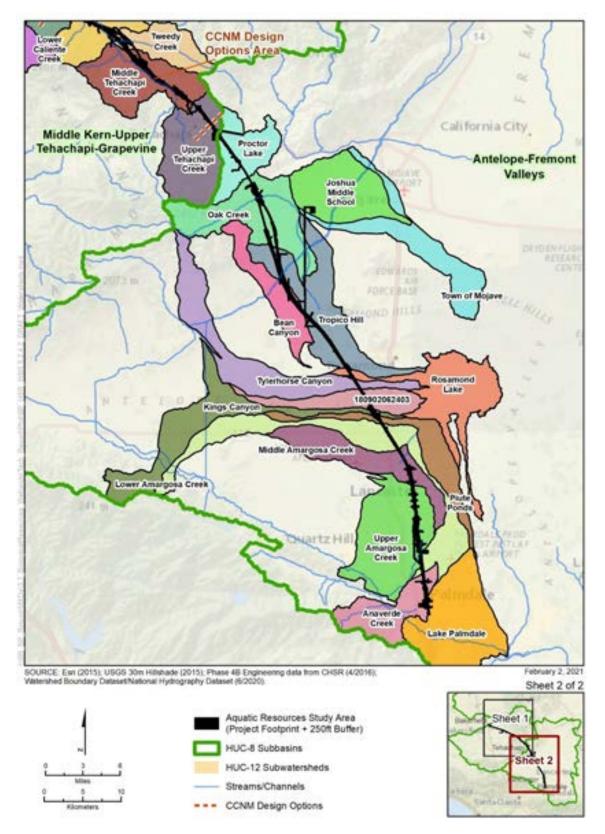


Figure 4-2 HUC-8 and HUC-12 Watersheds in the Aquatic Resources Study Area: Sheet 2



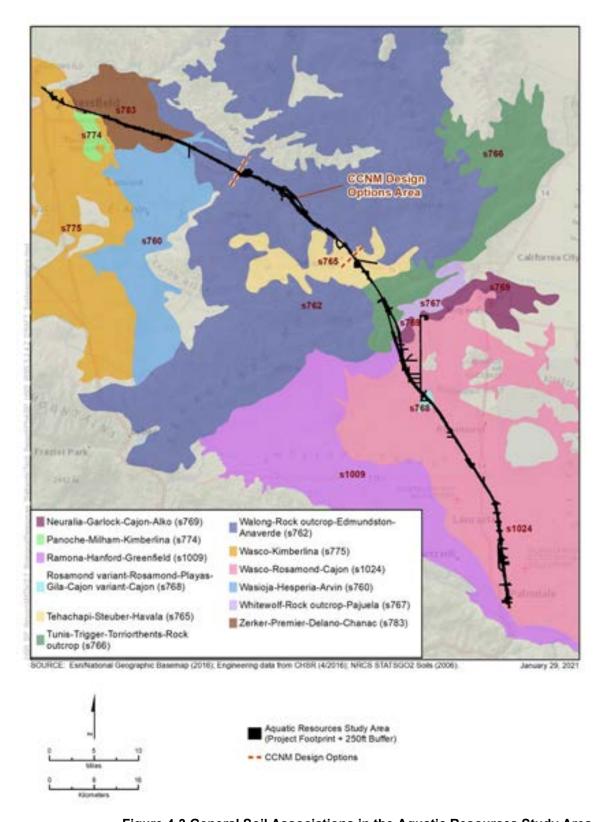


Figure 4-3 General Soil Associations in the Aquatic Resources Study Area



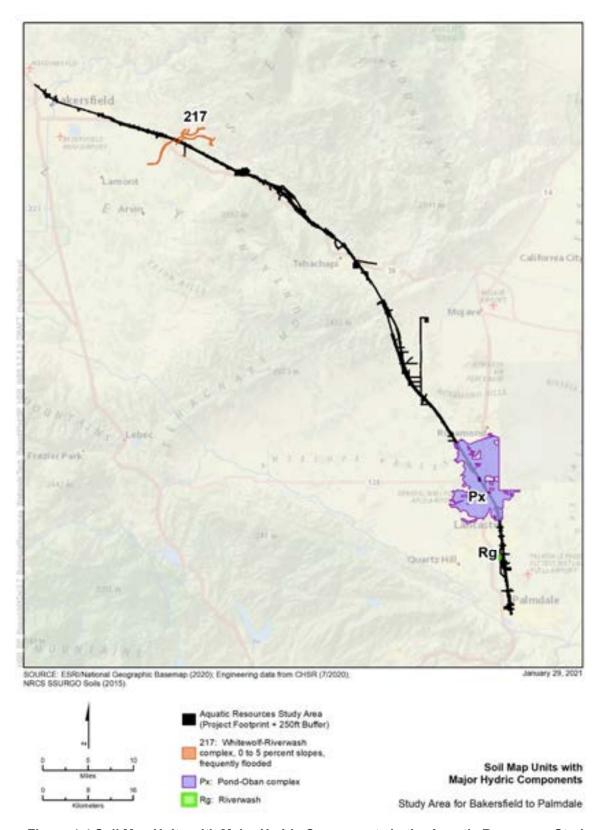


Figure 4-4 Soil Map Units with Major Hydric Components in the Aquatic Resources Study Area



#### 5 METHODS

This section outlines the methodology used to identify wetlands and non-wetland waters that are potentially subject to SWRCB jurisdiction under the Porter-Cologne Act, and that would fall under the jurisdiction of the USACE if they were not isolated, as well as the methodology to delineate areas potentially subject to CDFW 1600 jurisdiction. The methods described generally follow those from the *Bakersfield-Palmdale High-Speed Rail: Biological Focused Survey Approach for 2015–2016 Memorandum* (LSA 2015a) and *Bakersfield-Palmdale High-Speed Rail: Focused Survey Approach for Jurisdictional Delineation in Non-PTE Areas* (Authority 2015).

No new onsite delineations were conducted for this evaluation, primarily due to lack of permission to enter. However, the delineators previously conducted windshield surveys in the general vicinity of the CCNM Design Options and engineering and design refinement areas and drew upon notes collected during preparation of the ARDR to map additional reaches and new tributaries in the portion of the ARSA not studied previously. A desktop methodology was used to aide delineation.

#### 5.1 Literature and Dataset Review

The literature review generally consisted of reviewing the existing background information for wetlands and non-wetland waters, and completion of initial consultations with resource specialists. The delineators and graphic analysts reviewed existing resource information related to the project region, including the following:

- National Wetlands Inventory
- National Hydrography Dataset
- · Applicable city and county general plans
- Soil surveys
- Maps produced as part of the ARDR and BARTR where they adjoin the CCNM Design Options and engineering and design refinement areas
- Topographic maps and datasets
- Recent aerial imagery

#### 5.2 Delineation Methods

Given the lack of permission to enter for the majority of the ARSA, a more conventional field approach to delineating aquatic resources is not feasible. The methodology for completing delineation of aquatic resource features included a review of existing vegetation datasets and aquatic resource mapping completed for the ARDR and BARTR, desktop review of aerial photographs, topographic data, and existing general baseline data. For this study, delineation of potential aquatic features in areas without site access relied largely on remote identification of those areas that appeared to have features appropriate to be deemed jurisdictional, such as a visible channel, a topographic position and form consistent with presence of a stream, presence of vegetation typically associated with riparian corridors or wetlands, or NRCS soils maps depicting predominantly hydric soil map units. Previously mapped riparian and wetland vegetation in areas already evaluated in the ARDR and BARTR near the CCNM Design Options and engineering and design refinement areas were reviewed on recent aerial images to aide in recognizing similar patterns in areas not previously studied.

Where aquatic resources were delineated in the ARDR and BARTR, topographic datasets and aerial photos were reviewed to confirm that the features extend into previously unstudied portions of the ARSA, and any new reaches were mapped. The OHWM and top of bank dimensions were estimated from what could be seen on aerials and topographic datasets, and where present, riparian woodland and scrub communities were mapped using recent aerial imagery. Data collected near the ARSA during windshield surveys on public roads and rights-of-way during preparation of the ARDR and BARTR were incorporated into the analysis. Topographic surveys and LiDAR data, where available, allowed for the identification of the likely extent of OHWM and



approximate top of bank location. By combining multiple baseline datasets, previous analyses, and high-resolution aerial imagery, potential features were evaluated to consider evidence of hydrology consistent with drainages or pond features, and to look for the probable presence of hydric soil conditions and visual indicators that wetland vegetation might be present.

Features that appeared to contain hydrophytic plant species and/or that exhibited obvious wetland hydrology (e.g., water or saturation visible on aerials or from roadways during previous windshield surveys) and mapped on NRCS surveys as having hydric soils were assumed to be wetlands since site access to confirm was not feasible.

#### 6 RESULTS AND DISCUSSION

This chapter presents the results of the delineation of potentially aquatic waters in the ARSA. Potentially aquatic features delineated include streams, desert washes, riparian areas, wetlands, claypan features, and artificial watercourses, including canals, ditches, in-stream impoundments, and detention, retention, and irrigation basins. The characteristics of these aquatic features are described briefly below (and in more detail in the ARDR and BARTR), followed by summaries of potential jurisdiction separated by agency.

Mapped aquatic resources delineated to the estimated OHWM are presented in Appendix C. Mapped aquatic resources delineated to the estimated top of bank or edge of riparian dripline are presented in Appendix D. Tables identifying each feature, its Cowardin code, the map sheet(s) on which it appears, and dimensions are enclosed as Appendix E.

#### 6.1 Aquatic Features

#### 6.1.1 Streams and Washes

#### 6.1.1.1 Perennial Streams

Perennial streams contain water continuously during a year of normal rainfall, often with the streambed located below the water table for most of the year. Groundwater supplies the base flow for these streams, but stormwater runoff may also supplement flow. Perennial streams in the ARSA are limited to part of a perennial reach of Clear Creek, as well as an unnamed tributary to Clear Creek. Clear Creek is a tributary to Tehachapi Creek which joins Caliente Creek in the community of Caliente in the foothills of the Tehachapi Mountains. The USACE previously determined Caliente Creek and its tributaries to be isolated. No new perennial streams were identified in portions of the ARSA not previously studied; however, reaches of previously mapped perennial streams were present and mapped, including in the CCNM Design Options area.

Perennial streams had some mixed riparian canopy. The perennial reaches of these streams support hydrophytes. Due to lack of access, seasonal wetlands were identified in areas that appeared to contain more than at least five percent of areal cover plants and the plant community appeared to be dominated by hydrophytic vegetation (wetlands are discussed below). The majority of stream features in the ARSA do not have perennial water.

#### 6.1.1.2 Intermittent Streams

Intermittent streams are waters that convey flow for part of the year, typically during the winter and spring months when the streambed may be below the water table and/or when precipitation and runoff from surrounding uplands provides sustained flow. These streams are fed by smaller ephemeral drainages higher in the watershed, groundwater, and from direct precipitation, including rain and snowmelt. Intermittent streams exhibit an established bed, bank, and OHWM, and indications of these features were observable on aerial imagery. The Cowardin classification for intermittent streams is riverine unconsolidated bottom. The majority of intermittent streams in the ARSA are tributaries to named intermittent streams in the ARSA and vicinity, including Oak Creek, Tehachapi Creek, and Tweedy Creek. Intermittent streams and reaches of previously mapped streams were identified in portions of the ARSA not previously studied, including in the CCNM Design Options area.



Some reaches of Tehachapi Creek may convey perennial flow in wet years. Intermittent creek segments within the ARSA flow through areas vegetated with trees (riparian canopy) that partially shade the streams in some areas. These trees are rooted on hillsides and surrounding uplands and are present in the surrounding hills. There are some wetland waters in intermittent streams in the ARSA, characterized by a predominance of hydrophytes within the stream channel (wetland are discussed below).

#### 6.1.1.3 Ephemeral Streams

Ephemeral streams and reaches of previously mapped streams are present in areas of the ARSA not previously studied, including in the CCNM Design Options area. Ephemeral drainages in the ARSA are found in the San Joaquin Valley, the Tehachapi Mountains and foothills, and the Mojave Desert. These features only convey water flow during and immediately after precipitation events. They typically occur in the higher reaches of a watershed and are distinguished from erosional features by the presence of a bed and bank. Ephemeral drainages typically carry flow into downslope intermittent or perennial streams, but in some instances in the Arid West, they may dissipate when topography changes to gentler slopes without connecting to a larger channel. The Cowardin classification for ephemeral drainages is riverine unconsolidated bottom. In the mountains and foothills, the ephemeral drainage gradients are relatively steep and average estimated OHWM widths were typically narrow. In many areas, vegetation in ephemeral streams was differentiated from adjacent terrestrial areas only by sparser cover. Caliente Creek east of Bakersfield is a major ephemeral stream that receives water from Tehachapi Creek and its tributaries in the ARSA. Those reaches of Caliente Creek in the ARSA typically have active flow for brief periods of the year but convey large volumes of water during episodic events. Other named ephemeral streams in the ARSA are in the desert and are described under Desert Washes.

#### 6.1.1.4 Desert Washes

Desert washes are characterized by channels that flow episodically, typically after heavy rains or flooding events, and exhibit an incised bed and bank due to the high volume of flow transmitted through them in short periods of time. These features naturally transport significant volumes of sediment and erosion is frequently very high. Desert washes often originate at the base of mountains, where topography begins to level, and end when the main channel branches into multiple channels that fan out and dissipate into the landscape as sheet flow. They are generally distinguished from ephemeral drainages by their landscape positions in relatively flat desert settings. Desert washes may be found adjacent to a variety of desert upland habitats. The Cowardin classification for desert washes is riverine unconsolidated bottom. Some desert washes were mapped between claypan features where water has concentrated and carved a channel.

Desert washes in the ARSA occur in the Mojave Desert and in the Tehachapi Mountains and foothills, with concentrations occurring on the eastern slope of the mountains. Most of these washes flow into alluvial fans, where the water percolates into the sandy soils and dissipates laterally across the flat terrain. Some desert washes on hillsides north of Rosamond are conveyed below Sierra Highway via culverts before they ultimately dissipate into downstream alluvial fans. Ephemeral segments of Amargosa Creek, a tributary to historic Lake Rosamond, also cross through the ARSA. New desert washes and reaches of previously mapped desert washes are present in areas of the ARSA not previously studied; however, no new desert washes were mapped in the CCNM Design Options area.

#### 6.1.2 Riparian Areas

Riparian areas are transitional zones between terrestrial and aquatic ecosystems, and are characterized by gradients in biophysical conditions, ecological processes, and biota, which distinguish these areas from the surrounding landscape. Some of the characteristics of and functions provided by riparian areas include flood attenuation during high flow events, rich and productive soils, a water table that is accessible to plant roots, and species of plants and wildlife that have adapted to the timing of fluvial events, such as flooding, drought, and sediment transport. Additionally, riparian habitat protects waterbodies from nonpoint source pollution and



stabilizes banks. Riparian vegetation contributes vegetative input (leaves and woody debris) to adjacent waterbodies. The Cowardin classification for riparian areas is palustrine forested and palustrine scrub-shrub.

The largest riparian areas in the ARSA occur in corridors along Tehachapi Creek and tributaries to Oak Creek, but other, larger, intermittent streams in the ARSA also sustain patches of riparian vegetation along their banks. These riparian areas are found in the Tehachapi Mountains, north and south of Tehachapi and east of SR 58. Riparian areas were mapped based on the outer drip line of riparian vegetation on either side of the stream. Riparian areas were present in areas of the ARSA not previously studied; however, no riparian areas were mapped in the CCNM Design Options area.

#### 6.1.3 Wetlands

#### 6.1.3.1 Seasonal Wetlands

Seasonal wetlands are generally characterized by the dominance of hydrophytic plants in sites where hydrology is seasonal, and surface water is not necessarily present year round. Seasonal wetlands are characterized by cycles of natural inundation or saturation that occur during the winter and spring seasons and may dry up during the summer and fall. These features comprise seasonally inundated or saturated areas that have either formed naturally or that were artificially created. The Cowardin classification for seasonal wetlands in the ARSA is palustrine emergent.

Seasonal wetlands in the ARSA occur primarily in the Tehachapi Mountains and foothills and in the Mojave Desert. Seasonal emergent wetlands are present occasionally throughout the ARSA. Naturally occurring seasonal wetland features in the ARSA are supported by water sources in depressions or below springs where the water table is usually at or near the surface and the feature is seasonally saturated or flooded. Seasonal wetlands were present in areas of the ARSA not previously studied; however, none were mapped in the CCNM Design Options area.

#### 6.1.3.2 Forested wetlands

Forested wetlands are generally characterized by the presence of riparian shrubs and trees, with dominance of hydrophytic herbs in the understory, evidence that hydrology is present at least seasonally, and surface water present at least part of the year. Cowardin classifications for forested wetlands in the ARSA are palustrine forested, and palustrine scrub-shrub. Forested wetlands were primarily in the Tehachapi mountains and foothills in the ARSA. Forested wetlands were present in areas of the ARSA not previously studied; however, none were mapped in the CCNM Design Options area.

#### 6.1.3.3 Claypans

Claypans are concentrated in the Antelope Valley portion of the ARSA, primarily between Lancaster and Rosamond. A dense, hardpan layer of clay soil is characteristic of the desert claypans and soil and water chemistry are typically alkaline, with frequently elevated salt concentrations. Where vegetated, claypans frequently support hydrophytes that tolerate some alkaline conditions. The Sierra Highway and the UPRR right-of-way bisect the areas of claypans in the southern portion of the ARSA and act as a hydrologic break between the claypans to the east and west of the highway and railway. The Cowardin classifications of claypans in the ARSA are palustrine emergent.

Due to the unique nature of claypan wetlands, they were delineated based on a specific hydrology criterion and methodology (LSA 2016), as detailed in the ARDR (Authority 2016). Claypans mapped using this methodology that originally occurred outside the ARSA but were located inside the ARSA after incorporation of the engineering and design refinements were included in this evaluation; however no additional claypan areas were mapped. No claypans occur in the CCNM Design Options area.

Some claypan inundated or saturated areas have been subject to grading or other substantial disturbance. While these areas met the ponding/saturation criteria identified in the claypan delineation methodology, they do not have the same functions and ecological value as natural



claypans. Therefore, these areas were differentiated from claypans and identified as "ponding in desert developed areas." Although the jurisdictional status is unclear in areas where ponding is associated with heavily manipulated compacted soils, for purposes of the HSR analysis for the Bakersfield to Palmdale Project Section, these features were evaluated as potential jurisdictional wetlands or other aquatic resources.

#### 6.1.4 Artificial Watercourses

#### 6.1.4.1 Canals

Canals include constructed features that have been built in uplands primarily for the conveyance of agricultural irrigation water or municipal water supplies. Because they are often lined and are frequently maintained, canals are typically devoid of vegetation and lack natural soils, although sediments often deposit on the channel bed. They are regularly maintained and are frequently bound by parallel access roads. Although there is no specific Cowardin classification for canals, they most closely resemble the riverine unconsolidated bottom classification (when unlined).

There are two named canals mapped in the ARSA, the East Side Canal and the Arvin-Edison Canal. The East Side Canal in Bakersfield is fed by a diversion from the Kern River. Surface water in this canal flows downslope and away from the Kern River as documented in the NHD. The Arvin-Edison Canal is also mapped in the ARSA. This canal distributes water to the Arvin-Edison Water Bank. Water is distributed into distributary canals, and transported into constructed basins to infiltrate, where it can later be pumped from the ground and moved to farms for irrigation. Both canals terminate without flowing into another natural water body. Additionally, an unnamed canal occurs south of the town of Tehachapi. All these canals are constructed in uplands and convey water to non-jurisdictional upland destinations outside of the ARSA. They range from approximately 10 to 50 feet in width. Extensions of existing canals were mapped in areas of the ARSA not previously studied; however, none were mapped in the CCNM Design Options area.

#### 6.1.4.2 Ditches

Ditches are earthen features with ephemeral, intermittent, or perennial hydrology. They are usually unlined, not very deep or wide, cover shorter distances, and convey lower volumes of water. Ditches typically transmit roadside runoff, agricultural runoff, or stormwater. In the ARSA, ditches that exhibited a bed and bank or other forms of visible hydrology were mapped as potential aquatic waters. The Cowardin classification for ditches is riverine unconsolidated bottom. Ditches and reaches of previously mapped ditches were mapped in portions of the ARSA not previously studied.

## 6.1.4.3 In-Stream Impoundments

Basins constructed within streams, such as stock ponds, are artificially created but capture natural surface waters and flow into natural surface waters. Instream impoundments in streams mapped in the ARSA occur in the Tehachapi foothills and mountains. New instream impoundments were mapped in portions of the ARSA not previously studied, including in the CCNM Design Options area.

#### 6.1.4.4 Retention/Detention Basins

Retention/detention basins are artificially created, regularly shaped features, often with hardpacked, or reinforced earthen walls. These basins retain water for a number of uses, including agricultural and urban storm-water collection. These basins are often highly disturbed and may be routinely managed through vegetation removal and dredging. Cowardin classifications for these basins in the ARSA include lacustrine unconsolidated bottom, lacustrine unconsolidated shore, palustrine aquatic bed, palustrine unconsolidated bottom, and palustrine unconsolidated shore.

In the ARSA, retention/detention basins may hold water seasonally or perennially, depending on the location and intended use of the feature. Most of the basins found in the ARSA are closely associated with agricultural activities and are used as water storage facilities or tailwater ponds



(generally small, relatively shallow basins excavated in the low corners or along the side of an agricultural field or orchard for the purpose of capturing excess irrigation water). They are also used to retain urban stormwater. Only those features that capture surface waters, are located in natural waters, or that contain wetland vegetation are potentially jurisdictional waters. Basins that are wholly built, contained by above-ground berms, and fed by artificial water supplies are not potentially jurisdictional features. Several new retention/detention basins, or extensions of existing ones, were mapped in portions of the ARSA not previously studied; however, none were mapped in the CCNM Design Options area.

# 6.2 Jurisdictional Summary

#### 6.2.1 U.S. Army Corps of Engineers Jurisdiction

As previously noted, on December 11, 2017 the USACE issued an AJD confirming the isolation of all waters within the Bakersfield to Palmdale Project Section Aquatic Resources Study Area at that time, based on geographic location. Because waters in portions of the ARSA that were added through incorporation of the CCNM Design Options and engineering and design refinements adjoin or flow into waters determined to be isolated in the USACE's AJD, they are also presumed isolated. In summary, none of the resources identified in portions of the ARSA that were not previously studied are waters of the U.S., as they are not traditionally navigable, do not have the potential to directly or indirectly affect interstate or foreign commerce (33 Code of Federal Regulations 3.28.3(a)(3)), and lack a significant nexus to jurisdictional waters. Based on these findings, it is anticipated that resources within newly added portions of the ARSA will not be subject to Clean Water Act regulation or USEPA/USACE jurisdiction under the Clean Water Act Section 404. Conclusions stated herein are subject to USACE and USEPA evaluation for concurrence with these findings.

#### 6.2.2 State Water Resources Control Board Jurisdiction

The SWRCB is expected to assert jurisdiction over waters not subject to USACE jurisdiction due to isolation. Based on coordination to date with the SWRCB on permitting the Bakersfield to Palmdale Project Section, the permitting process is anticipated to analyze aquatic resources to OHWM or edge of wetland. Table 6-1 shows the features types, Cowardin classifications, and acreages of potential SWRCB jurisdictional features in the ARSA, as originally mapped and provided in the ARDR and BARTR (Authority 2016, Authority 2018) and after incorporation of the CCNM Design Options and engineering and design refinements.

Table 6-1 Potential SWRCB Jurisdictional Waters in the Aquatic Resource Study Area to Ordinary High Water Mark<sup>1</sup>

			Extent of Features to OHWM or Edge of Wetland (acres) <sup>2</sup>			
Feature Typ	oe	Cowardin Classification	As Provided in ARDR/ BARTR	With CCNM Design Options and Refinements	Difference <sup>3</sup>	
Seasonal Wetlands		Palustrine emergent	4.1	3.8	-0.3	
Forested Wetlands		Palustrine forested Palustrine scrub-shrub	2.8	2.8	0.0	
Claypans and Desert Ponded	Natural Claypans	Palustrine unconsolidated bottom Palustrine emergent	13.7	16.8	3.1	
Areas	Ponding in Desert Developed Areas Palustrine unconsolidated bottom		2.0	2.0	0.0	



			Extent of Features to OHWM or Edge of Wetland (acres) <sup>2</sup>			
Feature Type		Cowardin Classification	As Provided in ARDR/ BARTR	With CCNM Design Options and Refinements	Difference <sup>3</sup>	
Steams and Washes	Ephemeral Streams	Riverine unconsolidated bottom Palustrine scrub-shrub	21.4	24.4	3.0	
	Desert Wash	Riverine unconsolidated bottom	15.9	16.2	0.3	
	Intermittent Streams	Riverine unconsolidated bottom Palustrine forested Palustrine scrub-shrub	13.4	19.4	6.0	
	Perennial Streams	Riverine unconsolidated bottom Palustrine forested Palustrine scrub-shrub	0.8	1.6	0.8	
	In-stream Impoundments	Palustrine unconsolidated bottom Palustrine emergent	0.7	0.8	0.1	
Artificial	Canals	(Riverine unconsolidated bottom)	3.3	9.2	5.9	
Water- courses	Ditches	(Riverine unconsolidated bottom)	5.6	5.8	0.2	
	Detention/ Retention Basins	Palustrine unconsolidated bottom Palustrine emergent	53.4	45.2	-8.2	
Total Extent	Total Extent of Features			147.9	10.9	

Source: Desktop analysis as described herein and delineations from the ARDR (Authority 2016) and BARTR (Authority 2018)

- 1 The ARSA includes linear and auxiliary project construction features (i.e., traction power substations, switching stations, paralleling stations, road overcrossings, and heavy maintenance facilities), operations and maintenance facilities and access points, and temporary disturbance areas associated with construction, plus a 250-foot buffer, from the southern terminus of the F Street Station near 34th Street and L Street in Bakersfield to Spruce Court in Palmdale.
- 2 Acreage values are calculated in the ARSA, which included all project alternatives known at the time plus a 250-foot buffer. Acreage totals are derived from raw Geographic Information System data, and as a result, may not exactly equal the sum of the rounded values presented in the table.
- 3 The difference column shows the change in the acreage of that feature from what was provided in the ARDR and BARTR after incorporation of the CCNM Design Options and engineering and design refinements. "-" indicates decreased acreage.

Key

ARDR = Aquatic Resources Delineation Report

ARSA = Aquatic Resources Study Area

BARTR = Biological and Aquatic Resources Technical Report

CCNM = César E. Chávez National Monument
OHWM = Ordinary High Water Mark

#### 6.2.3 California Department of Fish and Wildlife Jurisdiction

CDFW is expected to assert jurisdiction over streambed, including riparian areas, to top of bank or edge of riparian dripline, whichever is greater. Table 6-2 shows the features types, Cowardin classifications, and acreages of potential CDFW jurisdictional features in the ARSA, as originally mapped and provided in the BARTR (Authority 2018) and after incorporation of the CCNM Design Options and engineering and design refinements. Potential additional Section 1600 resources are discussed in Appendix 3.7-B, *Potential Additional Section 1600 Resources Memorandum*, and analyzed in the Bakersfield to Palmdale Project Section EIR/EIS.



Table 6-2 Potentially CDFW Jurisdictional Waters in the Aquatic Resources Study Area to Top of Bank/Edge of Riparian<sup>1</sup>

			Extent of Features to Top of Bank or Edge of Riparian (acres) <sup>2</sup>			
Feat	ture Type	Cowardin Classification	As Provided in BARTR	With CCNM Design Options and Refinements	Difference <sup>3</sup>	
Steams and Washes Ephemeral Streams		Riverine unconsolidated bottom Palustrine scrub-shrub	44.1	51.7	7.6	
	Desert Wash	Riverine unconsolidated bottom	37.6	38.7	1.1	
	Intermittent Streams Riverine unconsolidated bottom Palustrine forested Palustrine scrub-shrub		20.8	30.5	9.7	
Perennial Streams  Riverine unconsolidated bottom Palustrine forested Palustrine scrub-shrub		0.8	1.5	0.7		
Riparian		Palustrine forested Palustrine scrub-shrub	58.2	73.2	15.0	
	In-stream Impoundments	Palustrine unconsolidated bottom Palustrine emergent	0.7	0.8	0.1	
Artificial	Canals	(Riverine unconsolidated bottom)	3.6	9.2	5.6	
Water- courses	Ditches	(Riverine unconsolidated bottom)	12.0	12.5	0.5	
	Detention/ Retention Basins	Palustrine unconsolidated bottom Palustrine emergent	56.6	48.7	-7.9	
Total Extent of	of Features		234.4	266.7	32.3	

Source: Desktop analysis as described herein and delineations from the BARTR (Authority 2018)

Key

ARSA = Aquatic Resources Study Area
BARTR = Biological and Aquatic Resources Technical Report

CCNM = César E. Chávez National Monument OHWM = Ordinary High Water Mark

<sup>1</sup> The ARSA includes linear and auxiliary project construction features (i.e., traction power substations, switching stations, paralleling stations, road overcrossings, and heavy maintenance facilities), operations and maintenance facilities and access points, and temporary disturbance areas associated with construction, plus a 250-foot buffer, from the southern terminus of the F Street Station near 34th Street and L Street in Bakersfield to Spruce Court in Palmdale.

<sup>2</sup> Acreage values are calculated in the ARSA, which included all project alternatives known at the time plus a 250-foot buffer. Acreage totals are derived from raw Geographic Information System data, and as a result, may not exactly equal the sum of the rounded values presented in the table.

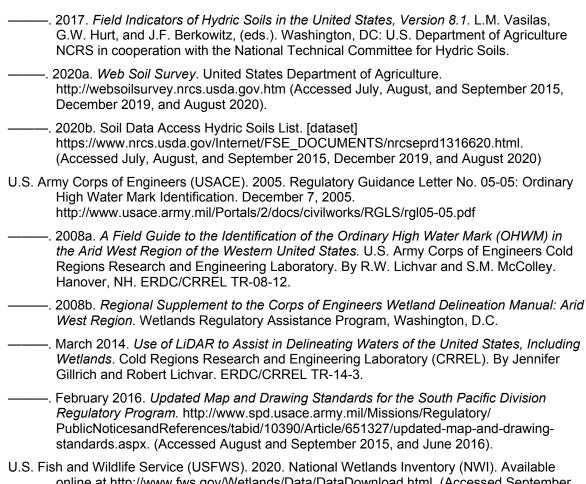
<sup>3</sup> The difference column shows the change in the acreage of that feature from what was provided in the ARDR and BARTR after incorporation of the CCNM Design Options and engineering and design refinements. "-" indicates decreased acreage.



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# 8 PREPARER QUALIFICATIONS

This chapter lists the Regional Consultant team members responsible for preparation of this report. Table 8-1 provides a summary of their qualifications, roles, and responsibilities in the preparation of this report.

**Table 8-1 Preparer Qualifications** 

Project Role Name, Credential		Qualifications		
Regional Consultant Enviro	nmental Team			
Project Manager	Shauna Callery, MCRP, MS Senior Project Manager - Planning Rincon Consultants, Inc.	12 years of experience Master of City and Regional Planning (M.C.R.P.), California Polytechnic State University, San Luis Obispo; M.S., Transportation Engineering, California Polytechnic State University, San Luis Obispo; B.A., International Relations, University of Southern California B.A., Social Sciences, Psychology, University of Southern California		
Principal Scientist; staff oversight; CRAM practitioner; technical review	Colby J. Boggs Principal/Senior Ecologist Rincon Consultants, Inc.	21 years of experience M.S., Botany, California State University, Chico B.S., Ecology and Evolution, University of California, Santa Barbara.		
Task lead; senior staff and delineator; co-author	Meg Perry Senior Biologist Rincon Consultants, Inc.	14 years of experience B.S., Soil Science, California Polytechnic State University, San Luis Obispo		
Senior staff; delineator; document preparation and QA/QC	Jennifer M. Turner, MS Senior Biologist/Program Manager Rincon Consultants, Inc.	23 years of experience M.S., Natural Resources: Wildlife, Humboldt State University B.S., Biology, Baldwin-Wallace College		
GIS analysis and cartography	Marcus Klatt Senior GIS Analyst Rincon Consultants, Inc.	13 years of experience B.A., Geography, University of California, Santa Barbara		
Technical editor	April Durham, Ph.D. Senior Technical Editor Rincon Consultants, Inc.	18 years of experience Ph.D., Comparative Literature and Media Studies, University of California, Riverside M.F.A., Fine Art and Creative Writing, Art Center College of Design B.A., Art and English, California State University San Bernardino		



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# APPENDIX A: SOIL DATA FROM USDA NRCS SOIL SURVEYS



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Table A-1 Soil Map Units in the Aquatic Resources Study Area and their National Hydric Soils List Designation

Map Unit Symbol	Map Unit Name	Drainage Class	Hydrologic Group <sup>a</sup>	Designated Hydric Component on National List?	Hydric Component Name	Typical Percent of Map Unit that is Hydric	Hydric Soil Landform	Hydric Soil Criteriab		
Antelope \	ntelope Valley Survey Area									
AaB	Adelanto loamy sand, 2 to 5 percent slopes	Well drained	А	no						
AcA	Adelanto coarse sandy loam, 2 to 5 percent slopes	Well drained	А	no						
CaA	Cajon loamy sand, 0 to 2 percent slopes	Excessively drained	А	yes	Unnamed	3	Playas	3		
CaC	Cajon loamy sand, 2 to 9 percent slopes	Excessively drained	А	no						
CbA	Cajon loamy sand, loamy substratum, 0 to 2 percent slopes	Excessively drained	В	yes	Unnamed	1	Playas	3		
CcA2	Cajon loamy fine sand, 0 to 2 percent slopes, hummocky	Excessively drained	A	no						
GaE2	Gaviota rocky sandy loam, 15 to 30 percent slopes, eroded	Well drained	D	Yes	Unnamed	3	Drainageways	2		
GsC	Greenfield sandy loam, 2 to 9 percent slopes	Well drained	А	no						
HgA	Hesperia loamy fine sand, 0 to 2 percent slopes	Well drained	А	yes	Unnamed	1	Playas	3		
HkA	Hesperia fine sandy loam, 0 to 2 percent slopes	Well drained	А	yes	Unnamed	2	Playas	3		
M-W	Miscellaneous water	Not provided	Not provided	no						



Map Unit Symbol	Map Unit Name	Drainage Class	Hydrologic Group <sup>a</sup>	Designated Hydric Component on National List?	Hydric Component Name	Typical Percent of Map Unit that is Hydric	Hydric Soil Landform	Hydric Soil Criteriab
NOTCOM	No Digital Data Available	Not provided	Not provided	no				
Px	Pond-Oban complex	Moderately well drained	С	yes	Pond	50	Basin floors	3
RcB	Ramona coarse sandy loam, 2 to 5 percent slopes	Well drained	С	no				
RcC	Ramona coarse sandy loam, 5 to 9 percent slopes	Well drained	С	no				
Rg	Riverwash	Excessively drained	А	yes	Riverwash	85	Drainageways	4
Ro	Rosamond fine sandy loam	Well drained	В	yes	Unnamed	1	Playas	3
Rp	Rosamond loam	Well drained	В	yes	Unnamed	1	Playas	3
Rr	Rosamond loam, saline- alkali	Well drained	С	yes	Unnamed	1	Playas	3
SsB	Sorrento loam, 2 to 5 percent slopes	Well drained	В	no				
Tv	Tray sandy loam, saline- alkali	Moderately well drained	В	yes	Unnamed	1	Playas	3
Tw	Tray loam, saline-alkali	Moderately well drained	В	yes	Unnamed	1	Playas	3
VbA	Vernalis loam, 0 to 2 percent slopes	Well drained	В	yes	Unnamed	1	Swales	1
VbB	Vernalis loam, 2 to 5 percent slopes	Well drained	В	no				
W	Water	Not provided	Not provided	no				



Map Unit Symbol	Map Unit Name	Drainage Class	Hydrologic Group <sup>a</sup>	Designated Hydric Component on National List?	Hydric Component Name	Typical Percent of Map Unit that is Hydric	Hydric Soil Landform	Hydric Soil Criteriab				
Kern Cour	ern County, California, Northwestern Part											
141	Delano sandy clay loam, 0 to 2 percent slopes	Well drained	С	no								
142	Delano-Urban land complex, 0 to 5 percent slopes	Not provided	Not provided	no								
159	Hesperia sandy loam, 0 to 2 percent slopes	Well drained	А	no								
180	Kimberlina-Urban land- Cajon complex, 0 to 2 percent slo pes	Not provided	Not provided	no								
211	Panoche clay loam, 0 to 2 percent slopes, MLRA 17	Well drained	В	no								
216	Panoche-Urban land complex, 0 to 2 percent slopes	Well drained	В	no								
240	Urban land	Not provided	Not provided	no								
243	Wasco sandy loam	Well drained	А	no								
257	Water	Not provided	Not provided	no								
Kern Cour	Kern County, California, Southeastern Part											
101	Anaheim variant very fine sandy loam, 2 to 30 percent slopes	Well drained	С	no								
104	Arizo gravelly loamy sand, 2 to 9 percent slopes	Excessively drained	А	no								



Map Unit Symbol	Map Unit Name	Drainage Class	Hydrologic Group <sup>a</sup>	Designated Hydric Component on National List?	Hydric Component Name	Typical Percent of Map Unit that is Hydric	Hydric Soil Landform	Hydric Soil Criteriab
107	Arujo-Friant-Tunis complex, 15 to 50 percent slopes	Well drained	С	no				
108	Arujo-Friant-Tunis complex, 50 to 75 percent slopes	Well drained	В	no				
113	Cajon sand, 5 to 15 percent slopes	Somewhat excessively drained	A	no				
114	Cajon loamy sand, 0 to 5 percent slopes	Somewhat excessively drained	A	no				
116	Cajon gravelly loamy sand, 0 to 9 percent slopes	Excessively drained	А	no				
124	Cinco gravelly loamy sand, 50 to 75 percent slopes	Excessively drained	А	no				
125	DeStazo sandy loam, 0 to 2 percent slopes	Well drained	С	no				
126	DeStazo sandy loam, 5 to 9 percent slopes, eroded	Well drained	С	no				
128	Dumps, mine	Not provided	Not provided	no				
137	Garlock loamy sand, 2 to 9 percent slopes	Well drained	С	no				
140	Havala sandy loam, 0 to 2 percent slopes	Well drained	С	no				
141	Havala sandy loam, 2 to 5 percent slopes	Well drained	С	no				
142	Havala sandy loam, 5 to 9 percent slopes	Well drained	С	no				



Map Unit Symbol	Map Unit Name	Drainage Class	Hydrologic Group <sup>a</sup>	Designated Hydric Component on National List?	Hydric Component Name	Typical Percent of Map Unit that is Hydric	Hydric Soil Landform	Hydric Soil Criteriab
143	Havala sandy loam, 9 to 15 percent slopes	Well drained	С	no				
146	Hesperia sandy loam, 5 to 9 percent slopes	Well drained	А	no				
147	Hi Vista sandy loam, 2 to 9 percent slopes	Well drained	С	no				
149	Los Osos variant clay loam, 30 to 50 percent slopes	Well drained	С	no				
152	Nacimiento loam, 30 to 50 percent slopes, eroded	Well drained	С	no				
156	Pajuela-Whitewolf association, steep	Somewhat excessively drained	A	no				
157	Pits	Not provided	Not provided	no				
165	Psamments-Xerolls complex, nearly level	Somewhat excessively drained	A	no				
166	Quarries	Not provided	Not provided	no				
167	Randsburg sandy loam, 2 to 15 percent slopes	Well drained	D	no				
170	Rock outcrop	Not provided	Not provided	no				
171	Rosamond clay loam	Well drained	С	no				
174	Steuber sandy loam, 0 to 2 percent slopes	Well drained	А	no				



Map Unit Symbol	Map Unit Name	Drainage Class	Hydrologic Group <sup>a</sup>	Designated Hydric Component on National List?	Hydric Component Name	Typical Percent of Map Unit that is Hydric	Hydric Soil Landform	Hydric Soil Criteriab
175	Steuber sandy loam, 2 to 5 percent slopes	Well drained	A	no				
176	Steuber sandy loam, 5 to 9 percent slopes	Well drained	А	no				
177	Steuber stony sandy loam, 5 to 9 percent slopes	Well drained	В	no				
179	Tehachapi sandy loam, 2 to 15 percent slopes	Well drained	С	no				
180	Tehachapi loam, 15 to 30 percent slopes, eroded	Well drained	С	no				
183	Tehachapi variant sandy clay loam, 15 to 50 percent slopes	Well drained	С	no				
185	Torriorthents-Rock outcrop complex, very steep	Well drained	Not provided	no				
186	Tujunga loamy sand, 2 to 5 percent slopes	Somewhat excessively drained	A	no	<b></b>			
187	Tunis sandy loam, 5 to 30 percent slopes	Somewhat excessively drained	D	no				
193	Walong sandy loam, 15 to 30 percent slopes	Well drained	В	no				
194	Walong sandy loam, 30 to 50 percent slopes	Well drained	В	no				
195	Walong-Arujo sandy loams, 15 to 30 percent slopes	Well drained	В	no				



Map Unit Symbol	Map Unit Name	Drainage Class	Hydrologic Group <sup>a</sup>	Designated Hydric Component on National List?	Hydric Component Name	Typical Percent of Map Unit that is Hydric	Hydric Soil Landform	Hydric Soil Criteriab
196	Walong-Arujo sandy loams, 30 to 50 percent slopes	Well drained	В	no				
198	Walong-Rock outcrop complex, 30 to 75 percent slopes	Not provided	Not provided	no				
202	Wasioja sandy loam, cool, 5 to 9 percent slopes	Well drained	С	no				
210	Xerorthents, loamy, very steep	Well drained	Not provided	no				
211	Xerorthents-Rock outcrop complex, very steep	Well drained	D	yes	Unnamed, wet	1	Drainageways	2
212	Water	Not provided	Not provided	no				
264ne	Arujo-Walong-Tunis association, 9 to 30 percent slopes	Well drained	С	yes	Unnamed, flooded; Riverwash	1	Floodplains; Drainageways	4; 4
271ne	Walong-Tunis-Rock outcrop association, 30 to 60 percent slopes		В	yes	Unnamed, wet, flooded; Riverwash; Xerofluvents, flooded	1	Floodplains; Drainageways; Drainageways	2, 4; 4; 2,4
277ne	Feethill-Vista-Walong association, 15 to 60 percent slopes	Well drained	В	yes	Riverwash; Unnamed	2; 2	Drainageways; Floodplains	4; 2
Kern Cour	nty, Northeastern Part, and S	outheastern F	Part of Tulare	County, Californ	nia			
136	Cuyama-Urban land- Delano complex, 2 to 9 percent slopes	Well drained	В	no				
138	Hesperia sandy loam, 0 to 2 percent slopes	Well drained	А	yes	Unnamed	1	Depressions	2, 3

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Map Unit Symbol	Map Unit Name	Drainage Class	Hydrologic Group <sup>a</sup>	Designated Hydric Component on National List?	Hydric Component Name	Typical Percent of Map Unit that is Hydric	Hydric Soil Landform	Hydric Soil Criteriab
144	Calicreek sandy loam, 0 to 2 percent slopes, occasionally flooded	Well drained	A	yes	Unnamed, flooded	1	Depressions	4
145	Delano loamy sand, 0 to 2 percent slopes	Well drained	С	yes	Unnamed, flooded	1	Floodplains	4
148	Delano sandy clay loam, 0 to 2 percent slopes	Well drained	С	no				
152	Pleito gravelly sandy clay loam, 2 to 5 percent slopes	Well drained	С	yes	Xerofluvents, wet, flooded	1	Floodplains	2, 4
185	Brecken-Cuyama-Pleito complex, 15 to 60 percent slopes	Well drained	С	yes	Riverwash; Unnamed	1; 1	Drainageways; Floodplains	4; 4
192	Chanac-Pleito complex, 5 to 30 percent slopes	Well drained	С	yes	Unnamed, wet	1	Fan remnants	2, 3, 4
193	Chanac-Pleito complex, 2 to 5 percent slopes	Well drained	С	yes	Unnamed, spring	1	Fan remnants	2, 4
198	Centerville-Delvar complex, 2 to 9 percent slopes	Well drained	С	no				
207	Whitewolf loamy sand, 0 to 2 percent slopes, rarely flooded	Somewhat excessively drained	A	no				
213	Calicreek loamy coarse sand, 0 to 2 percent slopes, occasionally flooded	Well drained	A	no				
217	Whitewolf-Riverwash complex, 0 to 5 percent slopes, frequently flooded	Somewhat excessively drained	A	yes	Riverwash; Unnamed, flooded	25; 1	Drainageways; Depressions	4; 4



Map Unit Symbol	Map Unit Name	Drainage Class	Hydrologic Group <sup>a</sup>	Designated Hydric Component on National List?	Hydric Component Name	Typical Percent of Map Unit that is Hydric	Hydric Soil Landform	Hydric Soil Criteriab
238	Cinco gravelly loamy sand, 50 to 75 percent slopes	Excessively drained	А	no				
240	Dune land	Excessively drained	Not provided	no				
261	Blasingame-Arujo-Cieneba association, 15 to 45 percent slopes	Well drained	С	yes	Unnamed; Riverwash	2; 1	Floodplains; Drainageways	2, 4; 4
264	Arujo-Walong-Tunis association, 9 to 30 percent slopes	Well drained	С	yes	Unnamed, flooded; Riverwash	1; 1	Floodplains; Drainageways	4; 4
265	Arujo sandy loam, 9 to 15 percent slopes	Well drained	С	yes	Riverwash; Unnamed	1	Drainageways; Floodplains	4; 2, 4
268	Tunis-Tollhouse-Sorrell association, 30 to 75 percent slopes	Somewhat excessively drained	D	yes	Unnamed- spring; Riverwash	1; 1	Drainageways; Floodplains	2; 4
277	Feethill-Vista-Walong association, 15 to 60 percent slopes	Well drained	В	yes	Riverwash; Unnamed – Flooded; Xerofluvents – Flooded	2; 1; 1	Drainageways; Floodplains; Drainageways	4; 4; 2
296	Arujo-Walong-Tunis association, 30 to 75 percent slopes	Well drained	С	yes	Riverwash	1	Drainageways	4
303	Steuber sandy loam, 0 to 5 percent slopes	Well drained	A	yes	Riverwash; Kernfork; Unnamed - Flooded	6; 4; 1	Mountain valleys; Drainageways, channels; Floodplains	4; 3, 4; 4
305	Chanac-Plieto-Premier association, 20 to 60 percent slopes	Well drained	С	yes	Riverwash	1	Drainageways	4

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Map Unit Symbol	Map Unit Name	Drainage Class	Hydrologic Group <sup>a</sup>		Name	Typical Percent of Map Unit that is Hydric	Hydric Soil Landform	Hydric Soil Criteriab
312	Havala sandy loam, 2 to 5 percent slopes	Well drained	С	no				

Source: NRCS 2020a, NRCS 2020b

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

### b Hydric Soil Criteria Codes:

- 2: Map unit components in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Historturbels great group, or Andic, Cumulic, Pachic, or Vitrandic subgroups that: based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or show evidence that the soil meets the definition of a hydric soil.
- 3. Map unit components that are frequently ponded for long duration or very long duration during the growing season that: based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or show evidence that the soil meets the definition of a hydric soil.
- 4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that: based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or show evidence that the soils meet the definition of a hydric soil.

<sup>&</sup>lt;sup>a</sup> Hydrologic Class Codes:



# APPENDIX B: NATIONAL HYDROGRAPHY DATASET AND NATIONAL WETLANDS INVENTORY



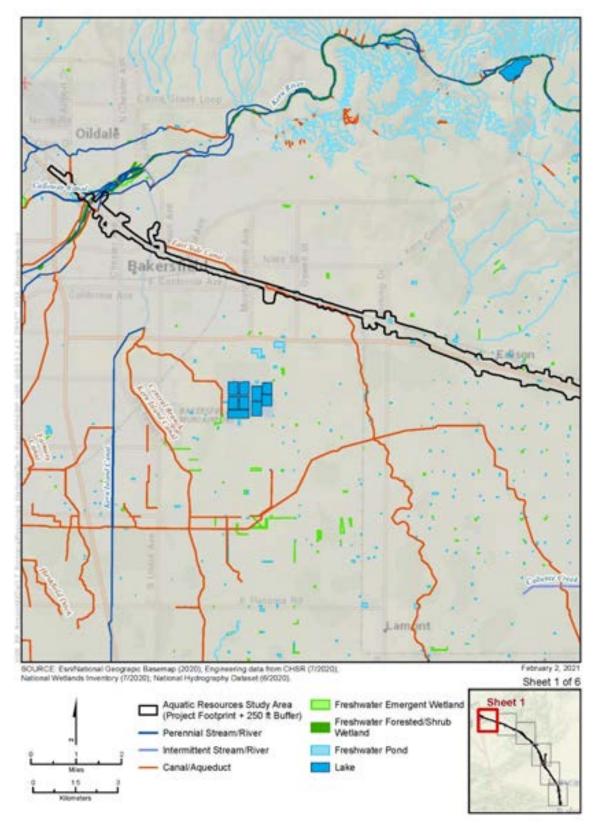


Figure B-1 NHD and NWI Data

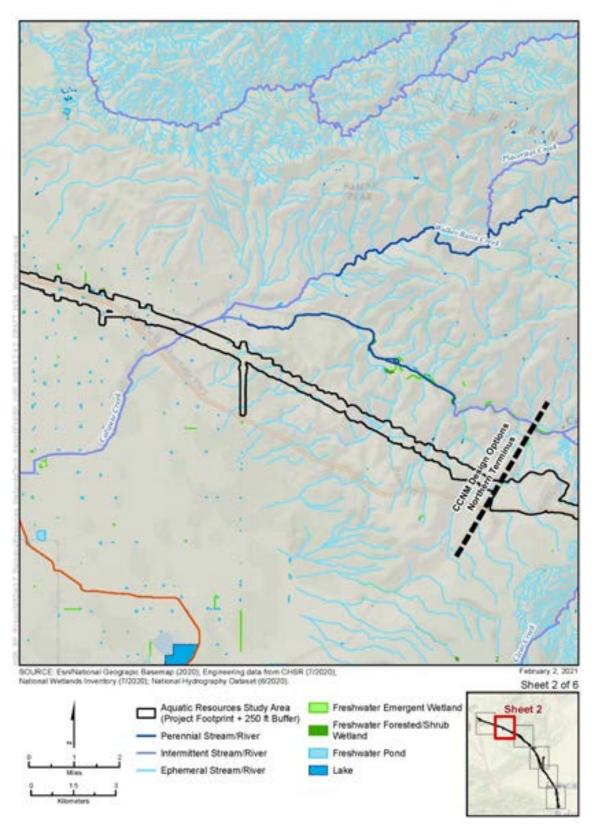


Figure B-2 NHD and NWI Data



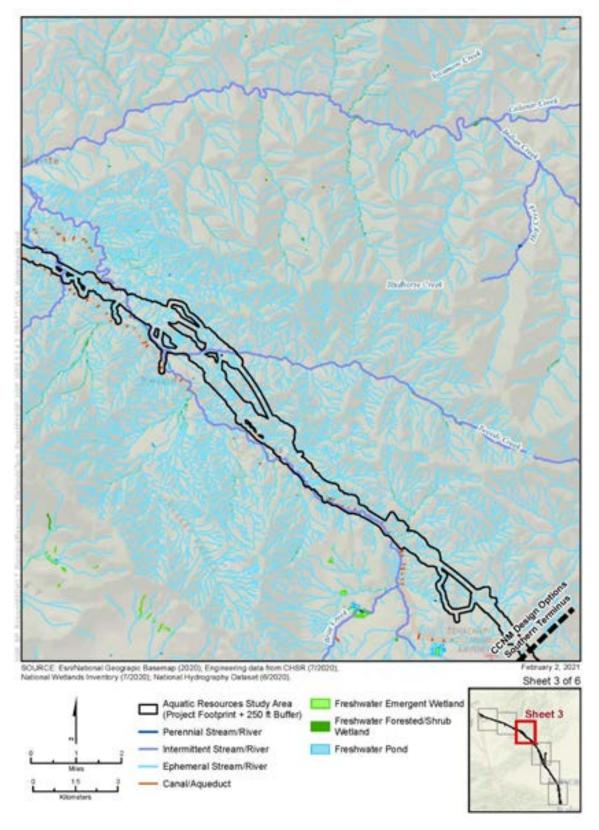


Figure B-3 NHD and NWI Data



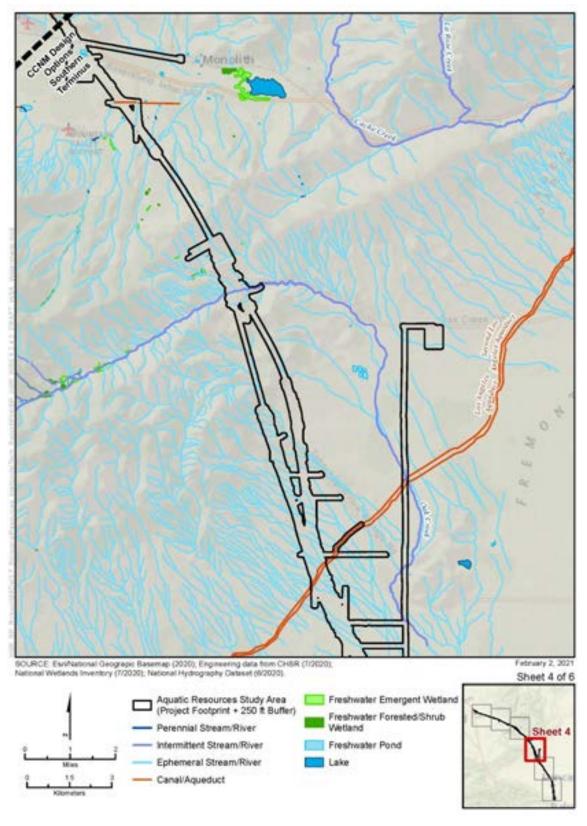


Figure B-4 NHD and NWI Data



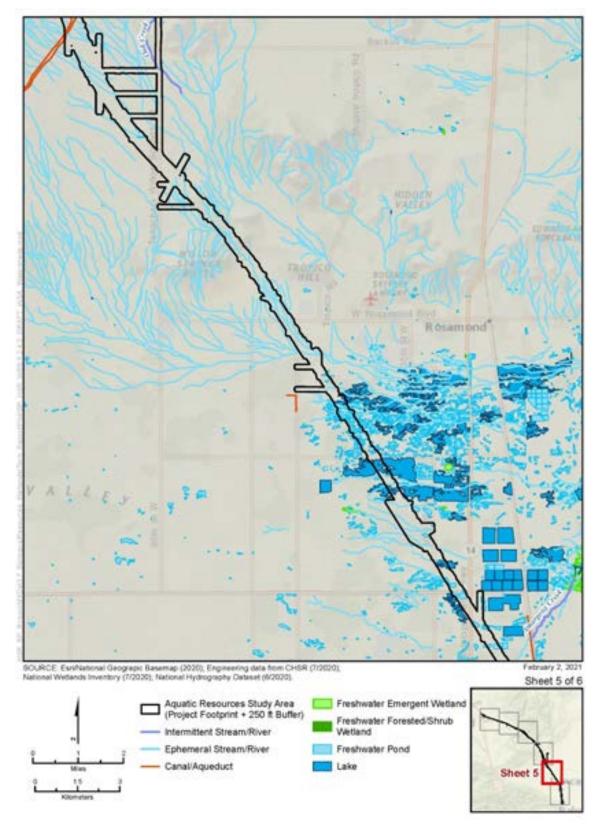


Figure B-5 NHD and NWI Data



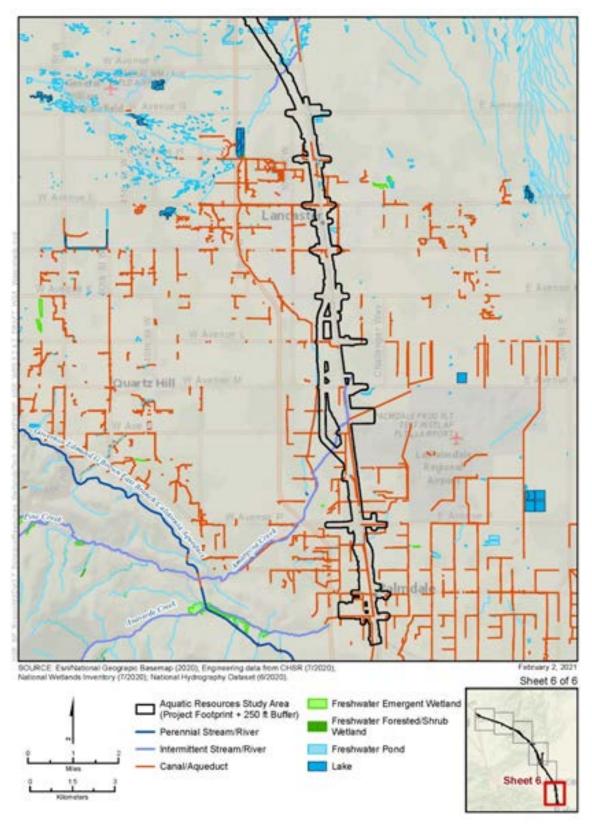


Figure B-6 NHD and NWI Data



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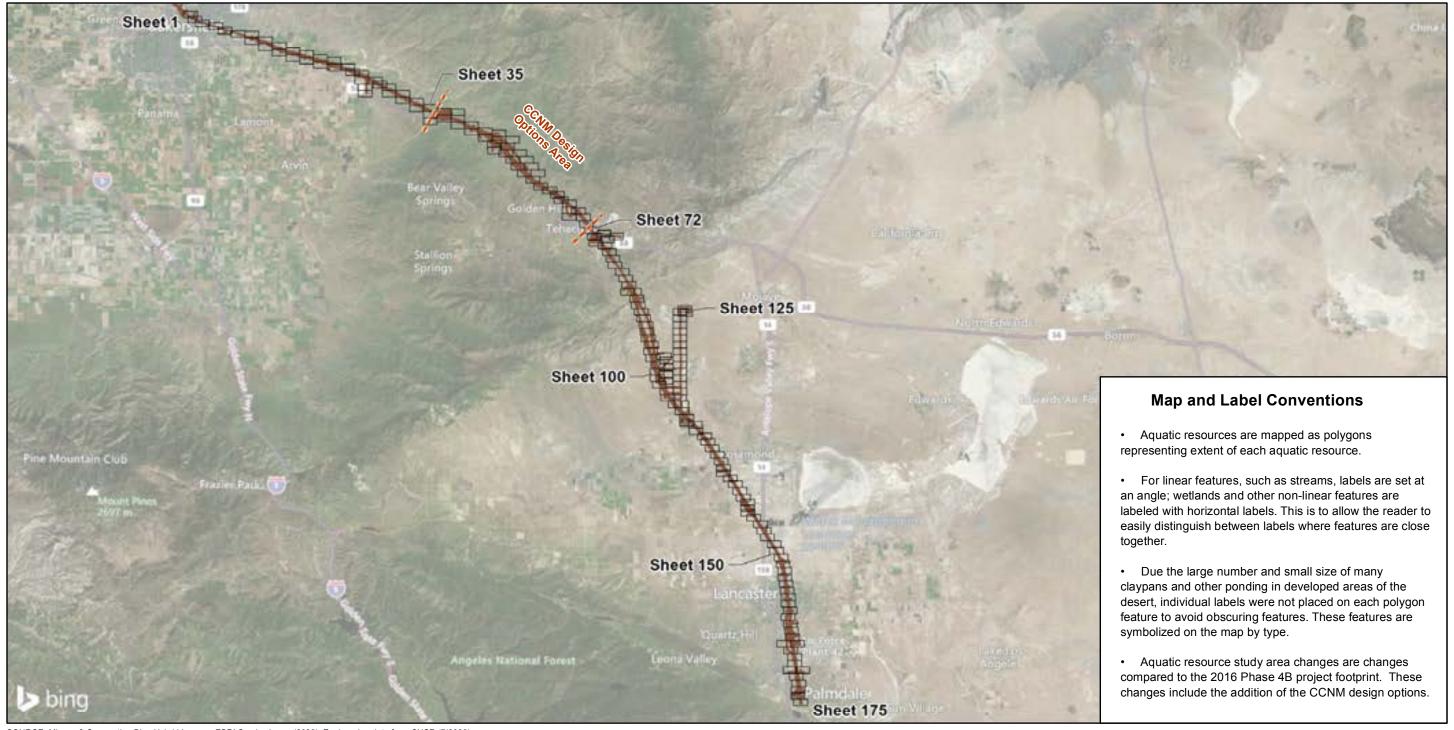


# APPENDIX C: JURISDICTIONAL DELINEATION MAPBOOK TO ORDINARY HIGH WATER MARK

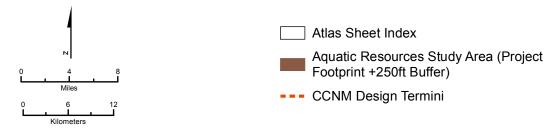


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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Engineering data from CHSR (7/2020).







SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





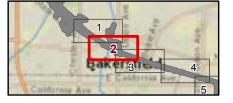
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





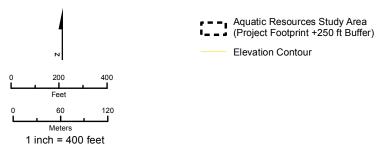


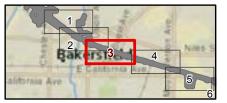
Jurisdictional Delineation to Ordinary High Water Mark

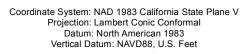




SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).









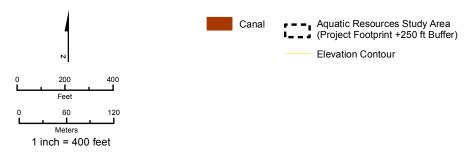
January 27, 2021

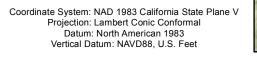
California High-Speed Rail Project Environmental Document





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



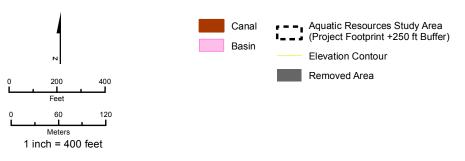








SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



1 2 3 4 5 6 7 8

Sheet 5

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

January 27, 2021

California High-Speed Rail Project Environmental Document





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



3 4 5 6 7 8 9 10

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet







SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



5 6 7 8 9 10 11



Sheet 7

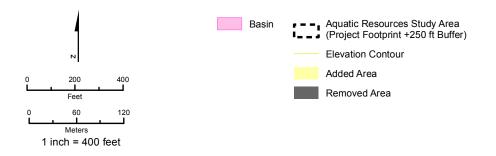
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Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



California High-Speed Rail Project Environmental Document

4 5 6 7 8 9 11 10 12

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Ordinary High Water Mark

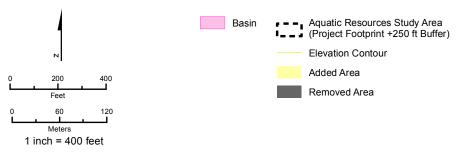
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



6 7 8 9 10 11 12

Sheet 9

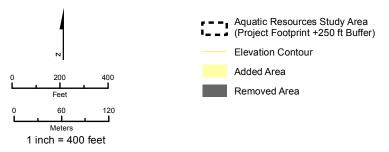
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Jurisdictional Delineation to Ordinary High Water Mark

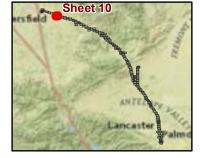




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9 10 11 12 14

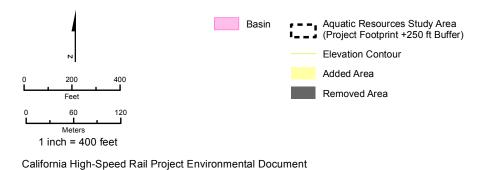


Jurisdictional Delineation to Ordinary High Water Mark



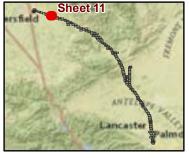


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7 8 10 11 12 13 15 14 16

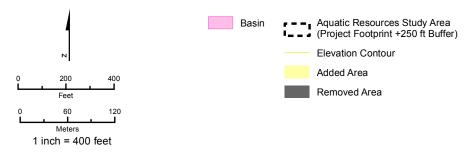
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8 9 11 13 15 14 16

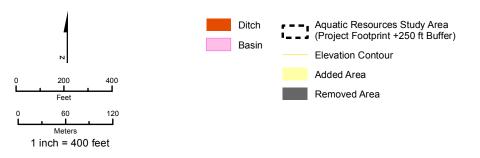


Jurisdictional Delineation to Ordinary High Water Mark

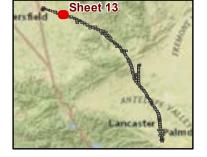




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9 10 12 13 14 16 17 18



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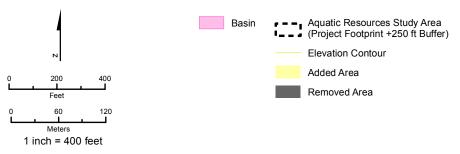
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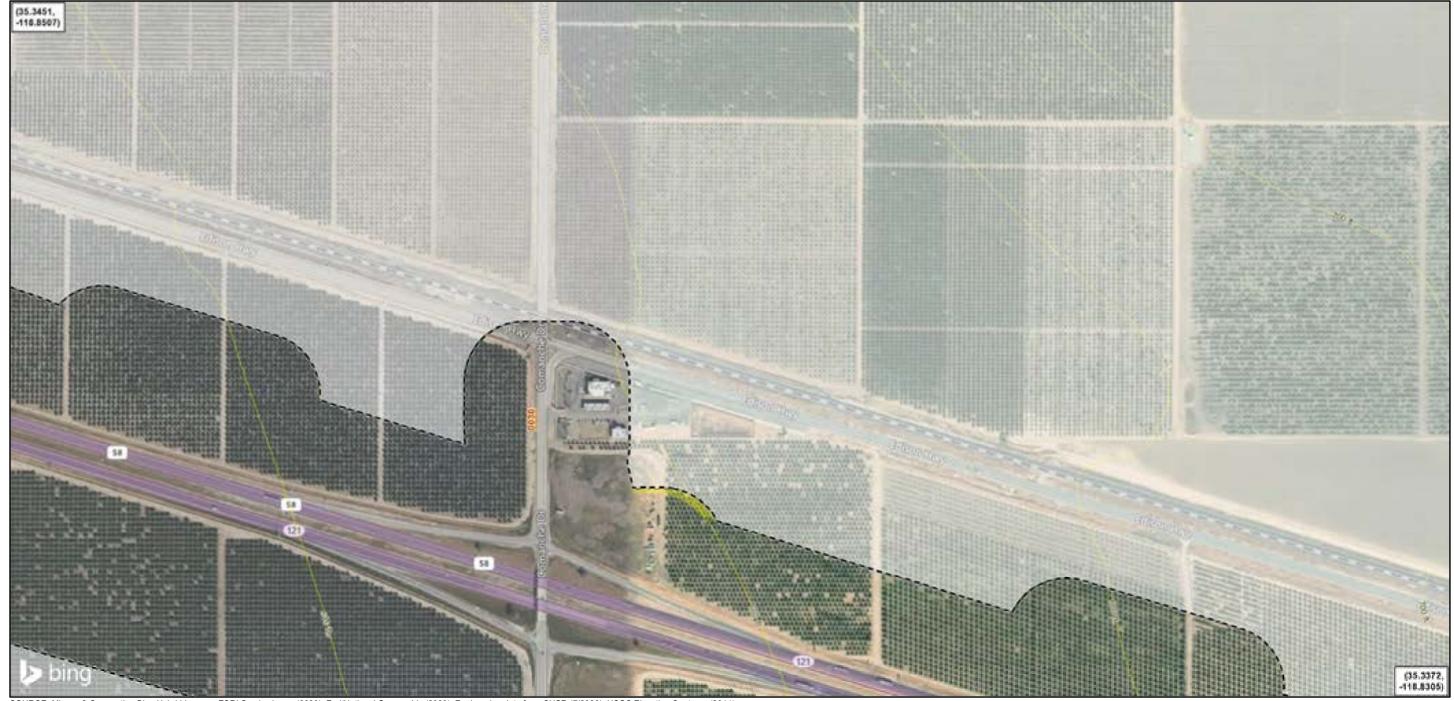
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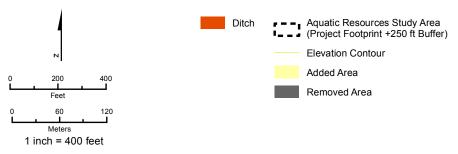


Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



11 12 14 16 18 20



Jurisdictional Delineation to Ordinary High Water Mark

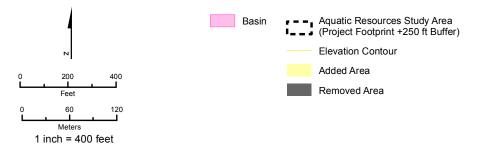
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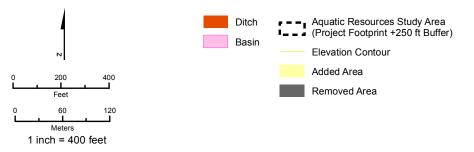


Jurisdictional Delineation to Ordinary High Water Mark





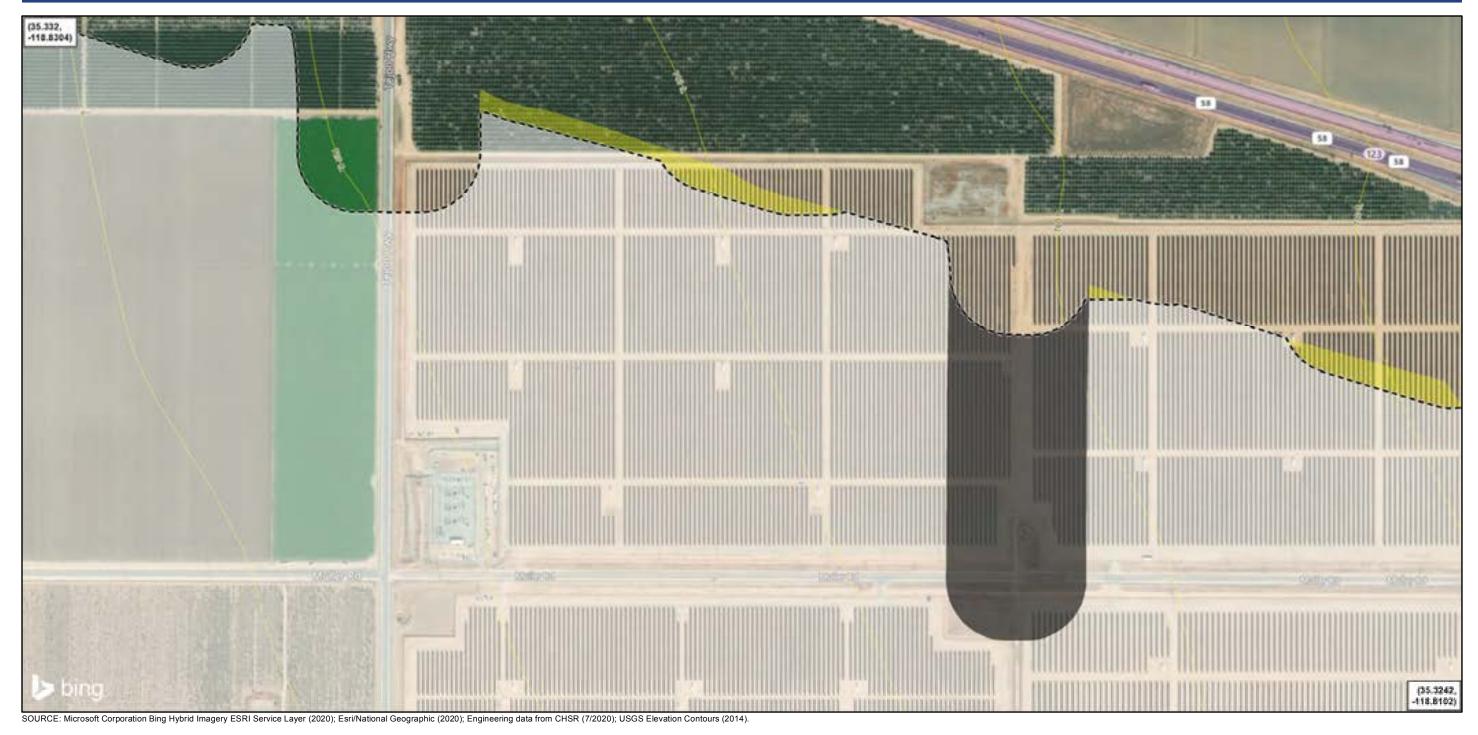
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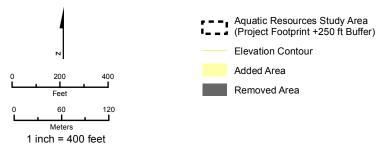


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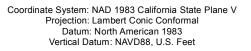








13 15 17 19 18 20 21 22





Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



15 16 18 20 21 22 23



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Jurisdictional Delineation to Ordinary High Water Mark

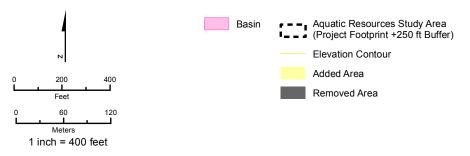
January 27, 2021

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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet







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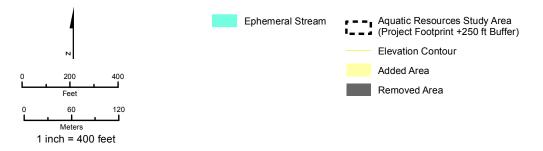


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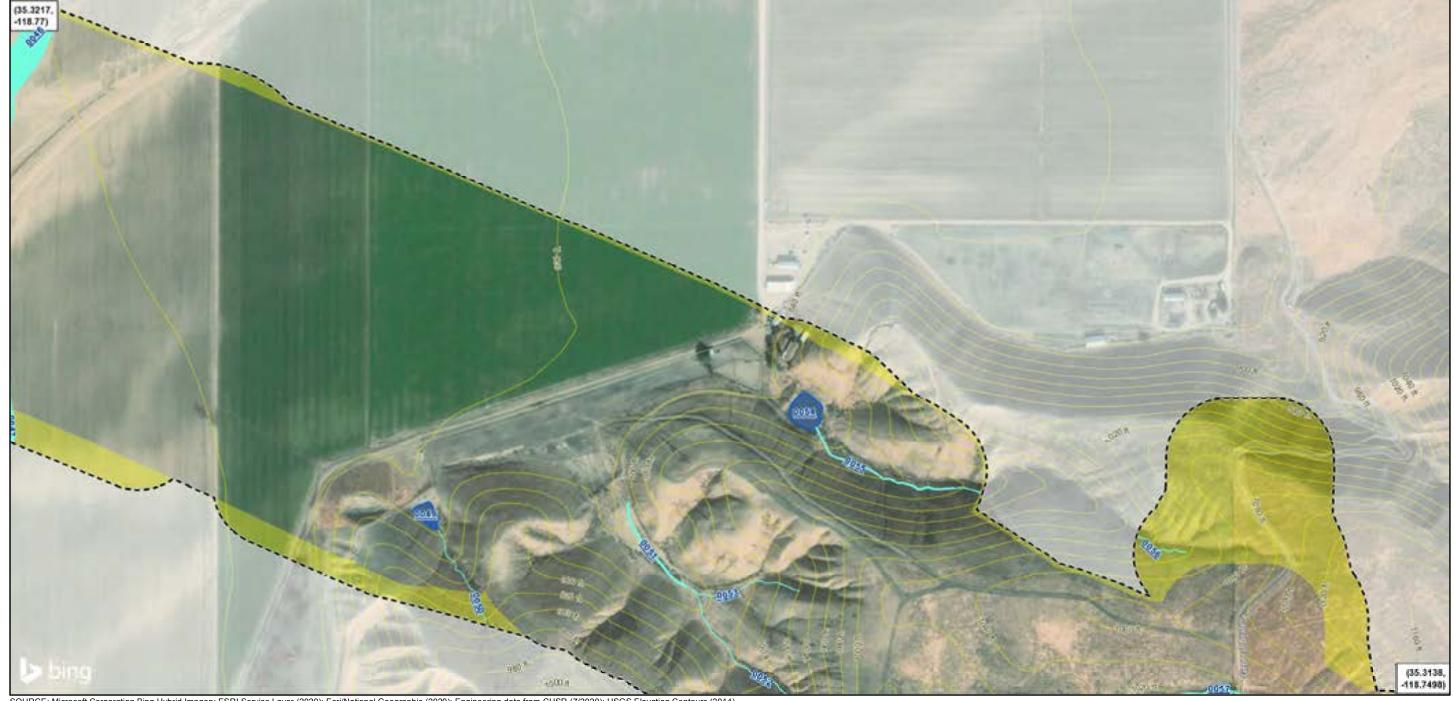
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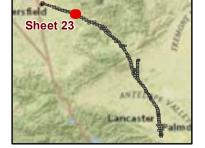






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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

Jurisdictional Delineation to Ordinary High Water Mark





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Jurisdictional Delineation to Ordinary High Water Mark

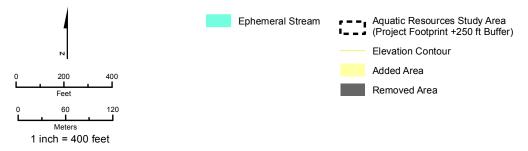
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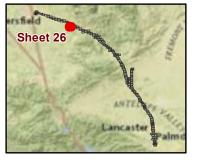


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24 27 25 28 29 26 30

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet







SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



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21 23 24 **27** 25 28 29 26 30 31



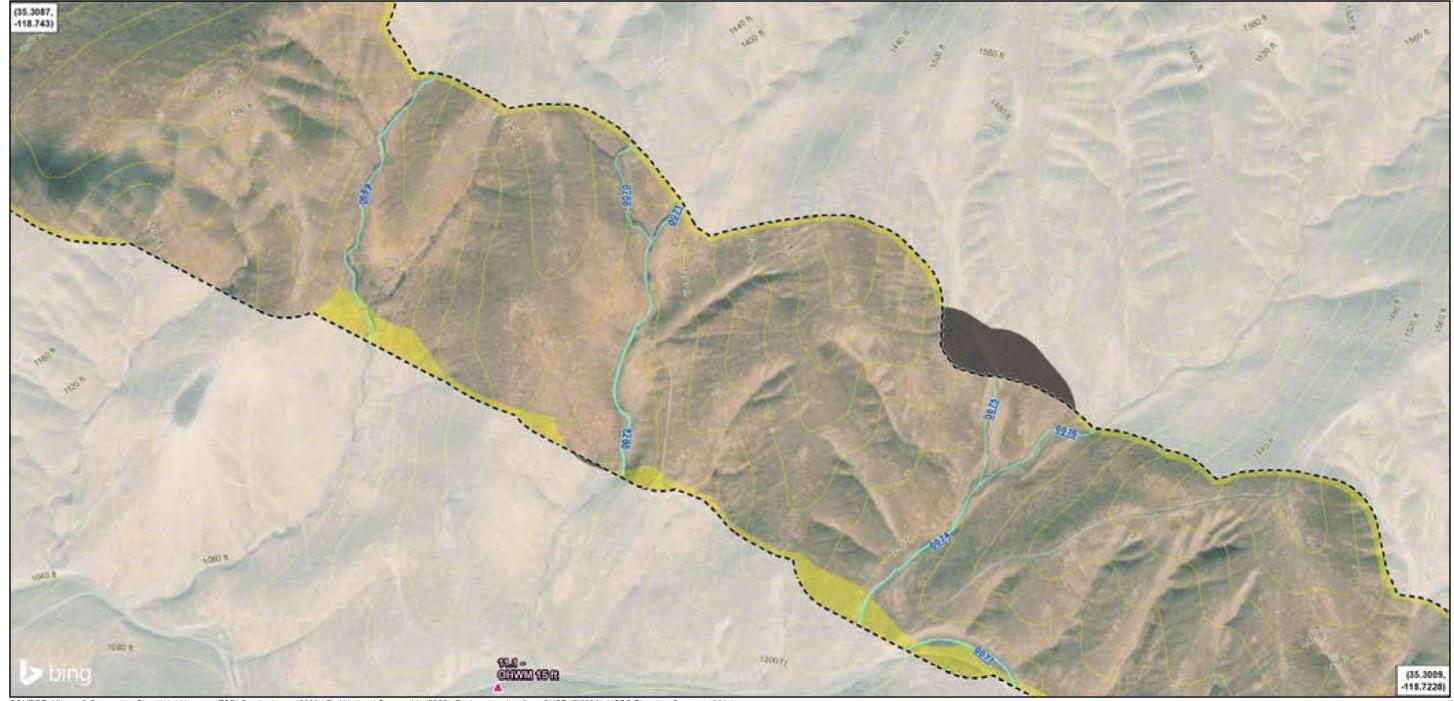
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Jurisdictional Delineation to Ordinary High Water Mark

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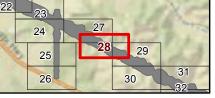
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet







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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



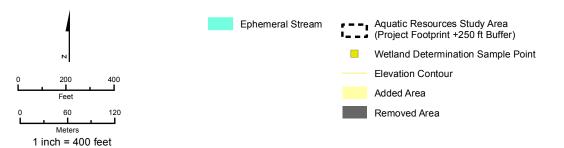
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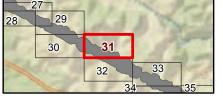






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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

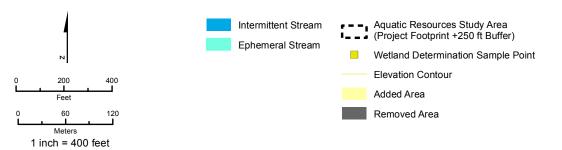


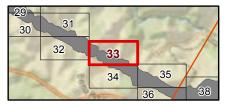
Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).







Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



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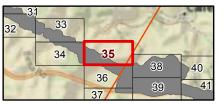






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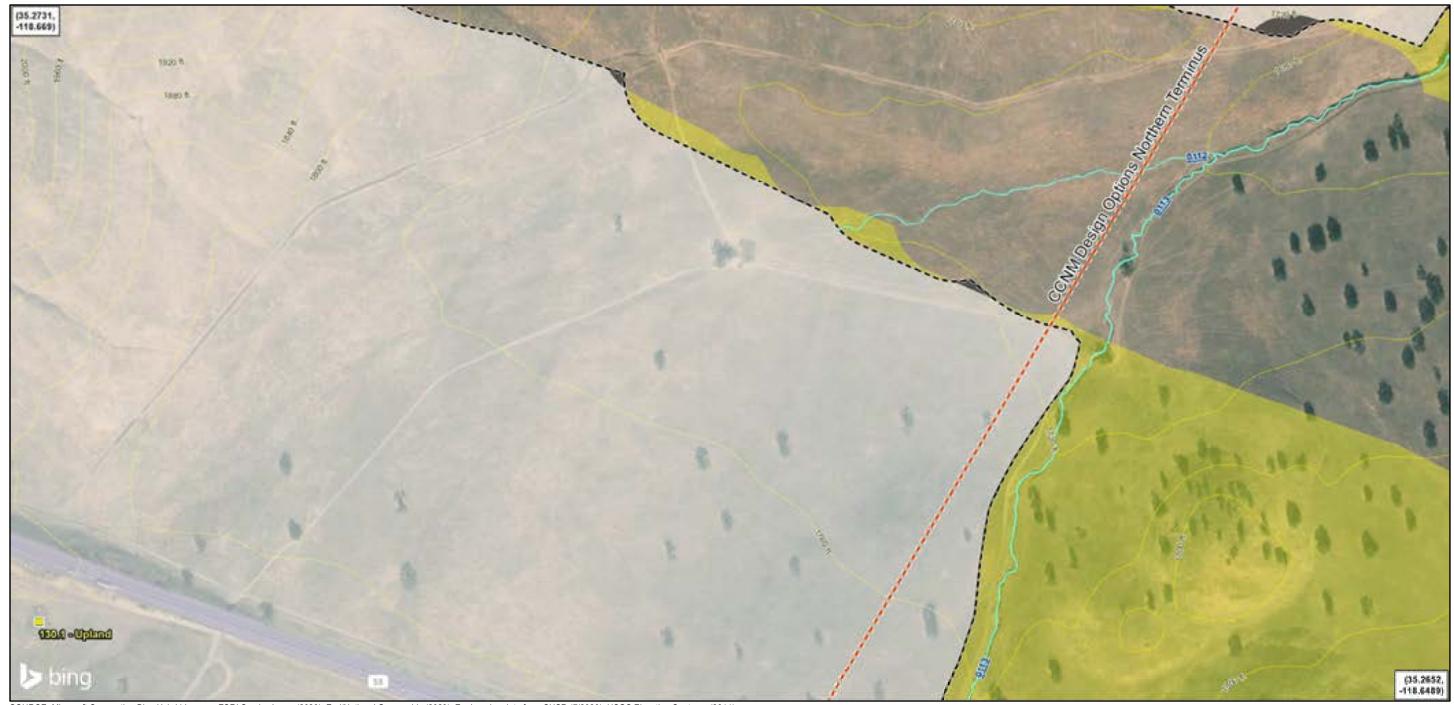




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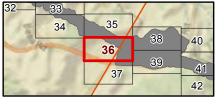






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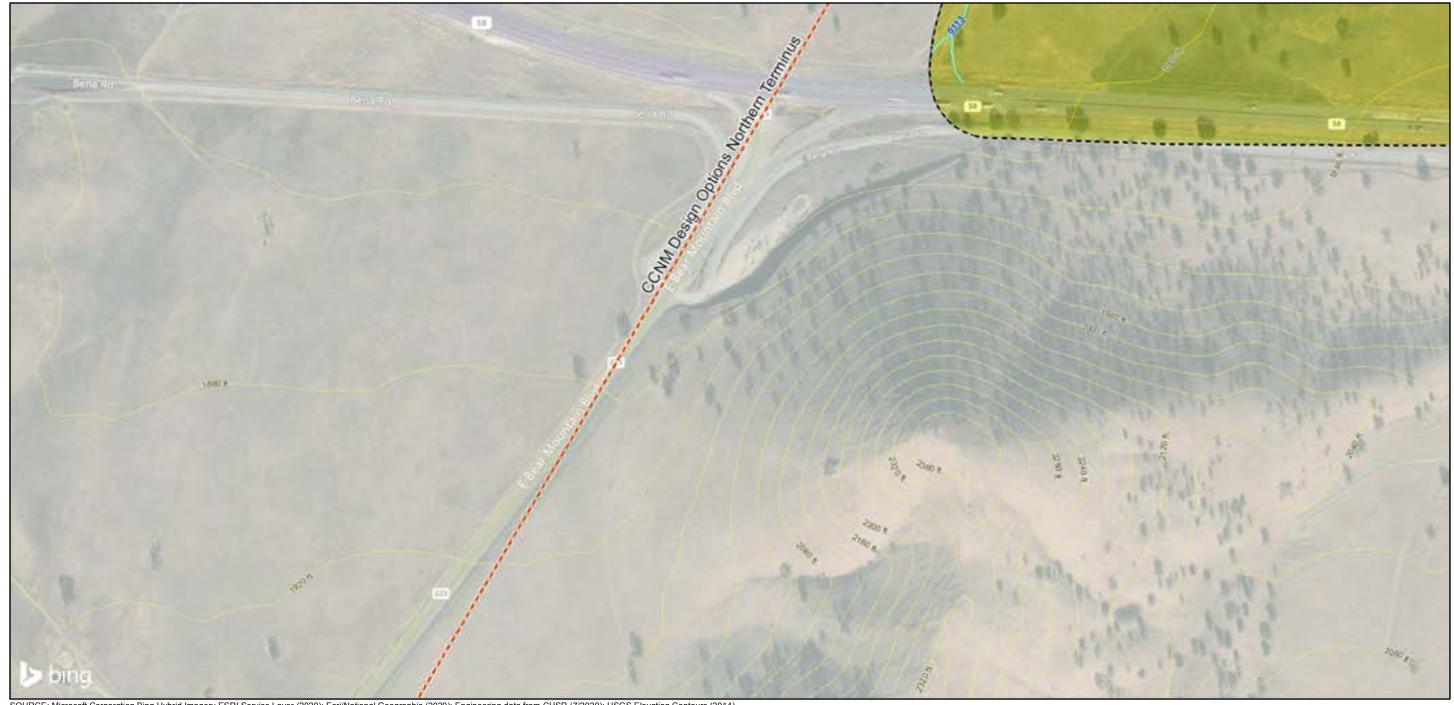




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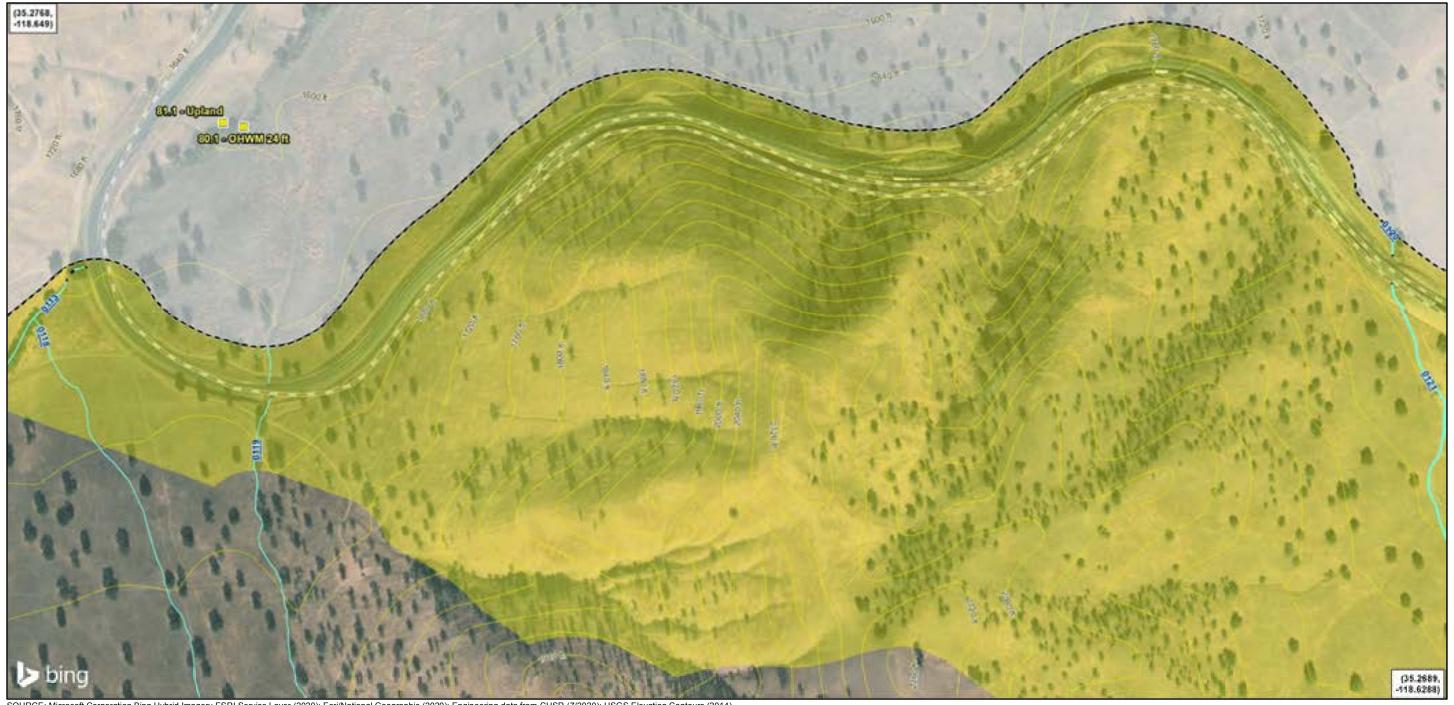




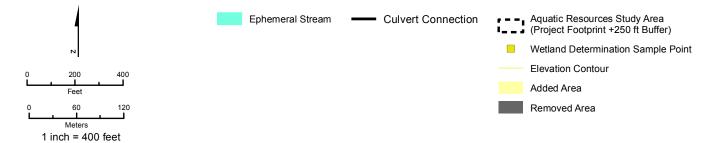
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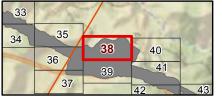






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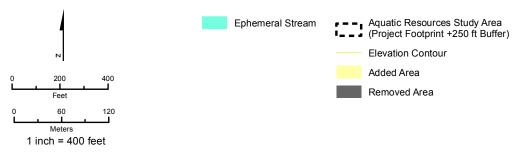
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



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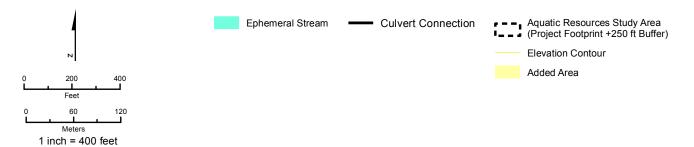


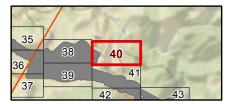
Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



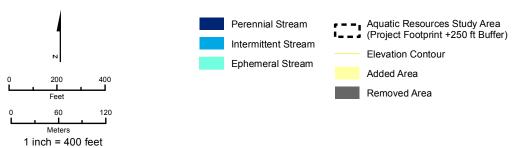
Jurisdictional Delineation to Ordinary High Water Mark

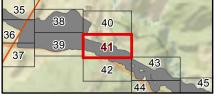
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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Ordinary High Water Mark

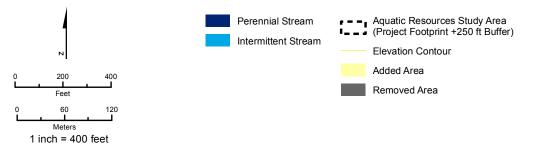
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



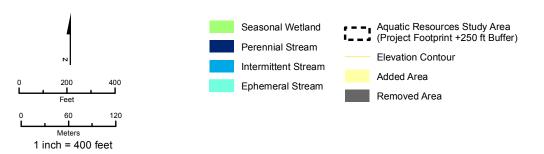
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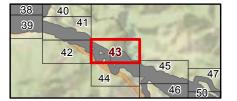






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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet









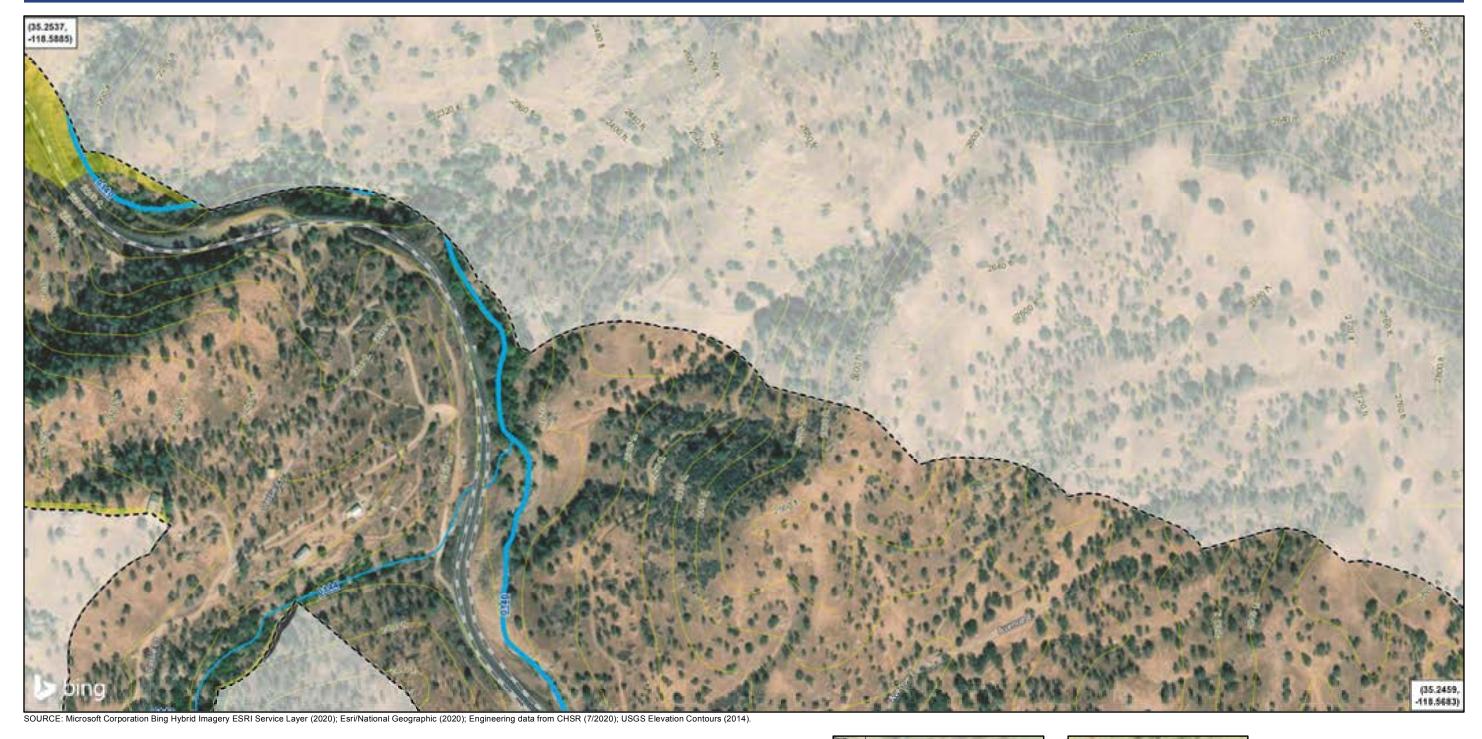
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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Ordinary High Water Mark







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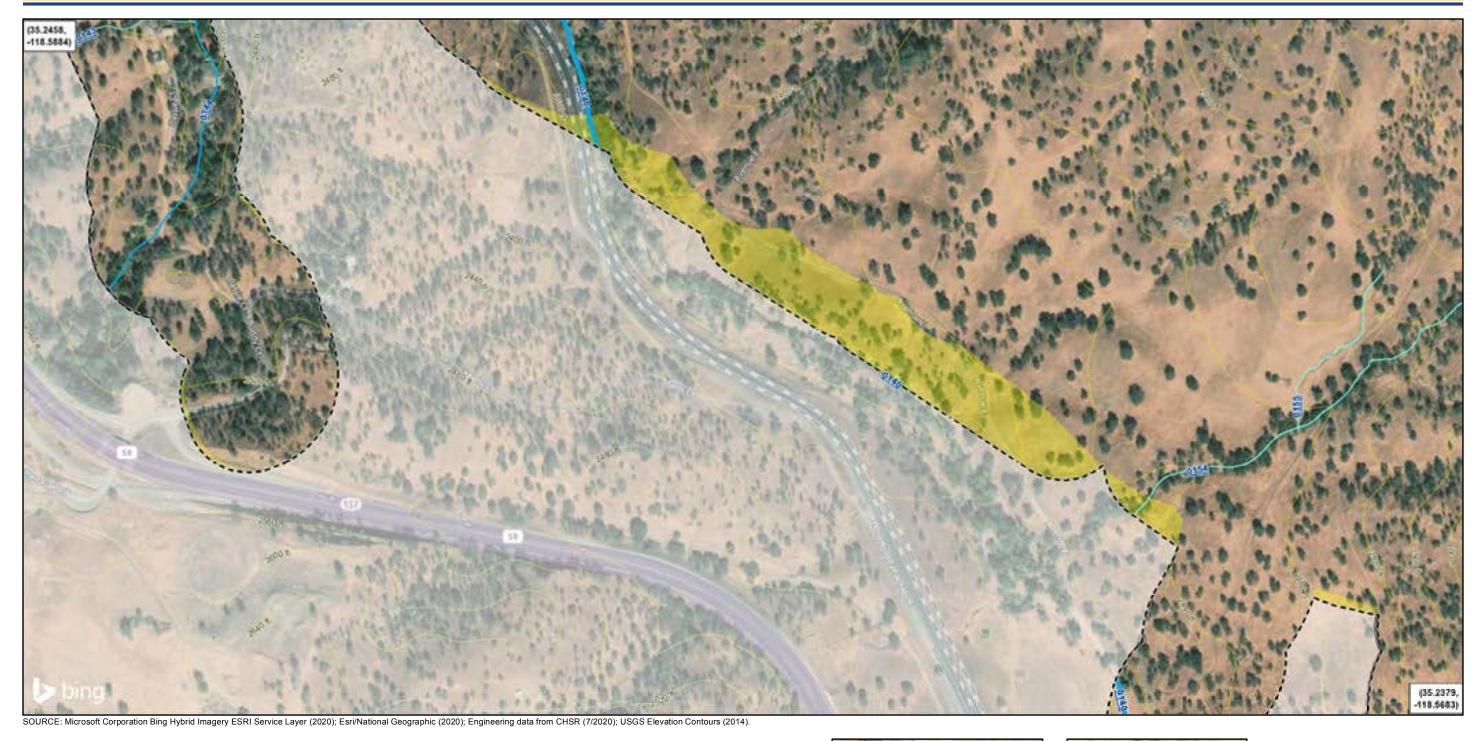
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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

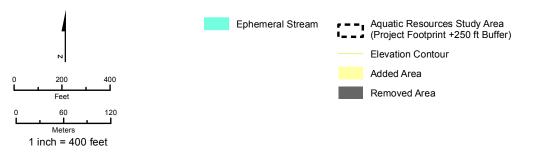


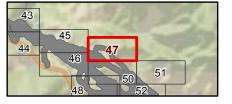
Jurisdictional Delineation to Ordinary High Water Mark





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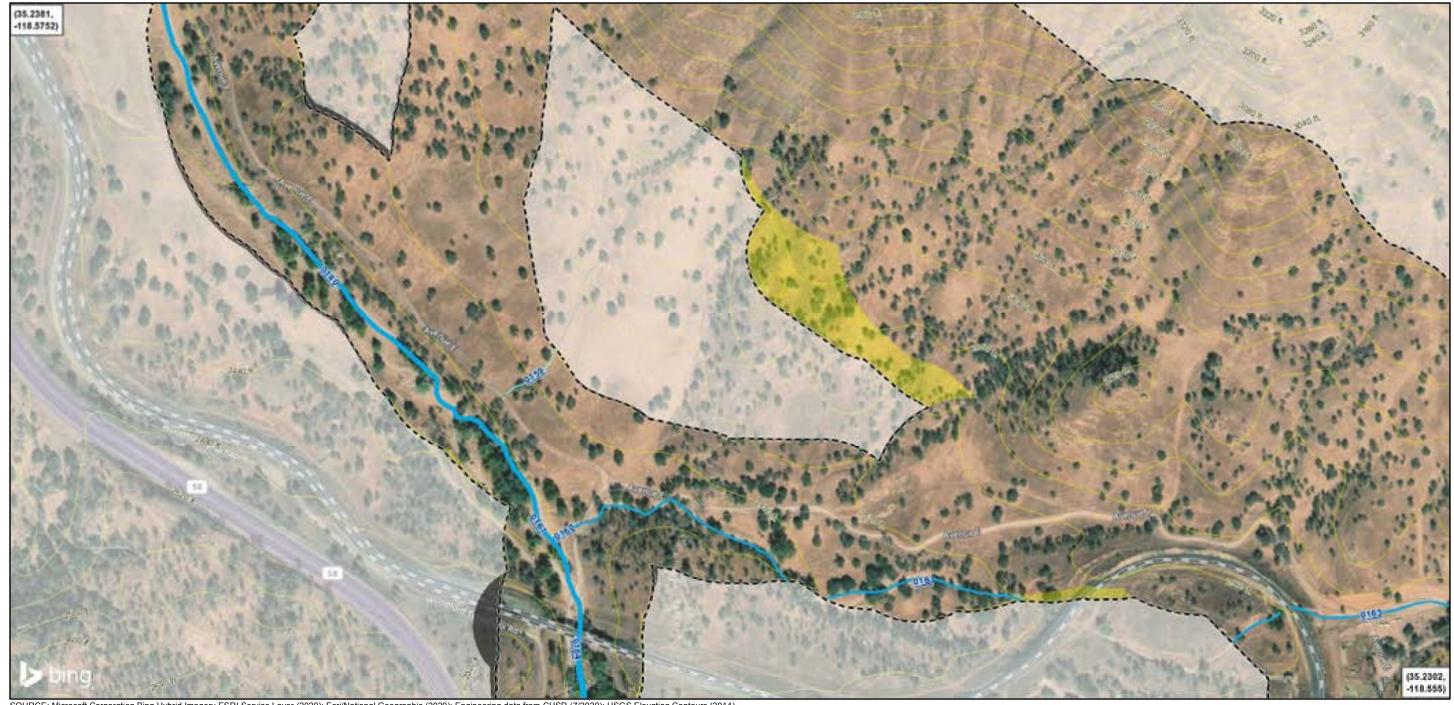


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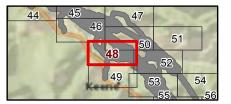
Jurisdictional Delineation to Ordinary High Water Mark



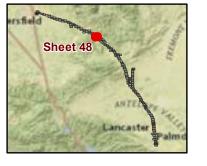


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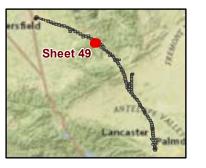


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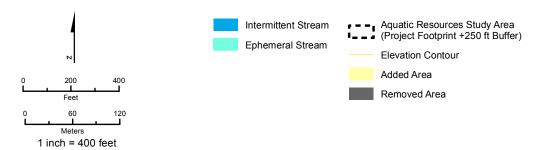


Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



Sheet 50

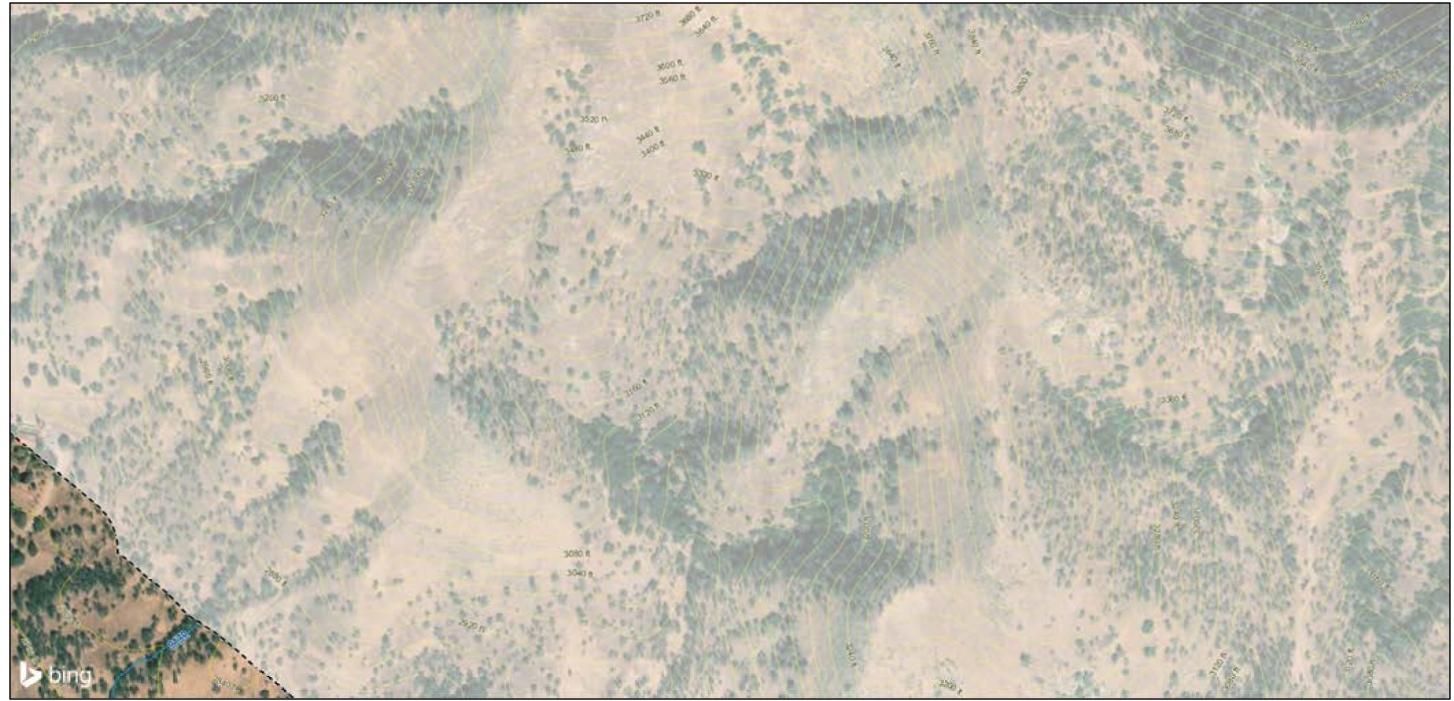
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Jurisdictional Delineation to Ordinary High Water Mark

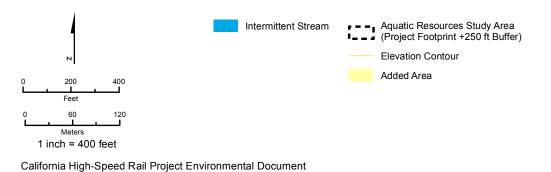
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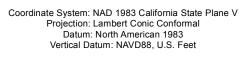




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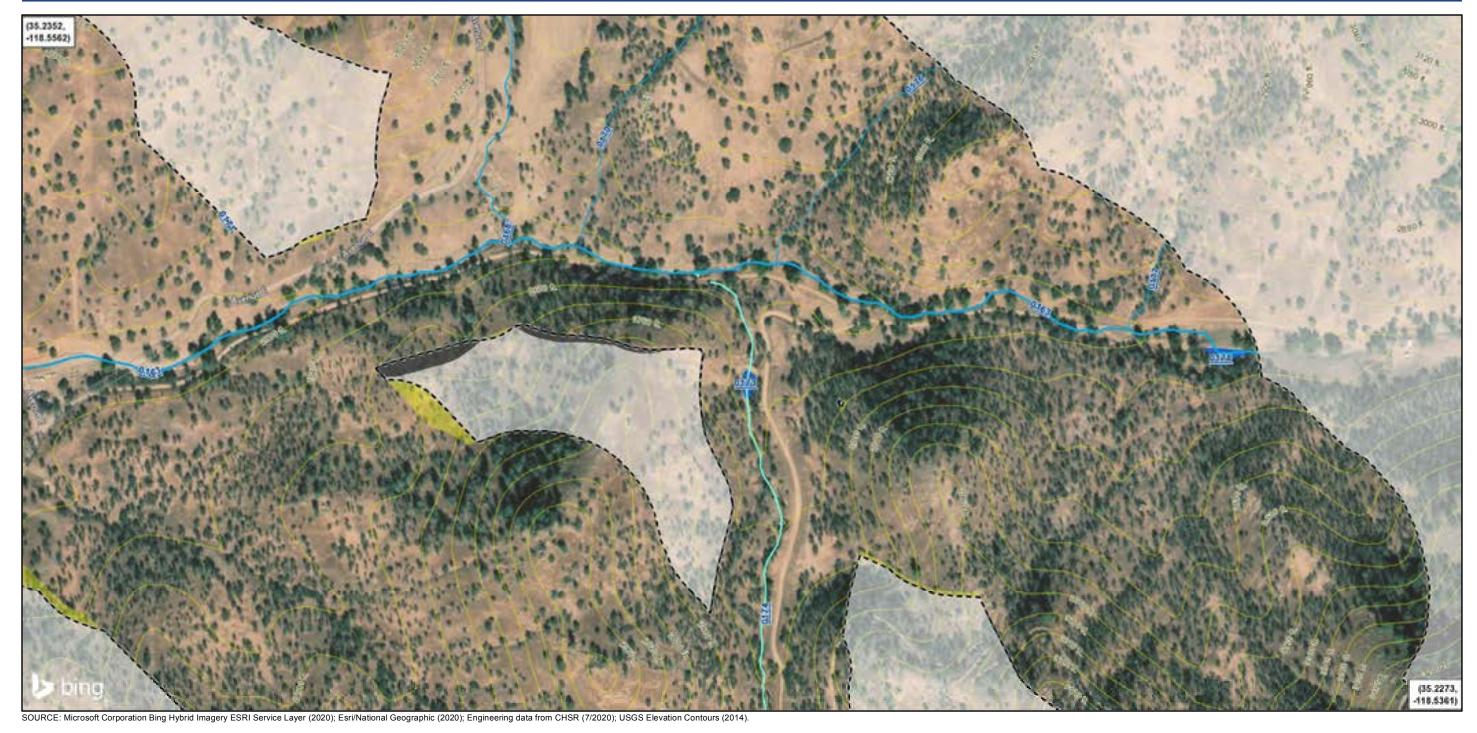


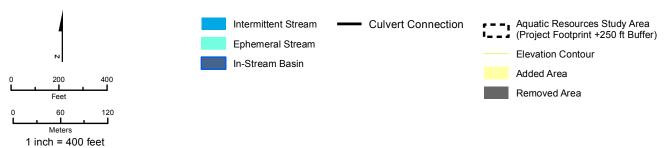


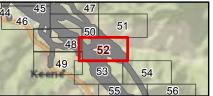
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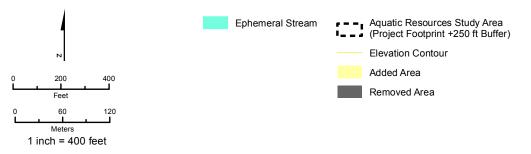
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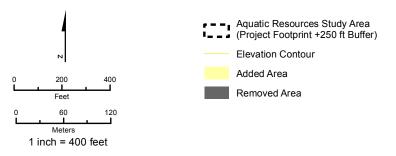








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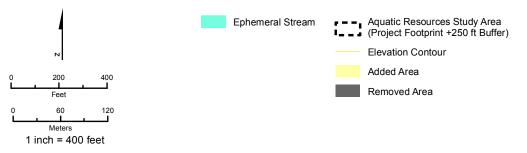
46 50 51 48 52 49 53 **54** 55 57 58



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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Ordinary High Water Mark

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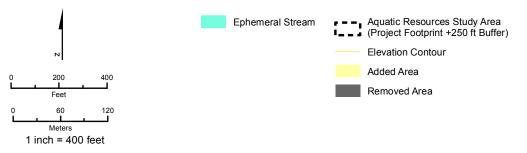
California High-Speed Rail Project Environmental Document

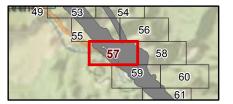
Aquatic Resources Memorandum





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





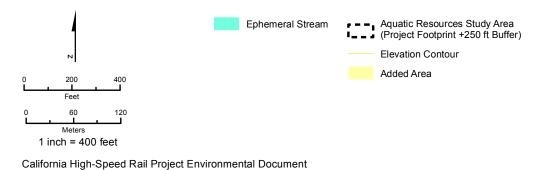
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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Ordinary High Water Mark







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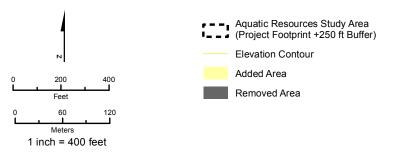


Jurisdictional Delineation to Ordinary High Water Mark





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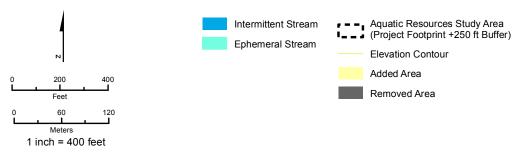


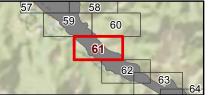
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Jurisdictional Delineation to Ordinary High Water Mark











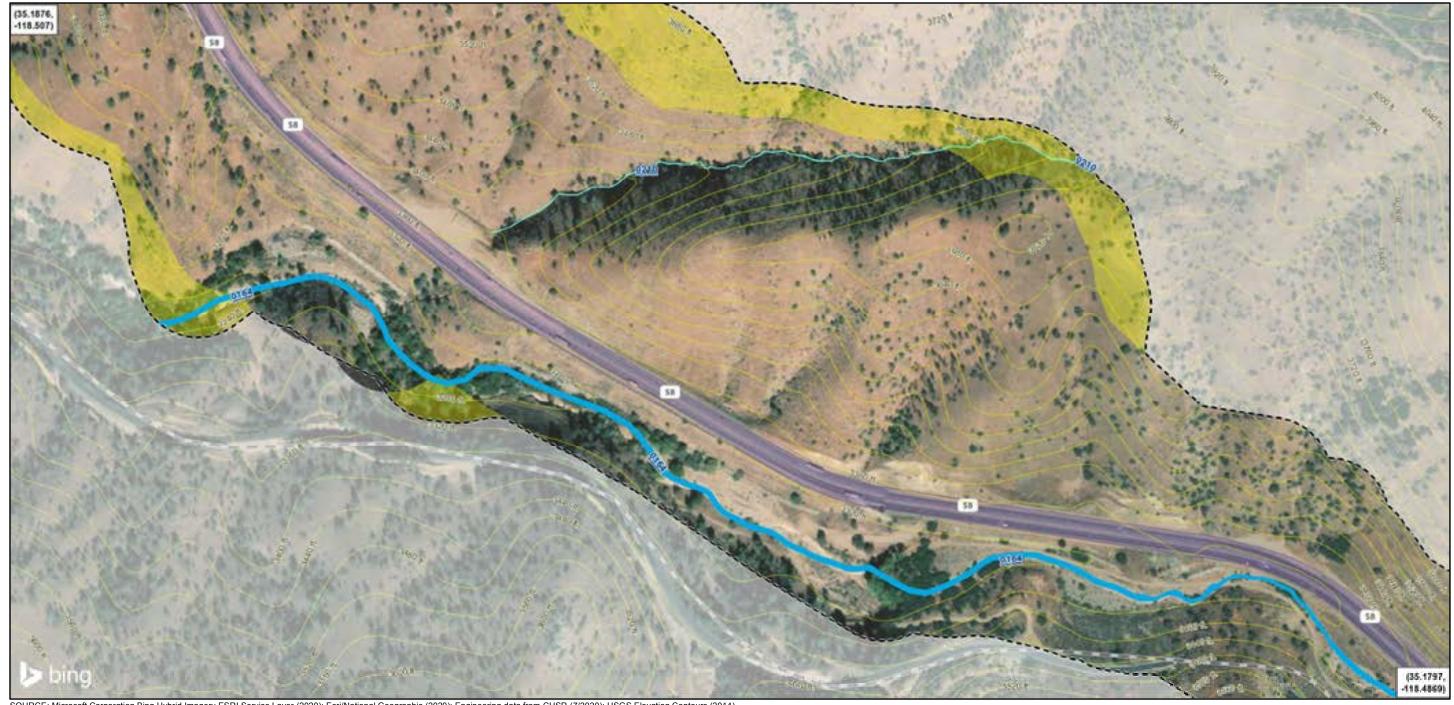


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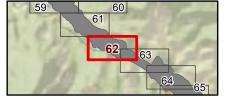
Aquatic Resources Memorandum





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).

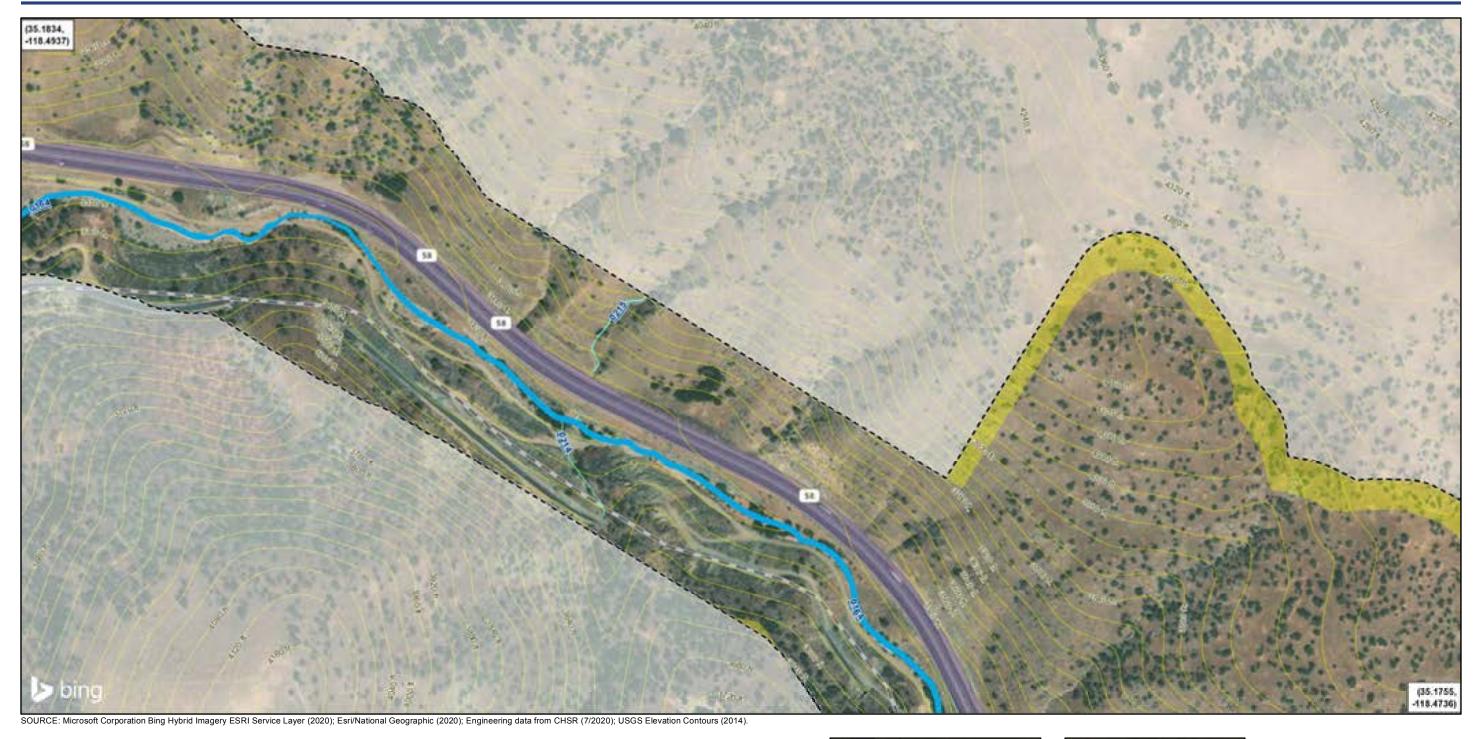




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61 62 63 64 65 66



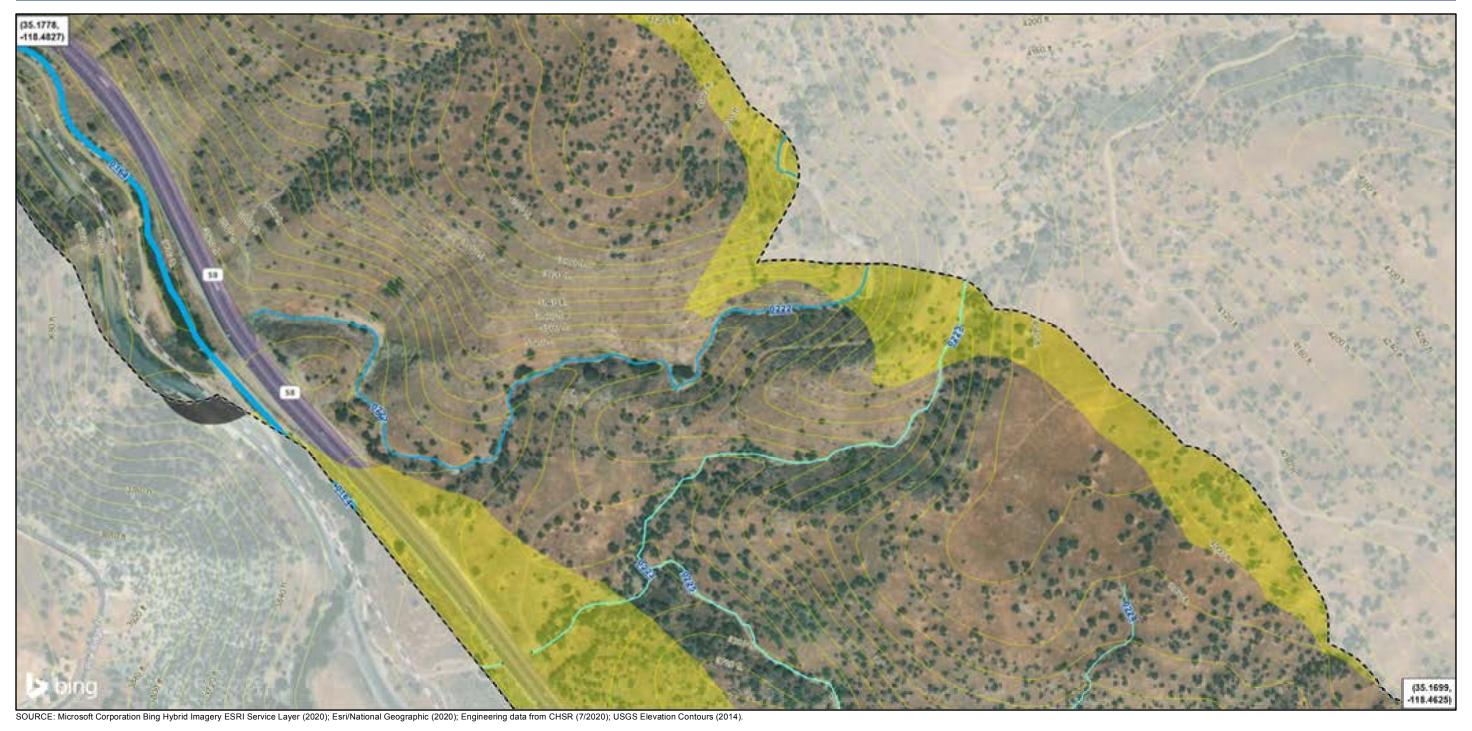
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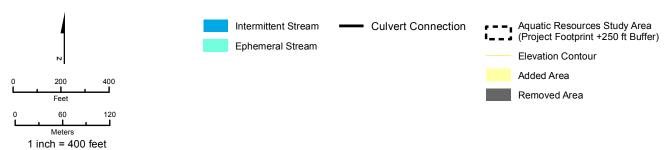
Jurisdictional Delineation to Ordinary High Water Mark

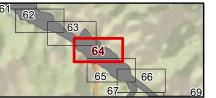
January 27, 2021

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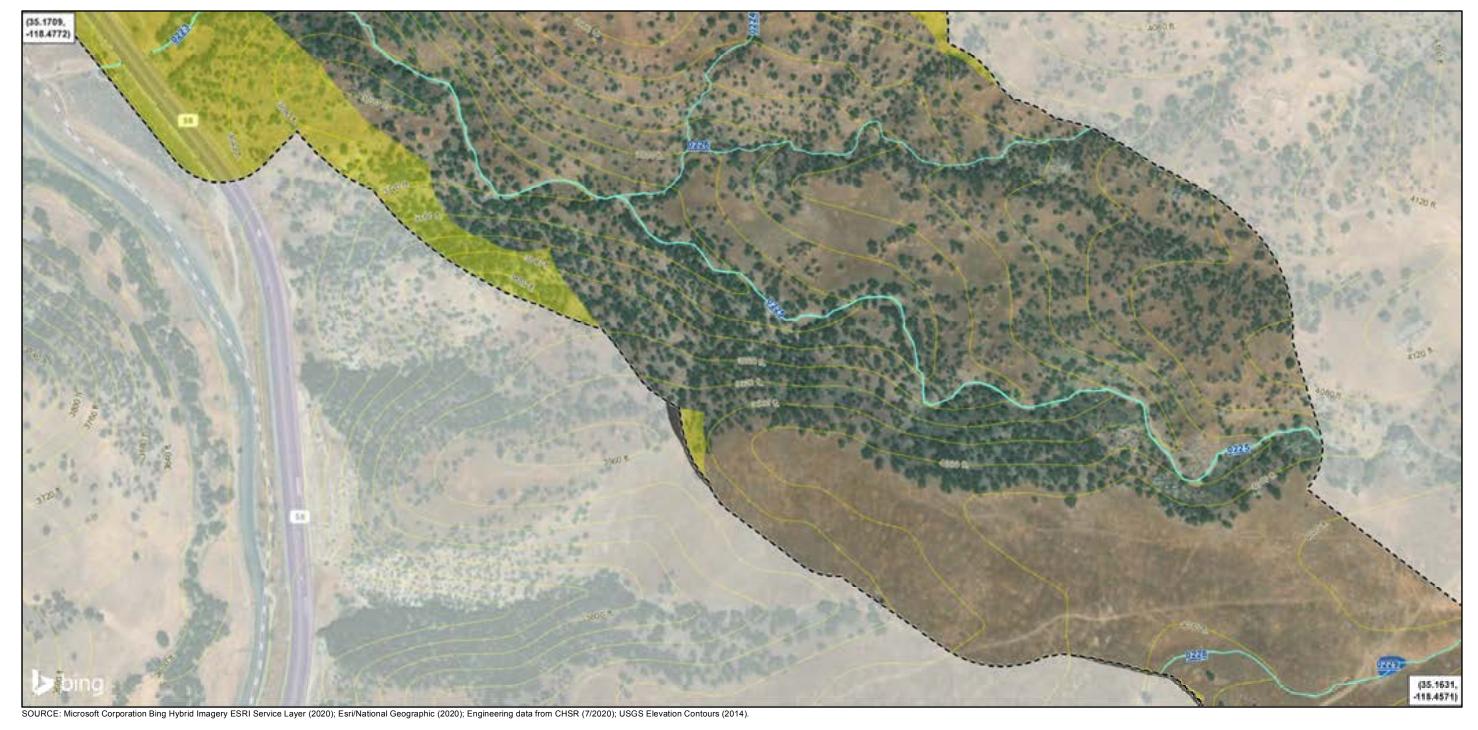


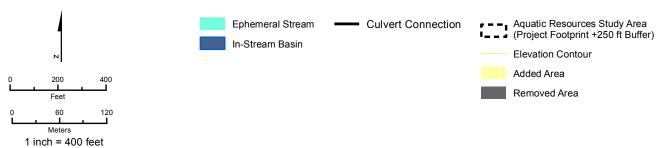
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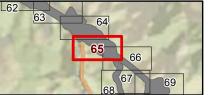


Jurisdictional Delineation to Ordinary High Water Mark









Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet







SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



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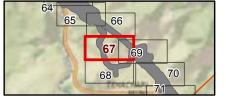
Jurisdictional Delineation to Ordinary High Water Mark





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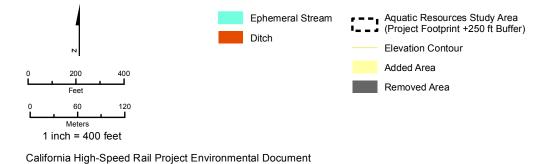
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



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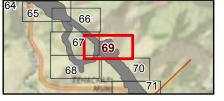
Aquatic Resources Memorandum





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





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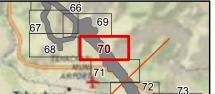






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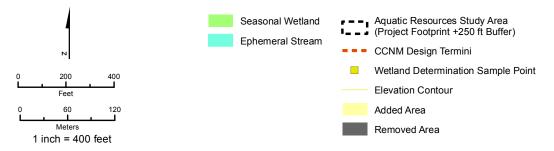
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**Jurisdictional Delineation** to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



67 69 70 71 72 73 74 75 76 74

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Ordinary High Water Mark

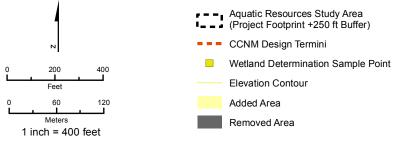
January 27, 2021

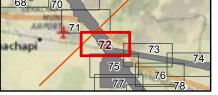
California High-Speed Rail Project Environmental Document





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).

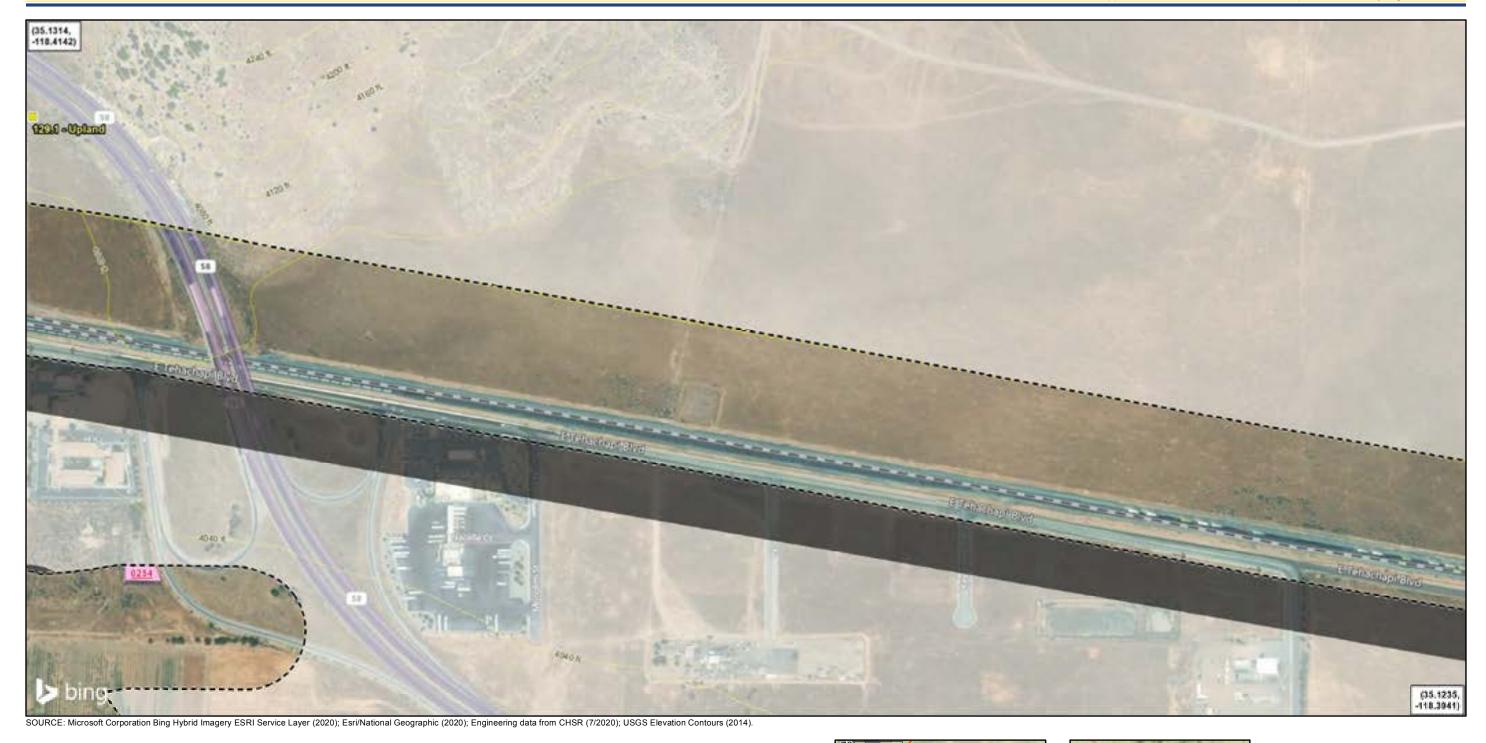




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70 71 72 73 74 77 77 78



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Jurisdictional Delineation to Ordinary High Water Mark

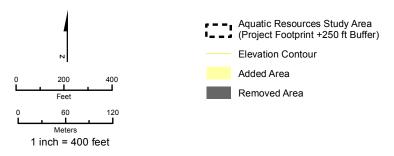
January 27, 2021

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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



71 72 73 75 76 77 78 78

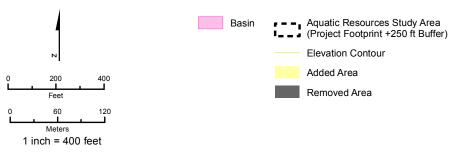
Sheet 74

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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

Sheet 75

Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



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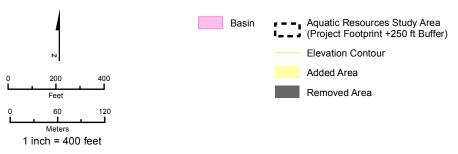
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Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



72 75 75 76 77 78

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet







SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



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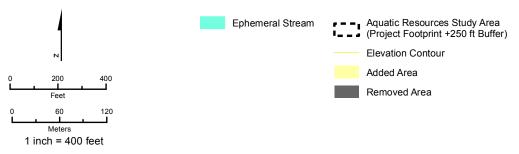
Jurisdictional Delineation to Ordinary High Water Mark

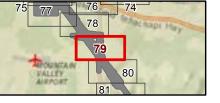
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





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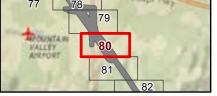






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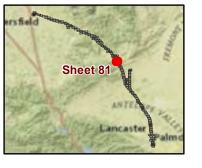


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81 82 83

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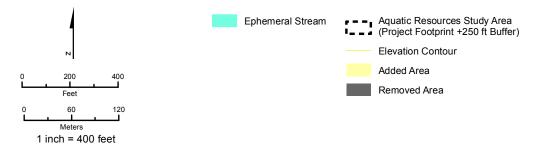


Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



80 81 **82** 83

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

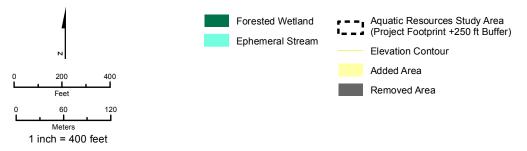


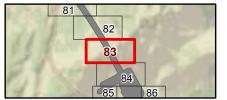
Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet







SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



82 83 84 85 86

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

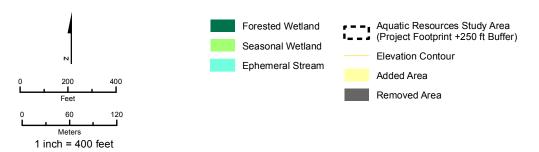


Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



83 84 85 86 87 88

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Jurisdictional Delineation to Ordinary High Water Mark

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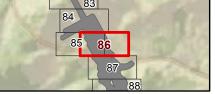
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





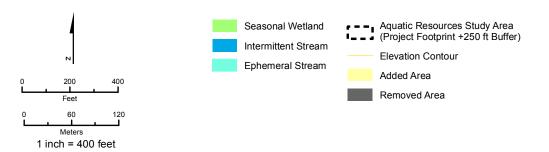
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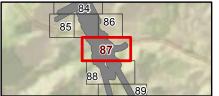






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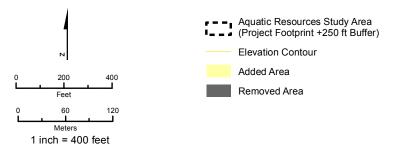
January 27, 2021

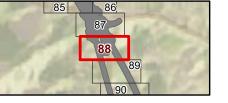
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).







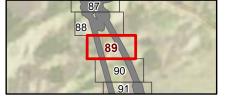
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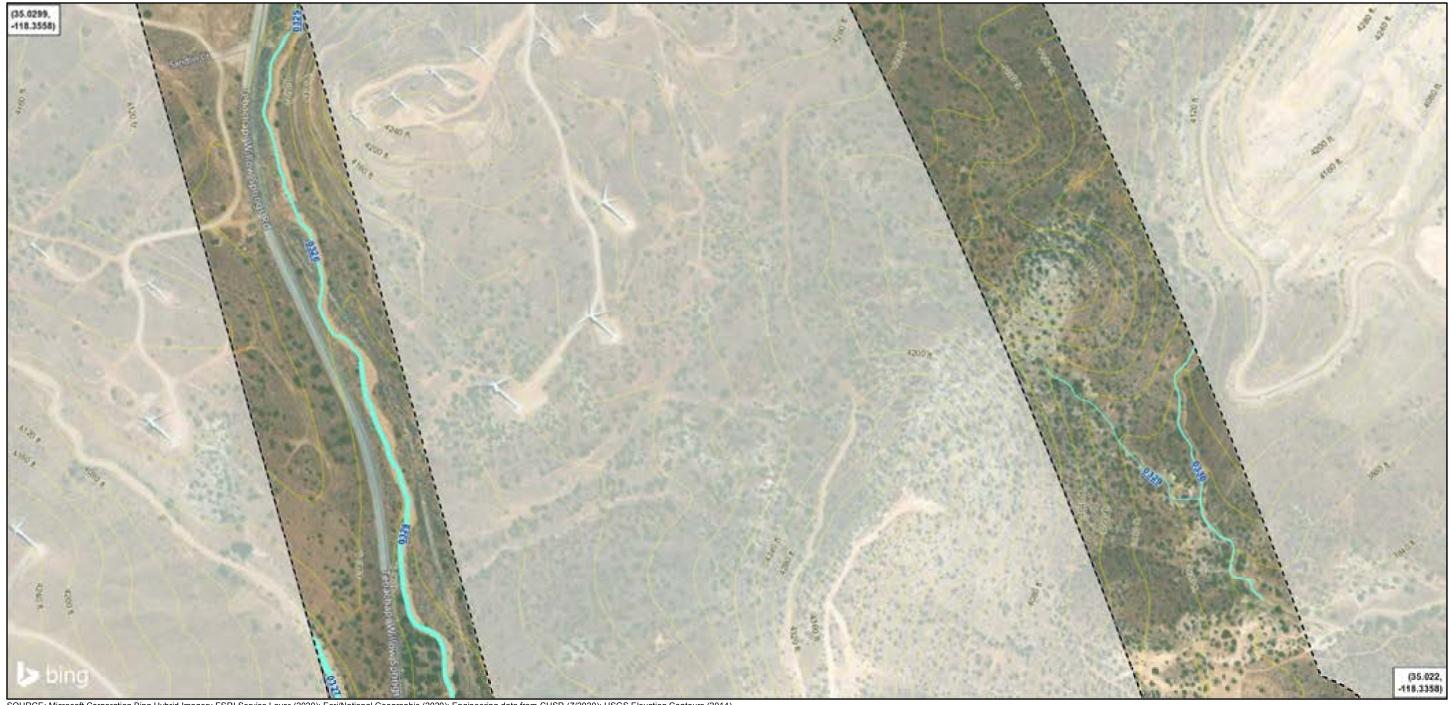




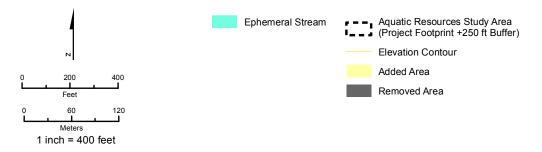
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



123 122 121

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Ordinary High Water Mark

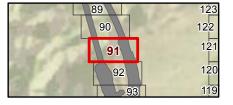




SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



122 121 120 119

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



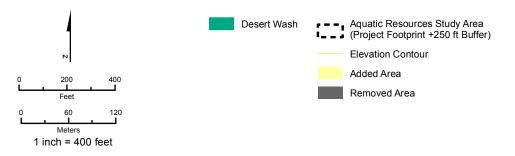
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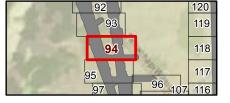






SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





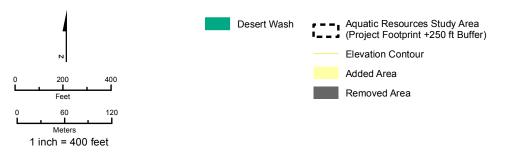
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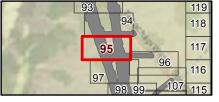






SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).

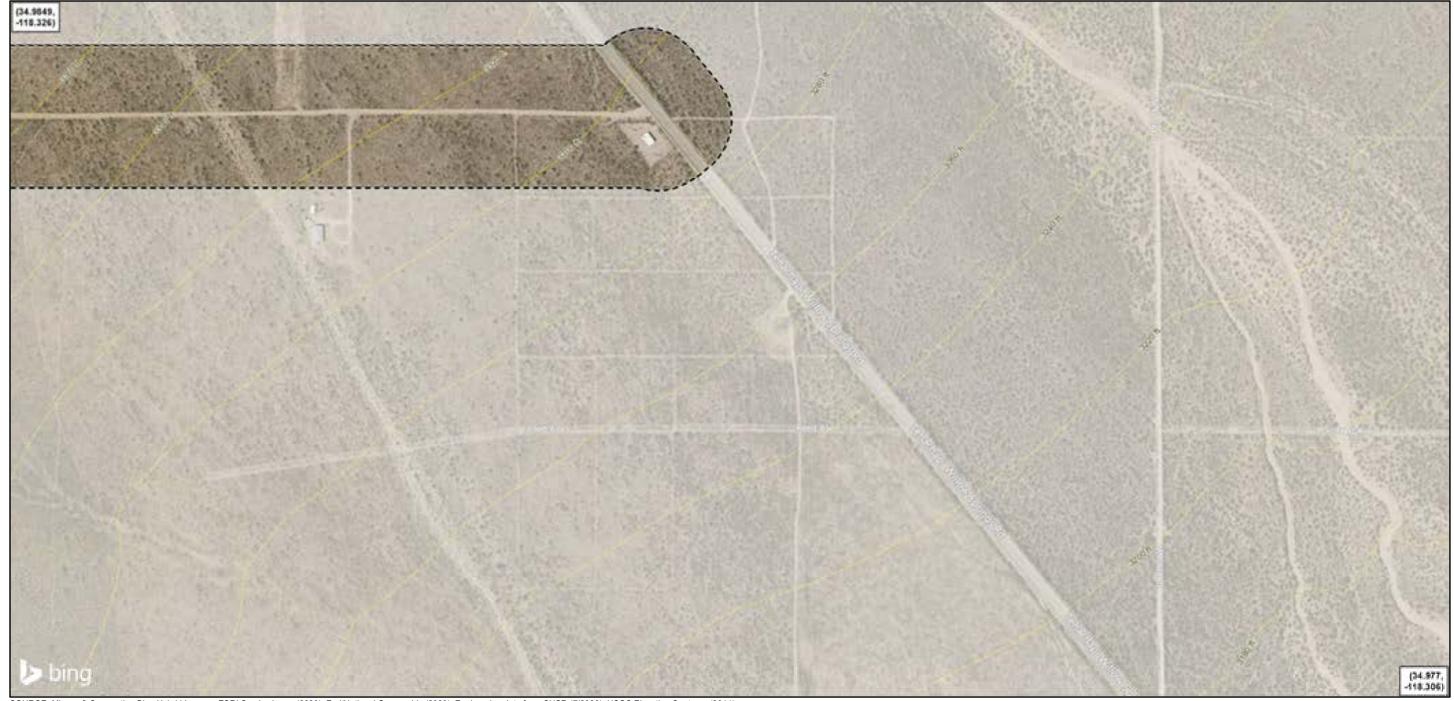




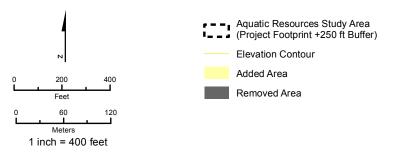
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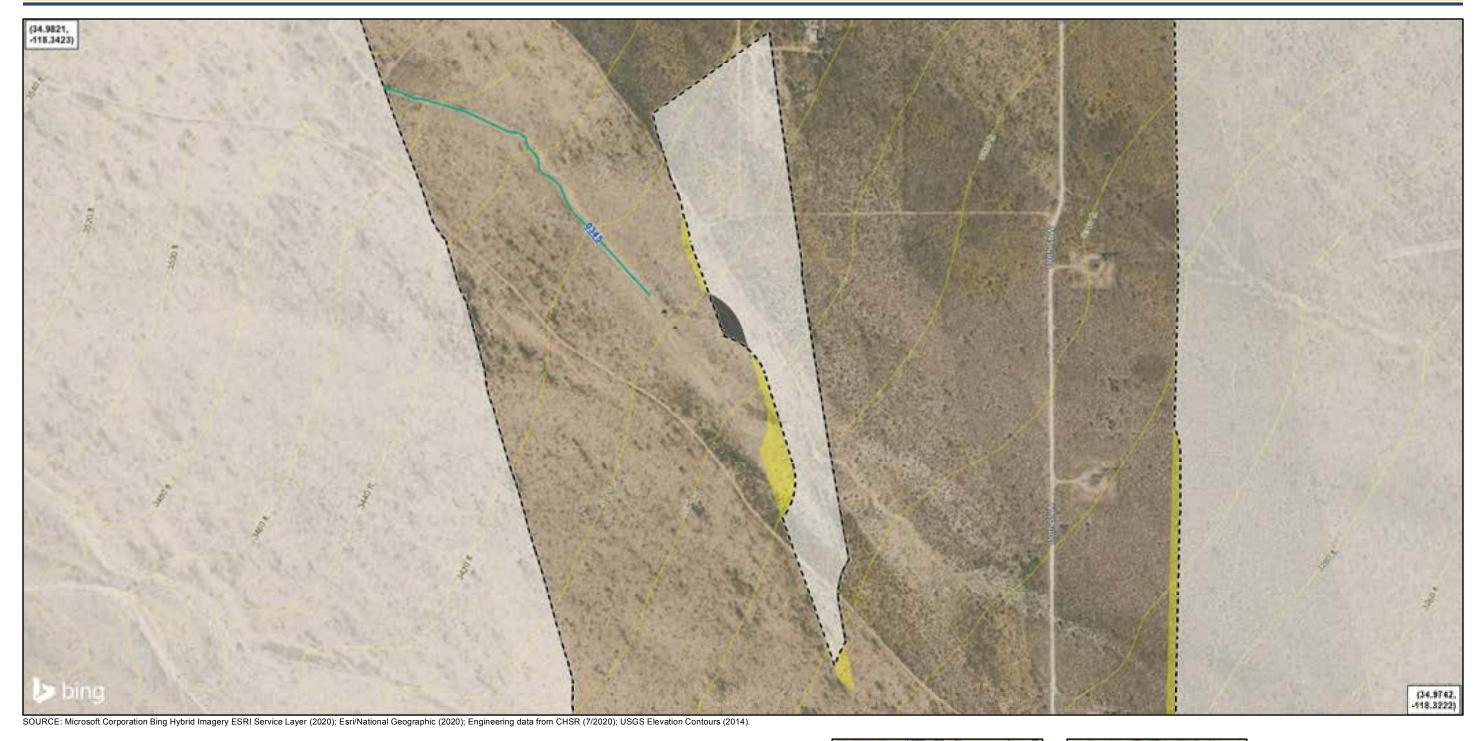
SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet









94 118 117 95 96 116 98 99 115 100 114

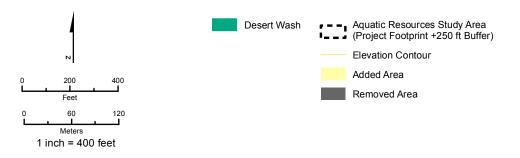
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



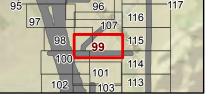
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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



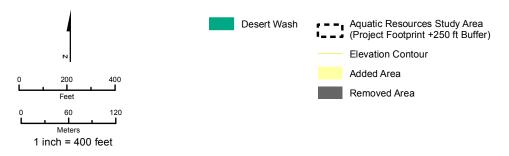
January 27, 2021

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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



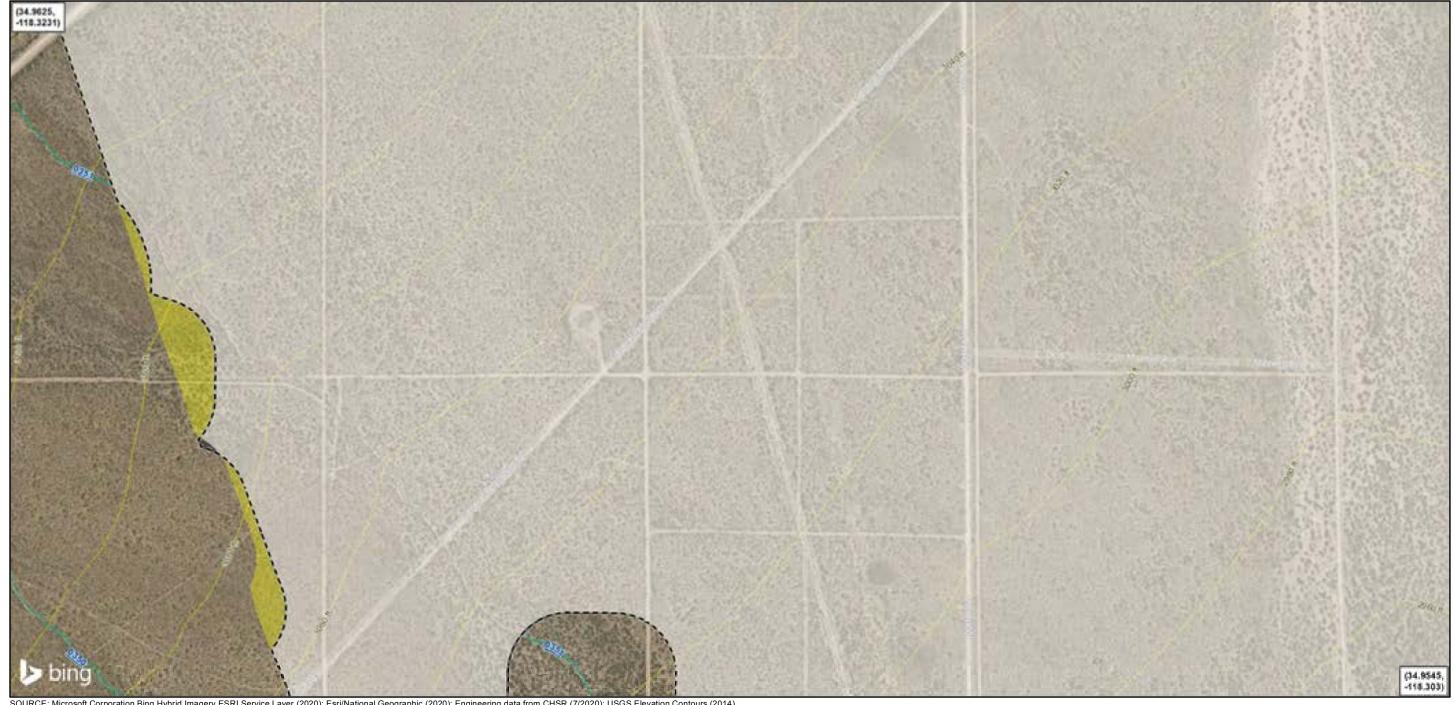
98 99 115 100 114 102 103 112

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

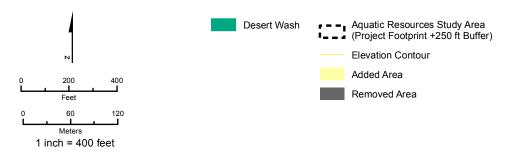


Jurisdictional Delineation to Ordinary High Water Mark

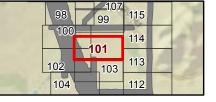




SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Ordinary High Water Mark

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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



98 99 115 100 114 102 103 113 104 105 111

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

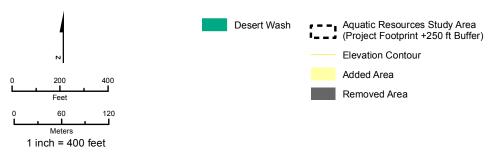


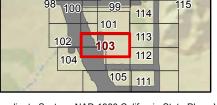
Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



100 101 114 113 113 112 105 111 106 110

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



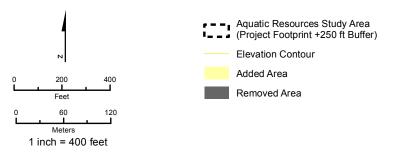
January 27, 2021

California High-Speed Rail Project Environmental Document





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



102 103 113 112 1105 1110 106 108 109



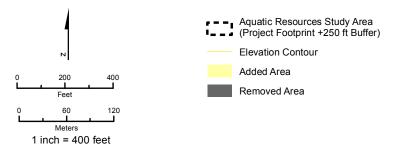
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Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



104 112 105 111 112 106 110 109 126



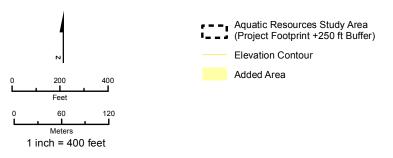
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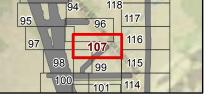
Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



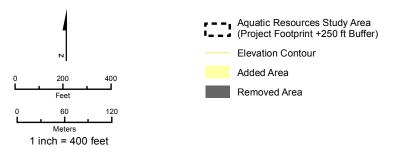








SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



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Jurisdictional Delineation to Ordinary High Water Mark

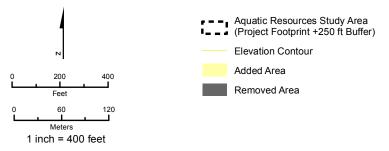
January 27, 2021

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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



106 108 109 126

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

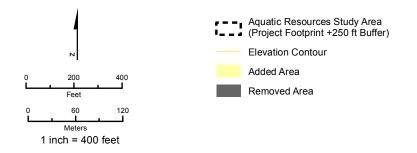


Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



104 112 105 111 109 108 126

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Ordinary High Water Mark

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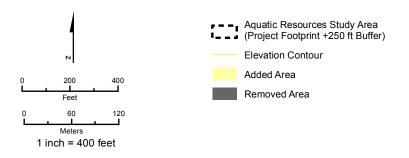
California High-Speed Rail Project Environmental Document

Aquatic Resources Memorandum





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



102 104 105 111 106 108 1109



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

Jurisdictional Delineation to Ordinary High Water Mark

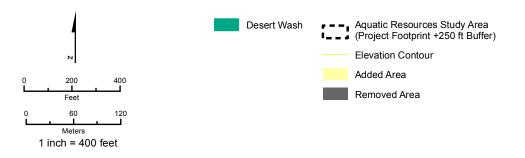
January 27, 2021

California High-Speed Rail Project Environmental Document





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



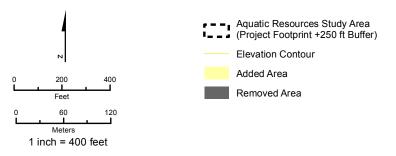
Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet







SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

**Jurisdictional Delineation** to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



97 96 107 116 98 99 115 100 114 101 113 104 103 112

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



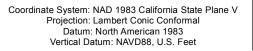
Jurisdictional Delineation to Ordinary High Water Mark





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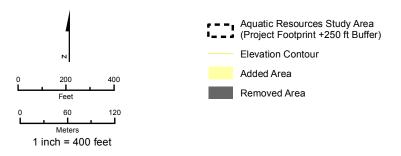








SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



94 95 97 96 116 98 99 115 100 114

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

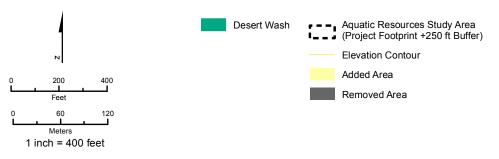


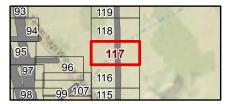
Jurisdictional Delineation to Ordinary High Water Mark





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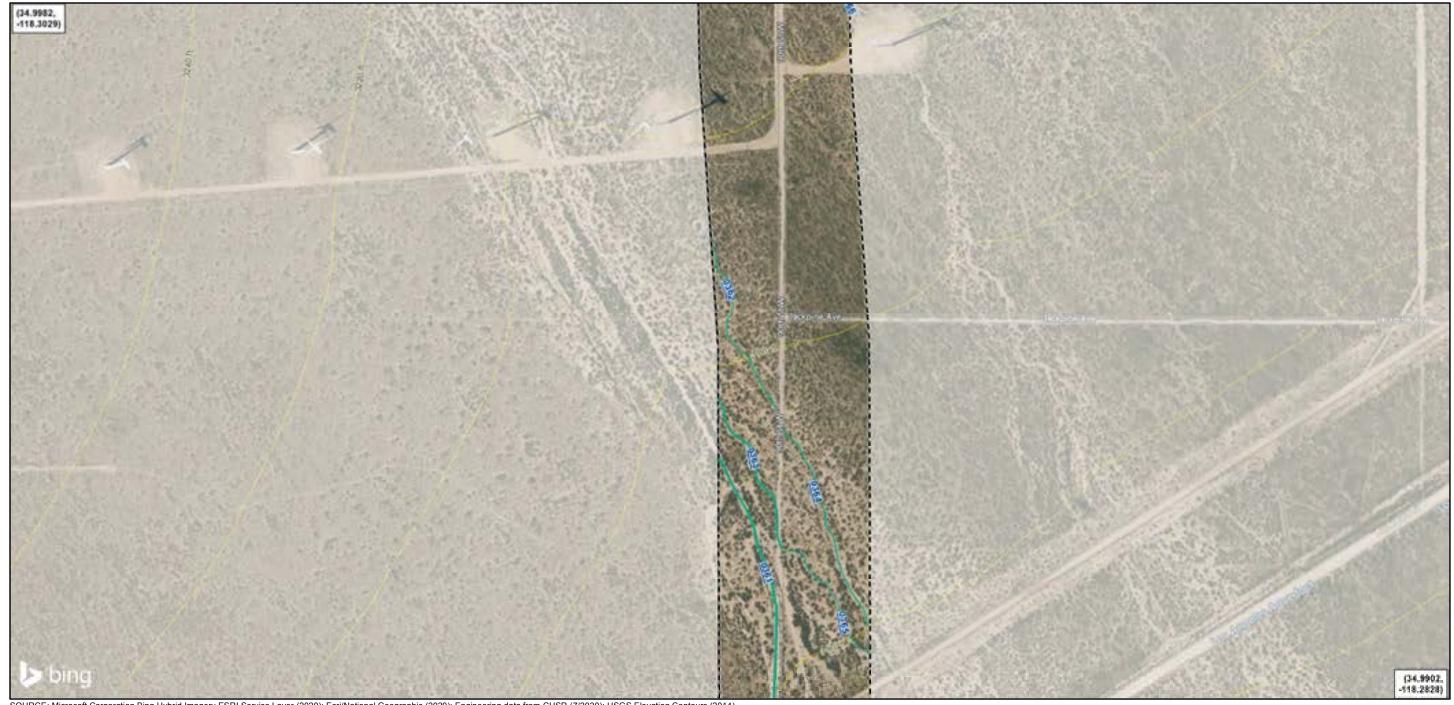




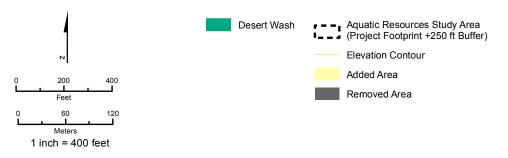
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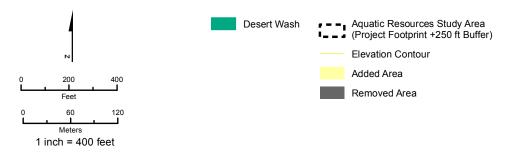
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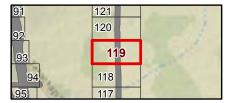




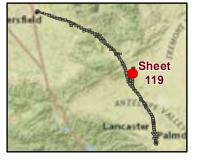


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet







SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



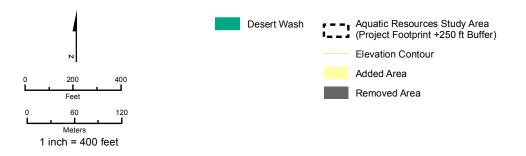
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

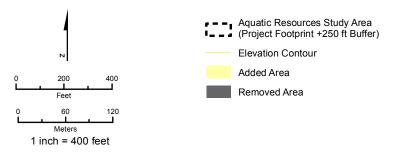


**Jurisdictional Delineation** to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



Coordinate System: NAD 1983 California State Plane V
Projection: Lambert Conic Conformal
Datum: North American 1983
Vertical Datum: NAVD88, U.S. Feet







SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



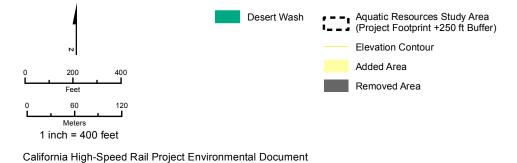
**Jurisdictional Delineation** to Ordinary High Water Mark

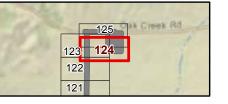
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





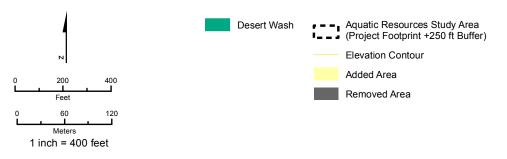
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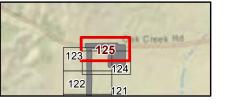






SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





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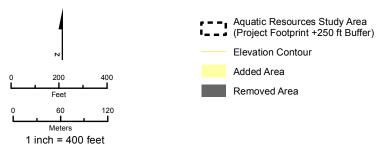
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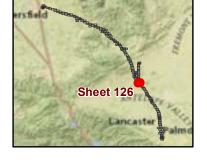




SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



Coordinate System: NAD 1983 California State Plane V
Projection: Lambert Conic Conformal
Datum: North American 1983
Vertical Datum: NAVD88, U.S. Feet



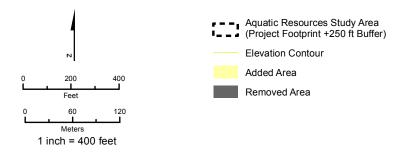
Jurisdictional Delineation to Ordinary High Water Mark

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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

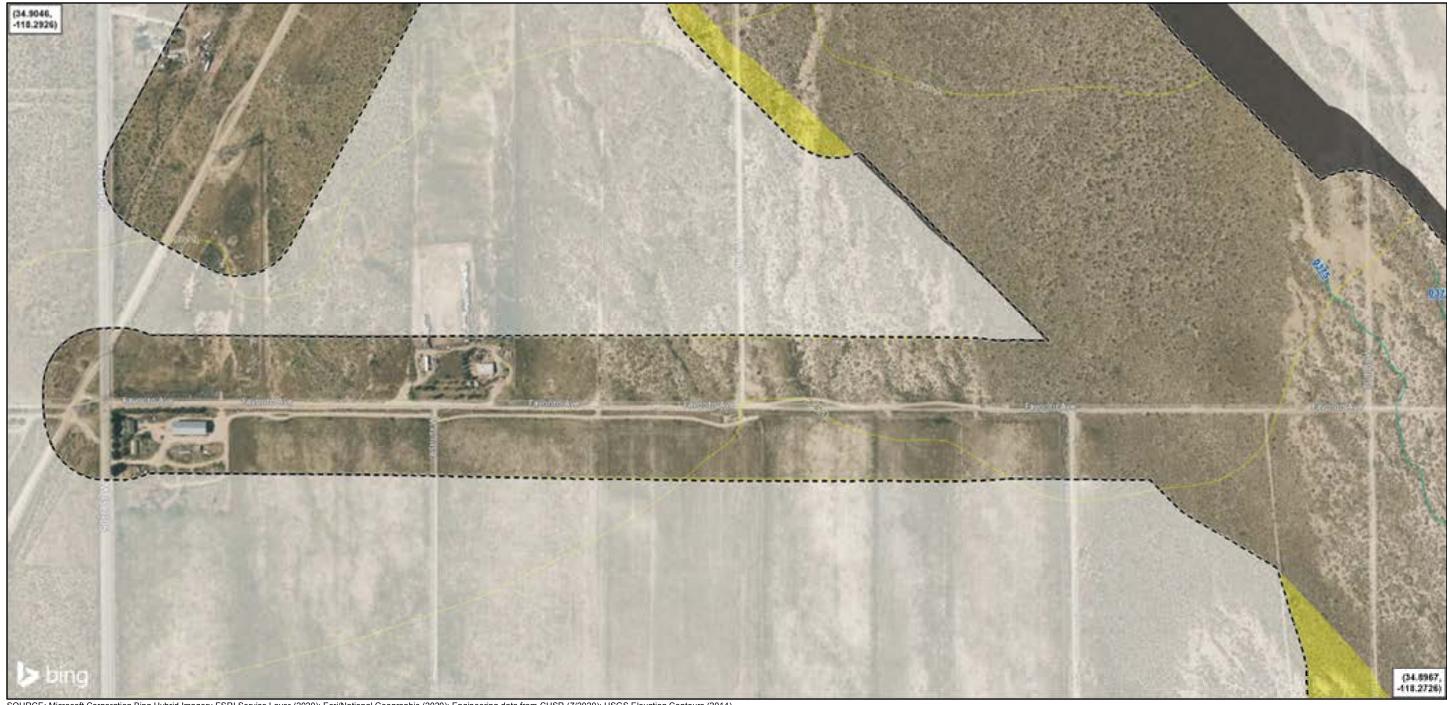


Jurisdictional Delineation to Ordinary High Water Mark

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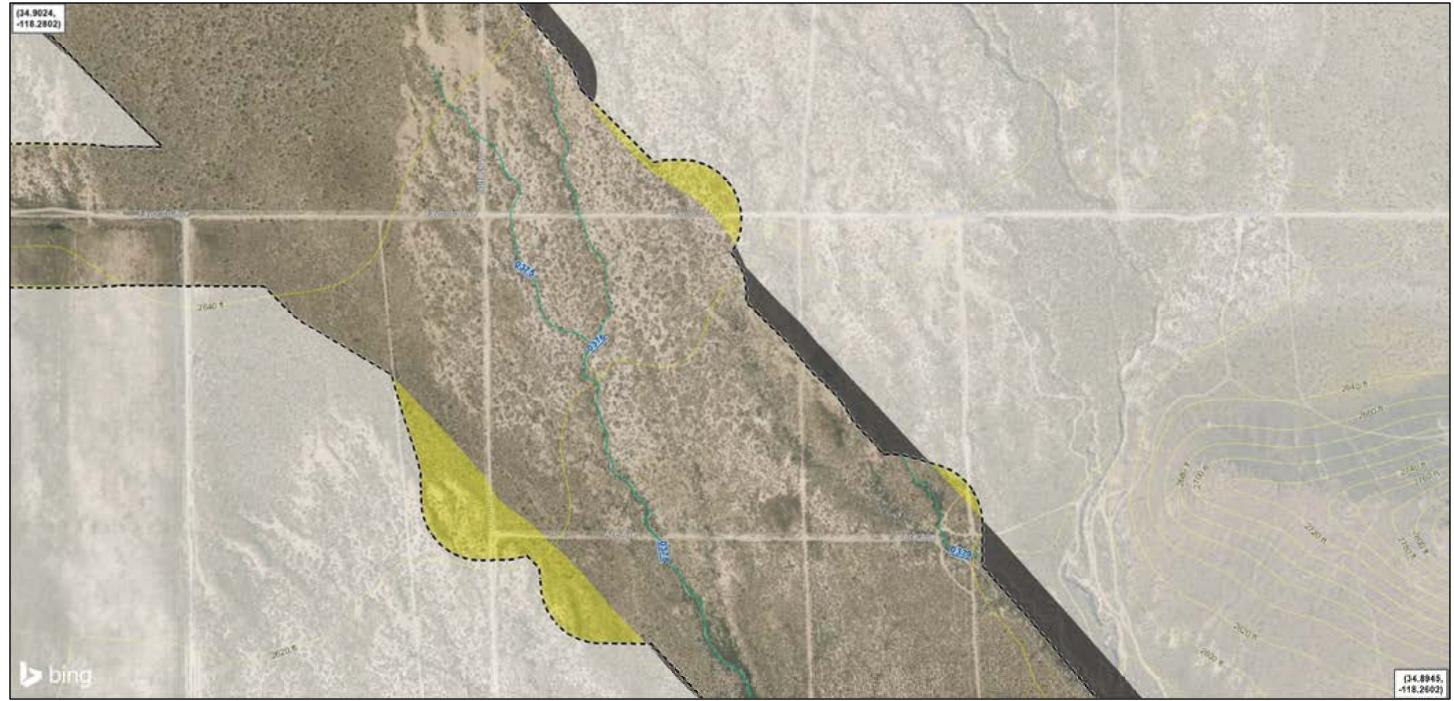
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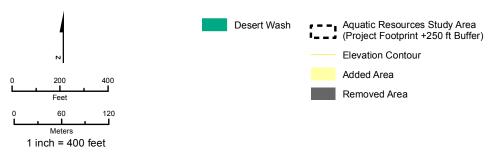
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



126 127 128 **129** 130

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

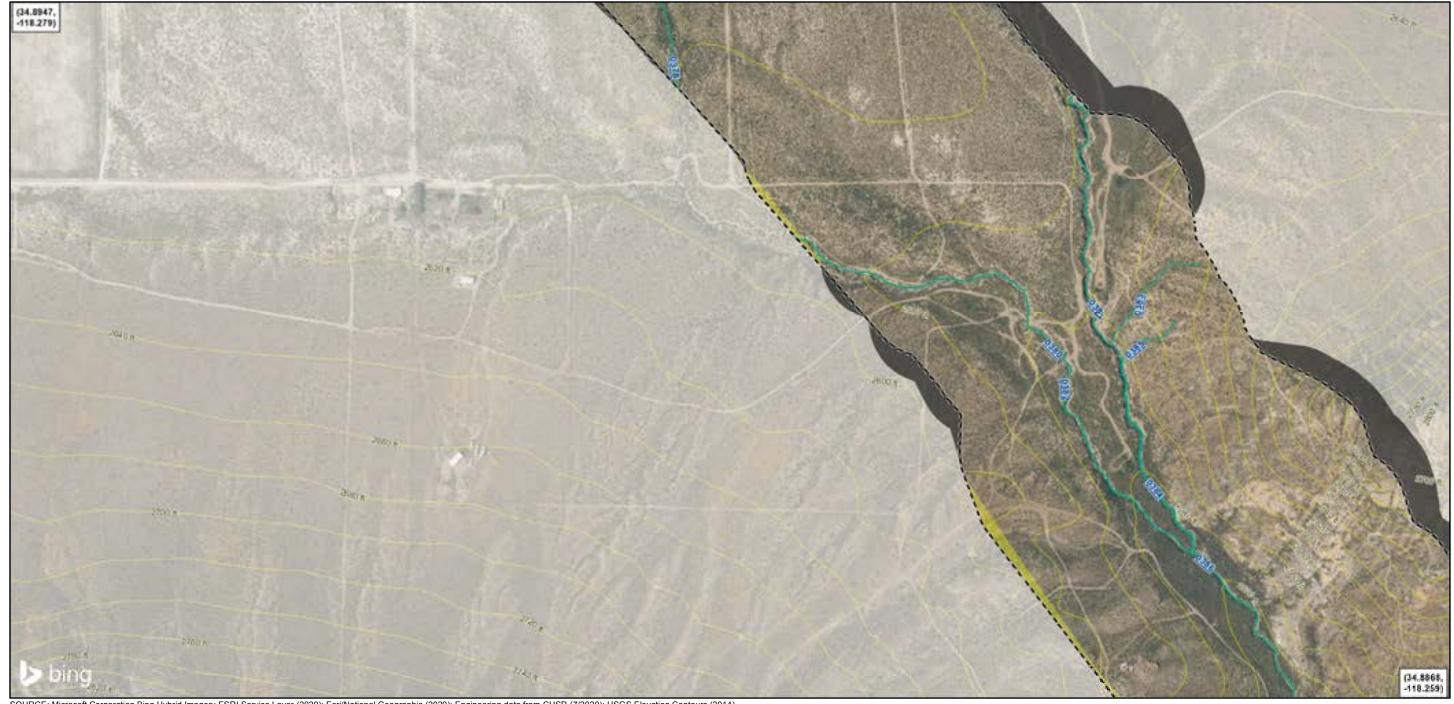


Jurisdictional Delineation to Ordinary High Water Mark

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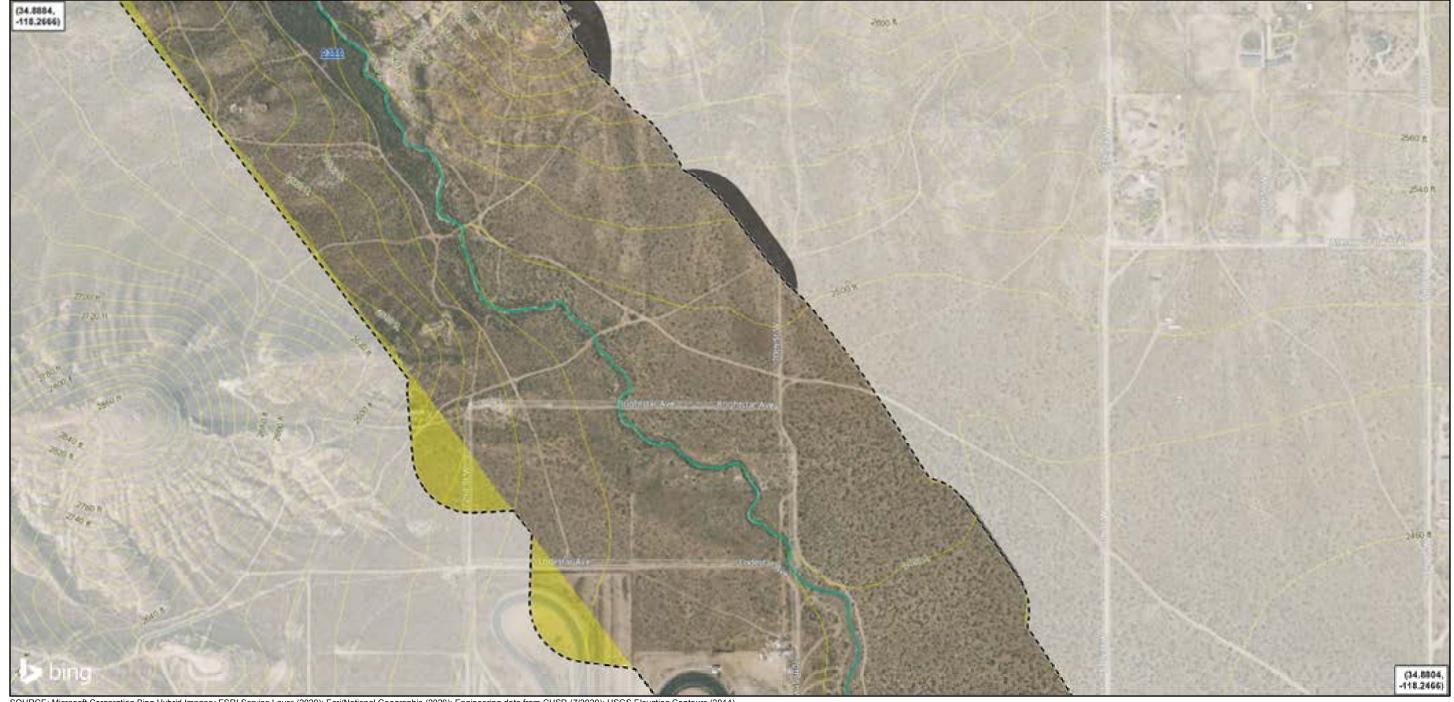
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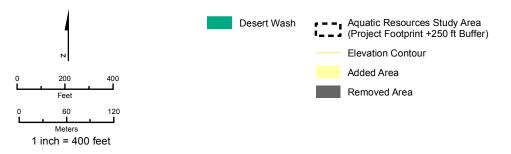
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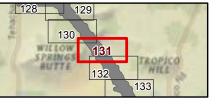






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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet







SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





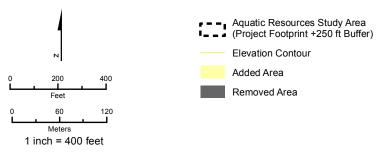
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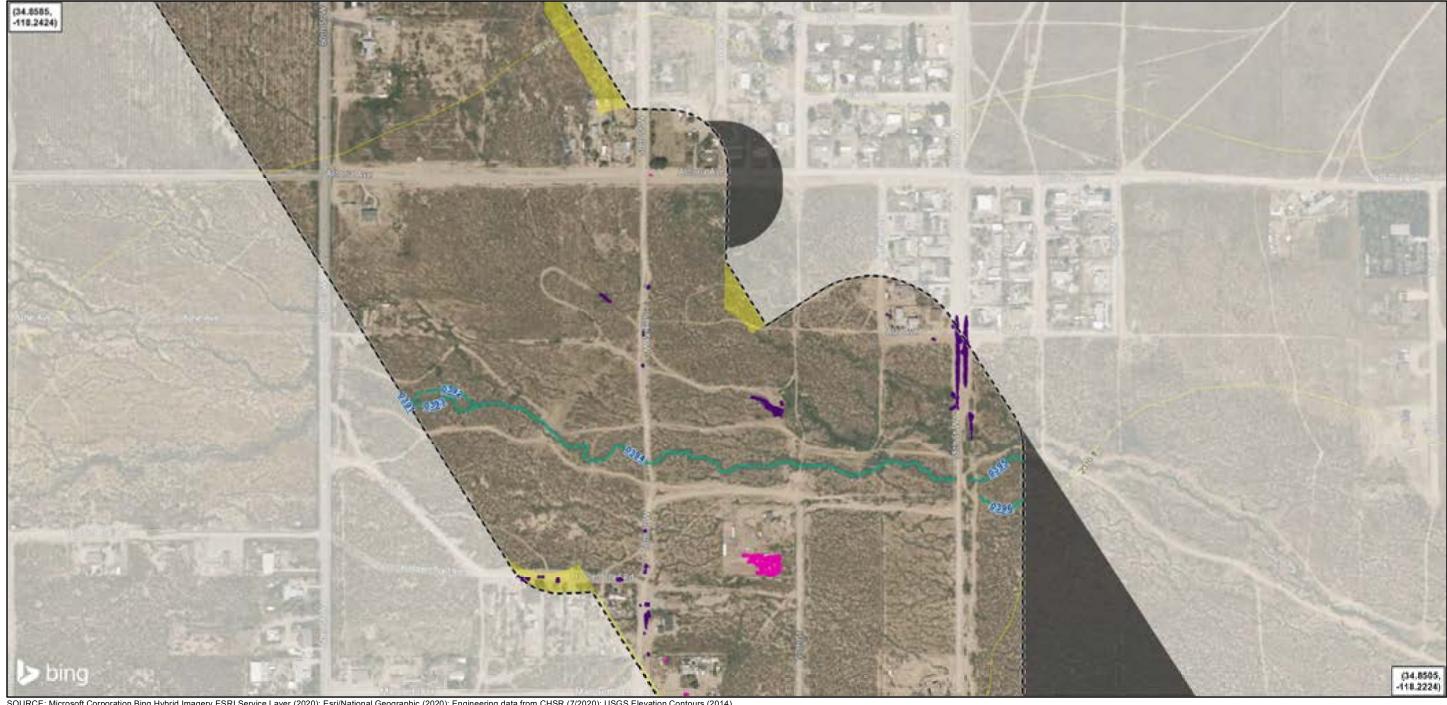
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Jurisdictional Delineation to Ordinary High Water Mark

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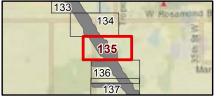
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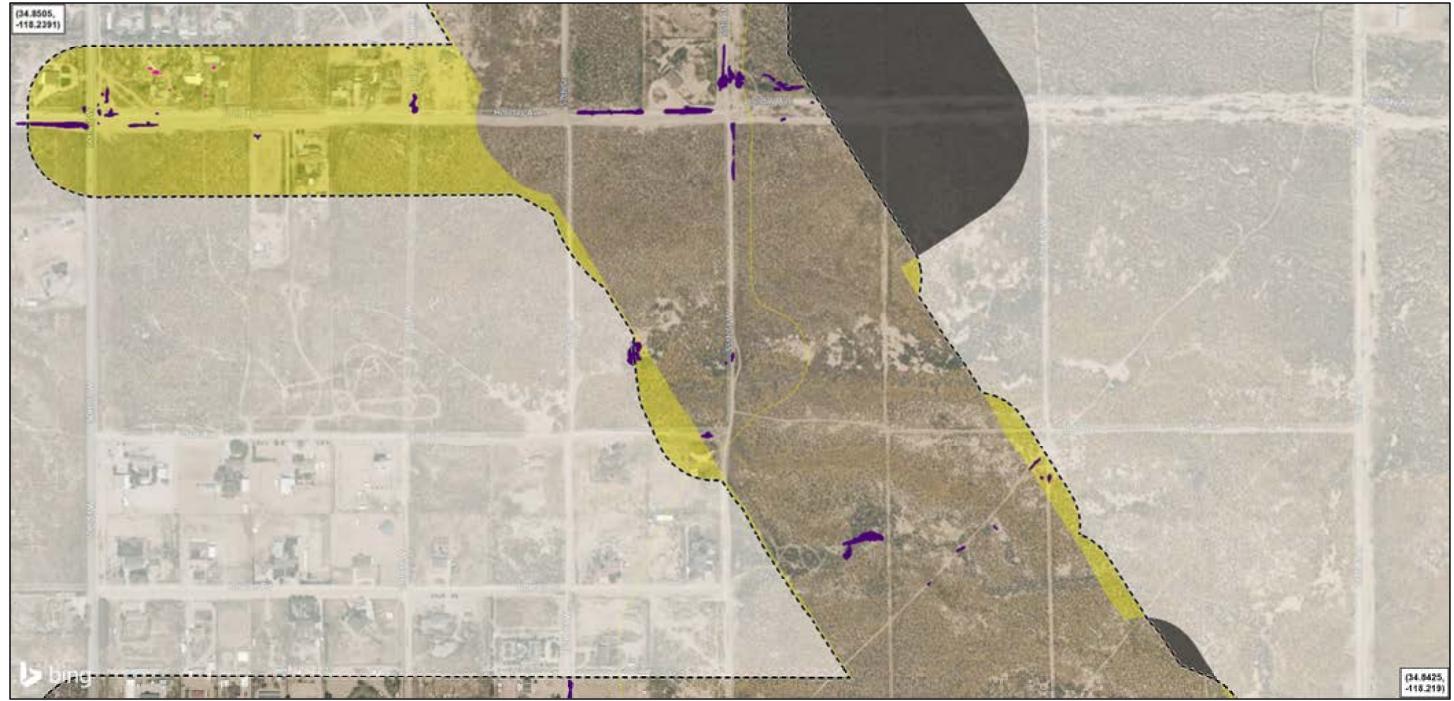




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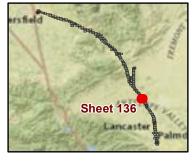


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134 135 136 137 138

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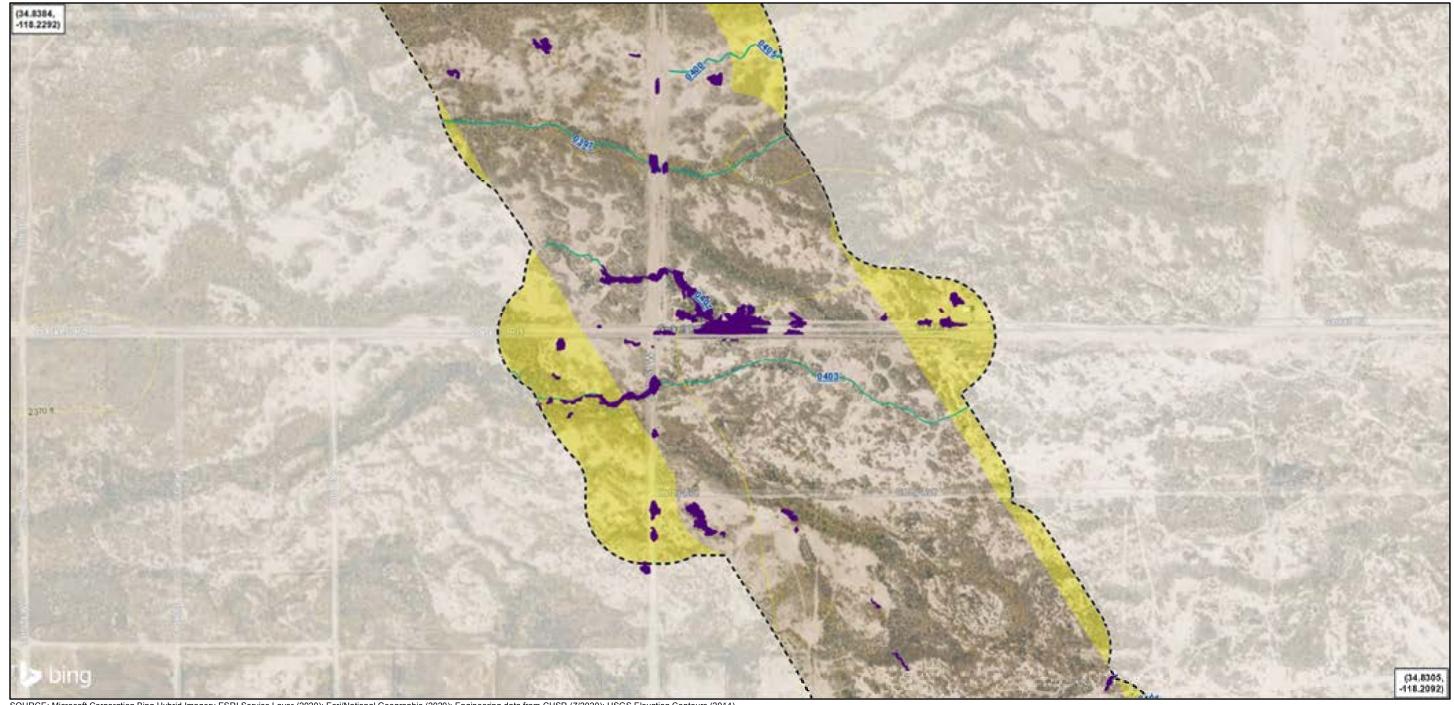


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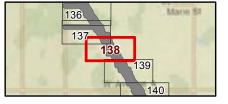
Jurisdictional Delineation to Ordinary High Water Mark





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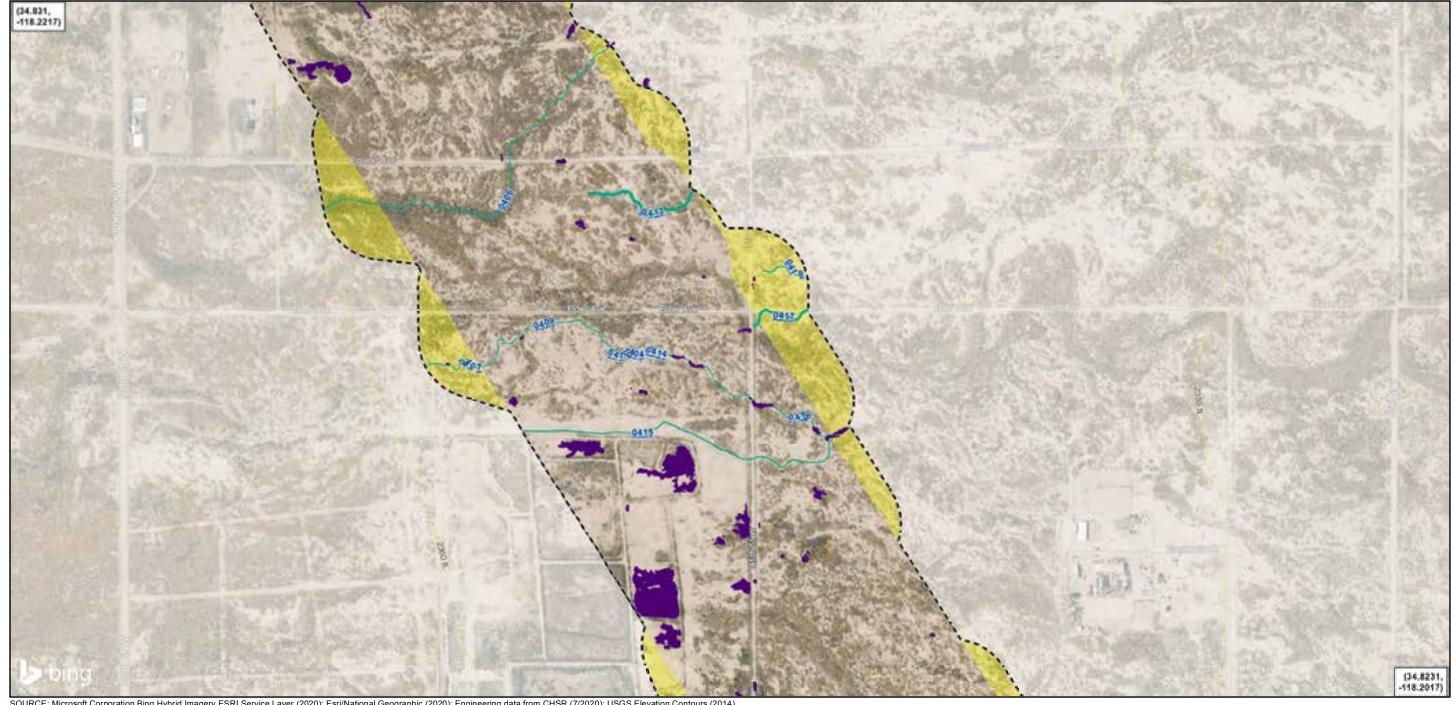


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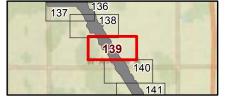
Jurisdictional Delineation to Ordinary High Water Mark





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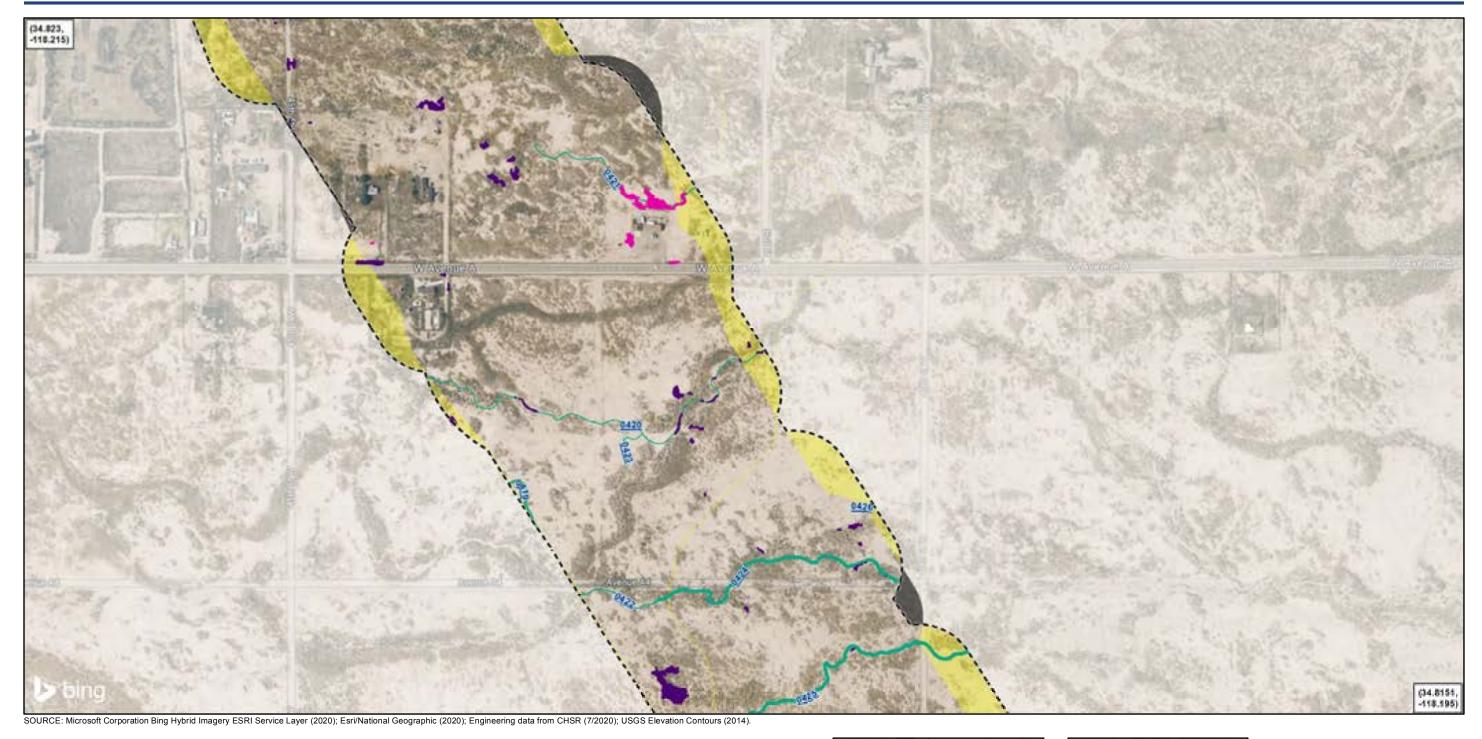


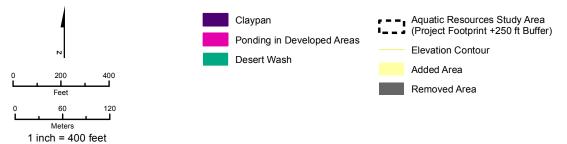
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Jurisdictional Delineation to Ordinary High Water Mark





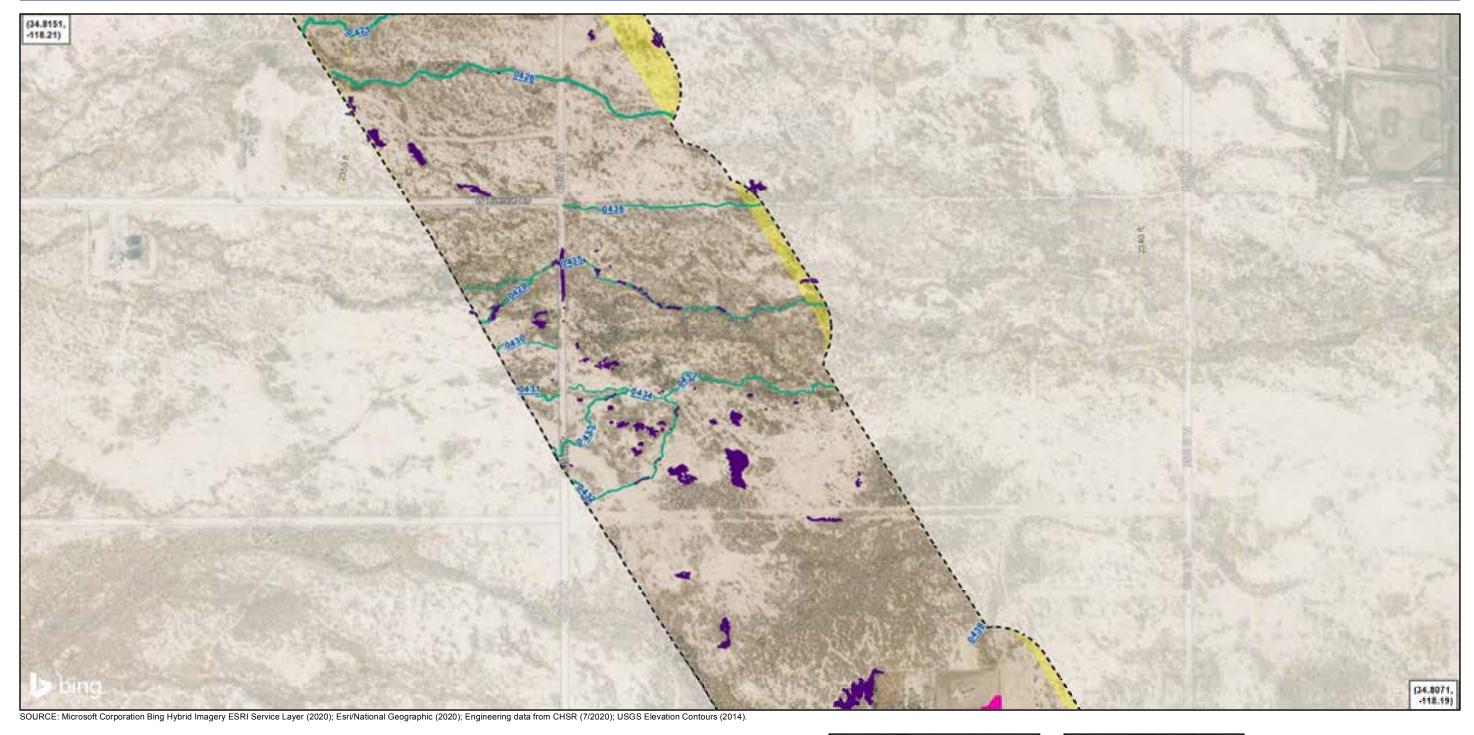




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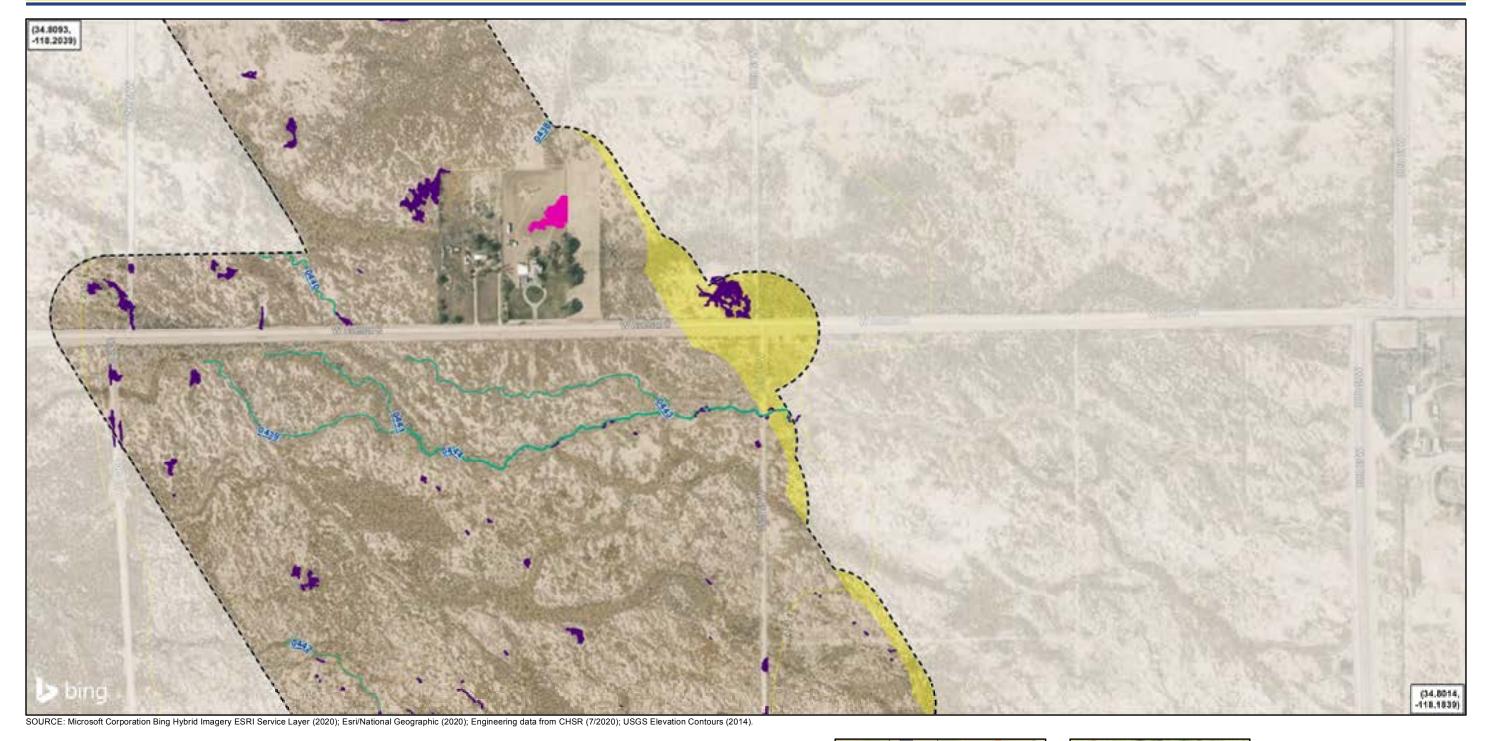


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Jurisdictional Delineation to Ordinary High Water Mark









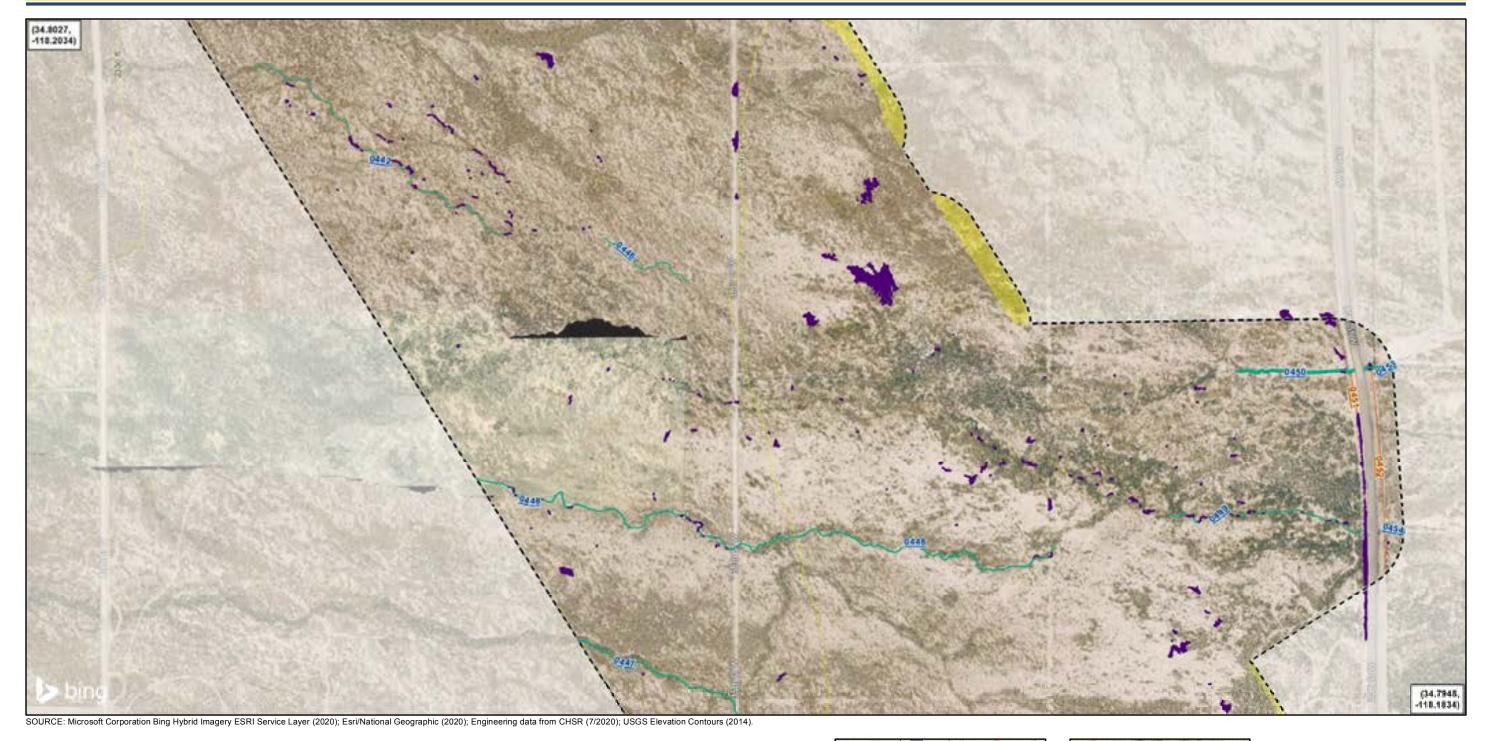
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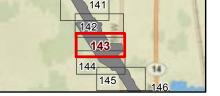
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Jurisdictional Delineation to Ordinary High Water Mark

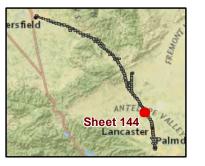




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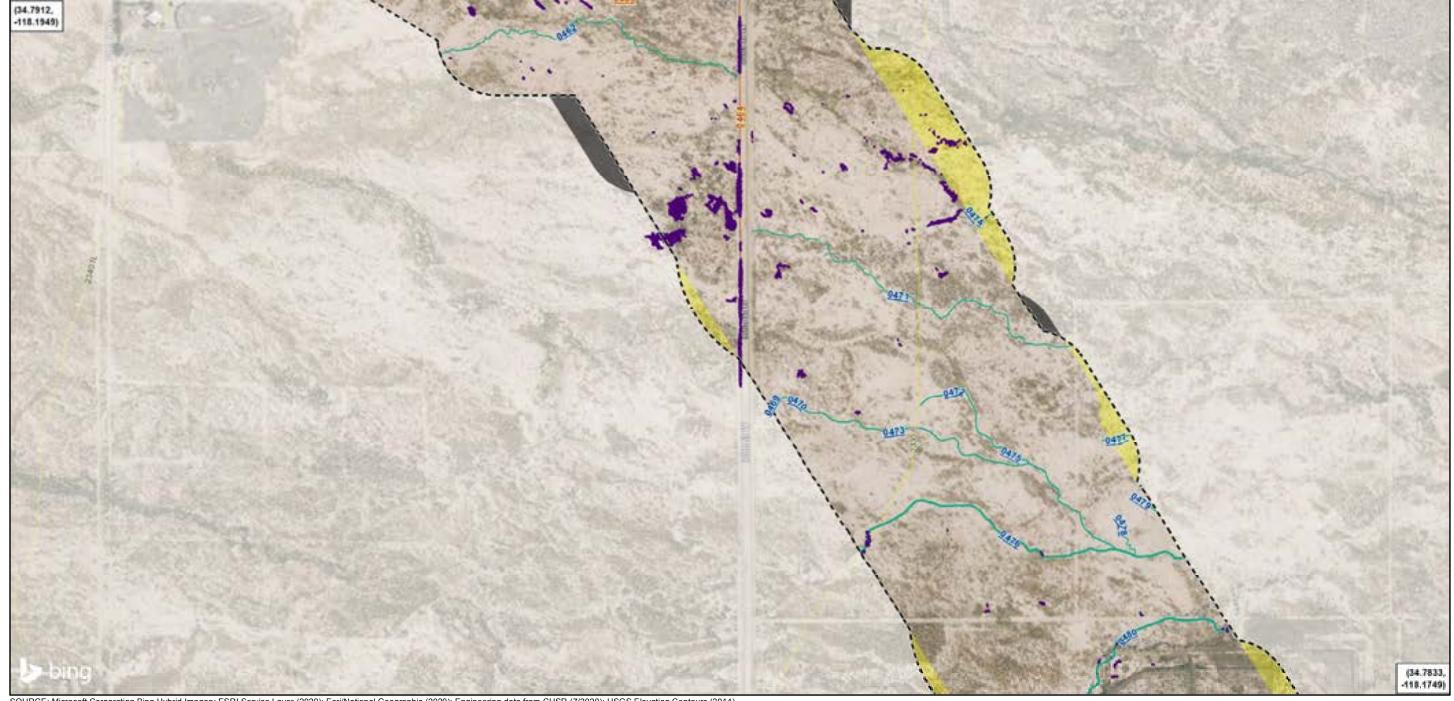
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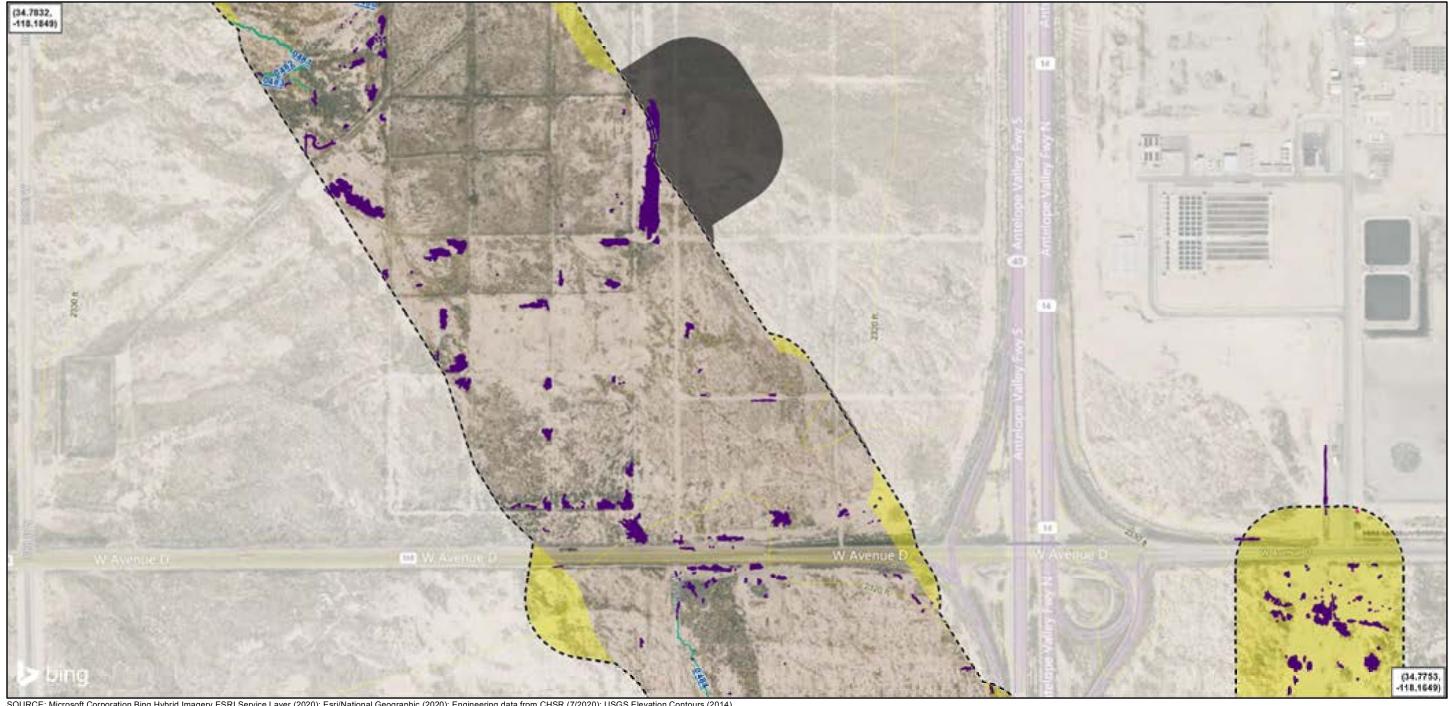
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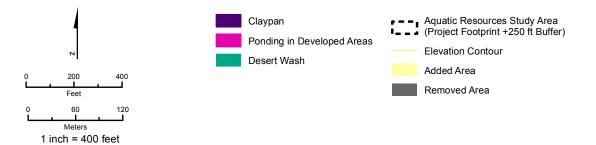
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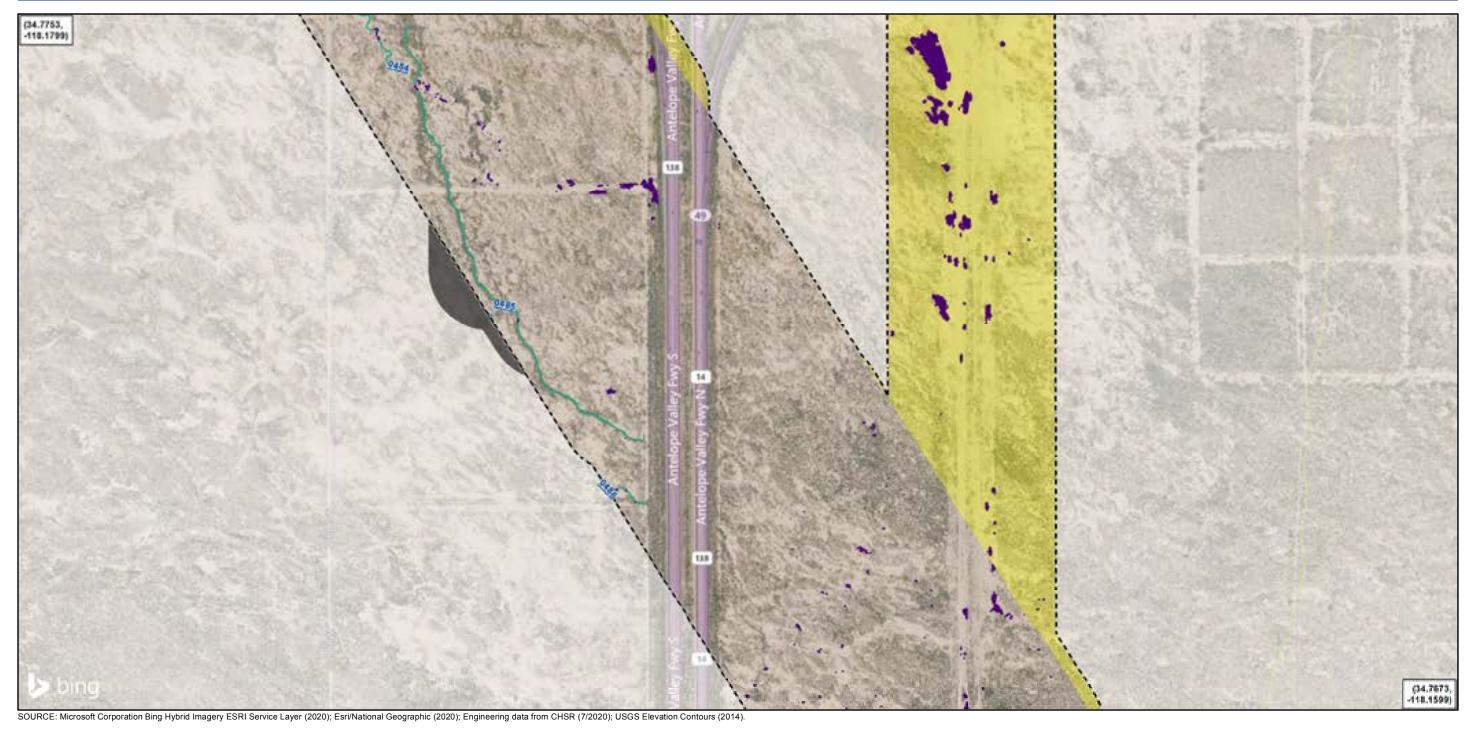
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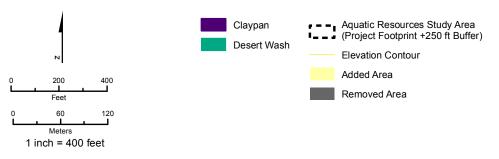


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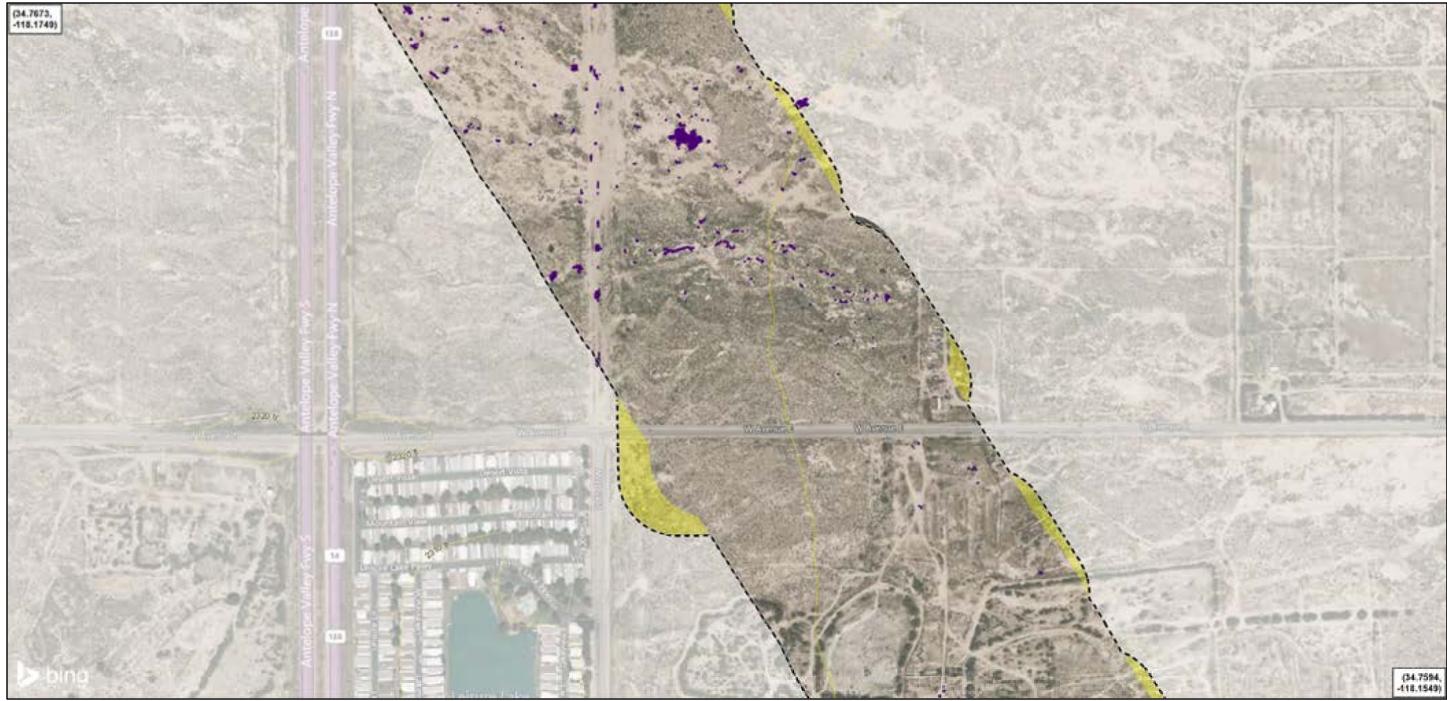




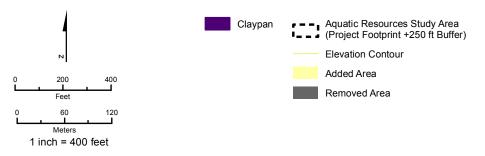
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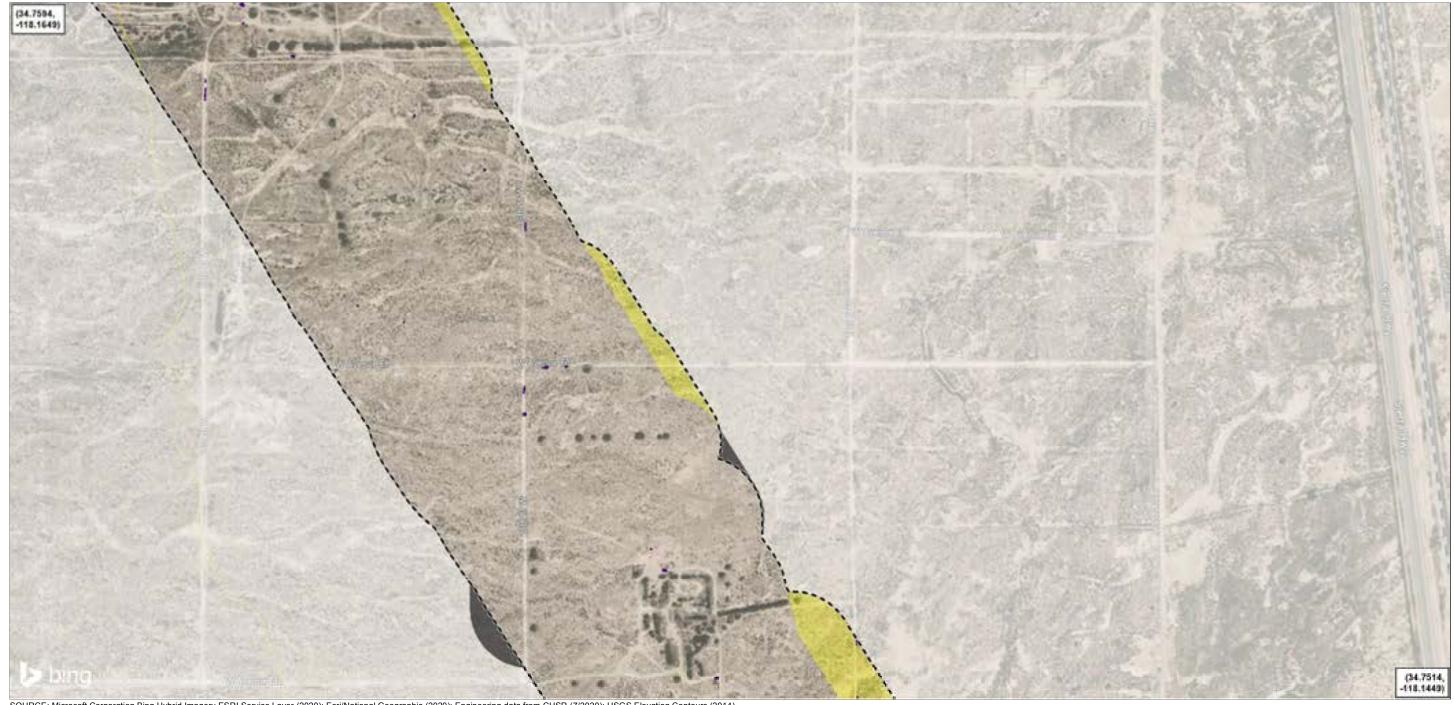
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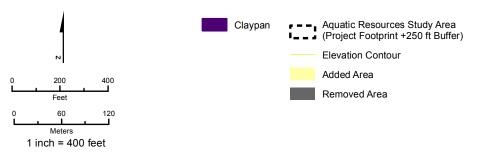
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Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).

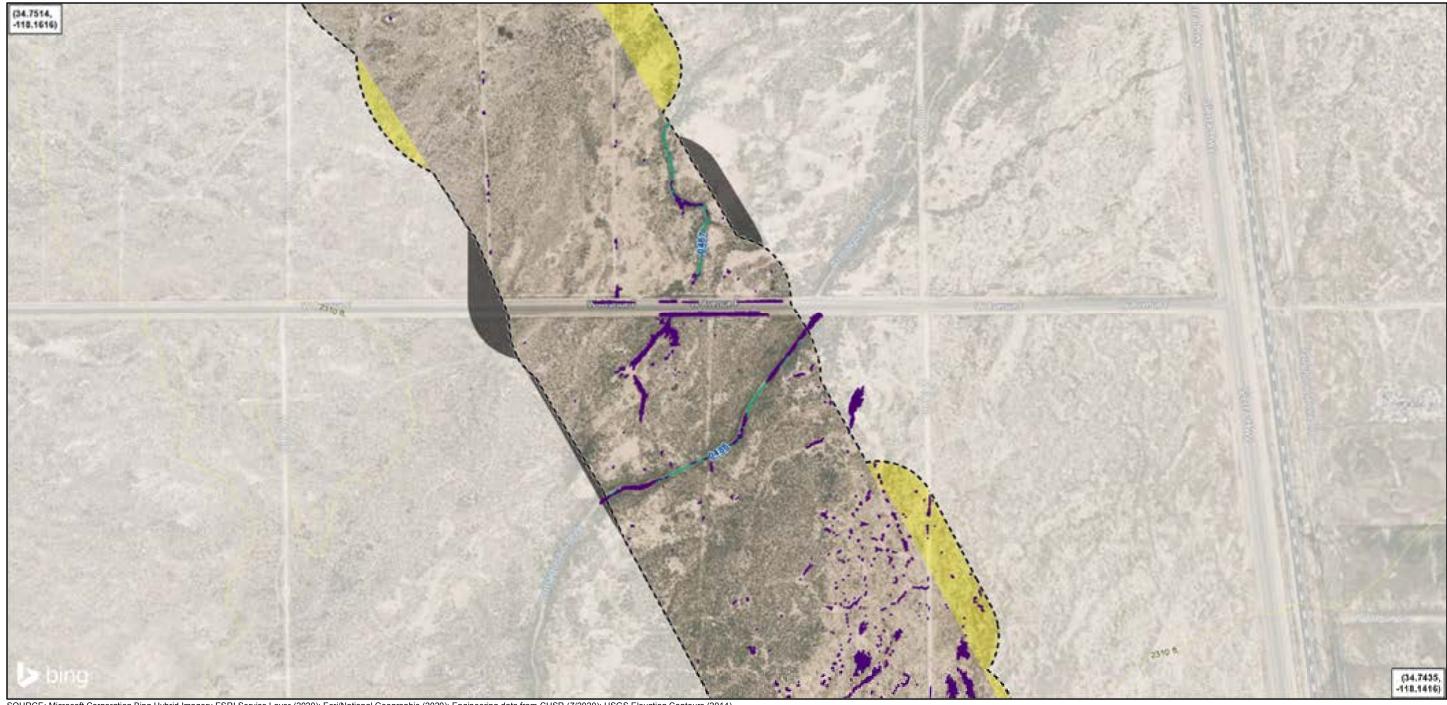




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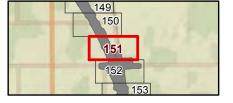






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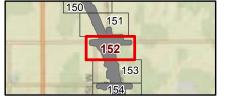




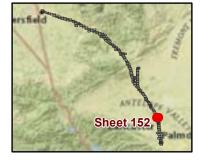


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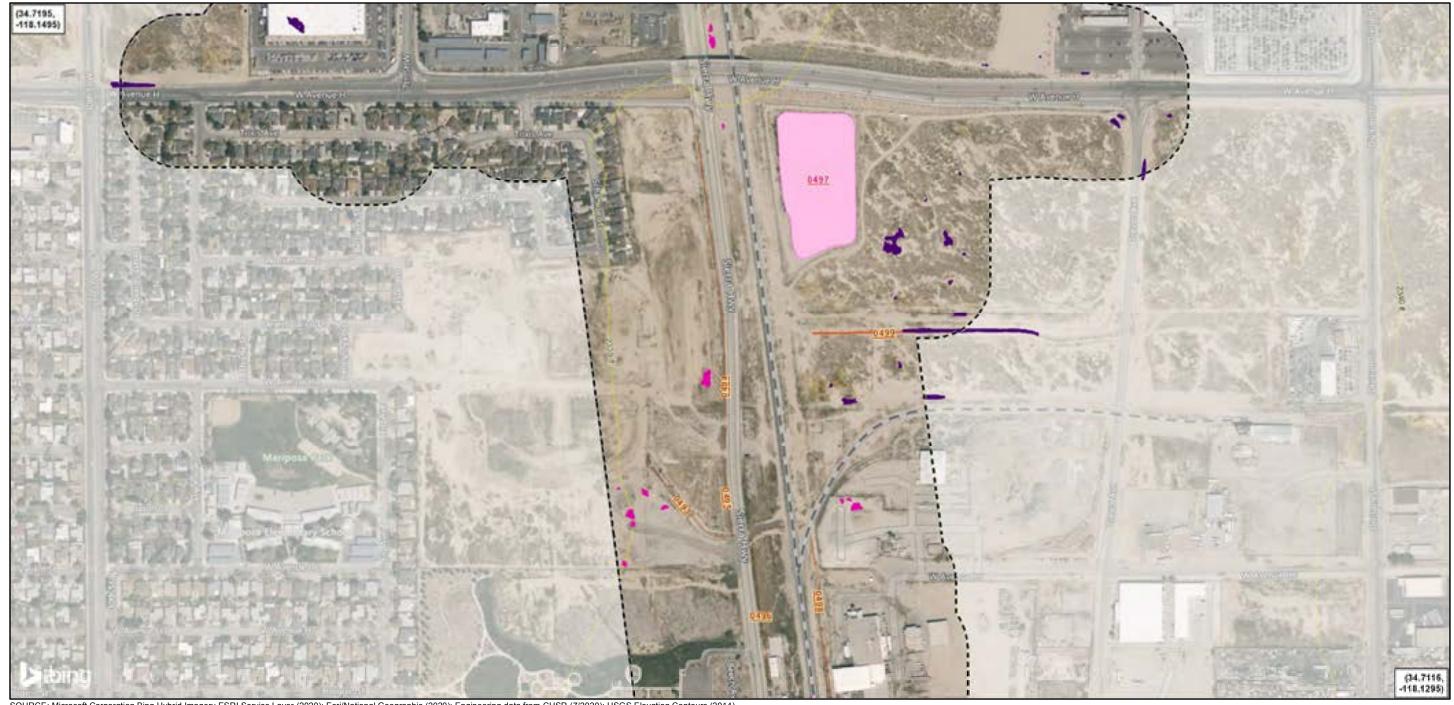




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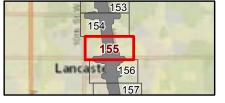




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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



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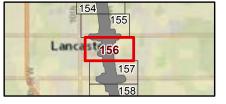
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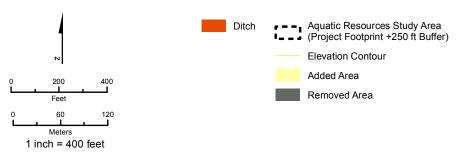
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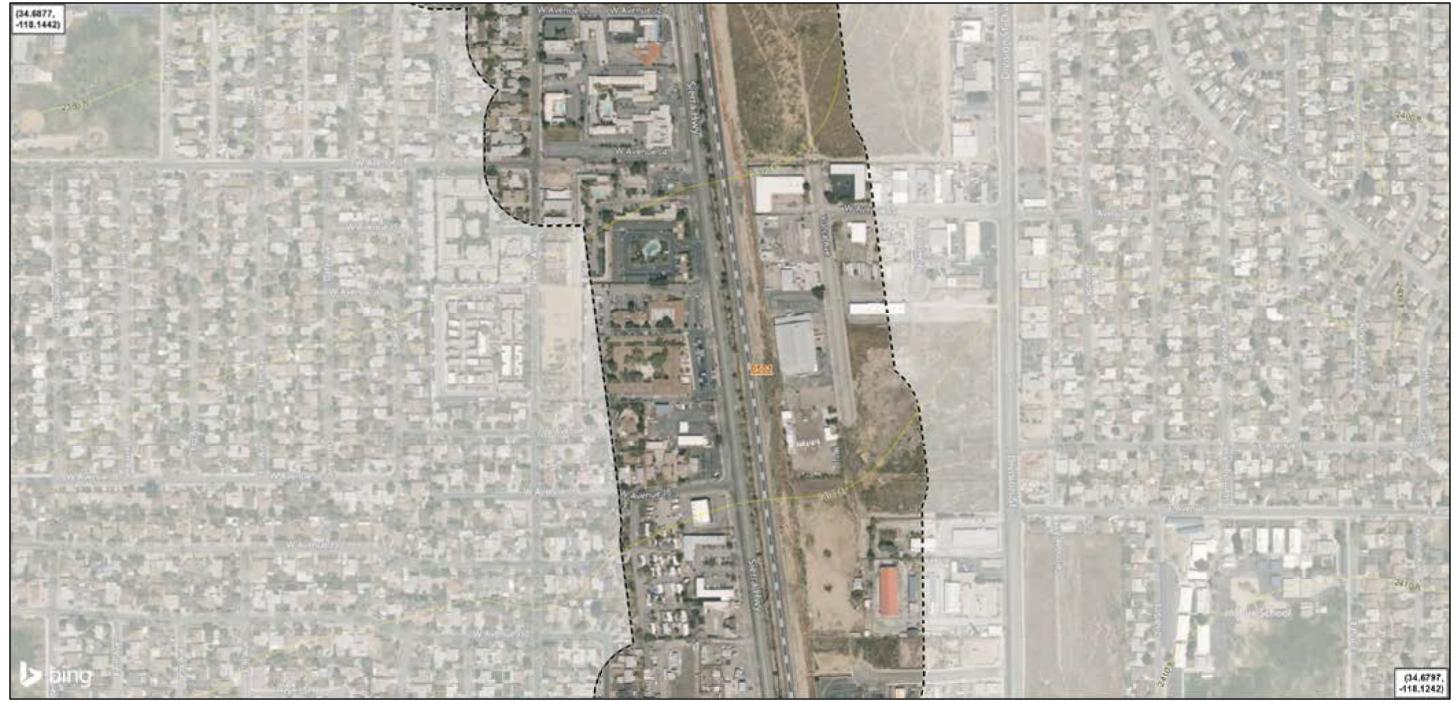
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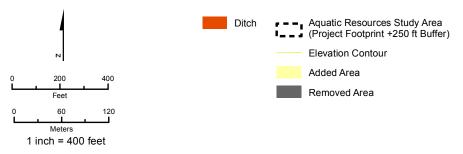


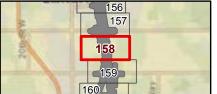
Jurisdictional Delineation to Ordinary High Water Mark





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).













SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



157 158 - 159 160 - 161

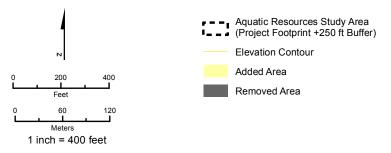
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Jurisdictional Delineation to Ordinary High Water Mark

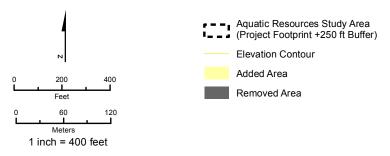
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).

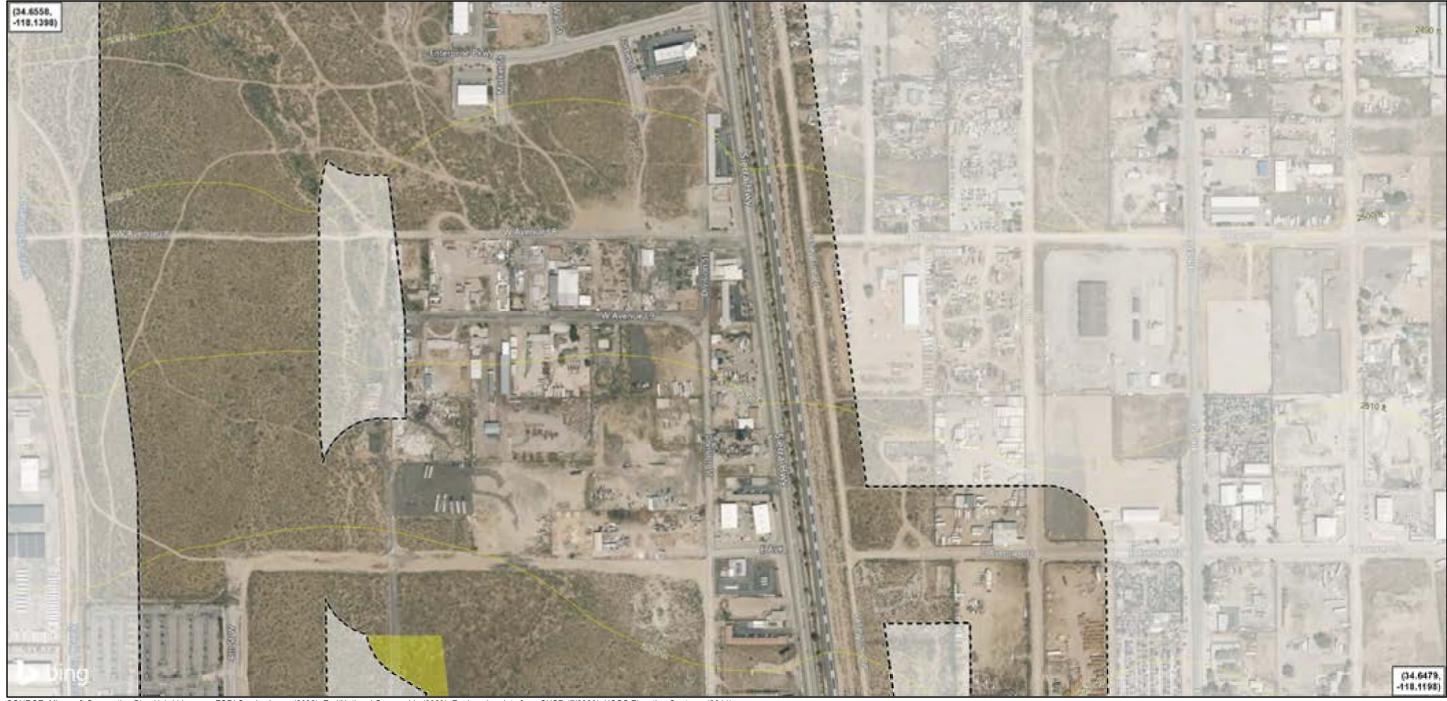




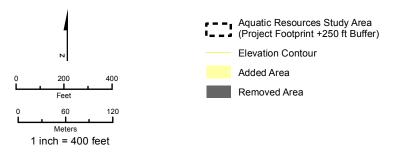
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



160 161 162 163 164 165



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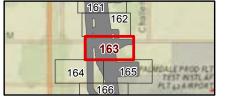
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





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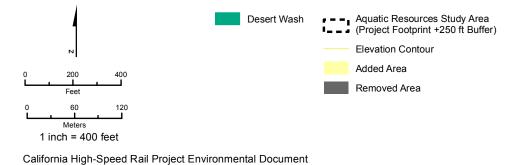
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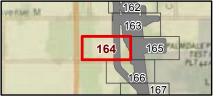
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





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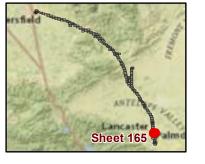
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162 163 164 165 166

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Jurisdictional Delineation to Ordinary High Water Mark

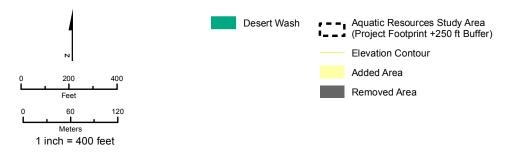
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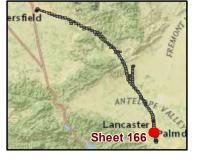


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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



164 165 166 167 168 169 170



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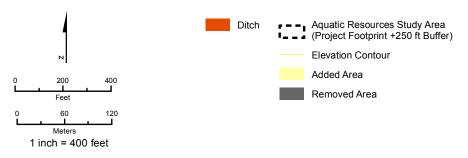
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



167 168 169 170

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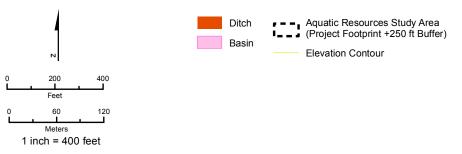


Jurisdictional Delineation to Ordinary High Water Mark





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167 168 169 171 171



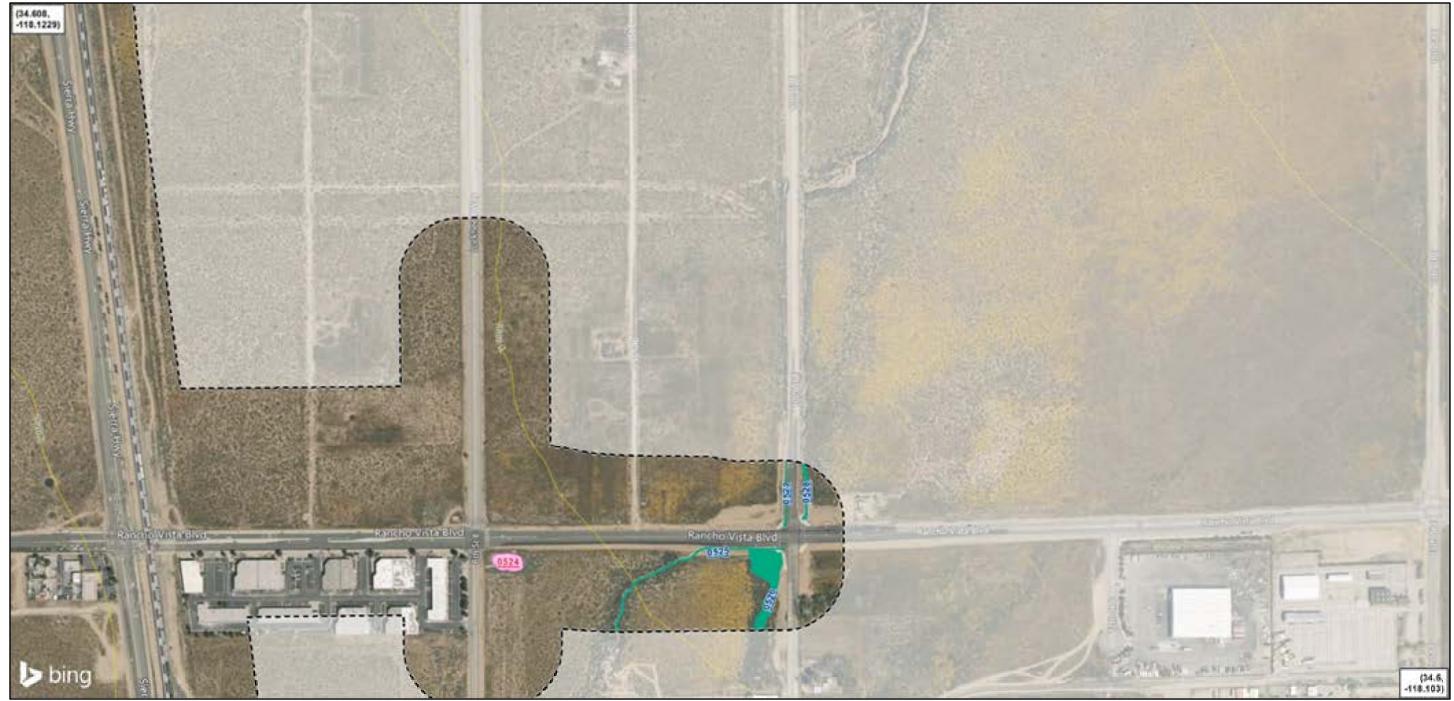
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Jurisdictional Delineation to Ordinary High Water Mark

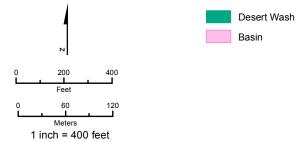
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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



Aquatic Resources Study Area
(Project Footprint +250 ft Buffer)
Elevation Contour



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



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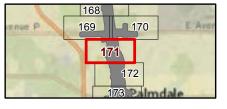




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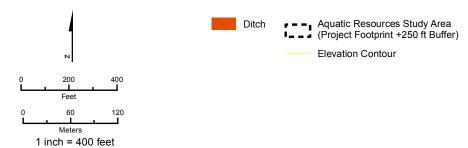
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Aquatic Resources Memorandum





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



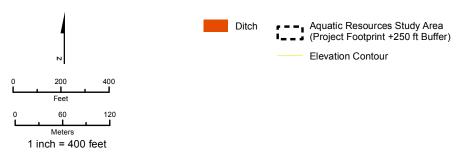
Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet







SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).



171 172 173 174 175

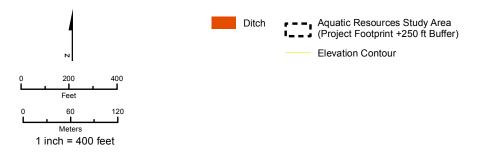
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Projection: Lambert Conic Conformal
Datum: North American 1983
Vertical Datum: NAVD88, U.S. Feet





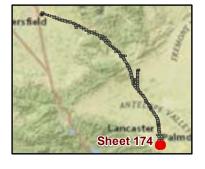


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



January 27, 2021

California High-Speed Rail Project Environmental Document



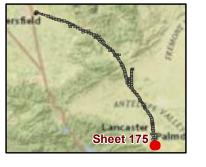


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet





## APPENDIX D: AQUATIC RESOURCES MAPBOOK TO TOP OF BANK OR EDGE OF RIPARIAN



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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Engineering data from CHSR (7/2020).



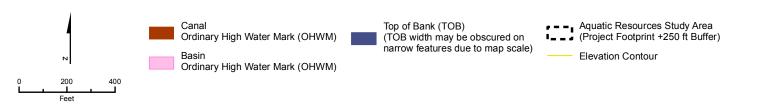
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

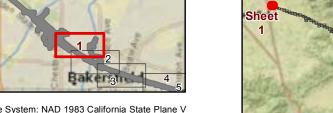
California High-Speed Rail Project Environmental Document





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

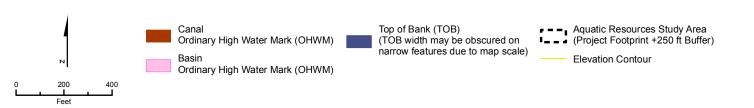


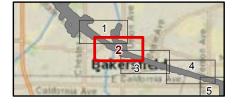
Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

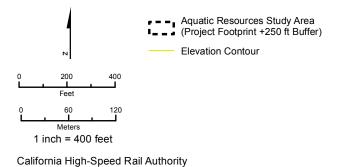


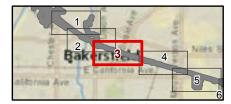
Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



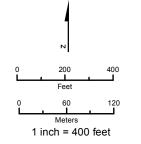
Jurisdictional Delineation to Top of Bank or Edge of Riparian



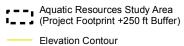


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

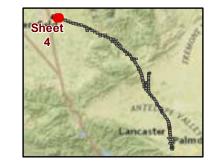
Canal
Ordinary High Water Mark (OHWM)



Top of Bank (TOB) (TOB width may be obscured on narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



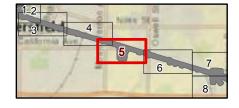
Jurisdictional Delineation to Top of Bank or Edge of Riparian



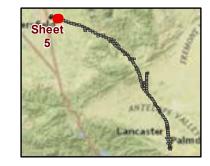


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Top of Bank or Edge of Riparian

January 27, 2021





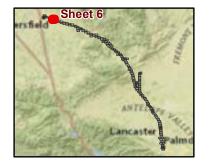
SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



(TOB width may be obscured on narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



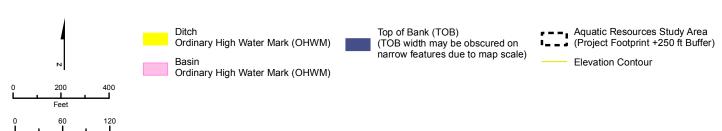
Jurisdictional Delineation to Top of Bank or Edge of Riparian

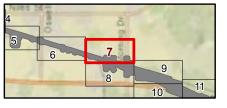
January 27, 2021



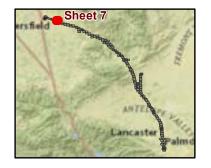


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

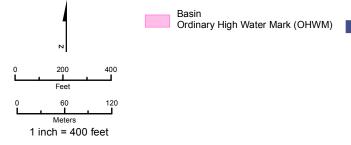


Jurisdictional Delineation to Top of Bank or Edge of Riparian



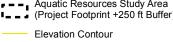


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Top of Bank (TOB)

(TOB width may be obscured on Aquatic Resources Study Area
(Project Footprint +250 ft Buffer) narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

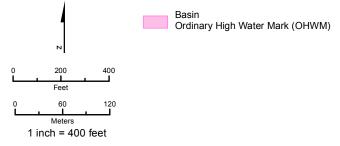




SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Top of Bank (TOB) (TOB width may be obscured on

narrow features due to map scale)



California High-Speed Rail Authority



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

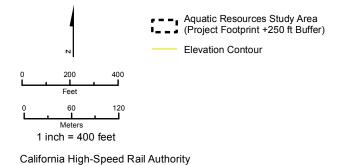


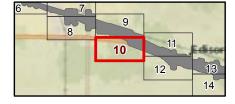
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian



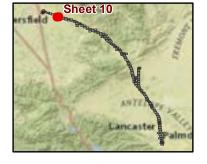


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



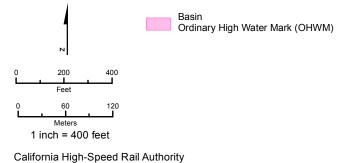
Jurisdictional Delineation to Top of Bank or Edge of Riparian





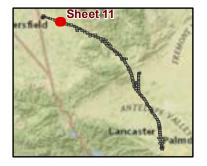
SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Top of Bank (TOB) (TOB width may be obscured on





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



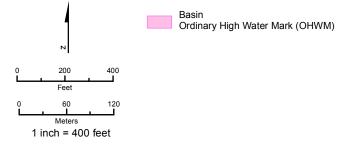
Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

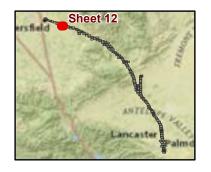
Top of Bank (TOB) (TOB width may be obscured on



California High-Speed Rail Authority

Aquatic Resources Study Area
(Project Footprint +250 ft Buffer) narrow features due to map scale) **Elevation Contour** 

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

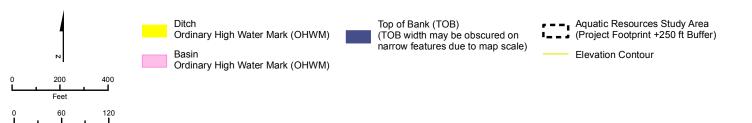


1 inch = 400 feet

California High-Speed Rail Authority



SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Top of Bank or Edge of Riparian





■ ■ Aquatic Resources Study Area

**Elevation Contour** 

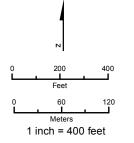
Project Footprint +250 ft Buffer)

SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Top of Bank (TOB)

(TOB width may be obscured on narrow features due to map scale)

Basin Ordinary High Water Mark (OHWM)



10 11 13

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



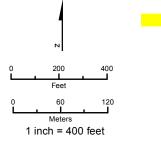
Jurisdictional Delineation to Top of Bank or Edge of Riparian



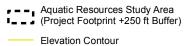


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Ditch Ordinary High Water Mark (OHWM)



Top of Bank (TOB) (TOB width may be obscured on narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



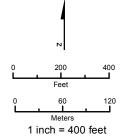
Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

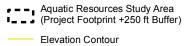
Basin Ordinary High Water Mark (OHWM)



Top of Bank (TOB)
(TOB width may be obscured on narrow features due to map scale)

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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Top of Bank or Edge of Riparian

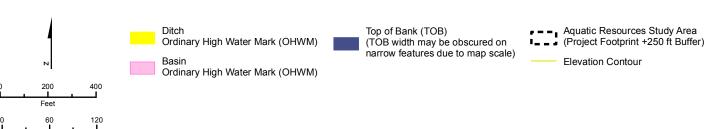


1 inch = 400 feet

California High-Speed Rail Authority



SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



13 14 16 17 19 18 20 21 22

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

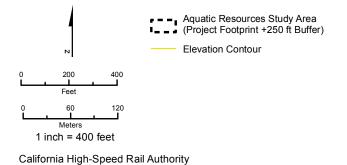


Jurisdictional Delineation to Top of Bank or Edge of Riparian

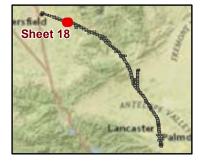




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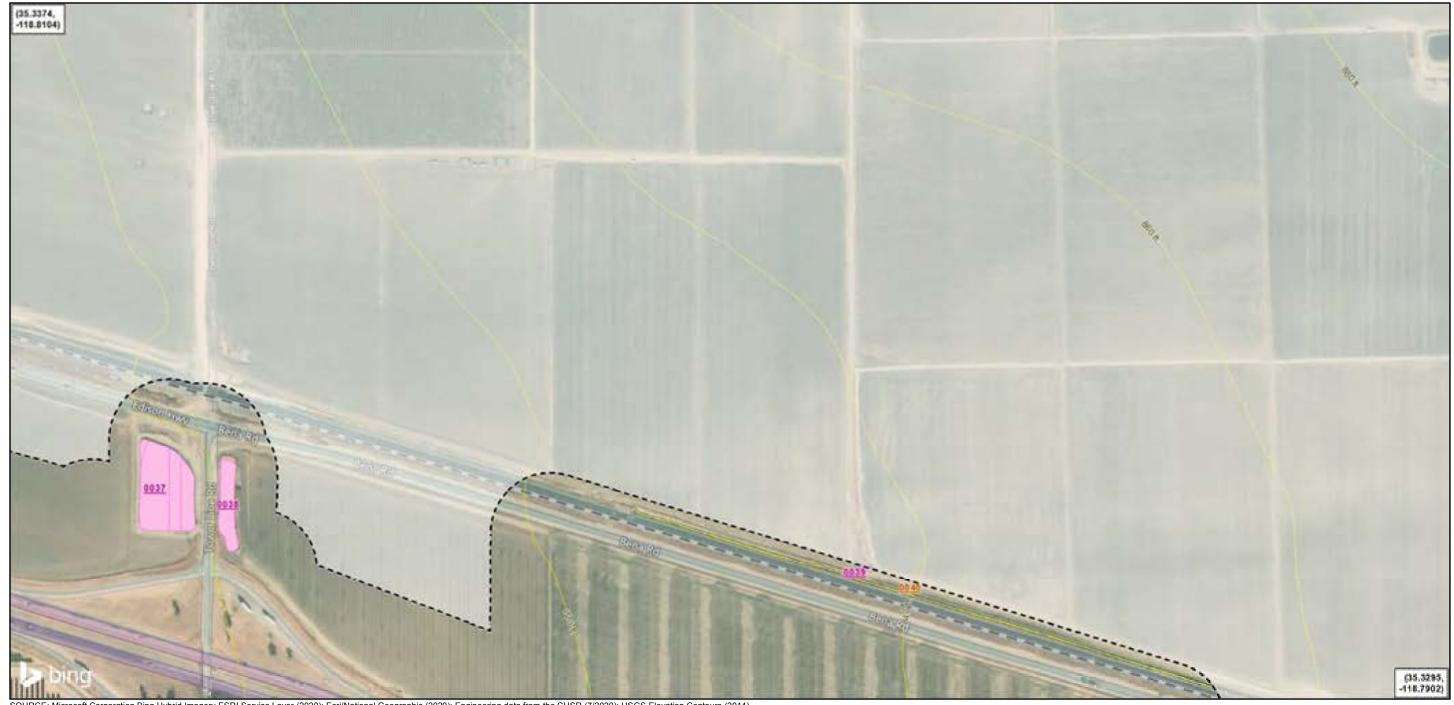


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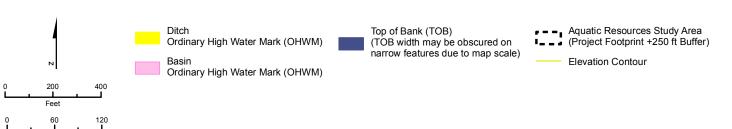


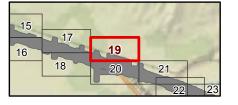
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian



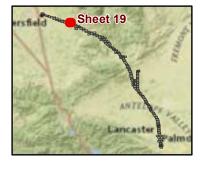


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

1 inch = 400 feet

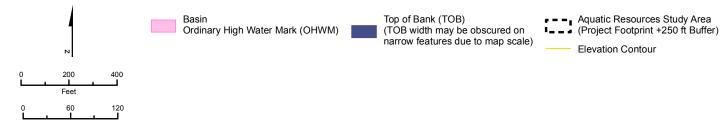
California High-Speed Rail Authority



California High-Speed Rail Authority



SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



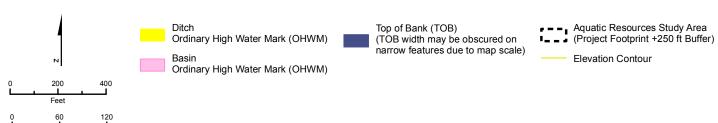
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

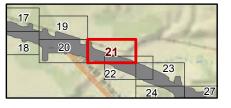


California High-Speed Rail Authority

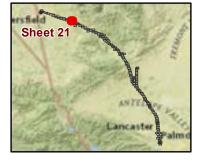


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



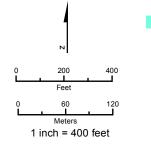
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Ephemeral Stream Ordinary High Water Mark (OHWM)



California High-Speed Rail Authority

Top of Bank (TOB)

(TOB width may be obscured on Aquatic Resources Study Area
(Project Footprint +250 ft Buffer) narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

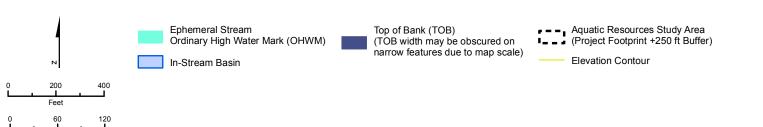
January 27, 2021

Aquatic Resources Memorandum





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



19 20 21 22 23 24 27 25 28 29

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

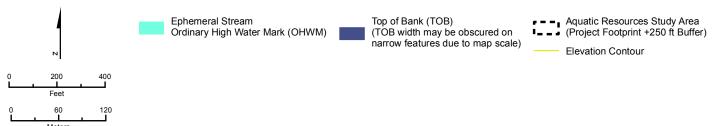


Jurisdictional Delineation to Top of Bank or Edge of Riparian



California High-Speed Rail Authority





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

January 27, 2021

**Elevation Contour** 

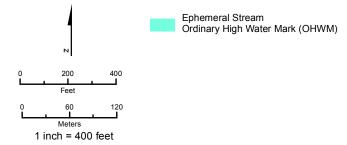




SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Top of Bank (TOB) (TOB width may be obscured on

narrow features due to map scale)

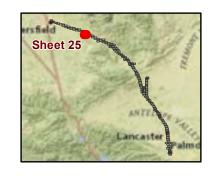


California High-Speed Rail Authority

Aquatic Resources Study Area
(Project Footprint +250 ft Buffer)

**Elevation Contour** 

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

January 27, 2021

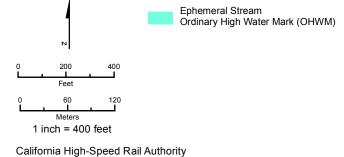
Sheet 25 of 175 Aquatic Resources Memorandum





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Top of Bank (TOB) (TOB width may be obscured on



Aquatic Resources Study Area
(Project Footprint +250 ft Buffer) narrow features due to map scale) **Elevation Contour** 

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



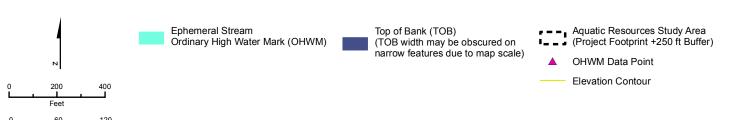
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

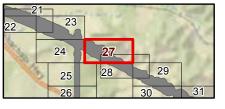


California High-Speed Rail Authority



SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





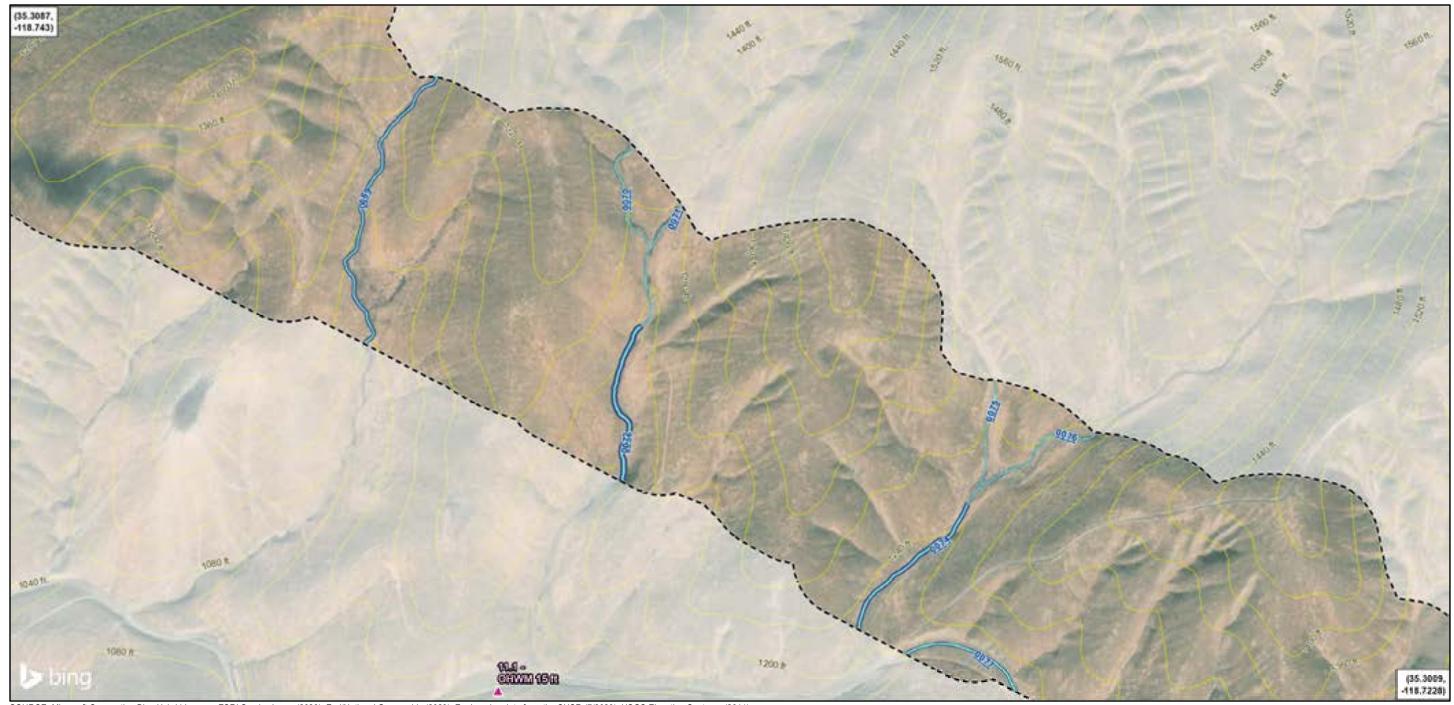
Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

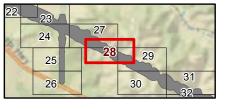


California High-Speed Rail Authority

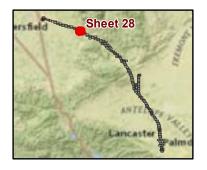


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Top of Bank or Edge of Riparian

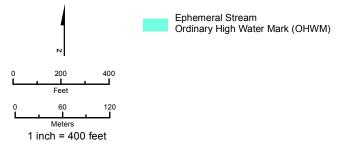




SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

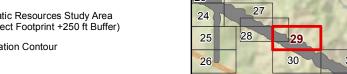
Top of Bank (TOB) (TOB width may be obscured on

narrow features due to map scale)

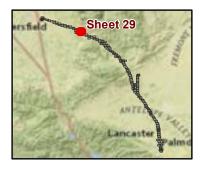


Ephemeral Stream

Aquatic Resources Study Area
(Project Footprint +250 ft Buffer) **Elevation Contour** 



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

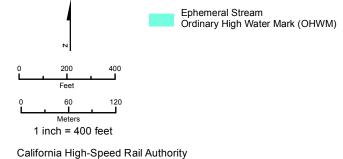




SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

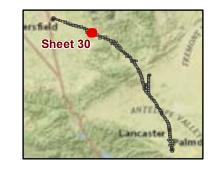
Top of Bank (TOB)

(TOB width may be obscured on





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

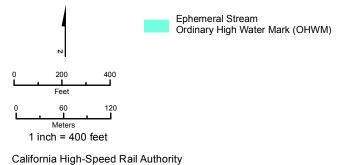


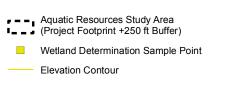


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Top of Bank (TOB)

(TOB width may be obscured on narrow features due to map scale)





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

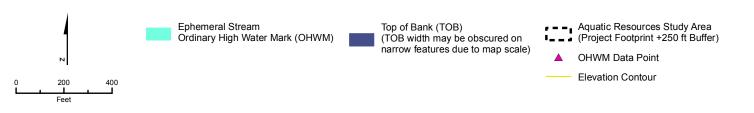


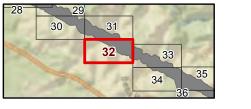
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



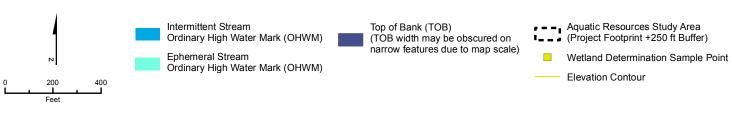
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

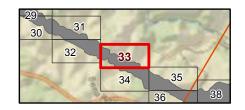


California High-Speed Rail Authority



SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

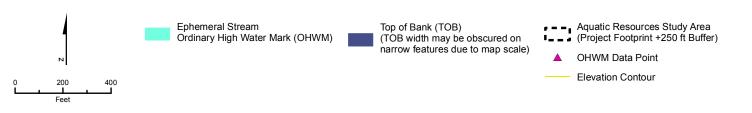
January 27, 2021

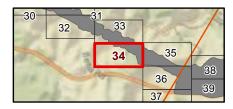
Aquatic Resources Memorandum





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

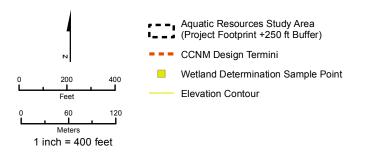
January 27, 2021

California High-Speed Rail Authority





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



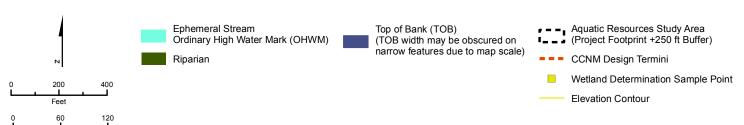
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

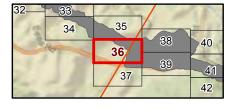


California High-Speed Rail Authority

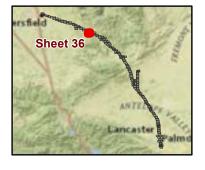


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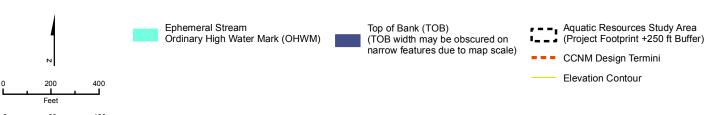
Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

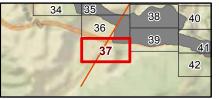


**Jurisdictional Delineation** to Top of Bank or Edge of Riparian









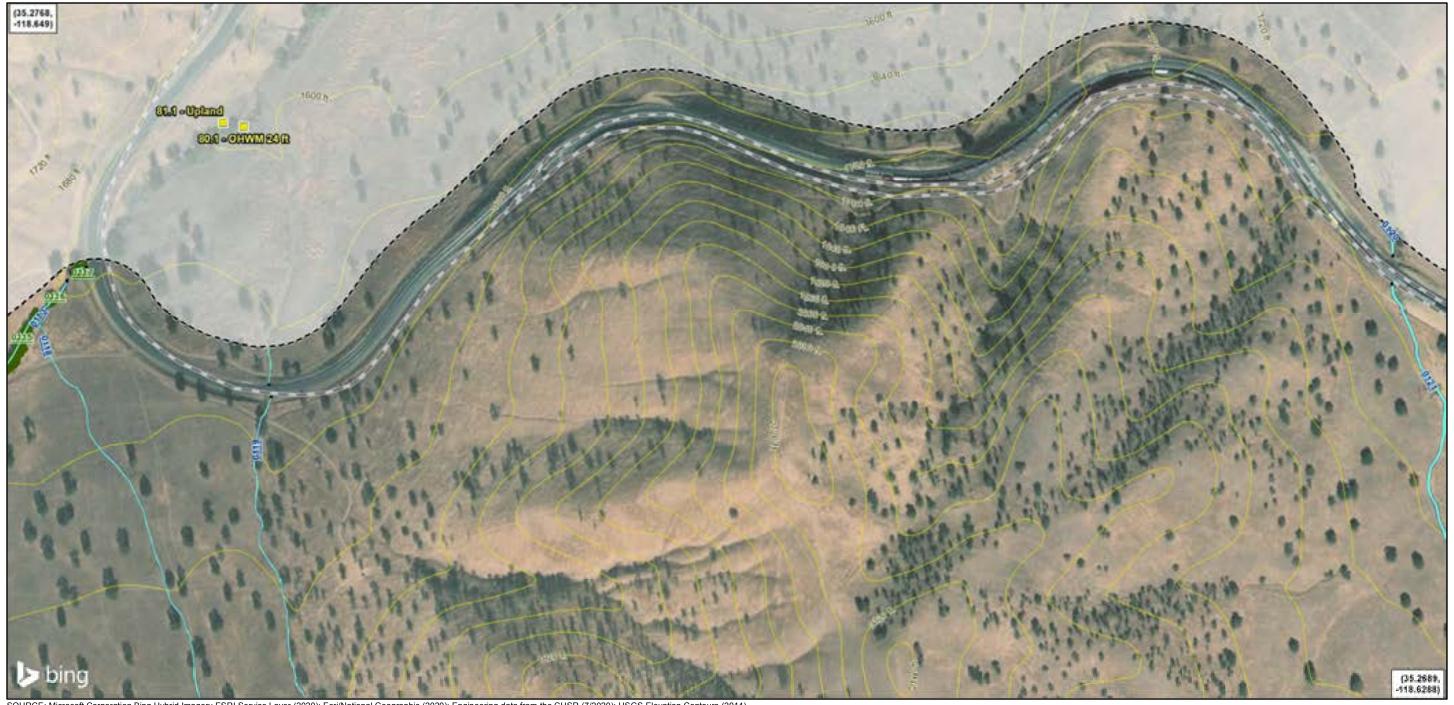
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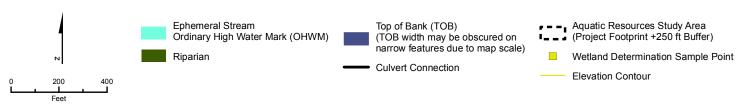
Jurisdictional Delineation to Top of Bank or Edge of Riparian

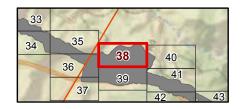


California High-Speed Rail Authority



SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



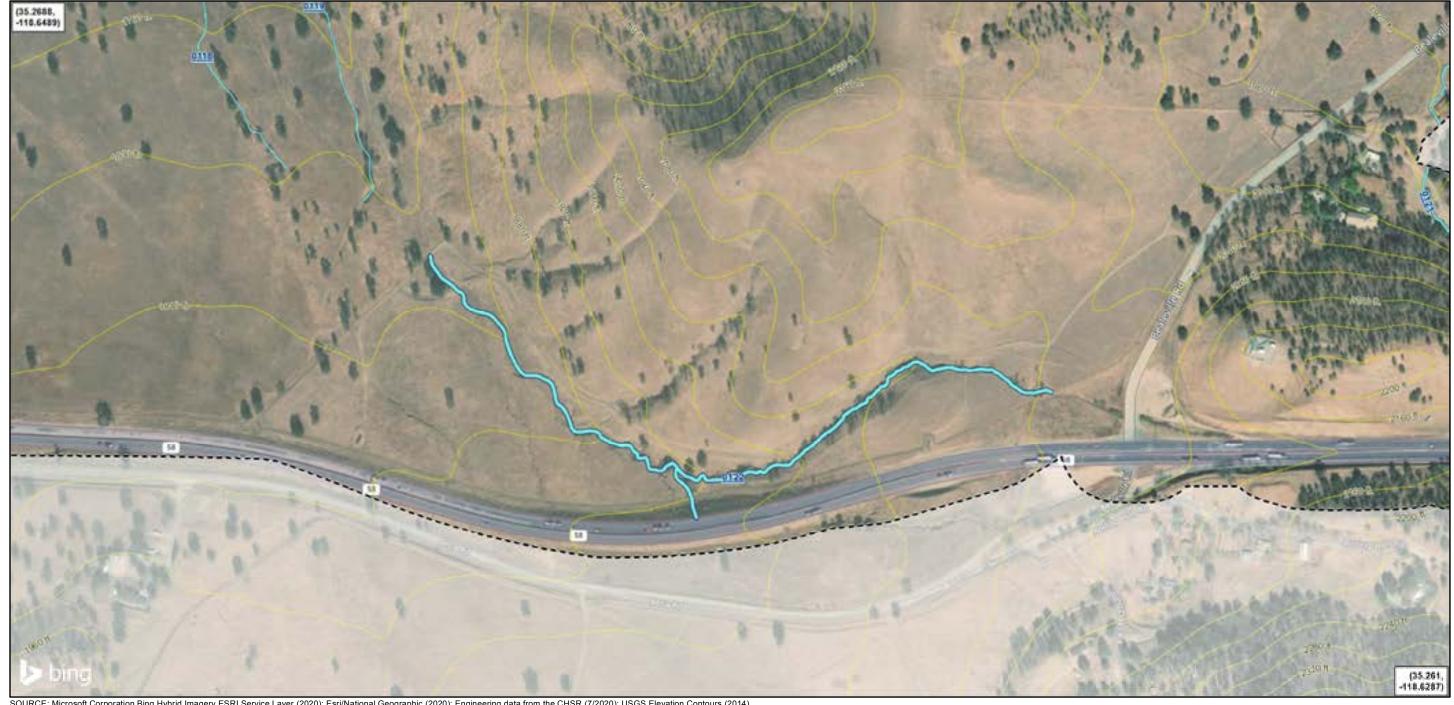


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

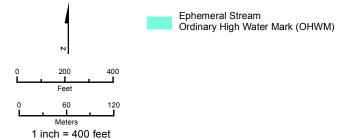


Jurisdictional Delineation to Top of Bank or Edge of Riparian



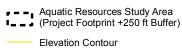


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



California High-Speed Rail Authority

Top of Bank (TOB) (TOB width may be obscured on narrow features due to map scale)

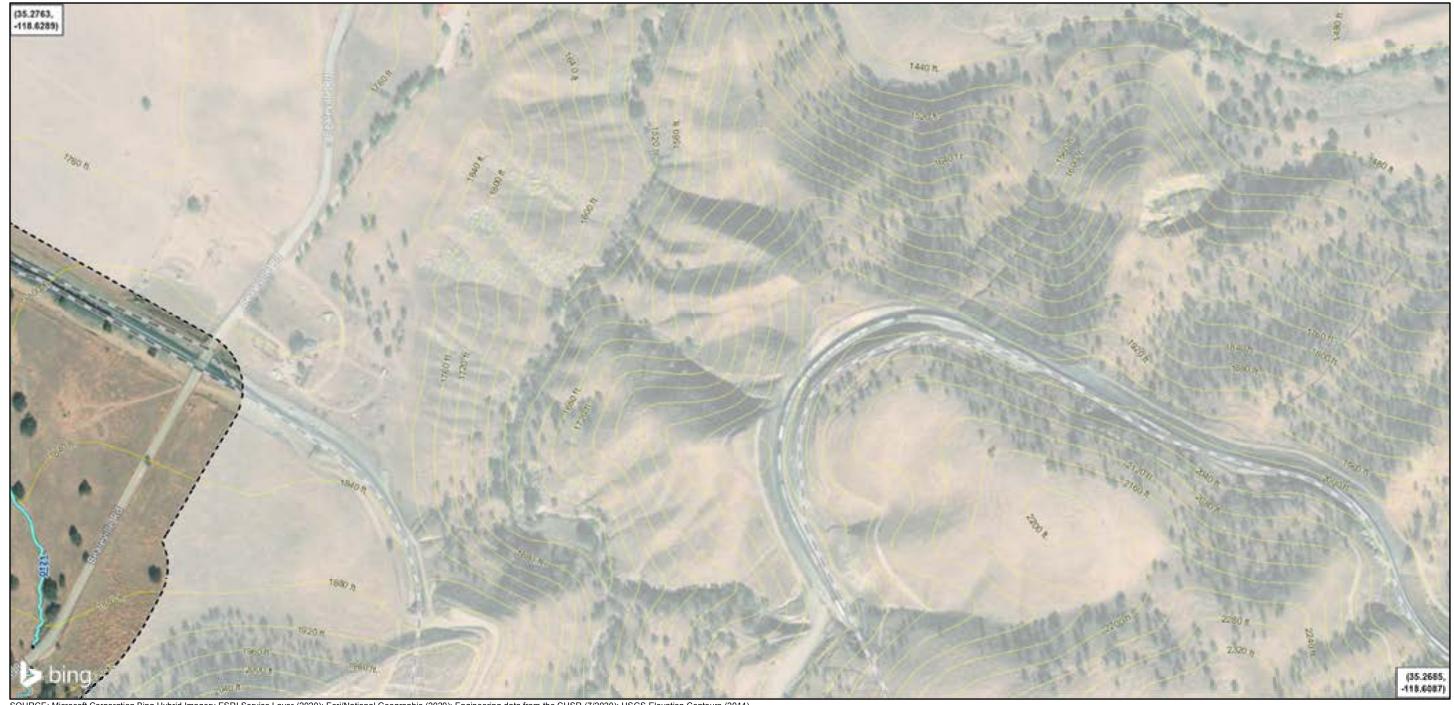


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

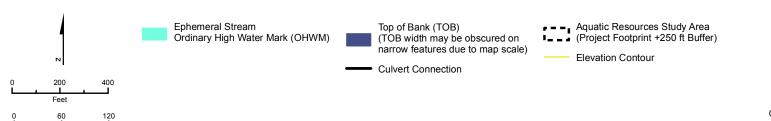


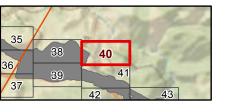
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



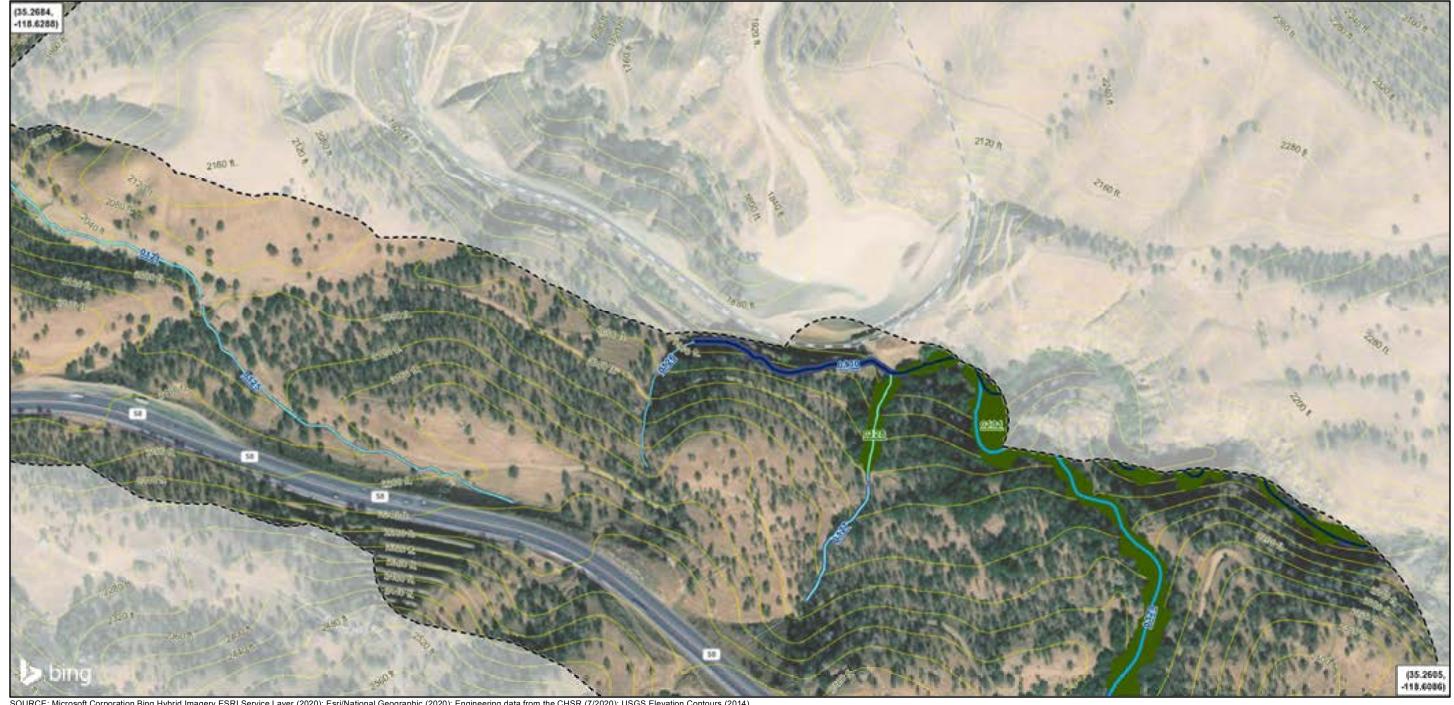


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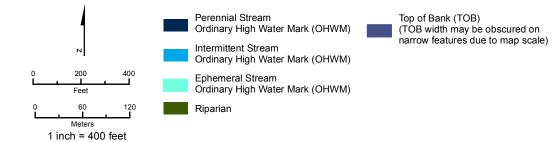


Jurisdictional Delineation to Top of Bank or Edge of Riparian





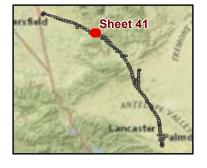
SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Aquatic Resources Study Area
(Project Footprint +250 ft Buffer) **Elevation Contour** 



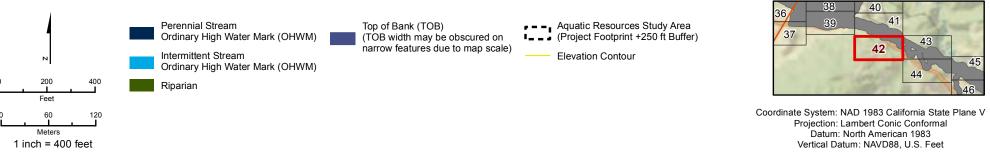
Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian







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1 inch = 400 feet

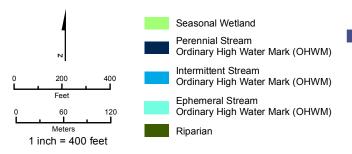
Sheet 42

**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

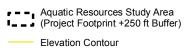




SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

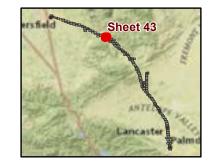


Top of Bank (TOB) (TOB width may be obscured on narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

42



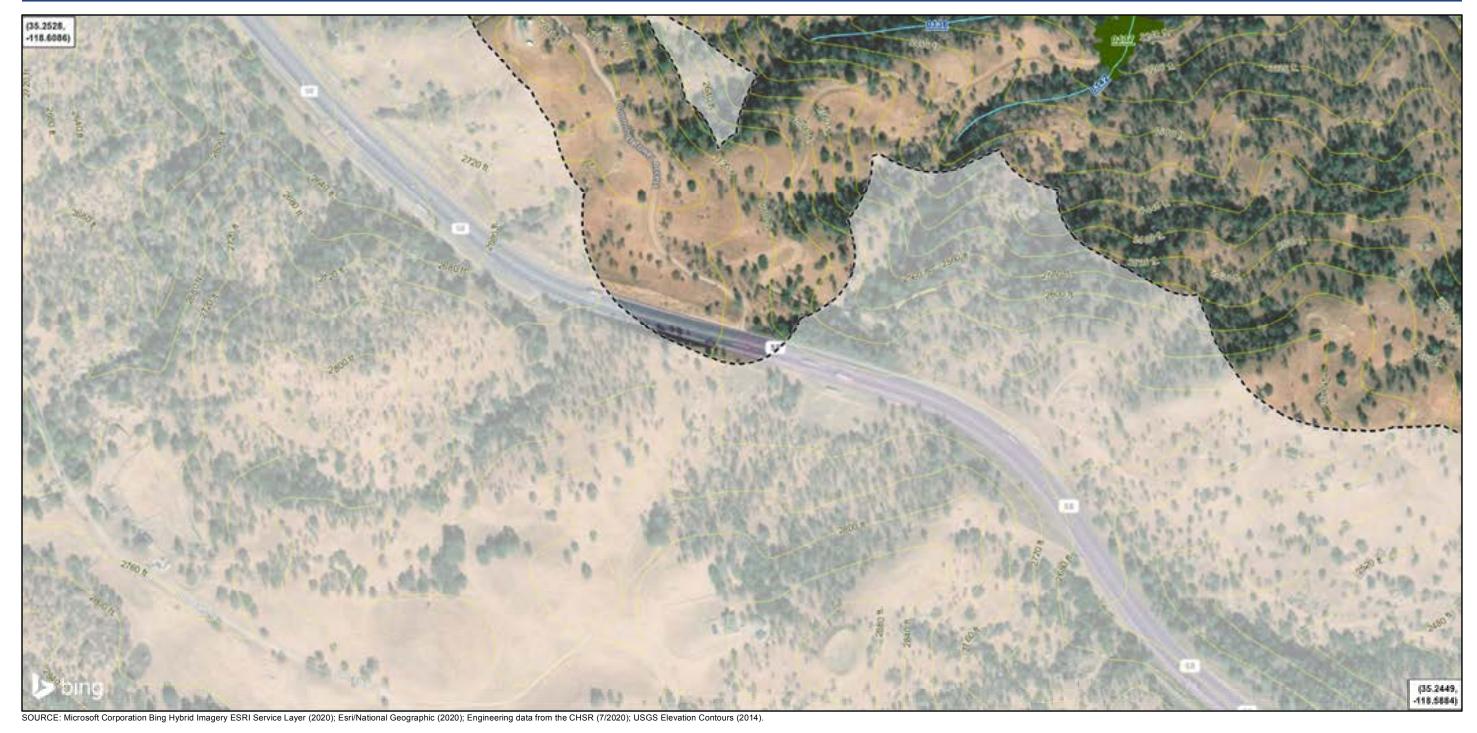
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

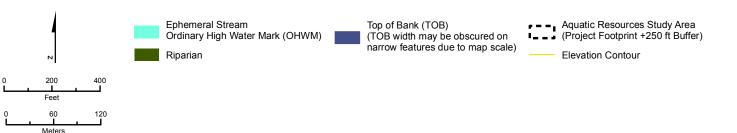
January 27, 2021

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39 41 43 45 47 46 50 48 52

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



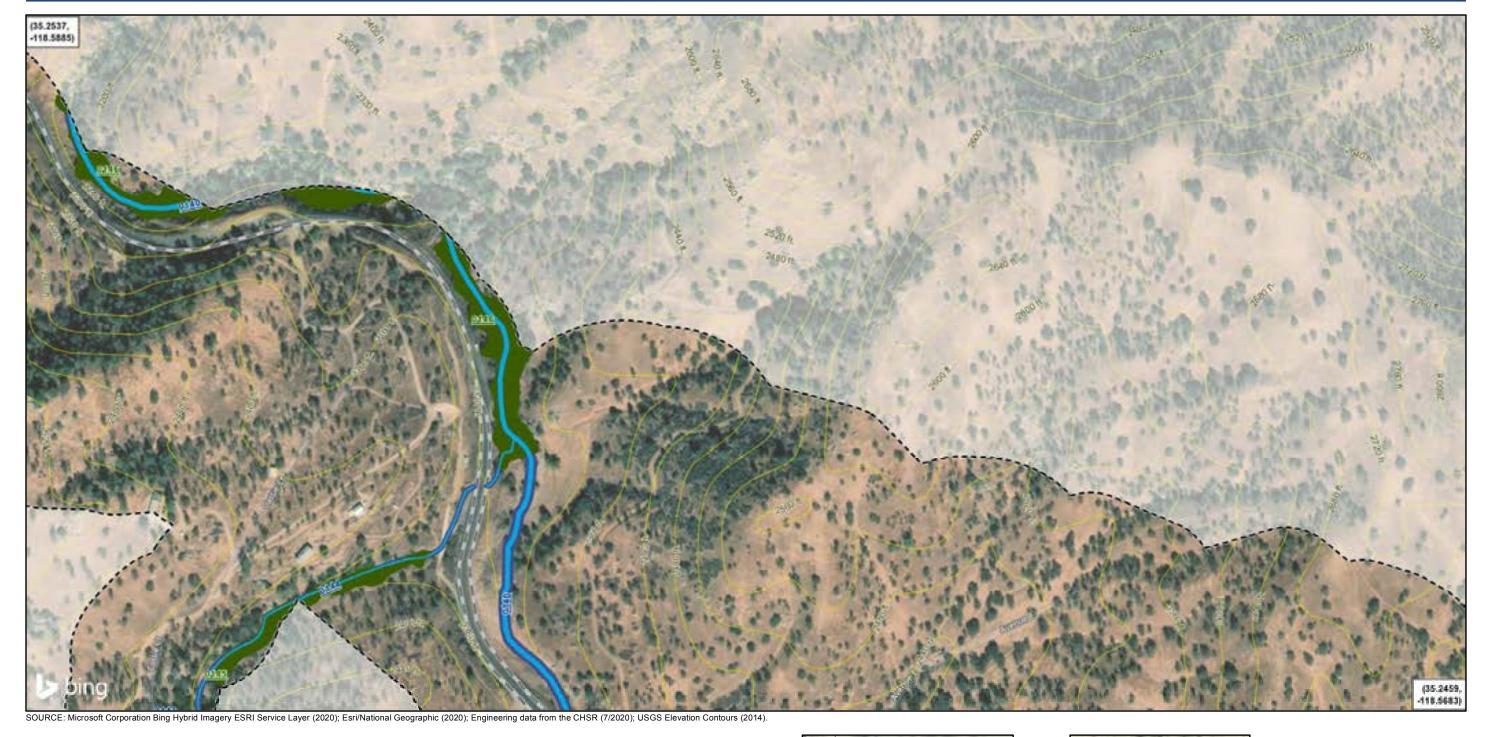
Jurisdictional Delineation to Top of Bank or Edge of Riparian

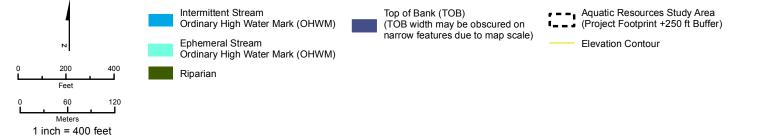
January 27, 2021

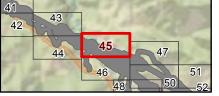
Aquatic Resources Memorandum



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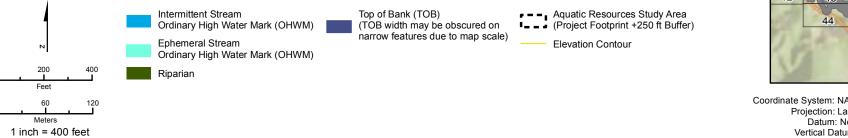
Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

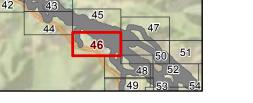


Jurisdictional Delineation to Top of Bank or Edge of Riparian









Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

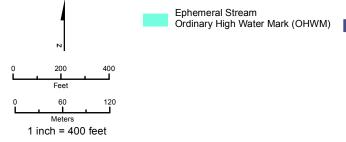


Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Top of Bank (TOB)

(TOB width may be obscured on Aquatic Resources Study Area
(Project Footprint +250 ft Buffer) narrow features due to map scale) **Elevation Contour** 

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

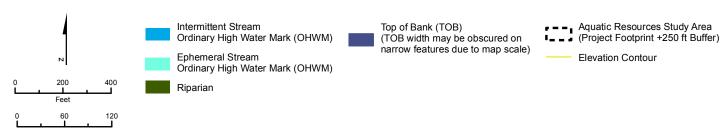


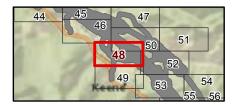
Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



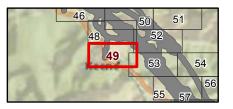
Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





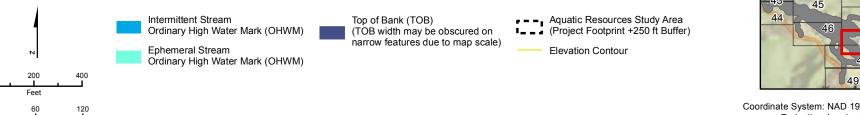
Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Top of Bank or Edge of Riparian







Sheet 50

46
50
51
48
52
49
53
54

Stem: NAD 1983 California State Plane V cition: Lambert Conic Conformal

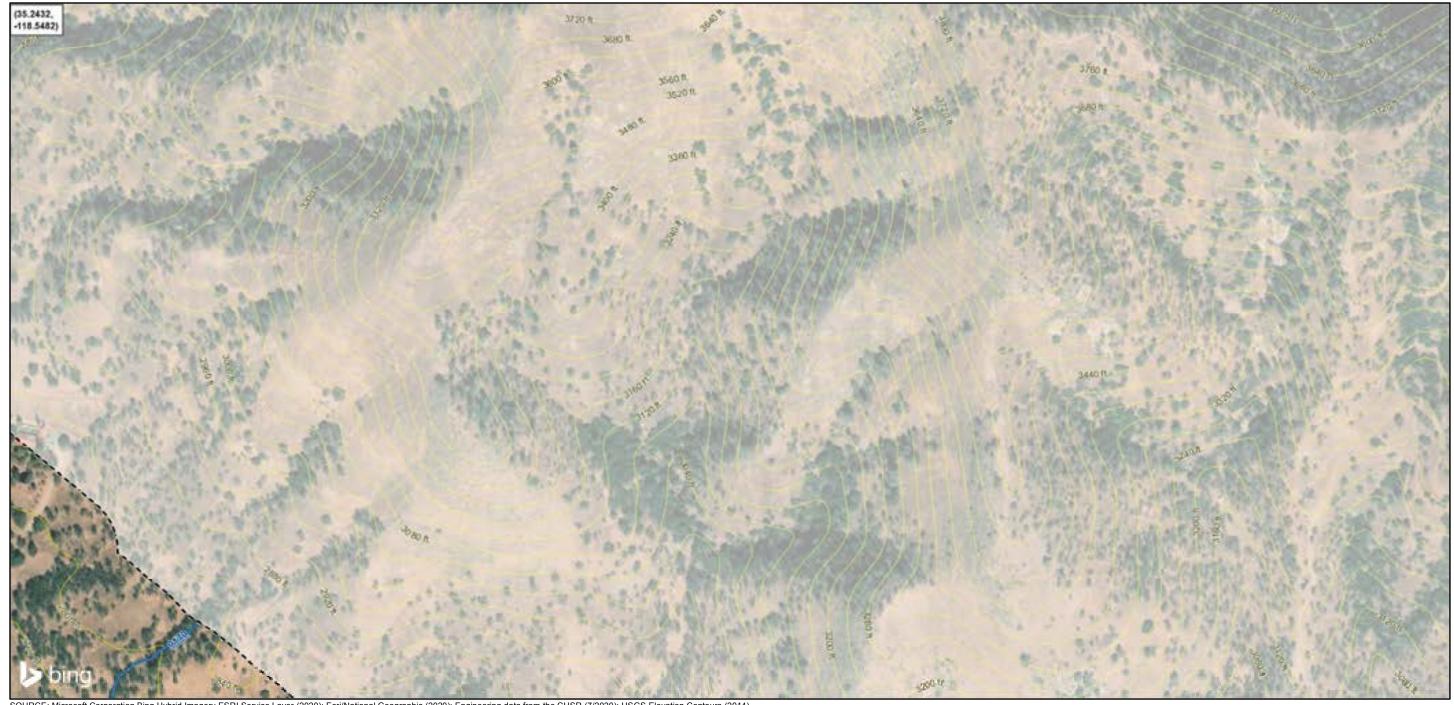
Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

Jurisdictional Delineation to Top of Bank or Edge of Riparian

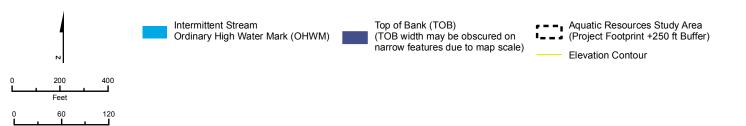
January 27, 2021

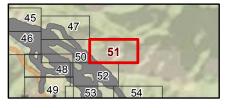


California High-Speed Rail Authority



SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



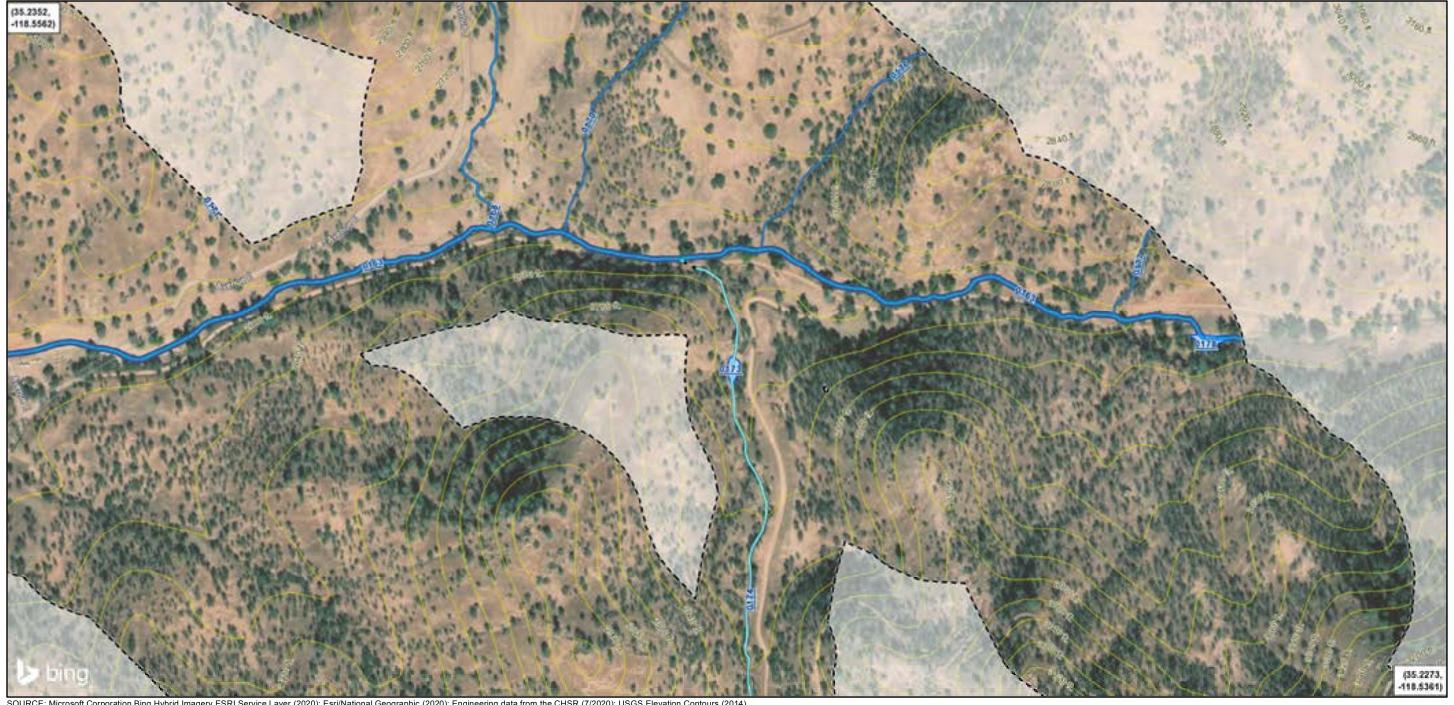


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

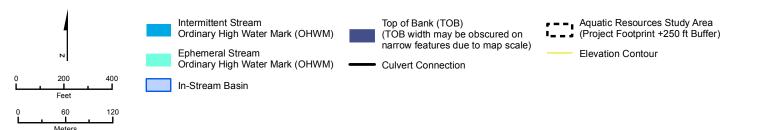


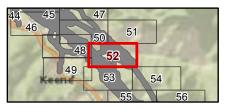
Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





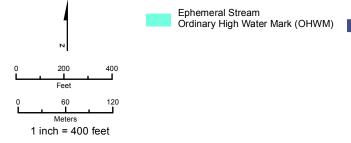
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Jurisdictional Delineation to Top of Bank or Edge of Riparian







California High-Speed Rail Authority



48 52 49 53 54 55 56 57 58

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

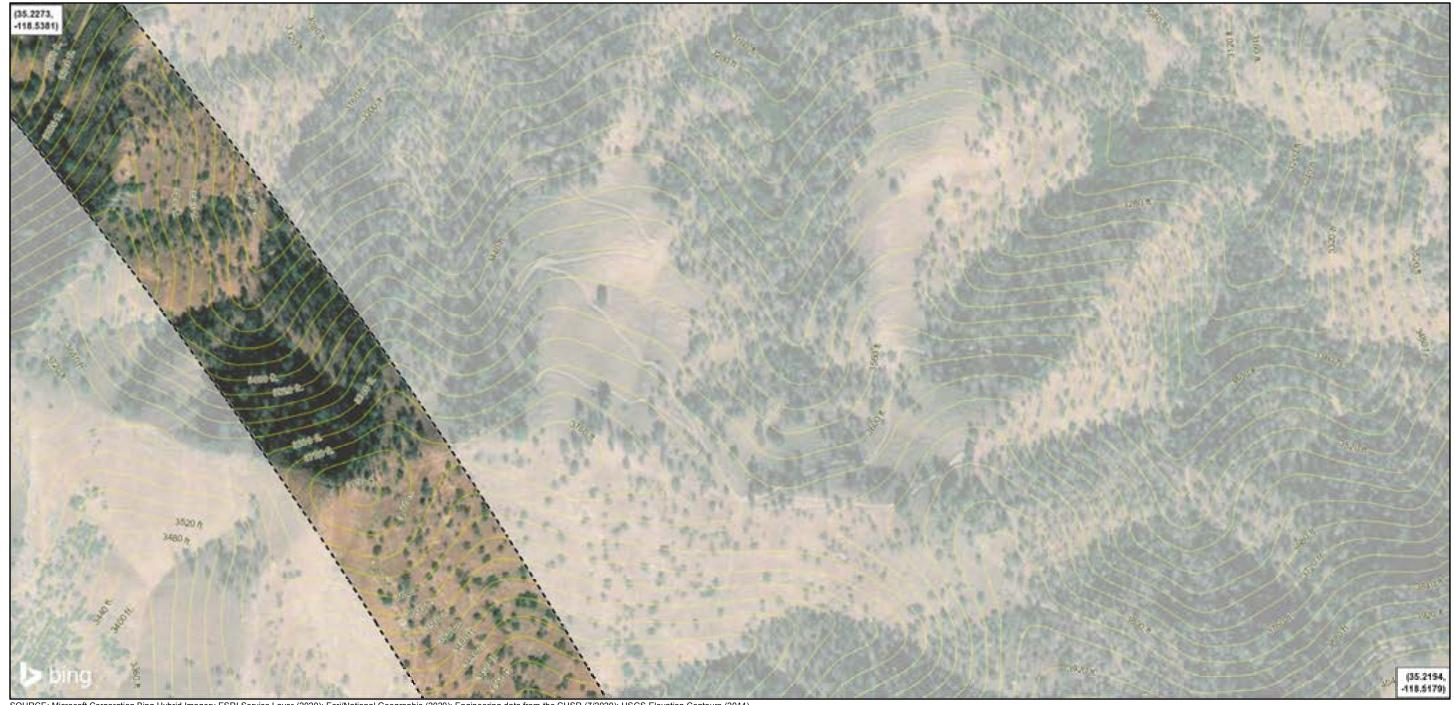


Jurisdictional Delineation to Top of Bank or Edge of Riparian

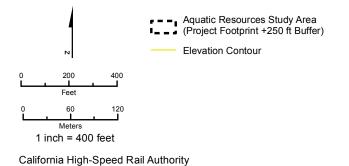
January 27, 2021

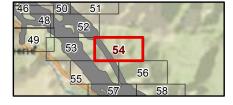
Aquatic Resources Memorandum



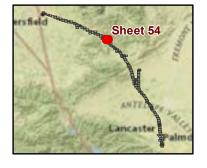


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





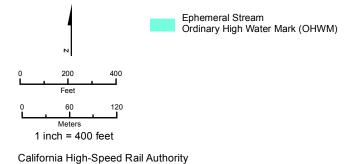
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Jurisdictional Delineation to Top of Bank or Edge of Riparian

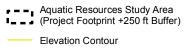






narrow features due to map scale)

Top of Bank (TOB) (TOB width may be obscured on



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



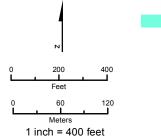
Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

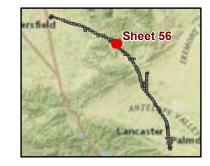
Ephemeral Stream Ordinary High Water Mark (OHWM)



Top of Bank (TOB) (TOB width may be obscured on narrow features due to map scale)



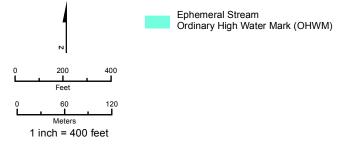
Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



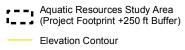
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian







Top of Bank (TOB)
(TOB width may be obscured on narrow features due to map scale)

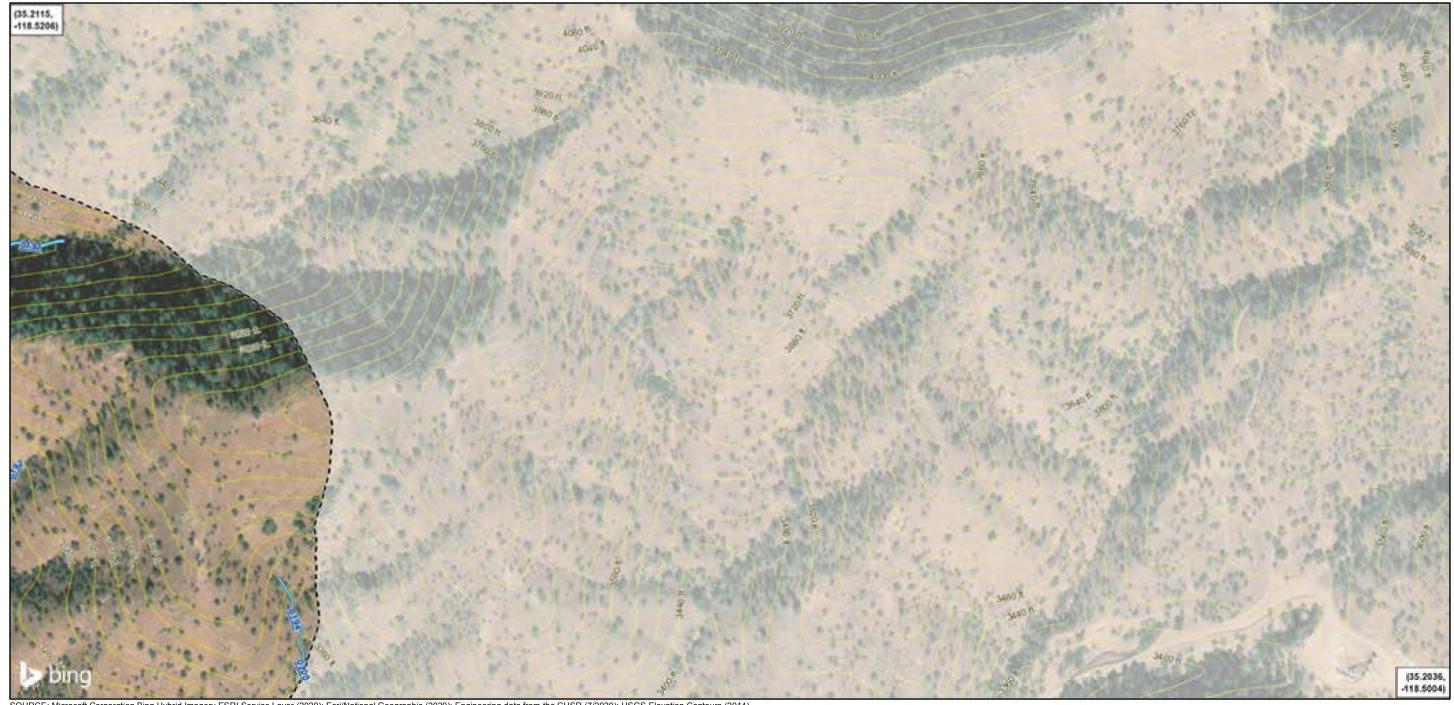


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



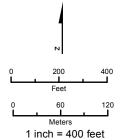
Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

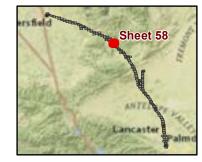
Ephemeral Stream
Ordinary High Water Mark (OHWM)



Top of Bank (TOB) (TOB width may be obscured on narrow features due to map scale)



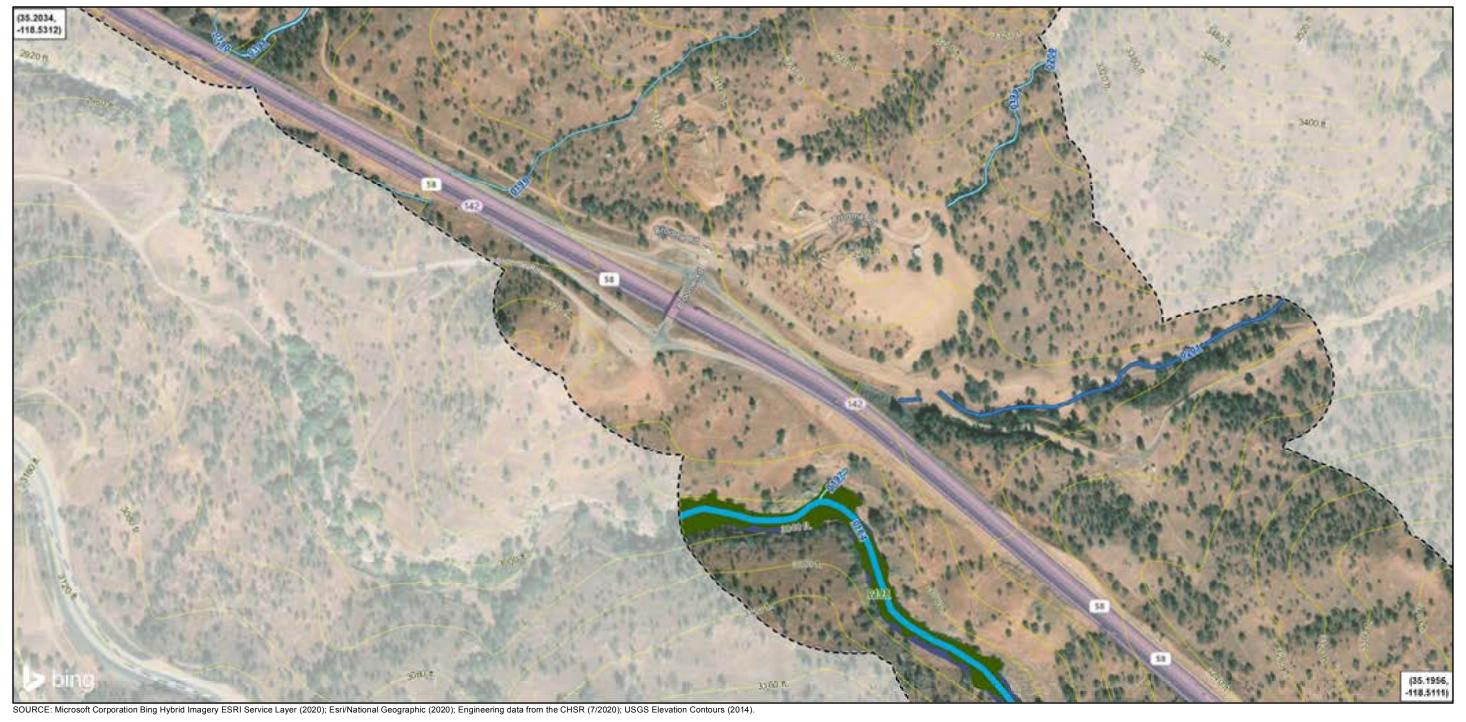
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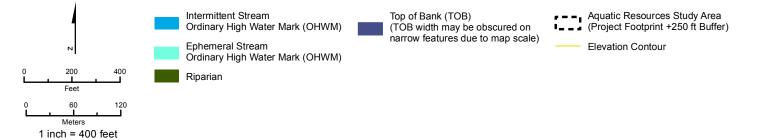


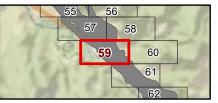
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian



California High-Speed Rail Authority







Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

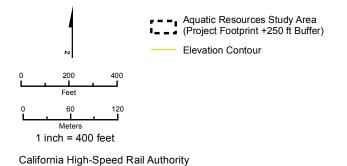


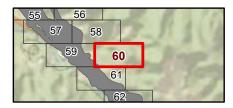
Jurisdictional Delineation to Top of Bank or Edge of Riparian



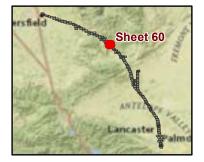


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





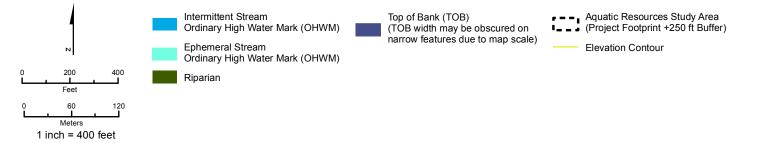
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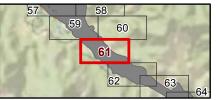


Jurisdictional Delineation to Top of Bank or Edge of Riparian









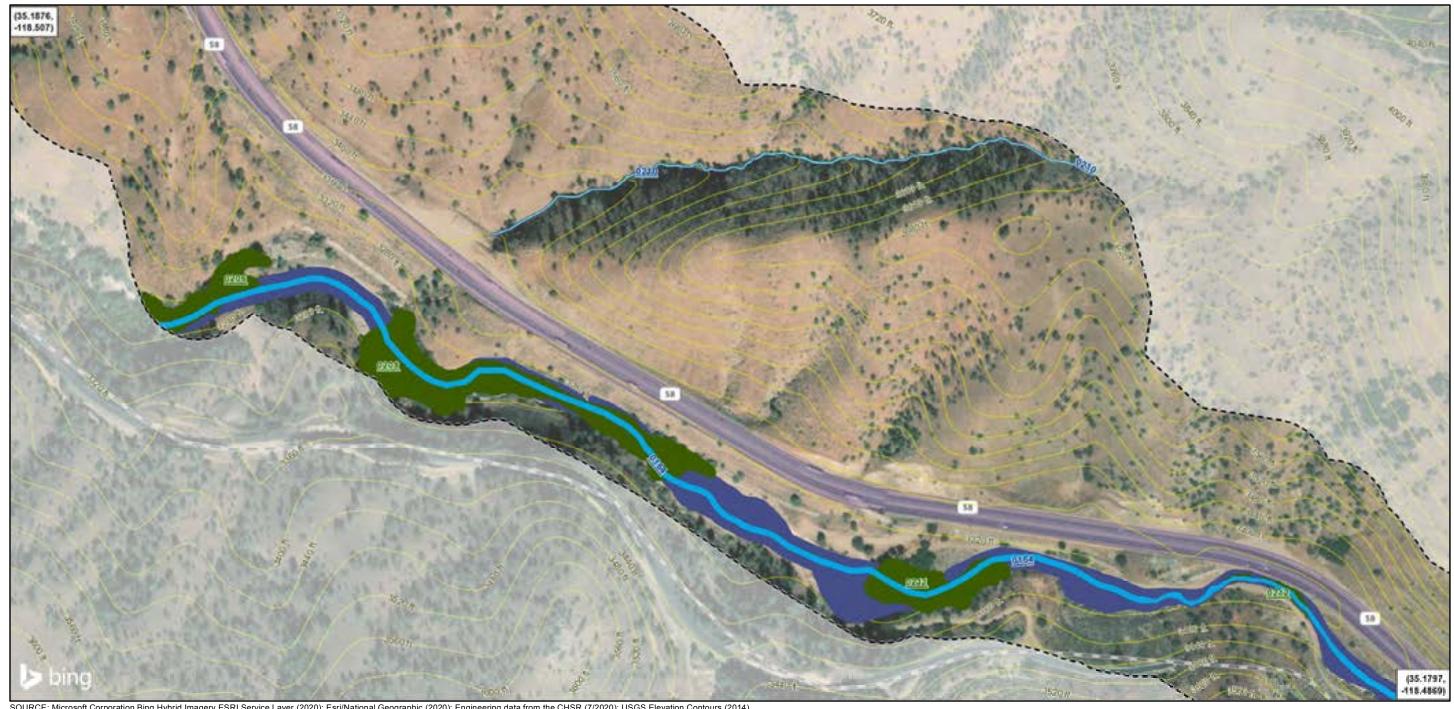
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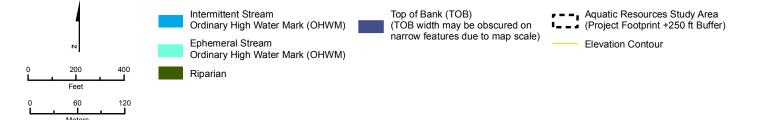
Jurisdictional Delineation to Top of Bank or Edge of Riparian

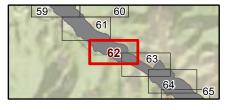


California High-Speed Rail Authority



SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



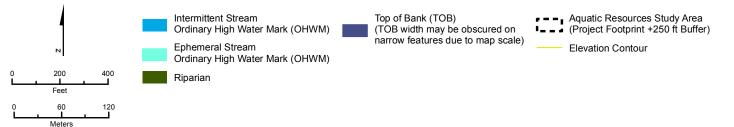
Jurisdictional Delineation to Top of Bank or Edge of Riparian

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61 62 63 64 65 66

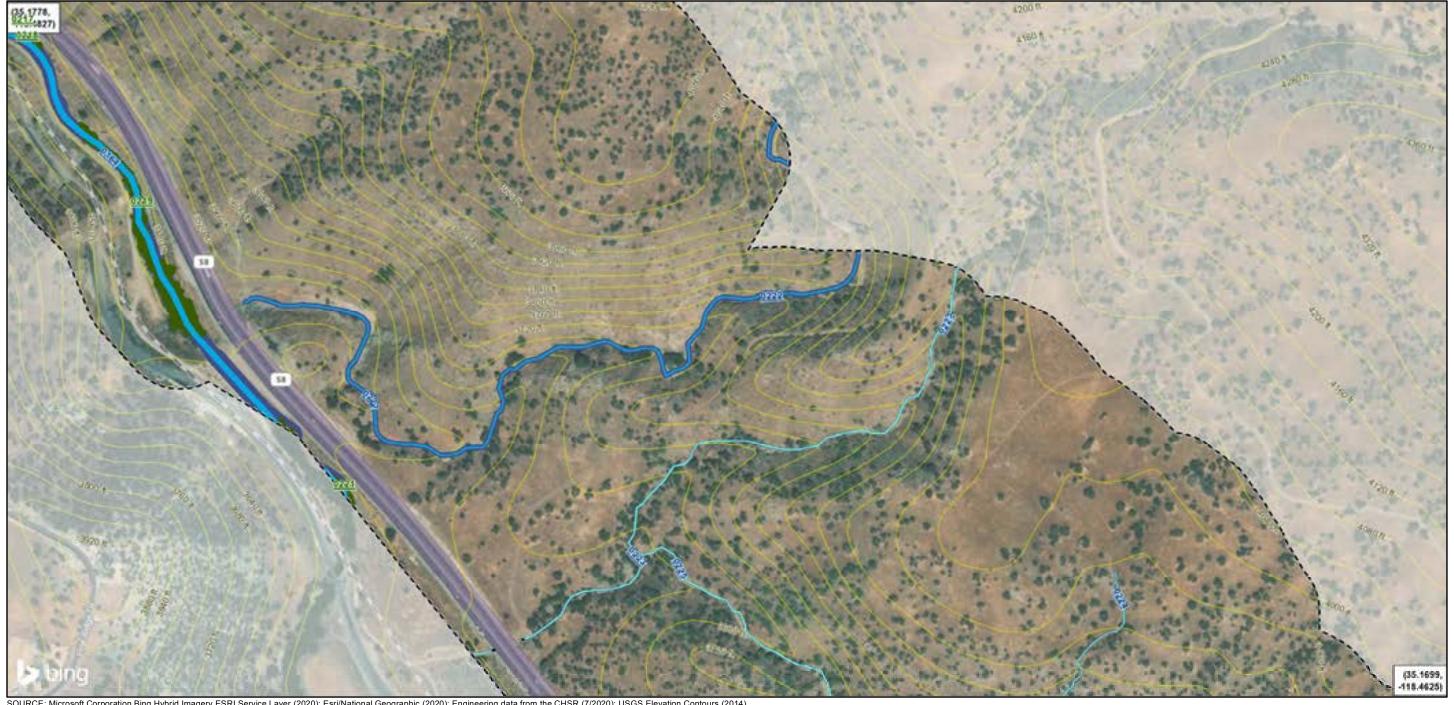
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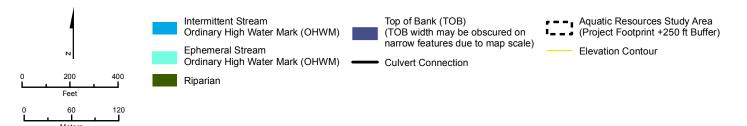
Jurisdictional Delineation to Top of Bank or Edge of Riparian

January 27, 2021





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



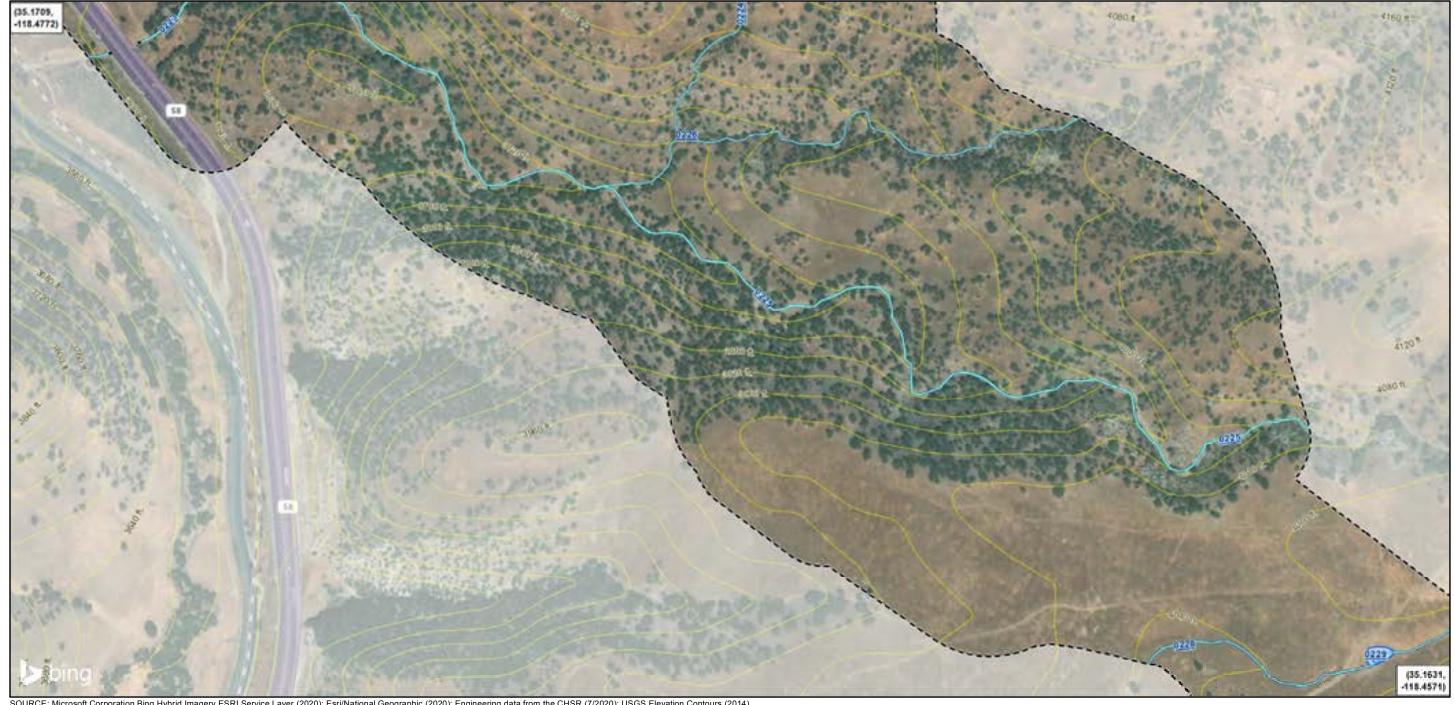
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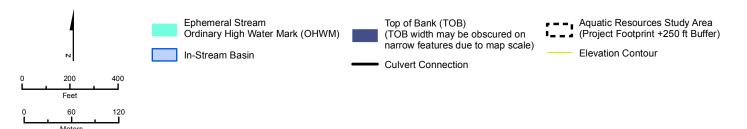
Jurisdictional Delineation to Top of Bank or Edge of Riparian

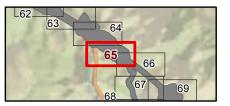


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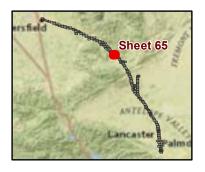


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



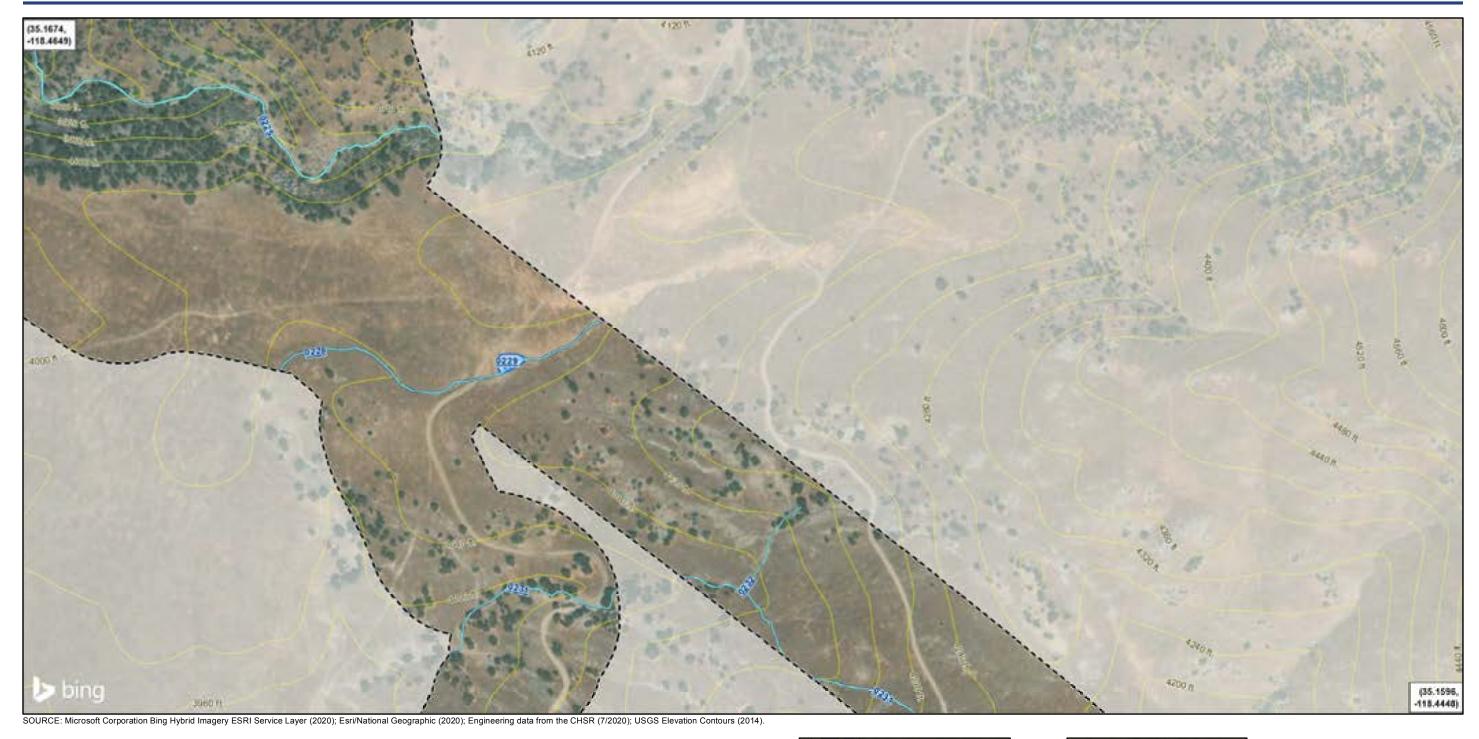


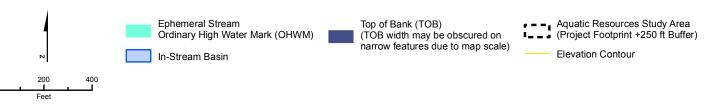
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Jurisdictional Delineation to Top of Bank or Edge of Riparian







63 64 65 66 67 69 70

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



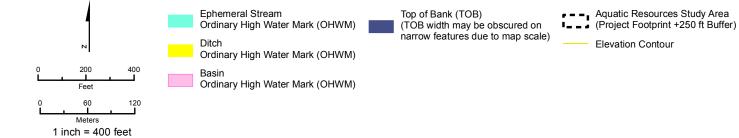
Jurisdictional Delineation to Top of Bank or Edge of Riparian

January 27, 2021

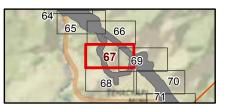




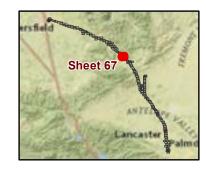
SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



California High-Speed Rail Authority



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

January 27, 2021

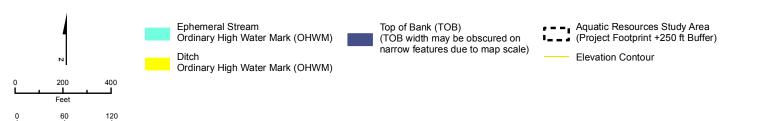
Sheet 67 of 175 Aquatic Resources Memorandum

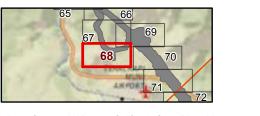


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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Top of Bank or Edge of Riparian

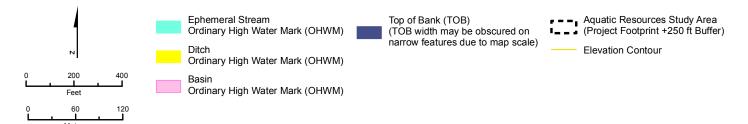
January 27, 2021

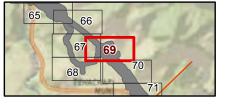
Aquatic Resources Memorandum



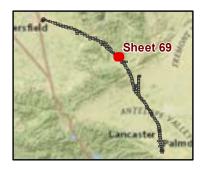


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

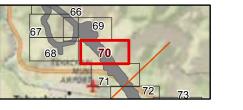


California High-Speed Rail Authority



SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





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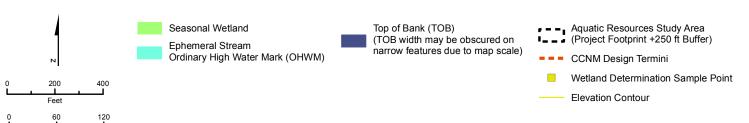


**Jurisdictional Delineation** to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Tehachapi

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

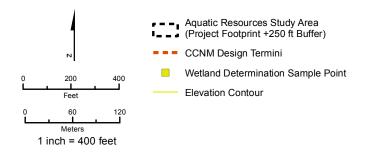


**Jurisdictional Delineation** to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



68 70 71 72 73 74 75 76 78

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



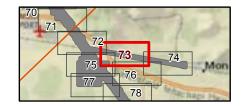
Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

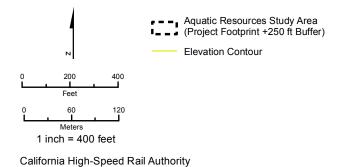
California High-Speed Rail Authority

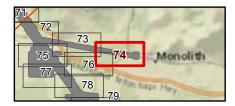
Aquatic Resources Memorandum



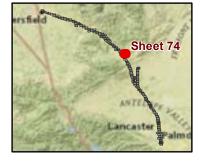


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





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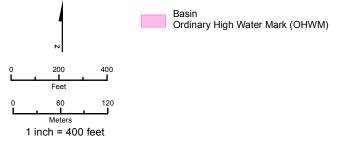
Jurisdictional Delineation to Top of Bank or Edge of Riparian





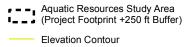
SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Top of Bank (TOB)

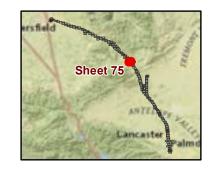


California High-Speed Rail Authority

(TOB width may be obscured on narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

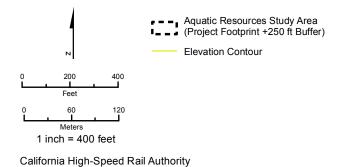


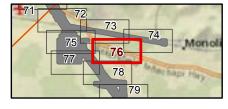
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



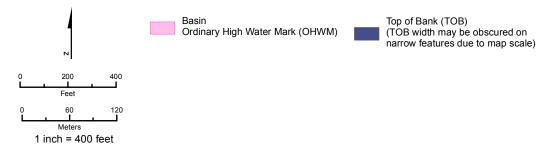
Jurisdictional Delineation to Top of Bank or Edge of Riparian

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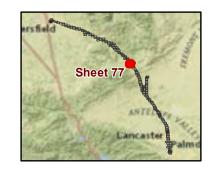


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Aquatic Resources Study Area
(Project Footprint +250 ft Buffer) **Elevation Contour** 

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



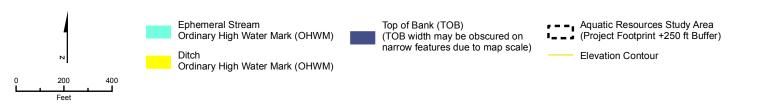
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

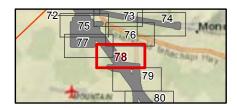


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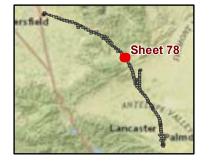


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





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Jurisdictional Delineation to Top of Bank or Edge of Riparian

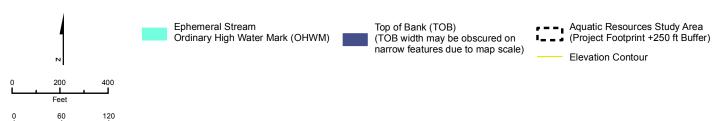
January 27, 2021

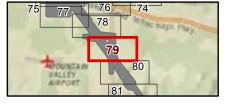
Aquatic Resources Memorandum





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



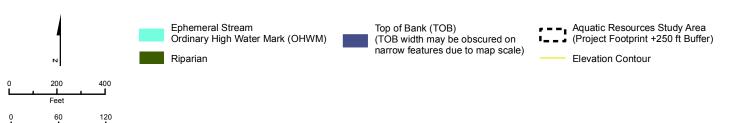
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

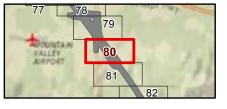


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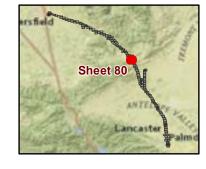


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



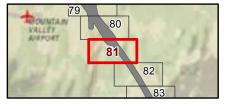
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian



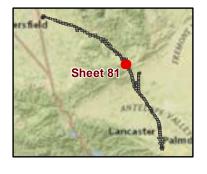


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

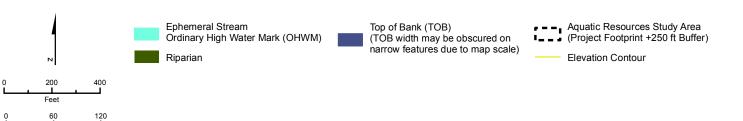


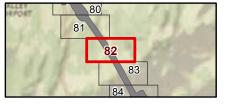
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian



California High-Speed Rail Authority







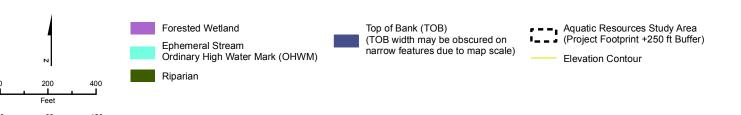
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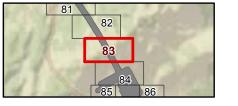


Jurisdictional Delineation to Top of Bank or Edge of Riparian









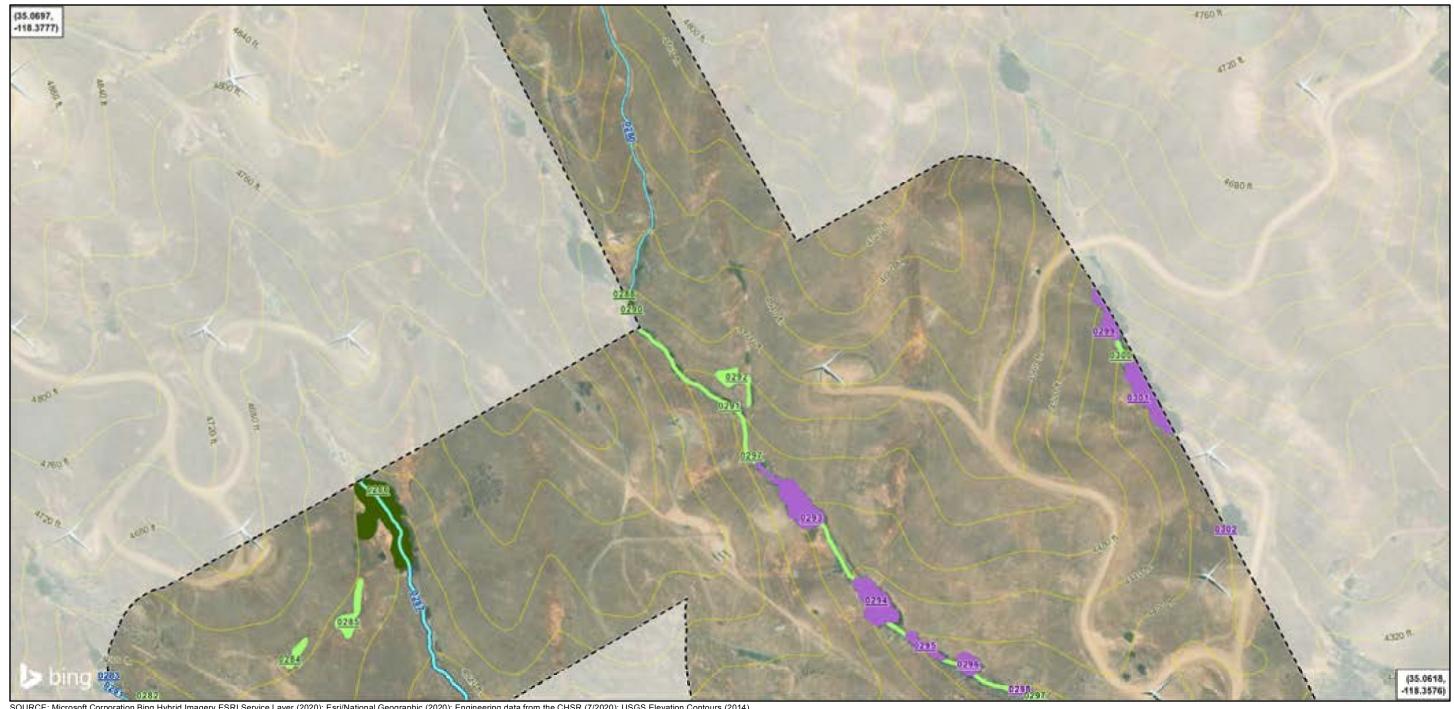
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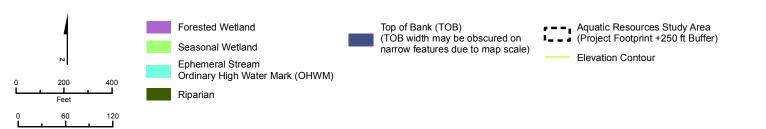
Jurisdictional Delineation to Top of Bank or Edge of Riparian

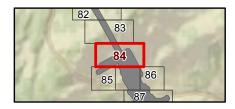


California High-Speed Rail Authority

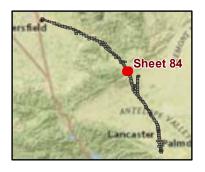


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



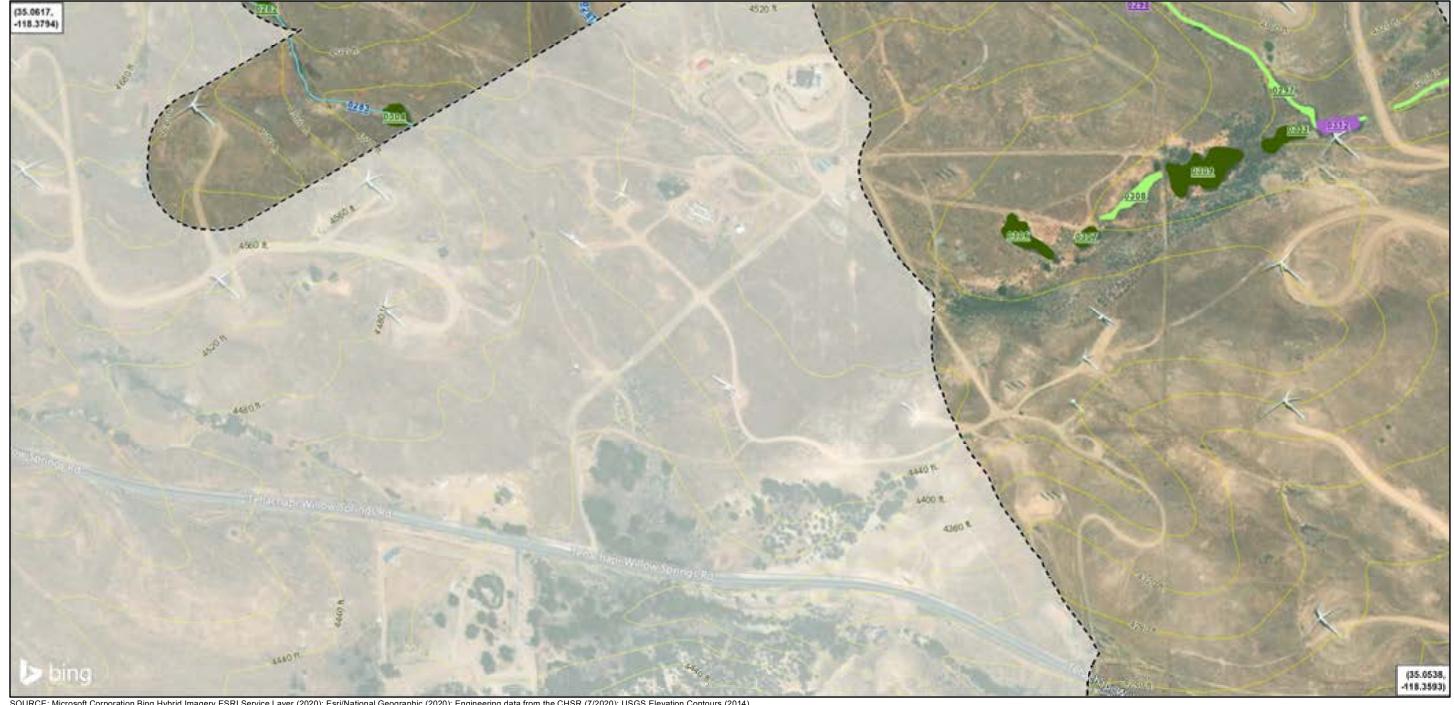


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

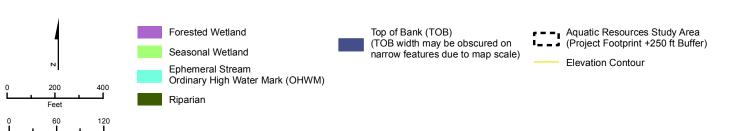


**Jurisdictional Delineation** to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

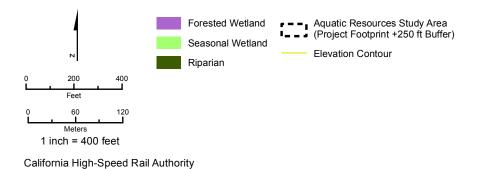


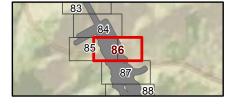
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





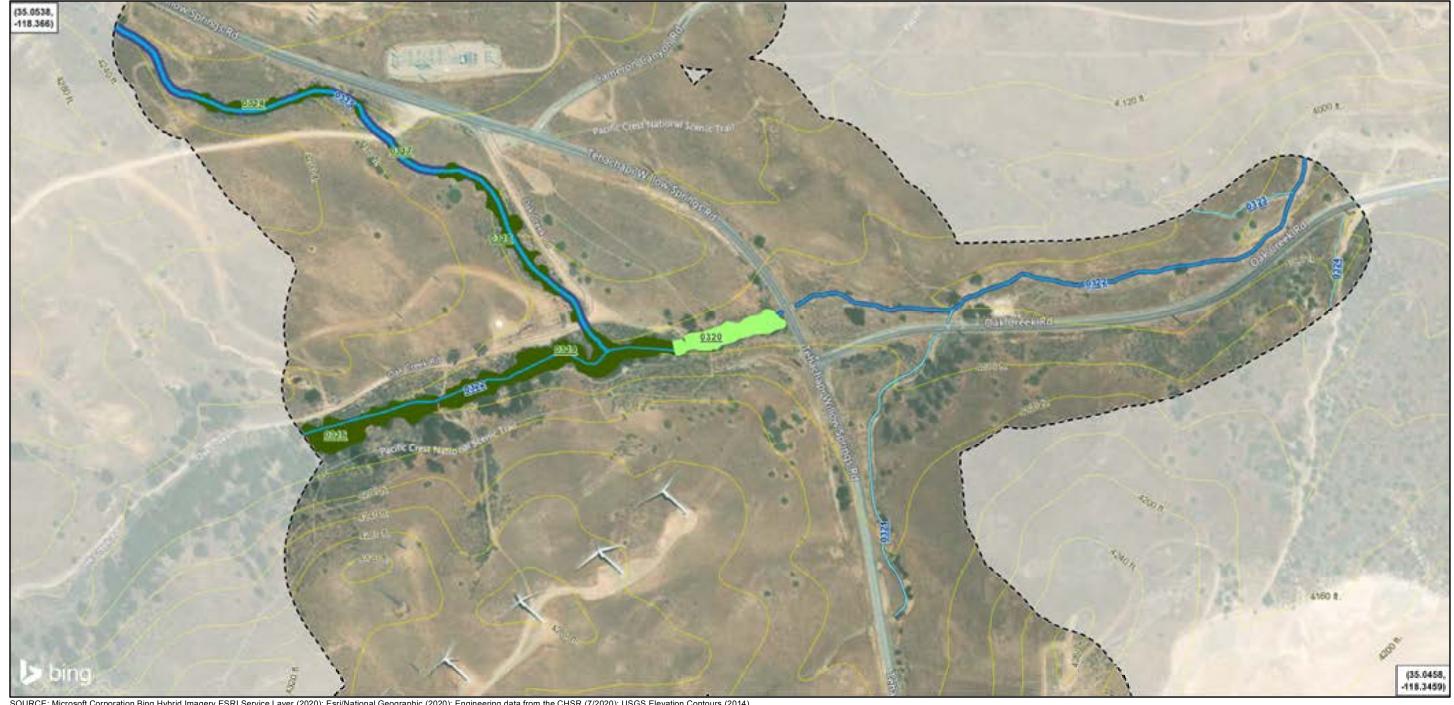
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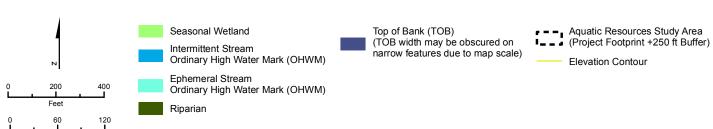
Jurisdictional Delineation to Top of Bank or Edge of Riparian

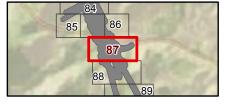
Aquatic Resources Memorandum





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

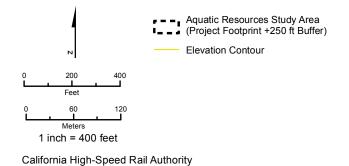


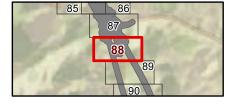
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian



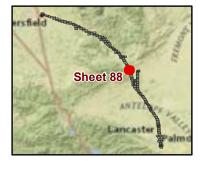


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



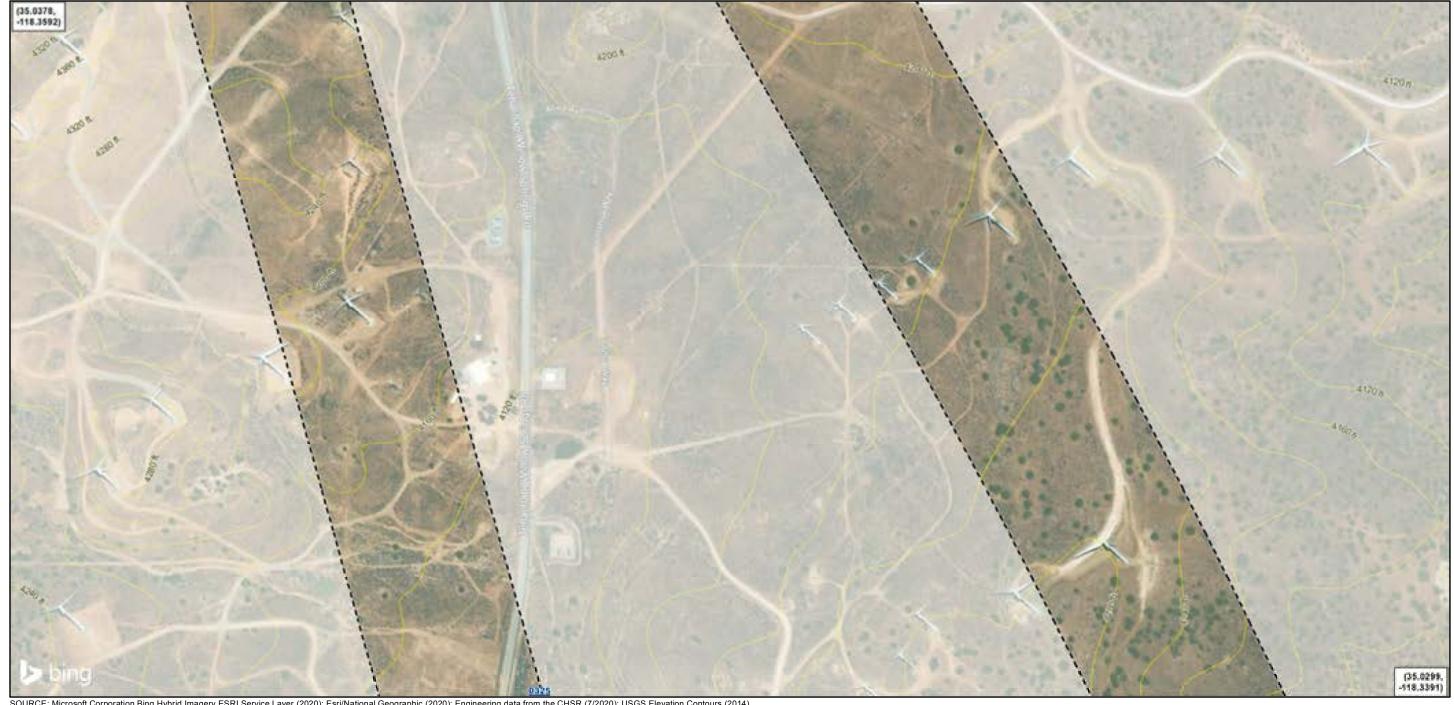


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

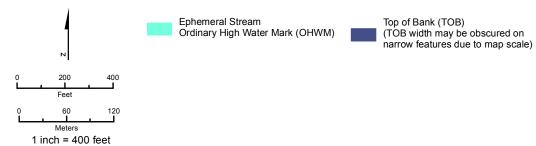


**Jurisdictional Delineation** to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Aquatic Resources Study Area
(Project Footprint +250 ft Buffer) Elevation Contour

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



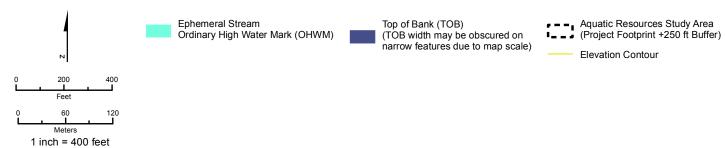
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

California High-Speed Rail Authority

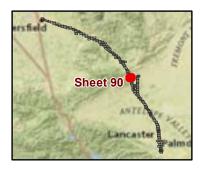




SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



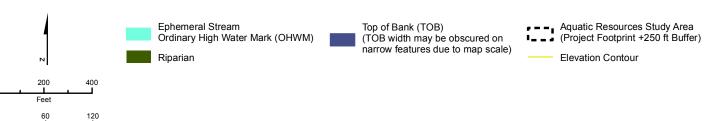
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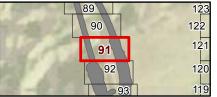


**Jurisdictional Delineation** to Top of Bank or Edge of Riparian









Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

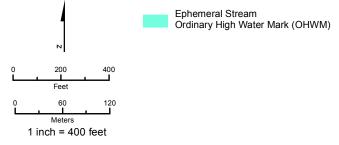


Jurisdictional Delineation to Top of Bank or Edge of Riparian



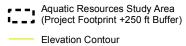


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Top of Bank (TOB)

(TOB width may be obscured on narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Top of Bank or Edge of Riparian

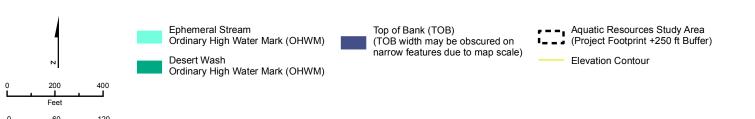


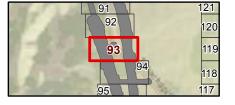
1 inch = 400 feet

California High-Speed Rail Authority



SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



California High-Speed Rail Authority



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

January 27, 2021

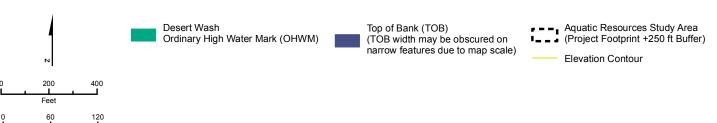
Sheet 94 of 175 Aquatic Resources Memorandum

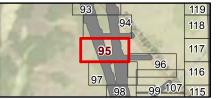


1 inch = 400 feet

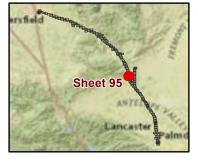
California High-Speed Rail Authority







Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

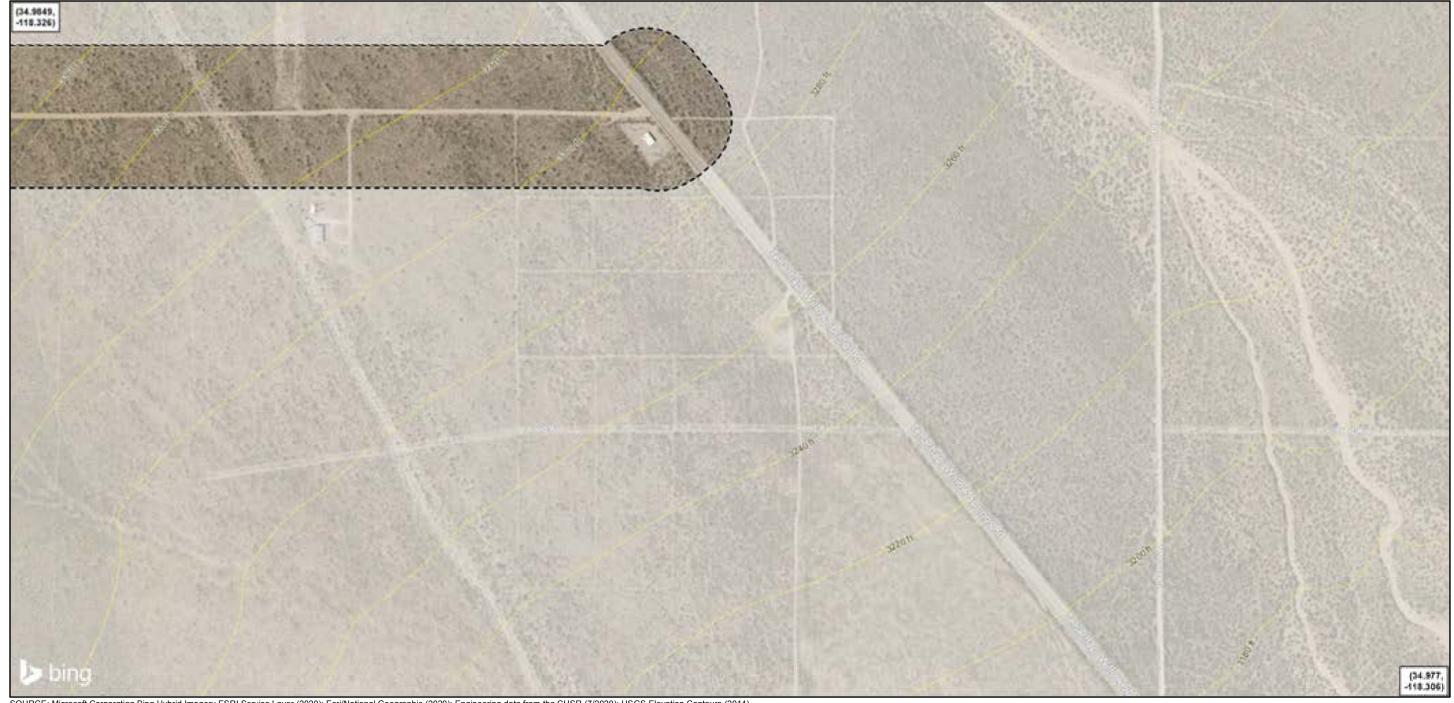


Jurisdictional Delineation to Top of Bank or Edge of Riparian

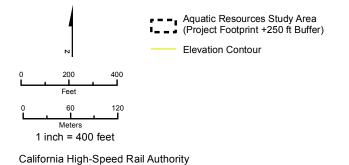
January 27, 2021

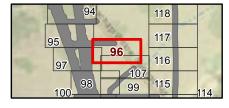
Aquatic Resources Memorandum





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



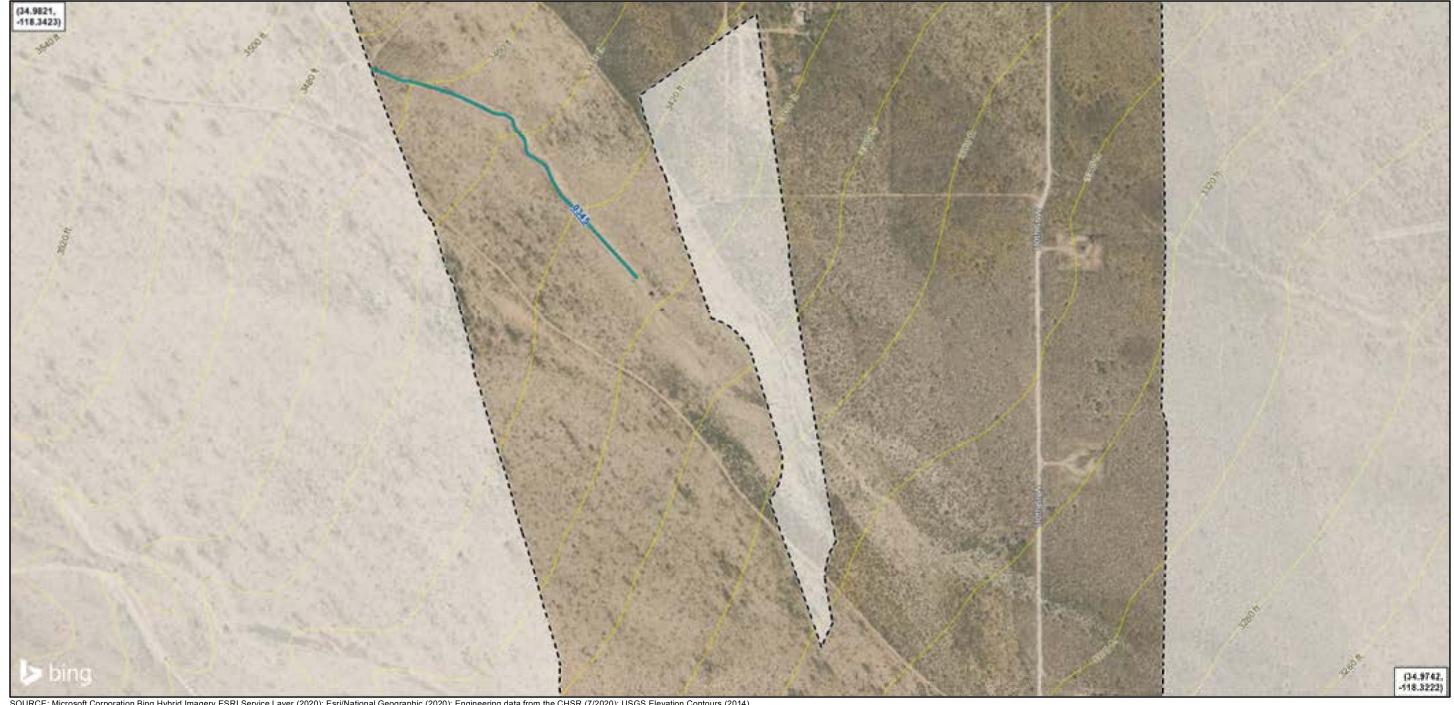


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

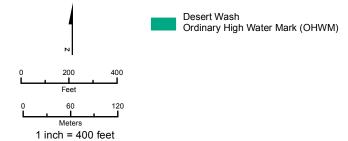


Jurisdictional Delineation to Top of Bank or Edge of Riparian



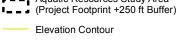


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



California High-Speed Rail Authority

Aquatic Resources Study Area
(Project Footprint +250 ft Buffer)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



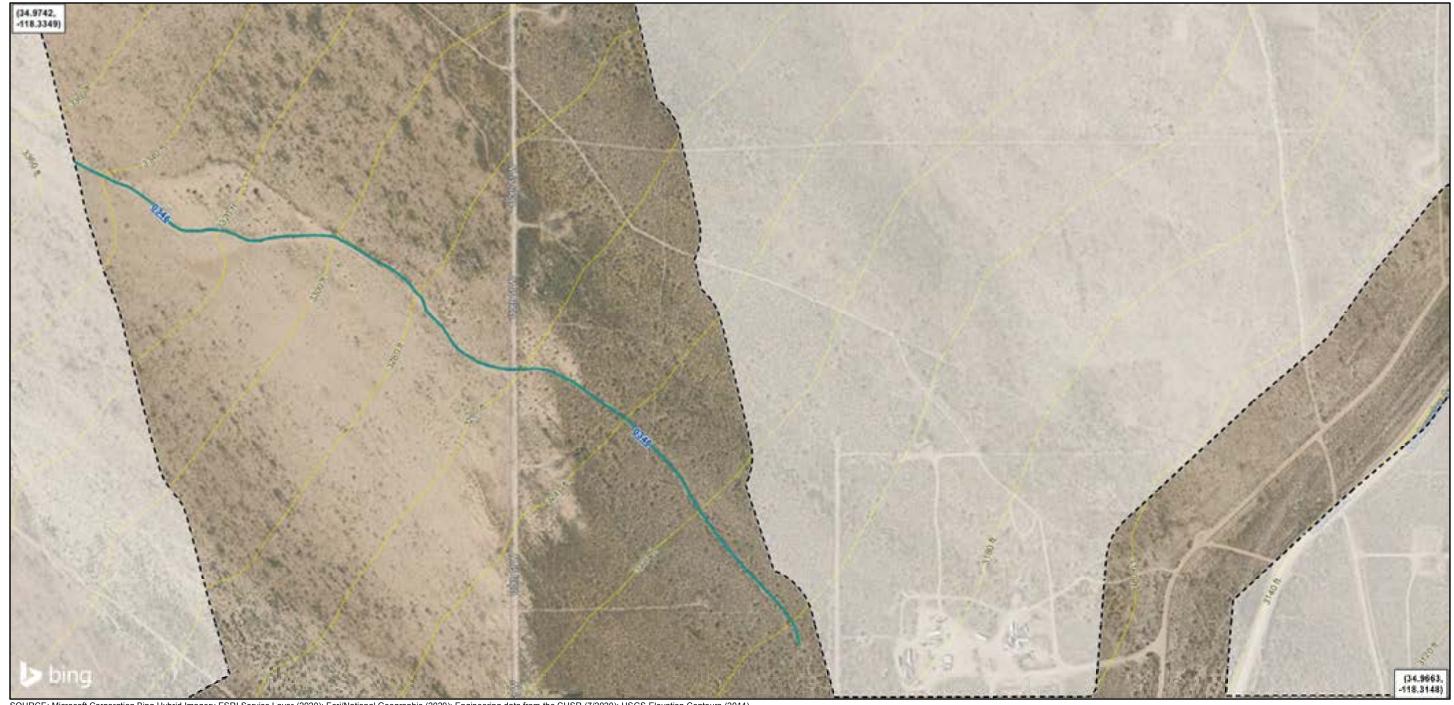
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

January 27, 2021

Top of Bank (TOB) (TOB width may be obscured on

narrow features due to map scale)



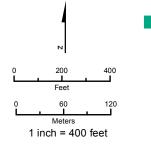


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Top of Bank (TOB) (TOB width may be obscured on

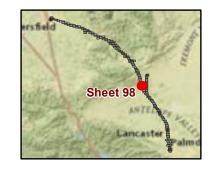
narrow features due to map scale)

Desert Wash Ordinary High Water Mark (OHWM)



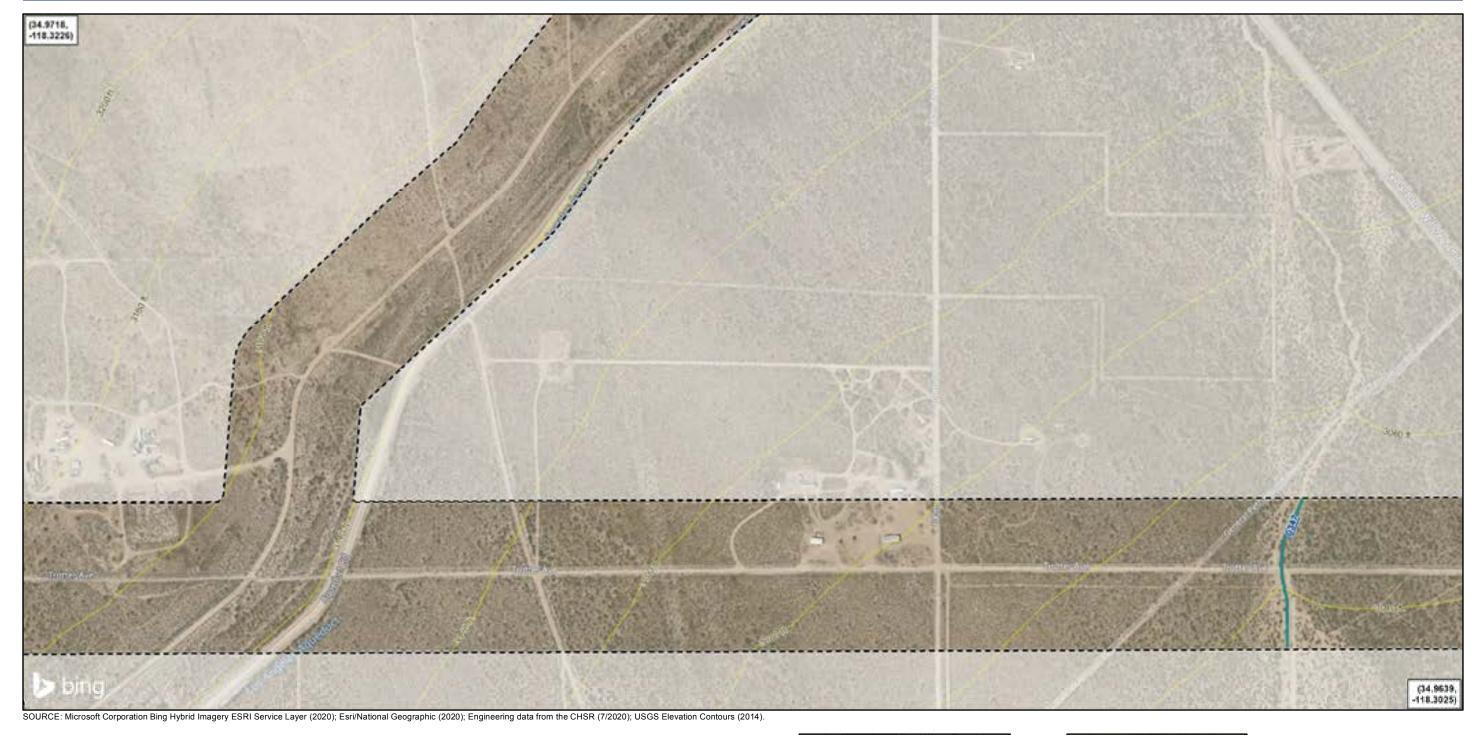
Aquatic Resources Study Area
(Project Footprint +250 ft Buffer) Elevation Contour

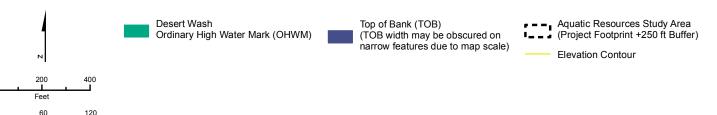
Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian







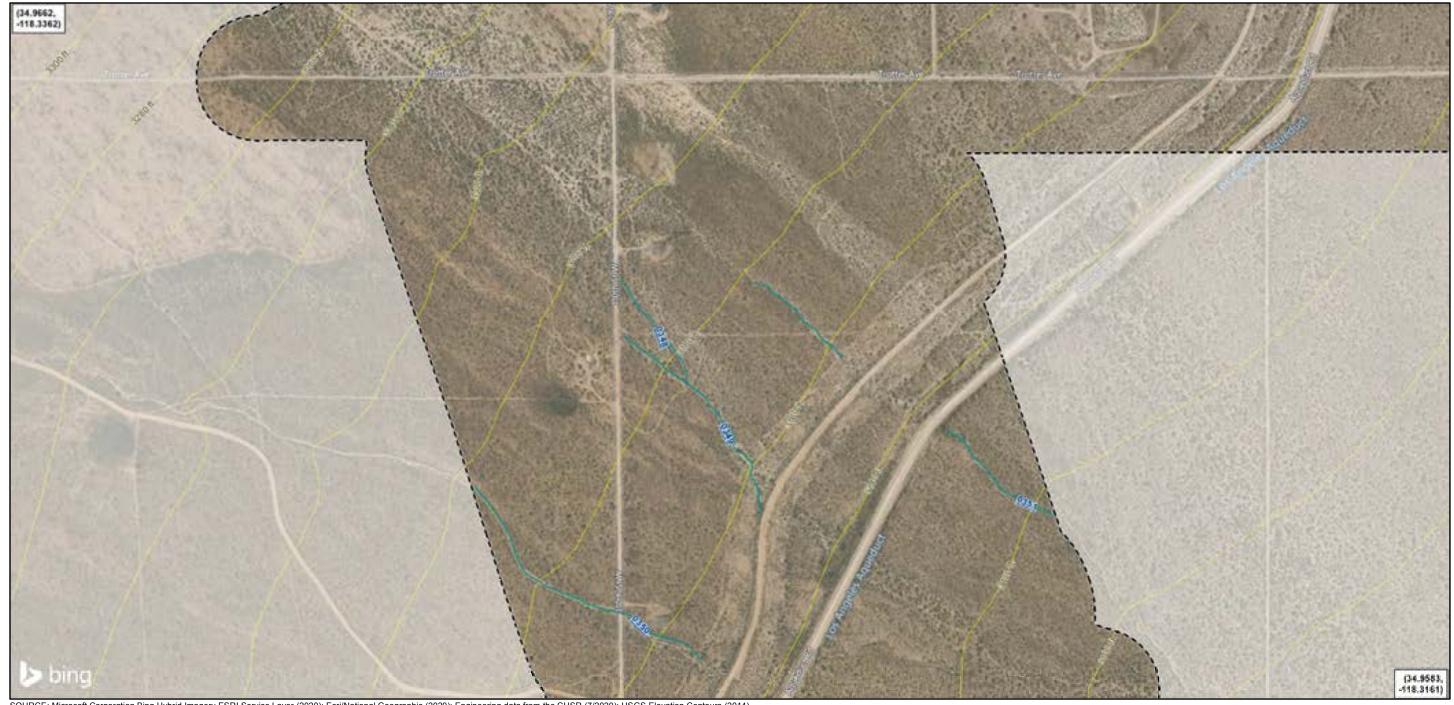
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Jurisdictional Delineation to Top of Bank or Edge of Riparian

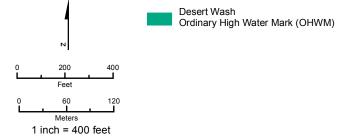
1 inch = 400 feet





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

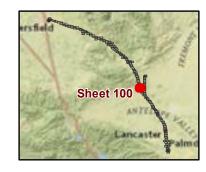
Top of Bank (TOB) (TOB width may be obscured on



Aquatic Resources Study Area
(Project Footprint +250 ft Buffer) narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

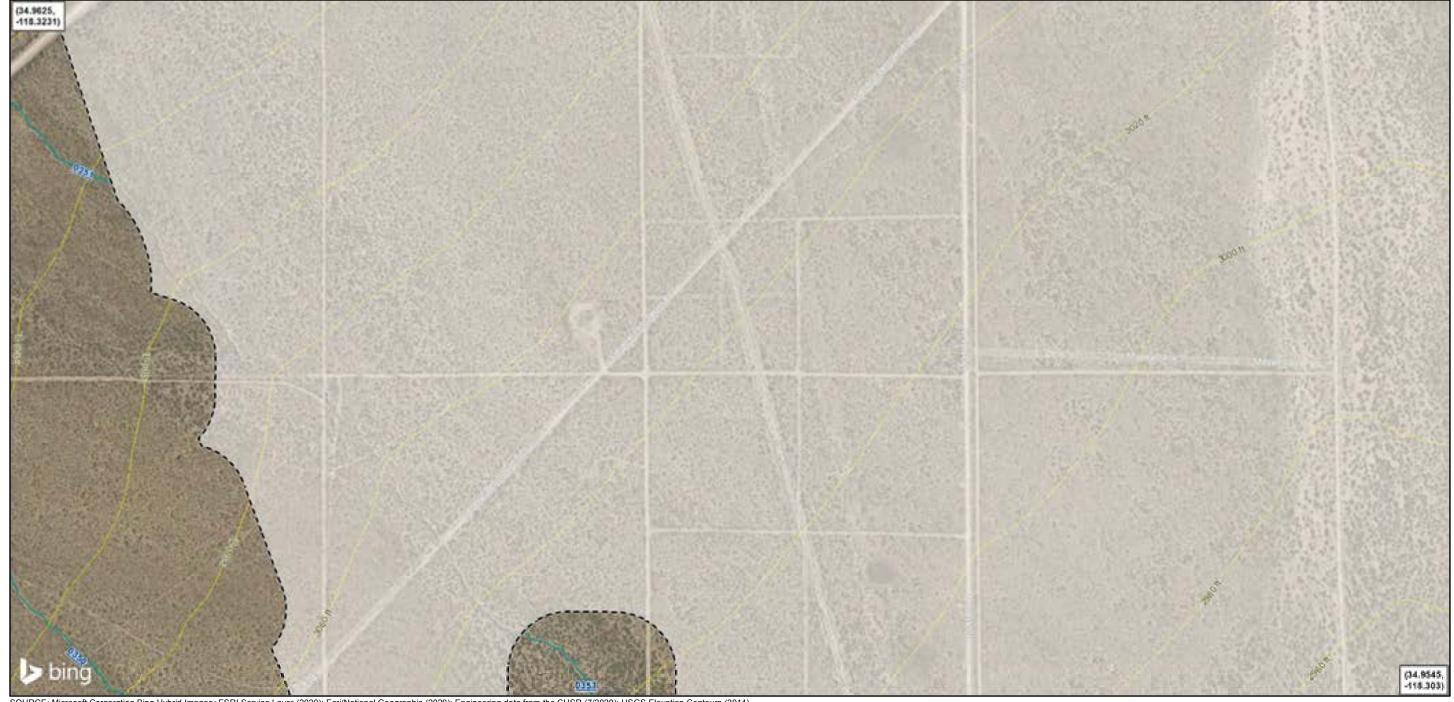
January 27, 2021

California High-Speed Rail Authority

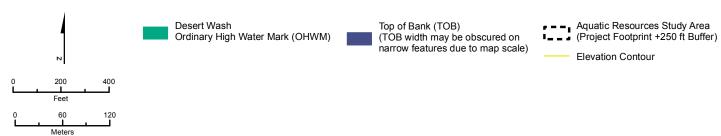


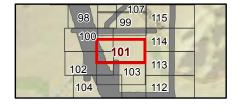
1 inch = 400 feet

California High-Speed Rail Authority

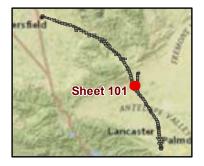


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

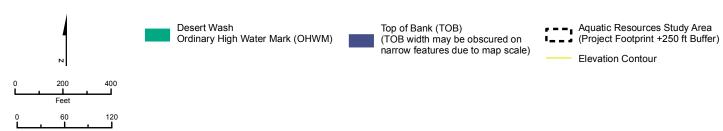


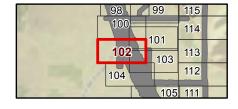
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

January 27, 2021

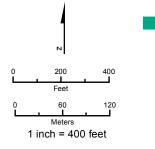
1 inch = 400 feet



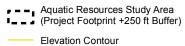


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

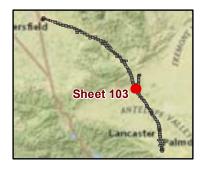
Ordinary High Water Mark (OHWM)



Top of Bank (TOB) (TOB width may be obscured on narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

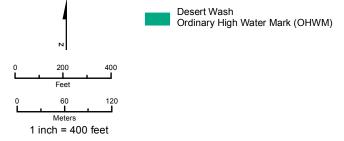


**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

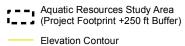




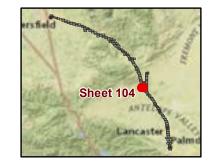
SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Top of Bank (TOB) (TOB width may be obscured on narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

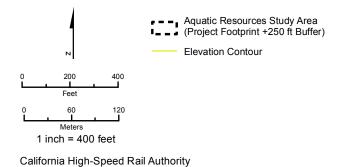


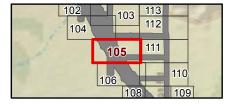
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian



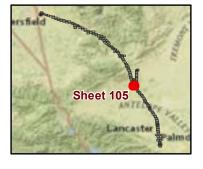


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





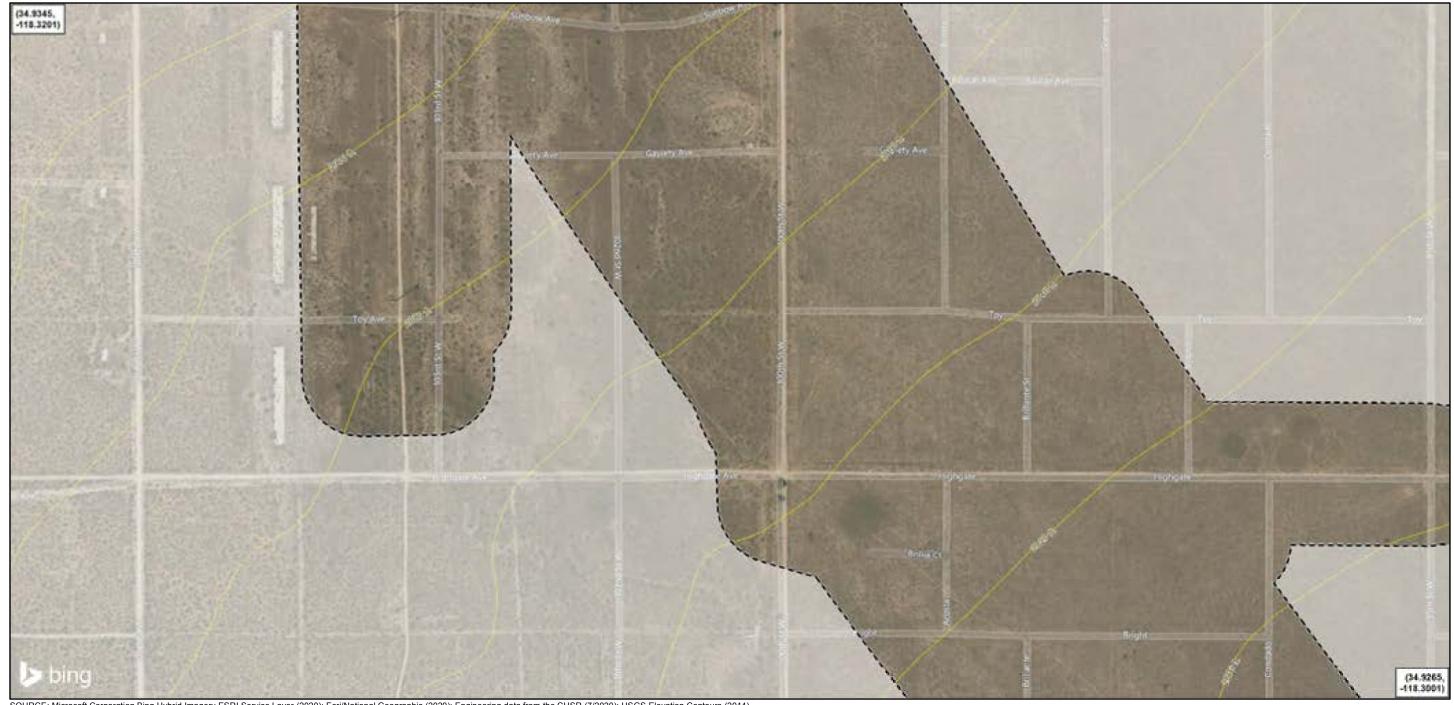
Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



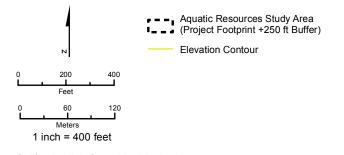
Jurisdictional Delineation to Top of Bank or Edge of Riparian

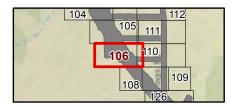
Aquatic Resources Memorandum



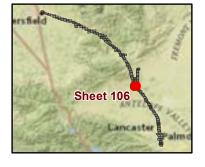


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

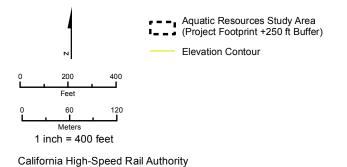


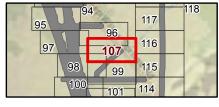
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

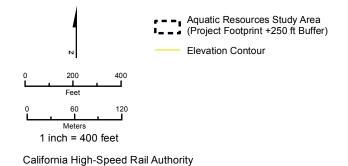


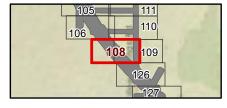
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian



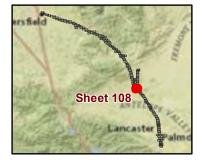


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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

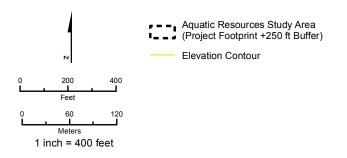


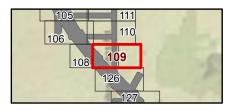
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian



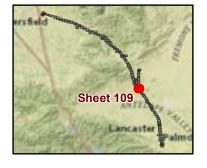


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





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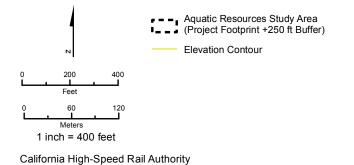


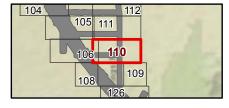
Jurisdictional Delineation to Top of Bank or Edge of Riparian



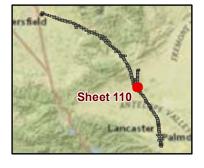


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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

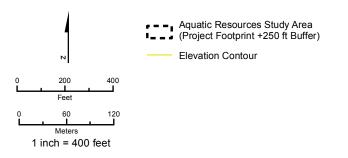


Jurisdictional Delineation to Top of Bank or Edge of Riparian





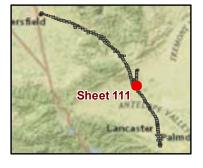
SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



California High-Speed Rail Authority

102 103 113 112 105 111 106 110 110 110

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Top of Bank or Edge of Riparian

January 27, 2021

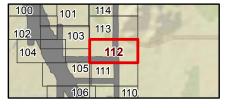
Aquatic Resources Memorandum



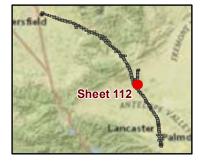


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

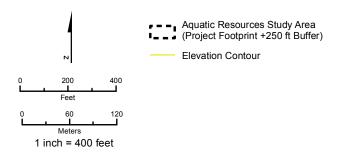
California High-Speed Rail Authority

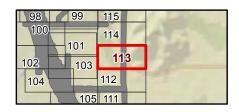
1 inch = 400 feet



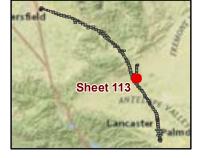


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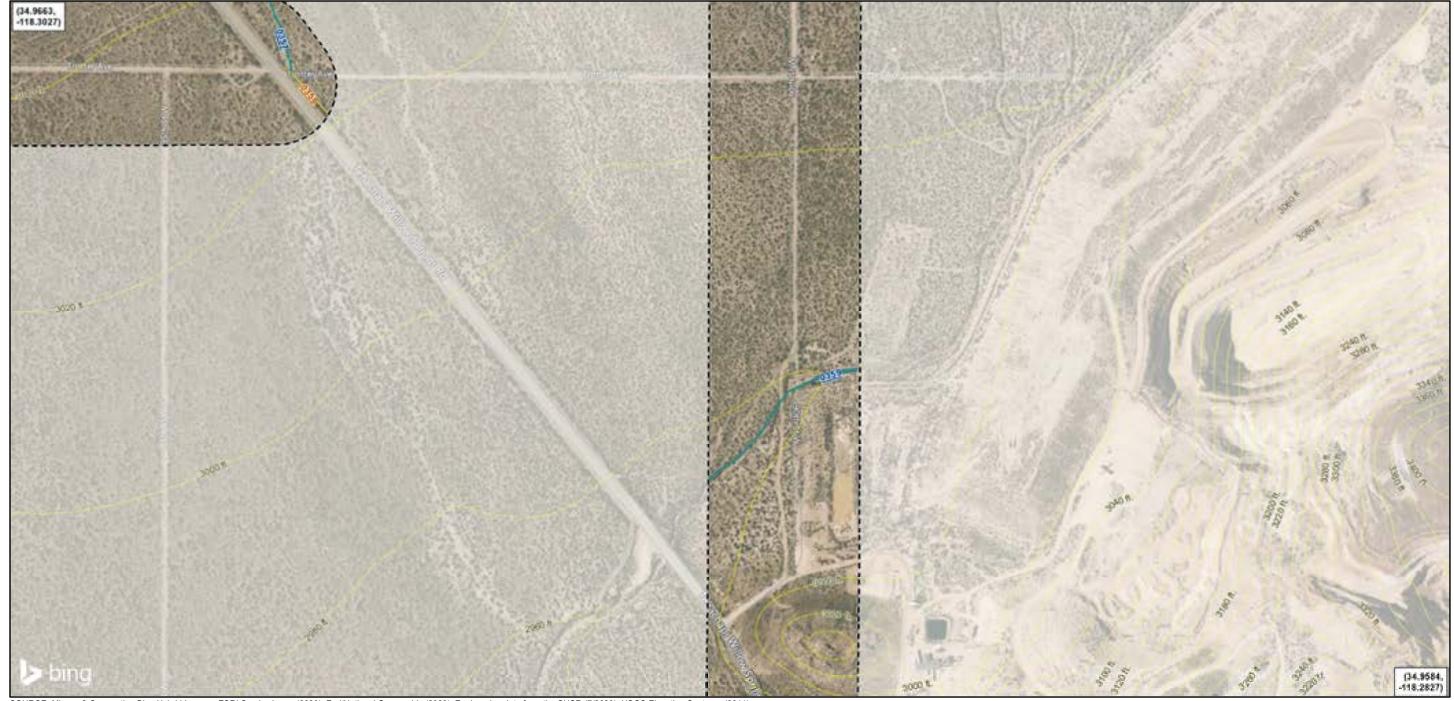


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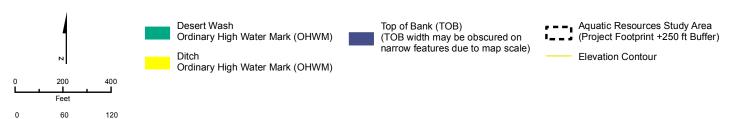


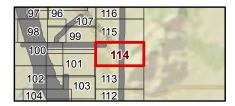
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian



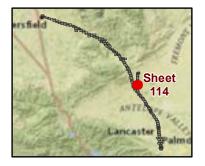


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



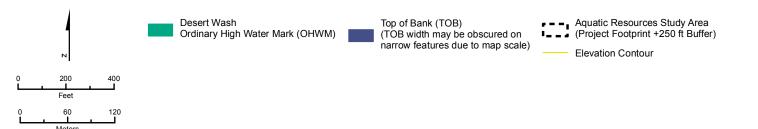
Jurisdictional Delineation to Top of Bank or Edge of Riparian

1 inch = 400 feet

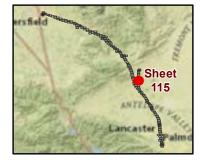




SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



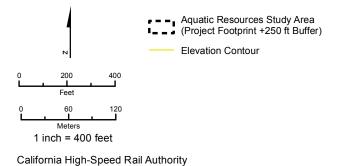
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

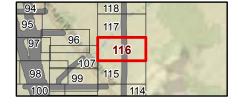
1 inch = 400 feet



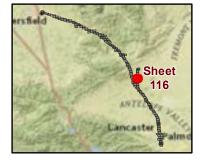


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



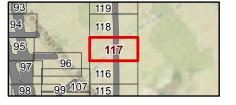
Jurisdictional Delineation to Top of Bank or Edge of Riparian



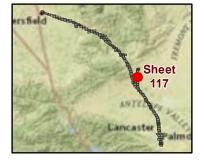


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

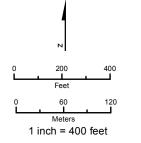
1 inch = 400 feet



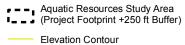


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Desert Wash Ordinary High Water Mark (OHWM)



Top of Bank (TOB) (TOB width may be obscured on narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian



1 inch = 400 feet

California High-Speed Rail Authority



SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



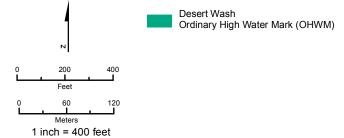
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

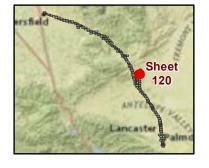
Top of Bank (TOB)



Aquatic Resources Study Area
(Project Footprint +250 ft Buffer) (TOB width may be obscured on narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

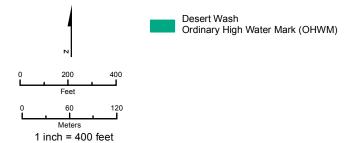




SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Top of Bank (TOB)

(TOB width may be obscured on narrow features due to map scale)

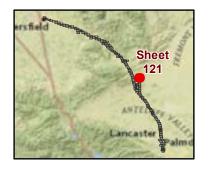


California High-Speed Rail Authority

Aquatic Resources Study Area
(Project Footprint +250 ft Buffer)

**Elevation Contour** 

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

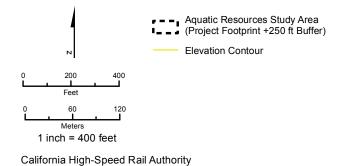


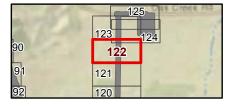
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

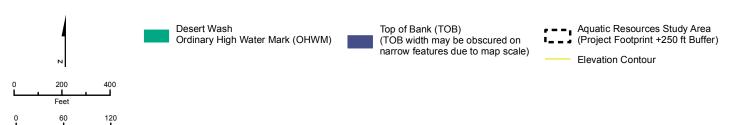


Jurisdictional Delineation to Top of Bank or Edge of Riparian



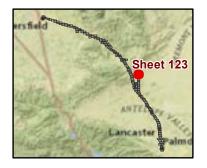


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

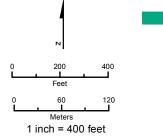
California High-Speed Rail Authority

1 inch = 400 feet



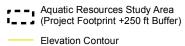


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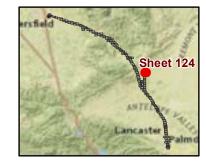


California High-Speed Rail Authority

Top of Bank (TOB) (TOB width may be obscured on narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

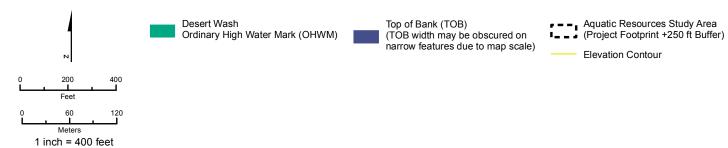
January 27, 2021

Ordinary High Water Mark (OHWM)



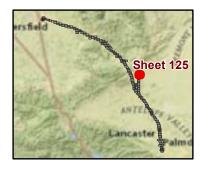


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

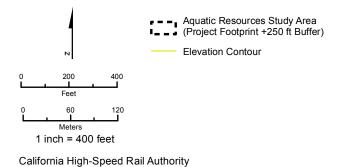


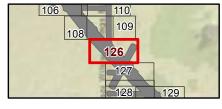
Jurisdictional Delineation to Top of Bank or Edge of Riparian



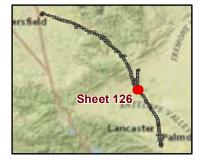


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



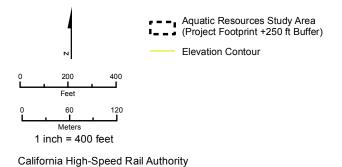
Jurisdictional Delineation to Top of Bank or Edge of Riparian

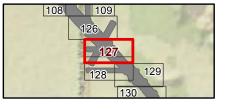
Aquatic Resources Memorandum
Sheet 126 of 175



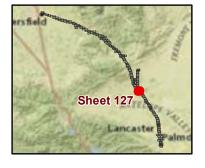


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



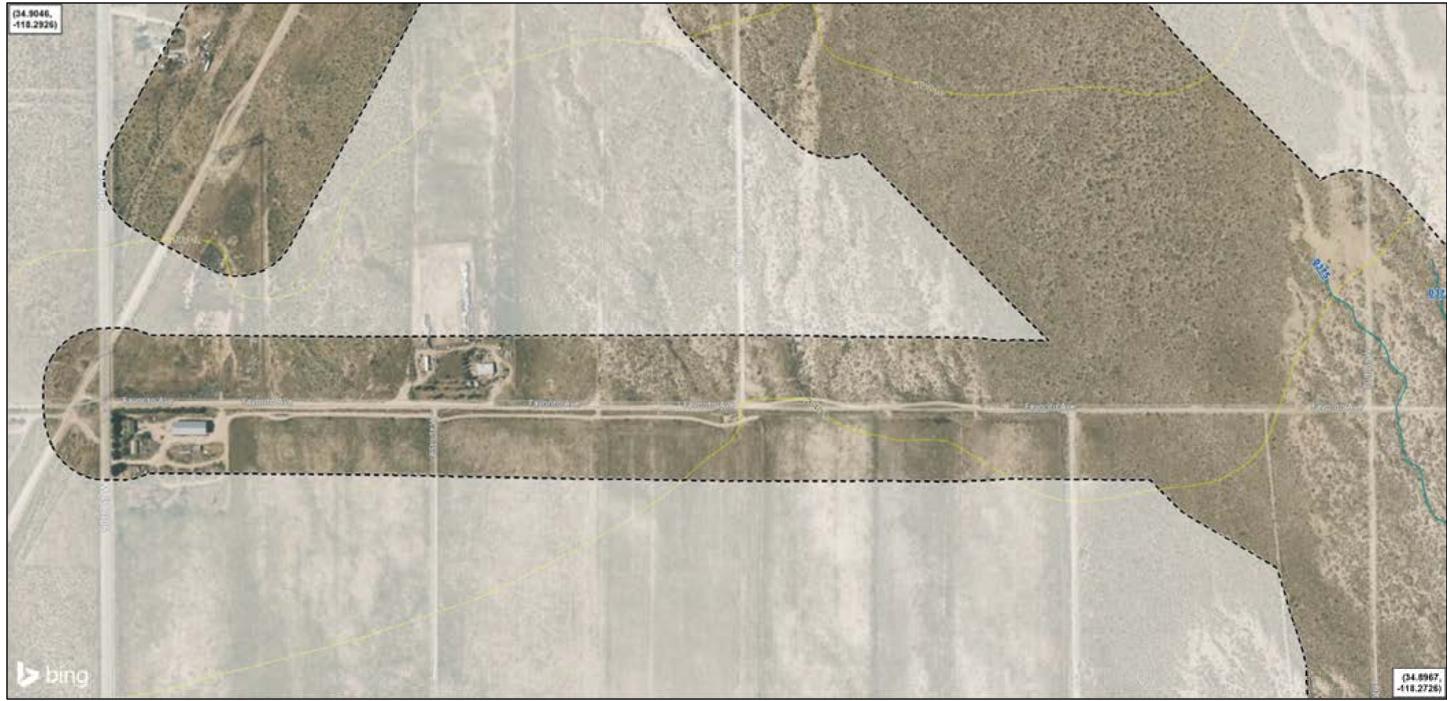


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

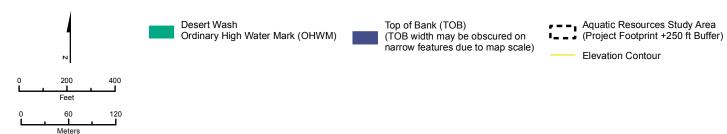


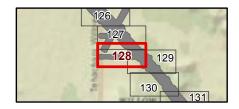
Jurisdictional Delineation to Top of Bank or Edge of Riparian



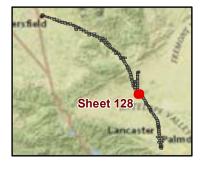


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

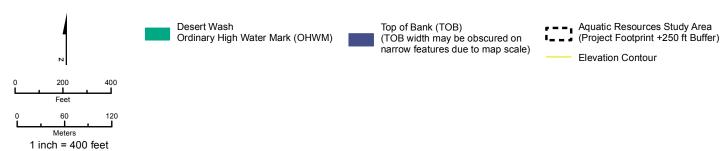


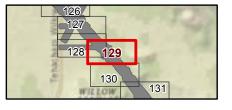
Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



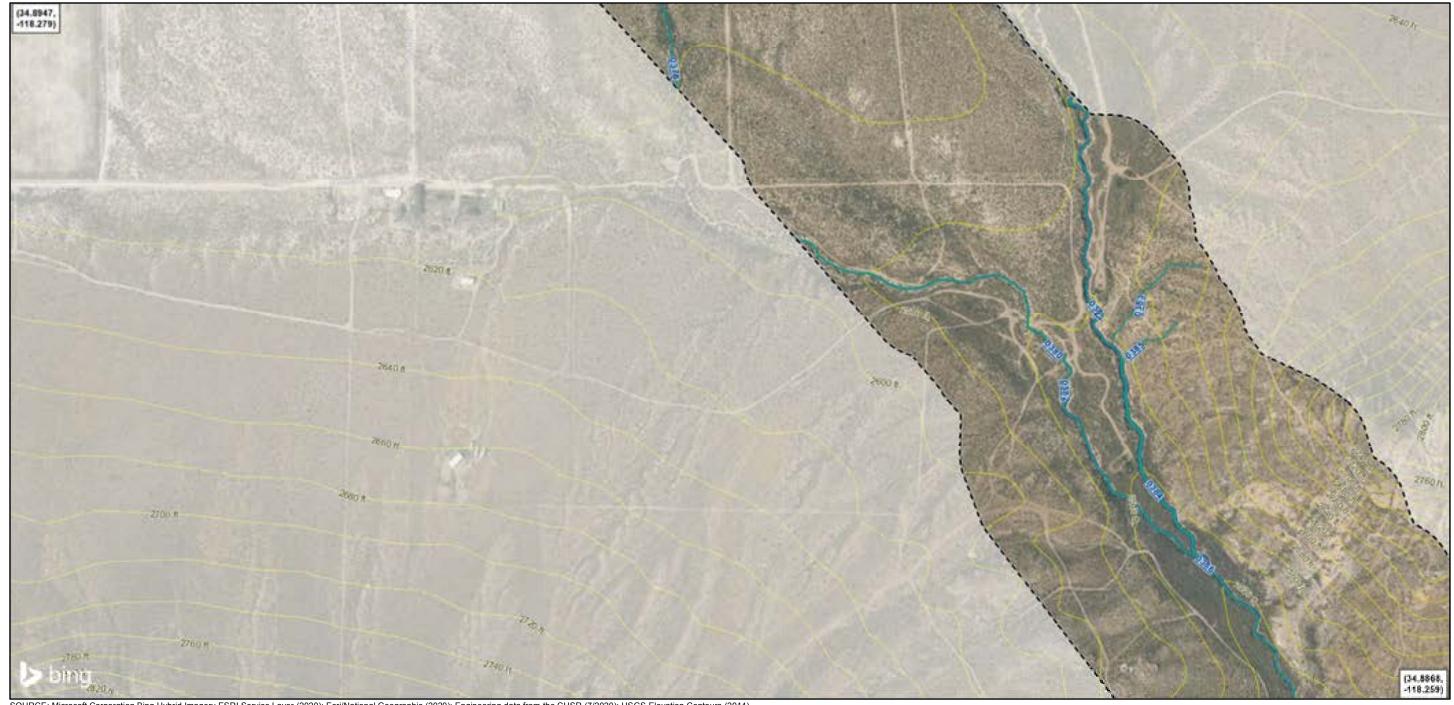


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

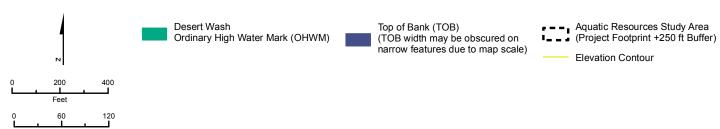


Jurisdictional Delineation to Top of Bank or Edge of Riparian

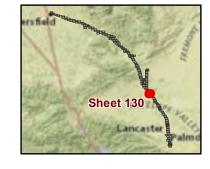




SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

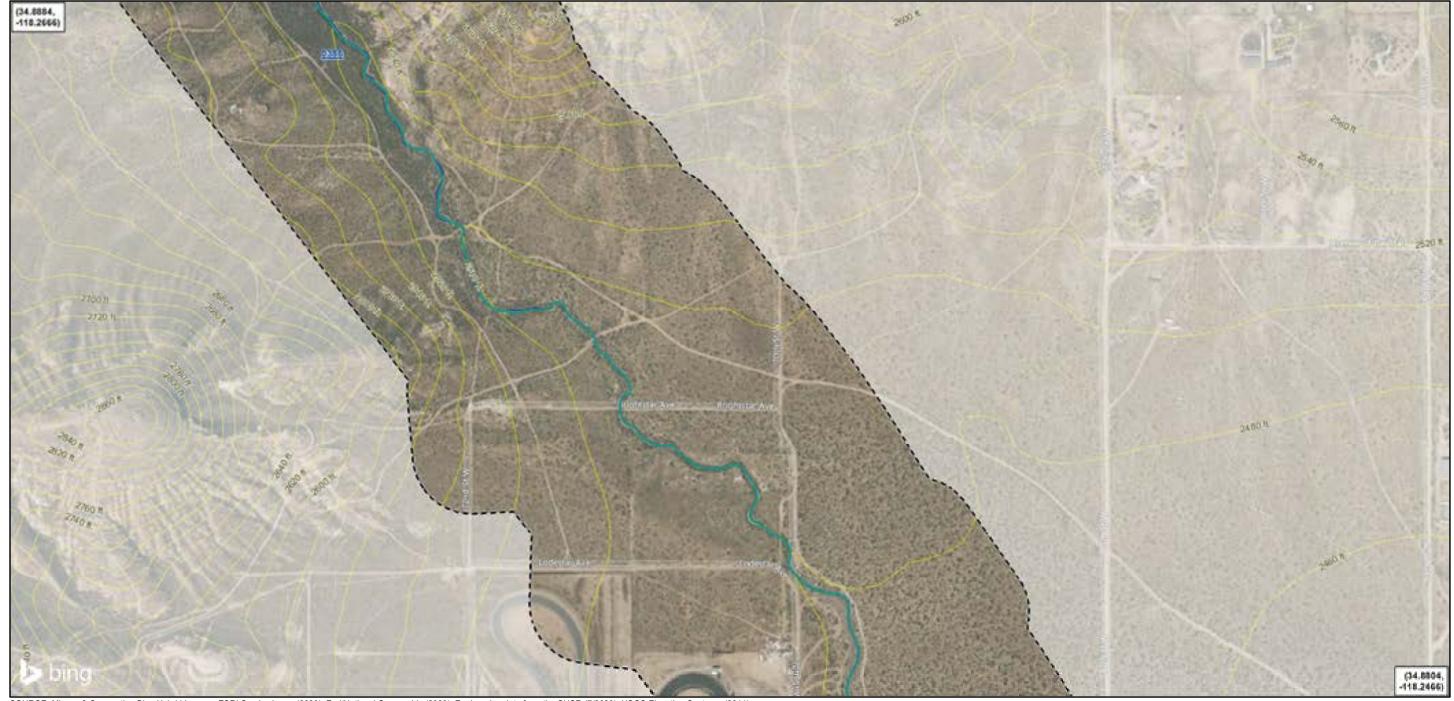


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

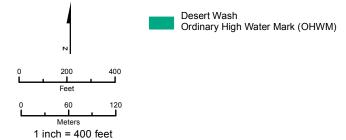




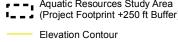
SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Top of Bank (TOB) (TOB width may be obscured on

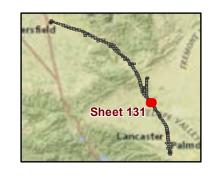
narrow features due to map scale)



Aquatic Resources Study Area
(Project Footprint +250 ft Buffer)

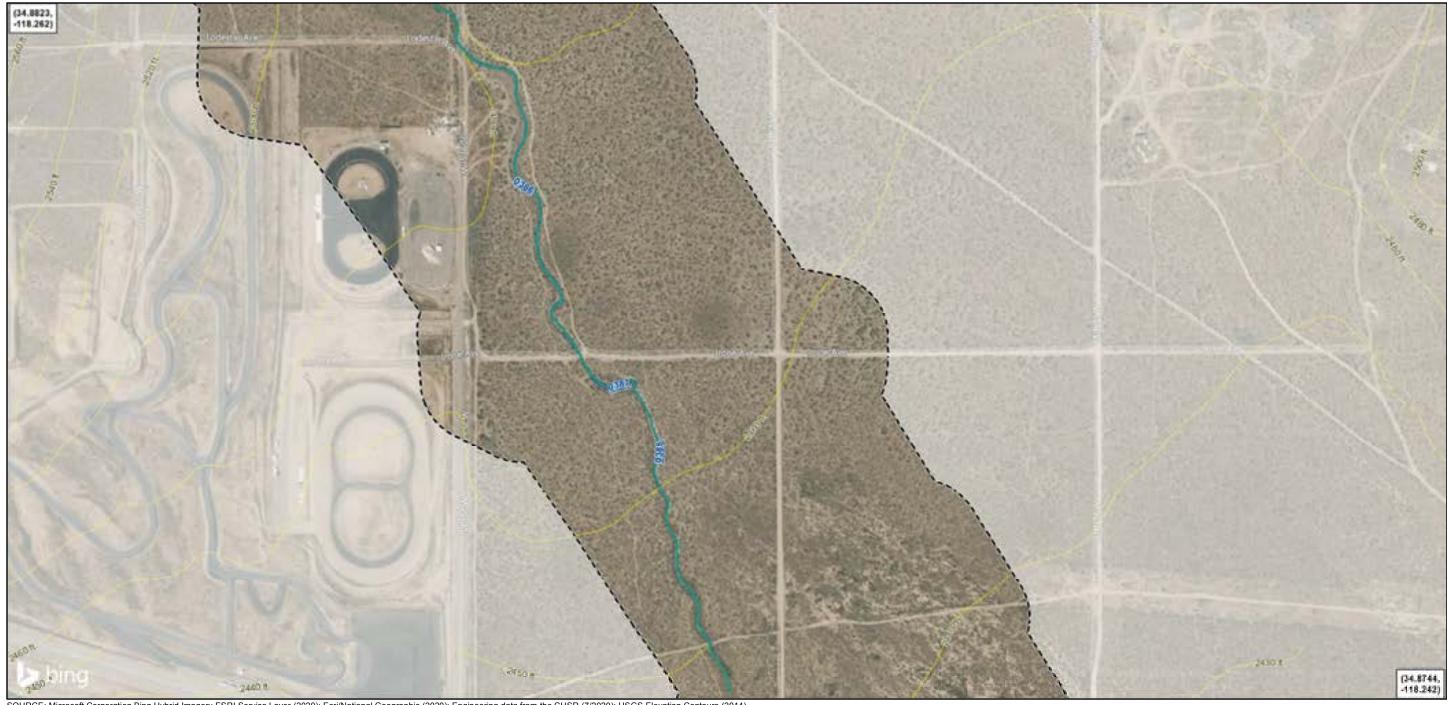


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

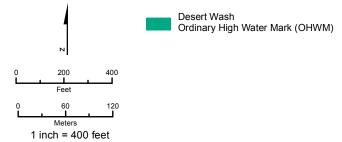




SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Top of Bank (TOB) (TOB width may be obscured on

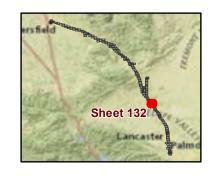
narrow features due to map scale)



Aquatic Resources Study Area
(Project Footprint +250 ft Buffer) Elevation Contour



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

January 27, 2021

California High-Speed Rail Authority

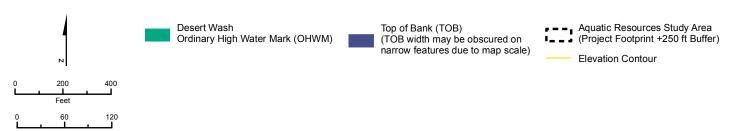


1 inch = 400 feet

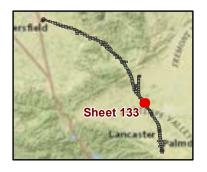
California High-Speed Rail Authority



SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

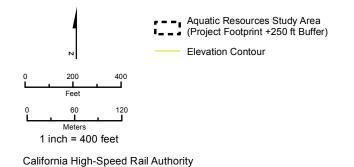
January 27, 2021

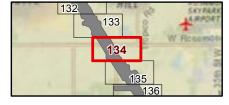
Sheet 133 of 175 Aquatic Resources Memorandum



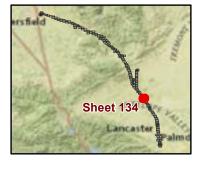


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





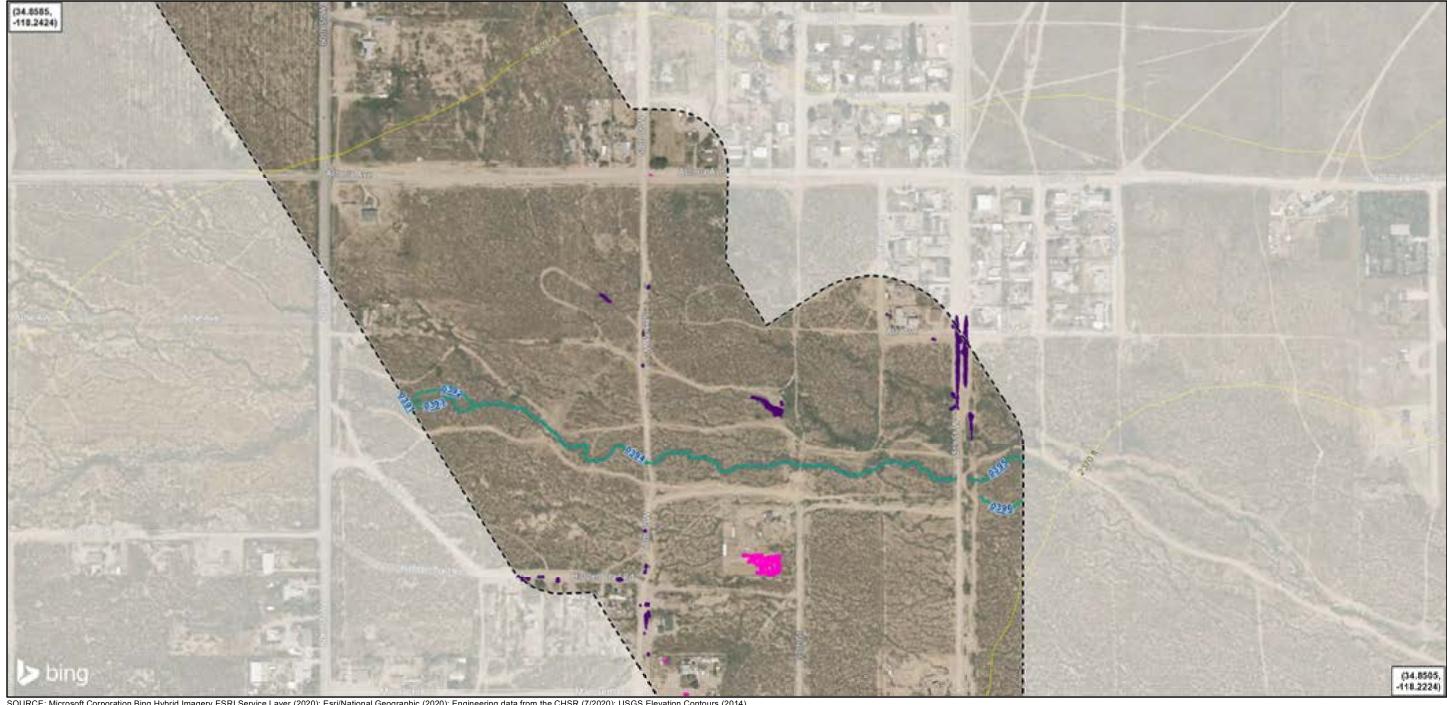
Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



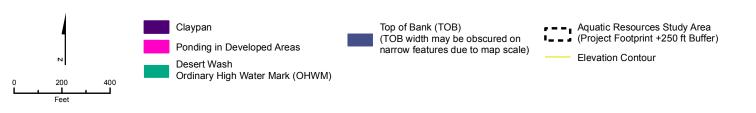
Jurisdictional Delineation to Top of Bank or Edge of Riparian

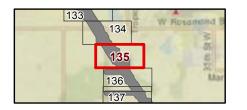
Aquatic Resources Memorandum





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



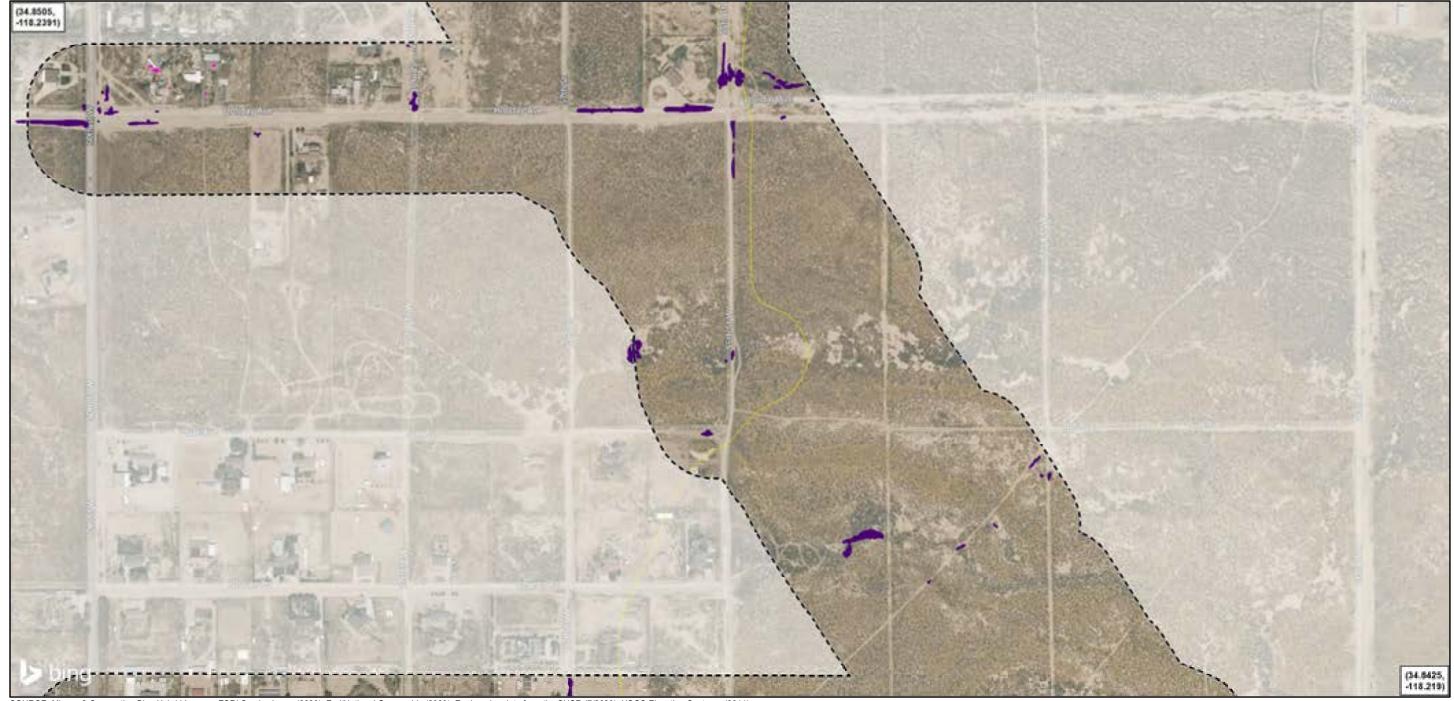


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

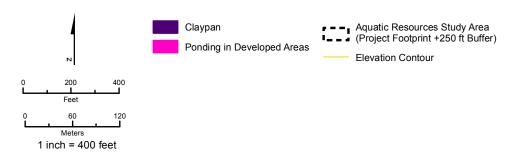


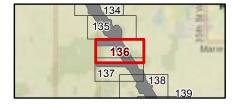
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian



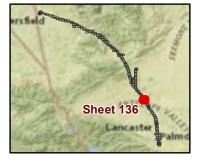


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

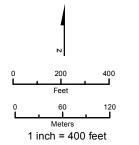


Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

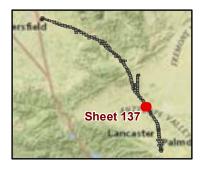


Top of Bank (TOB)

(TOB width may be obscured on narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

January 27, 2021

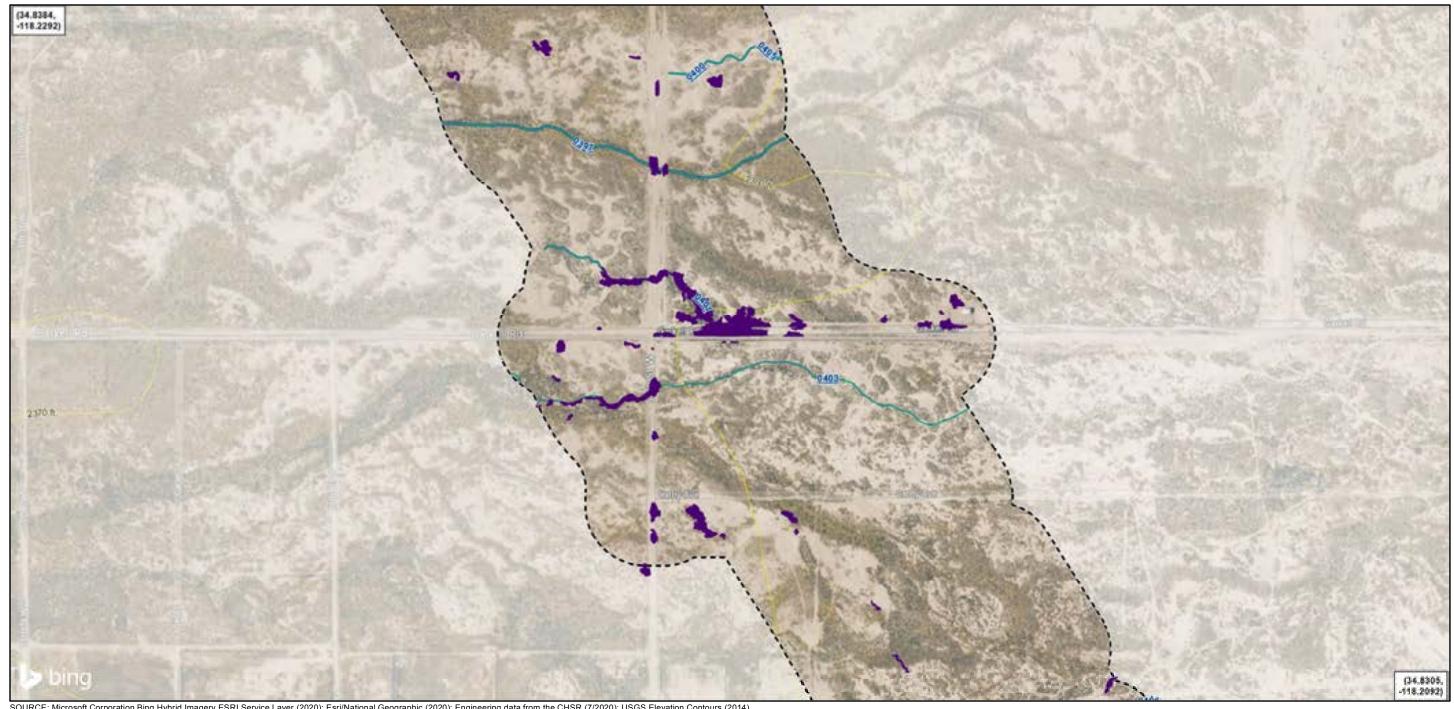
Claypan Desert Wash

Ordinary High Water Mark (OHWM)

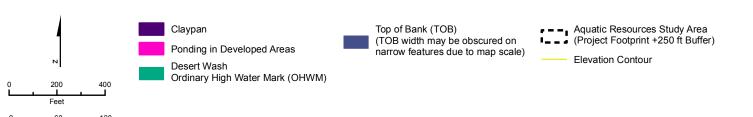


1 inch = 400 feet

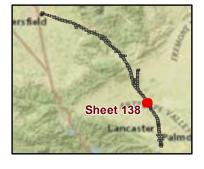
California High-Speed Rail Authority



SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

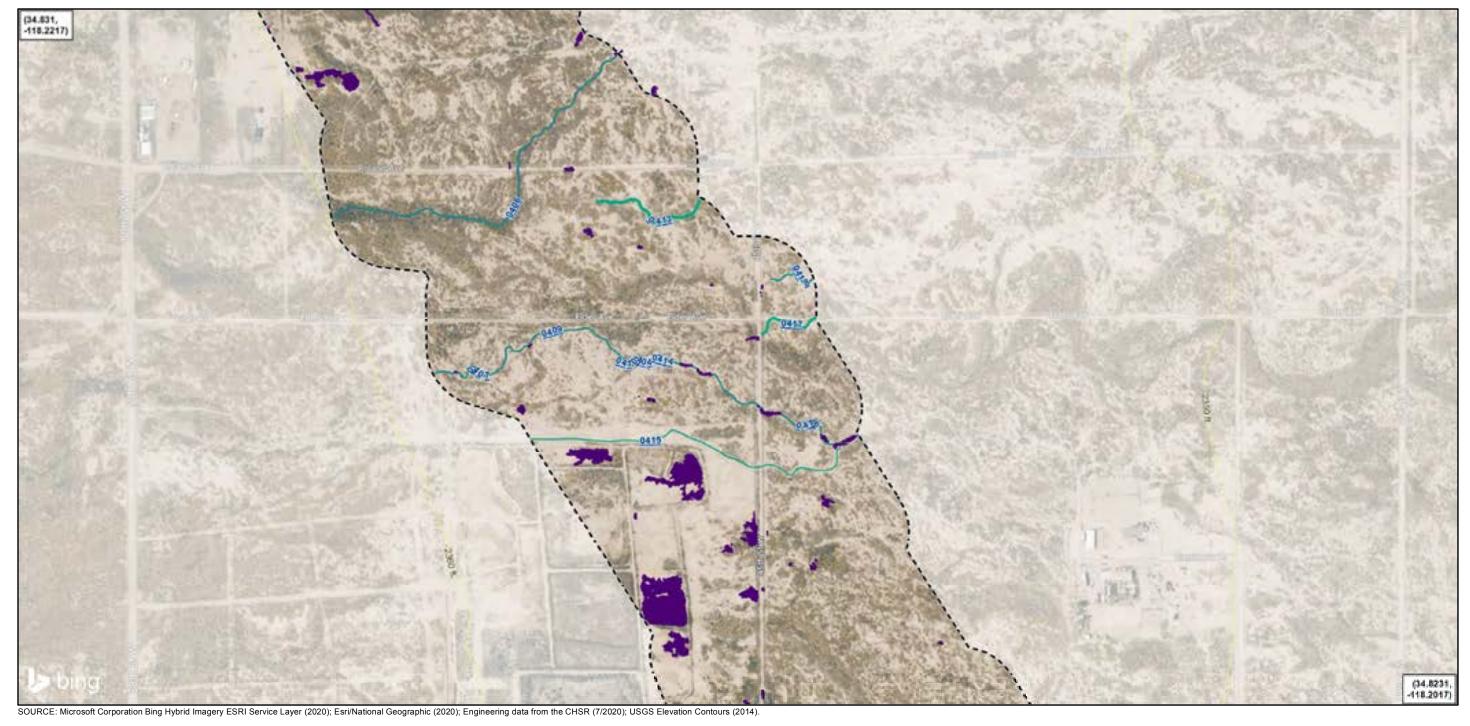


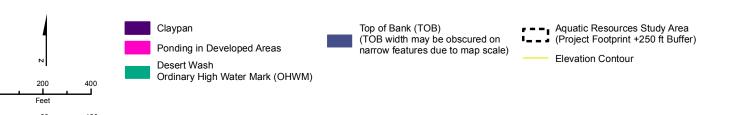
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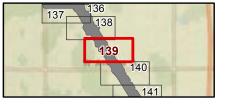


**Jurisdictional Delineation** to Top of Bank or Edge of Riparian









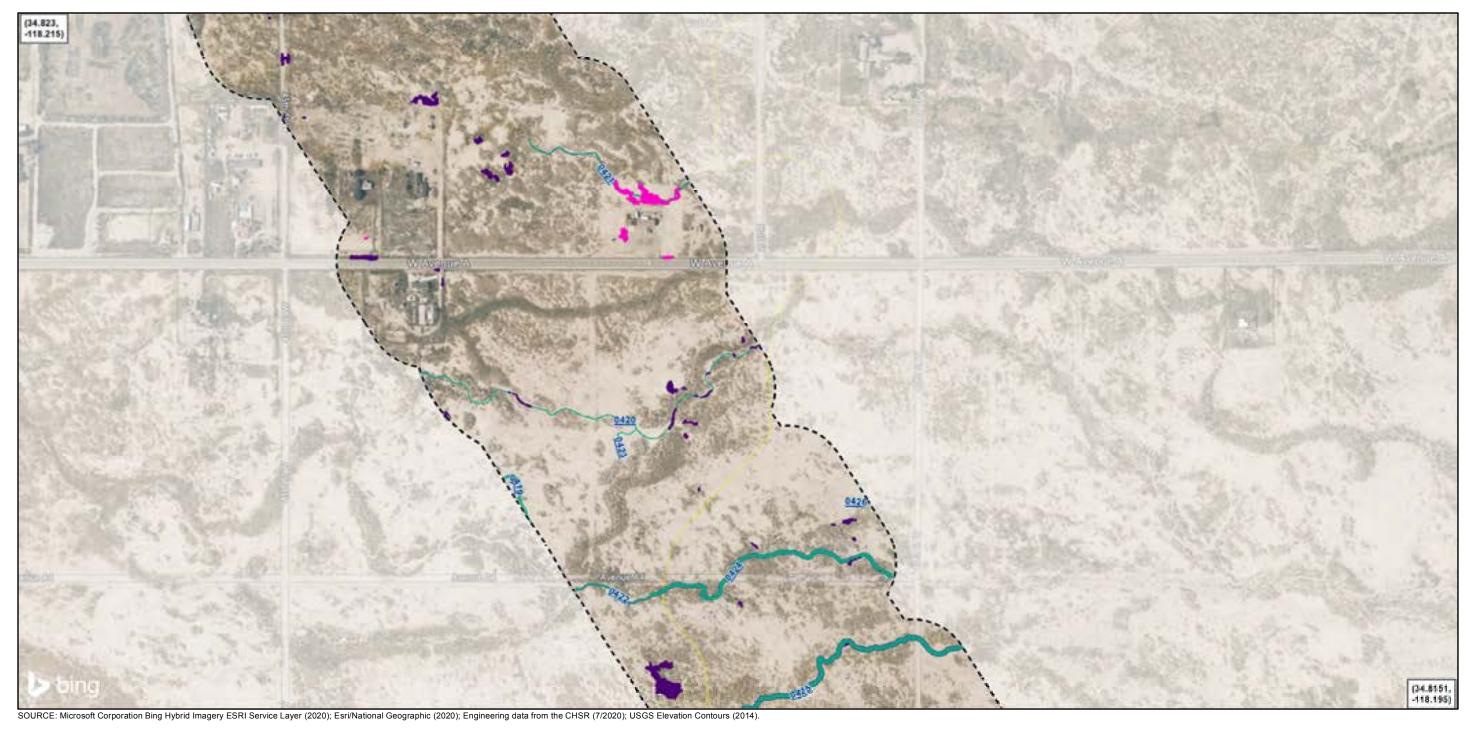
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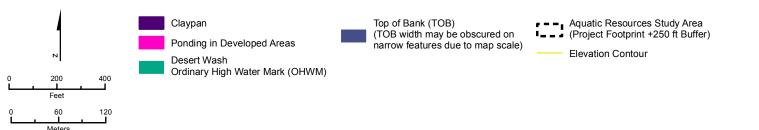


Jurisdictional Delineation to Top of Bank or Edge of Riparian

California High-Speed Rail Authority









Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



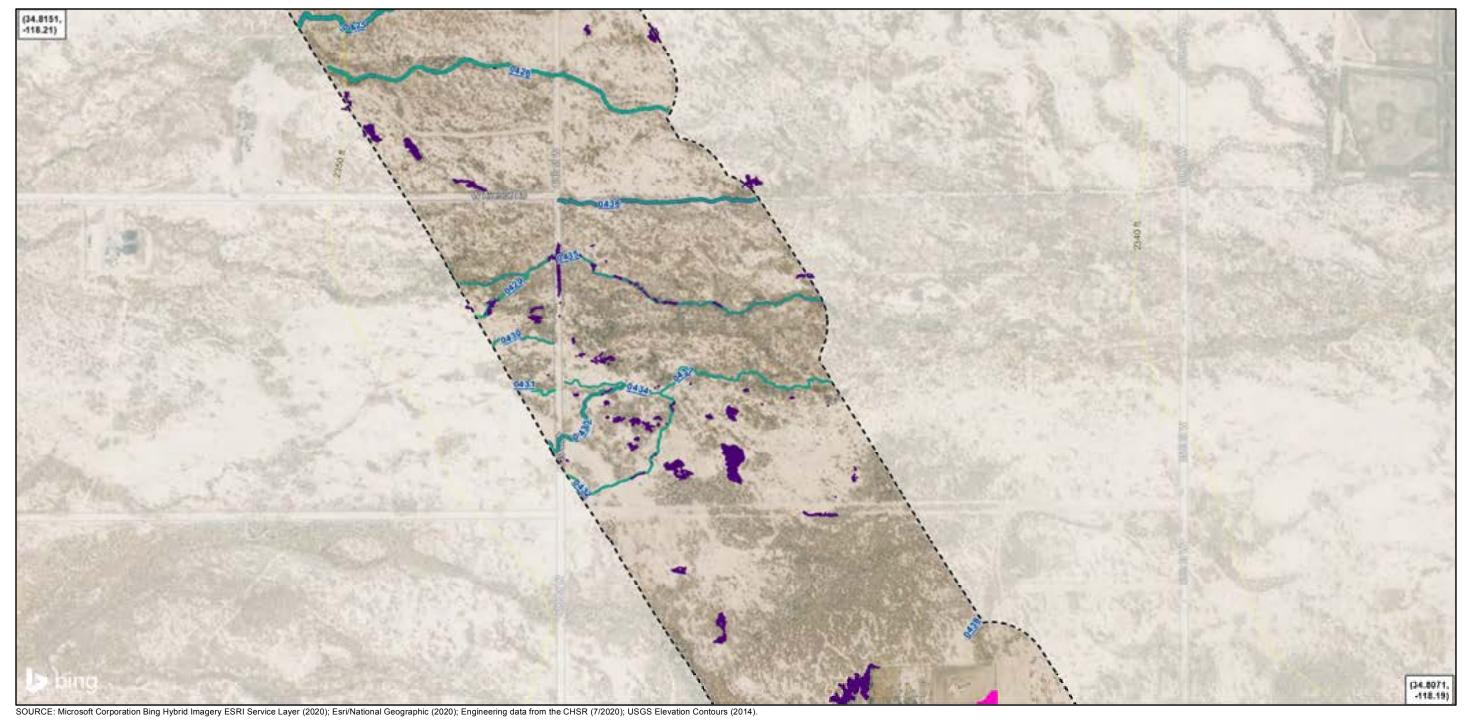
Jurisdictional Delineation to Top of Bank or Edge of Riparian

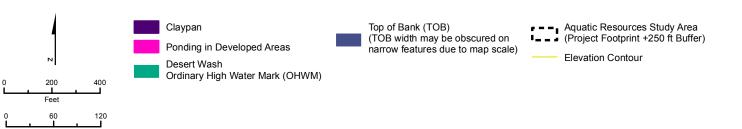
l------07 07

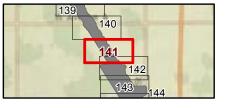


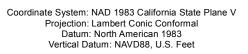
1 inch = 400 feet

California High-Speed Rail Authority





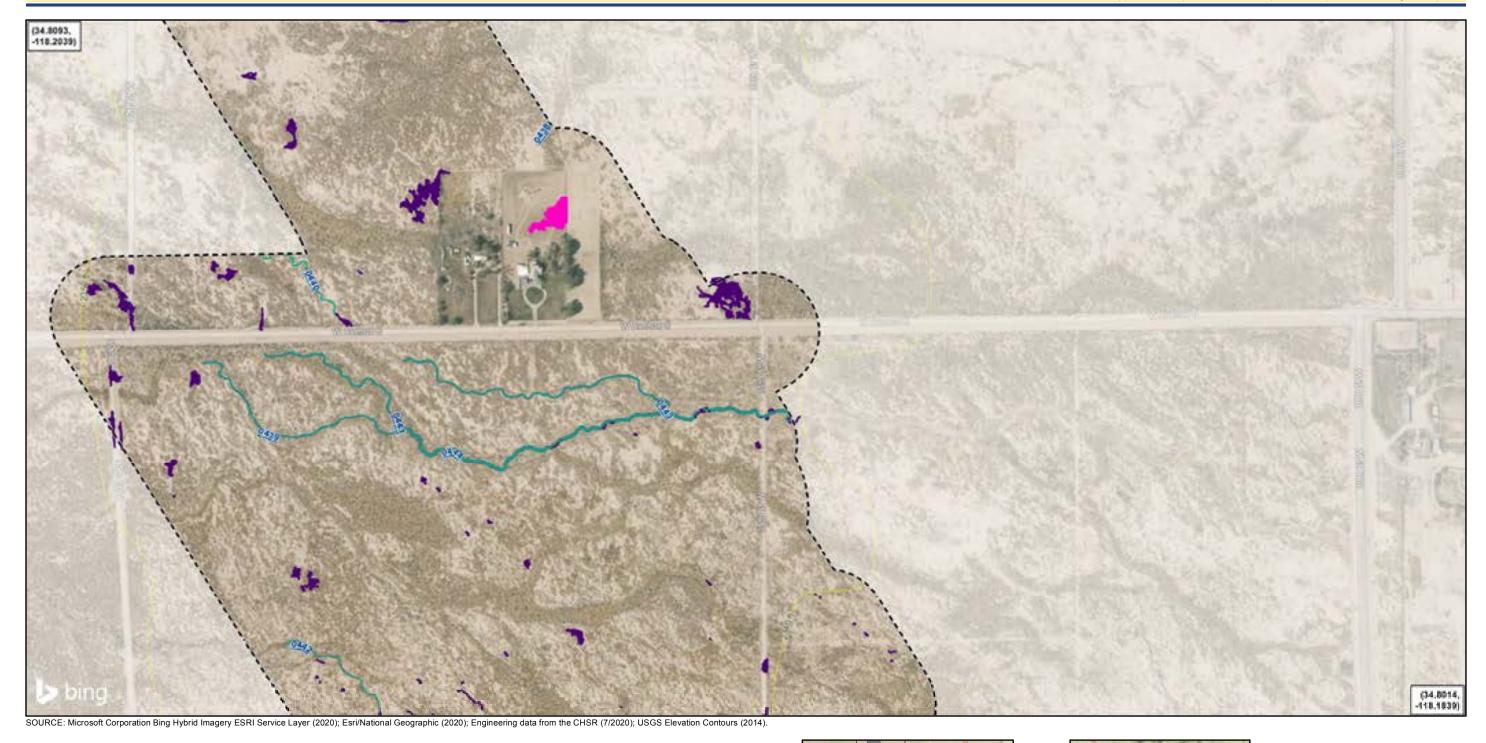


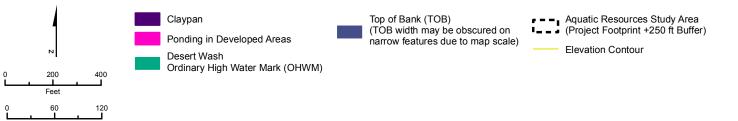




Jurisdictional Delineation to Top of Bank or Edge of Riparian







140 141 142 143 144 145

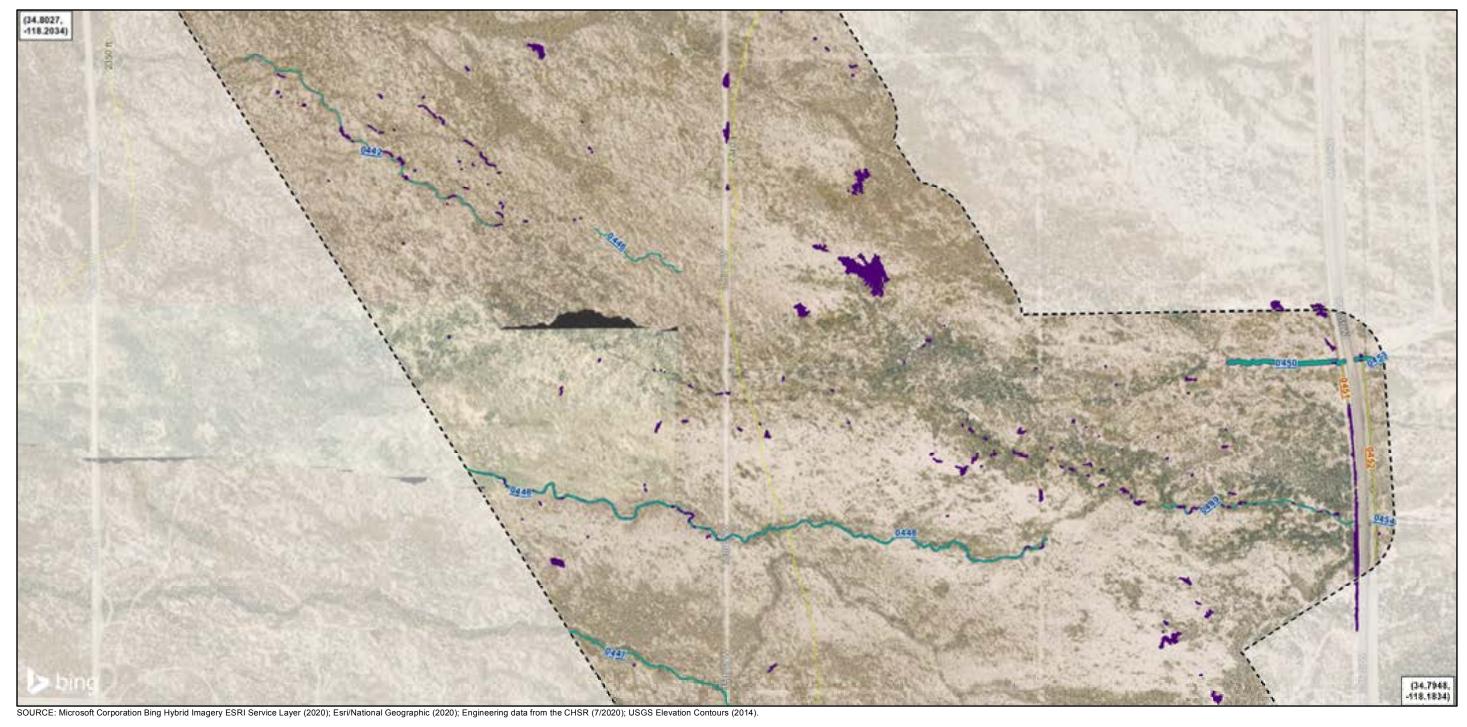
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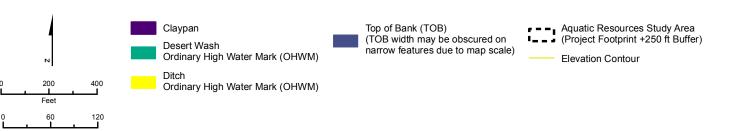


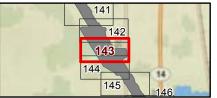
Jurisdictional Delineation to Top of Bank or Edge of Riparian

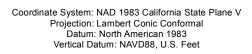
January 27, 2021







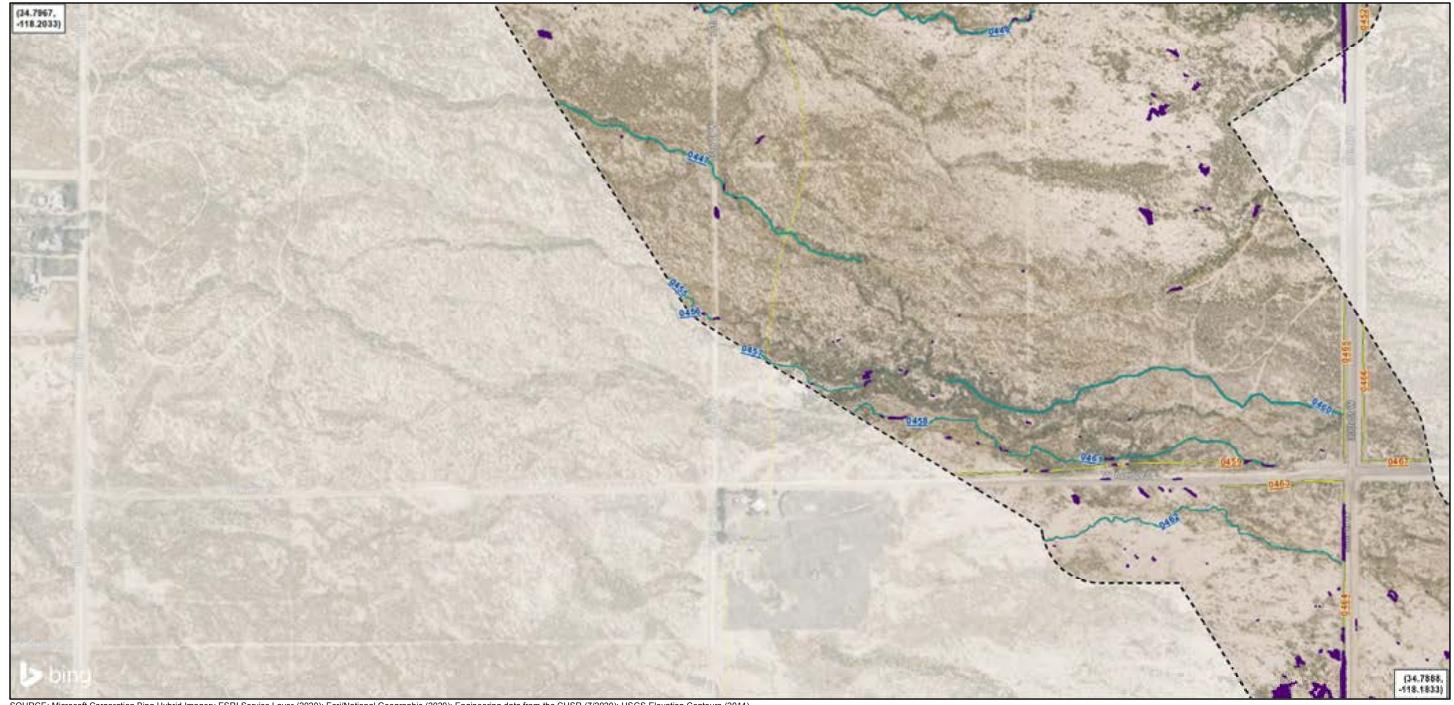




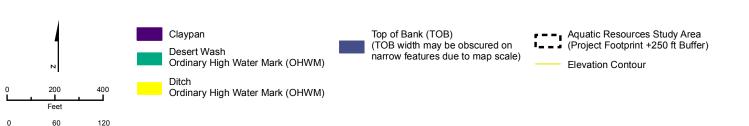


Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



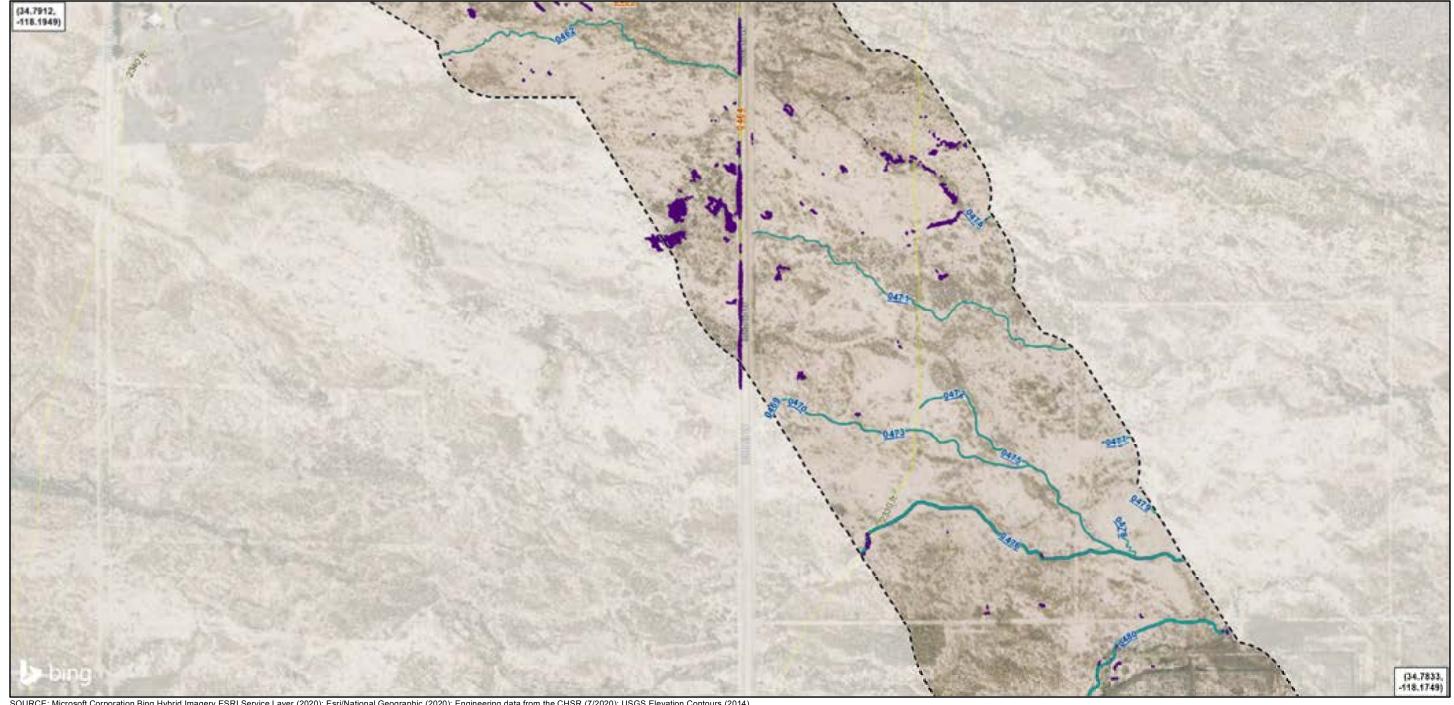


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet Sheet 144

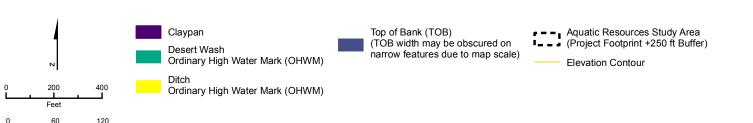
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

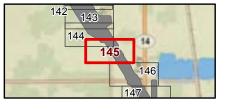
January 27, 2021





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



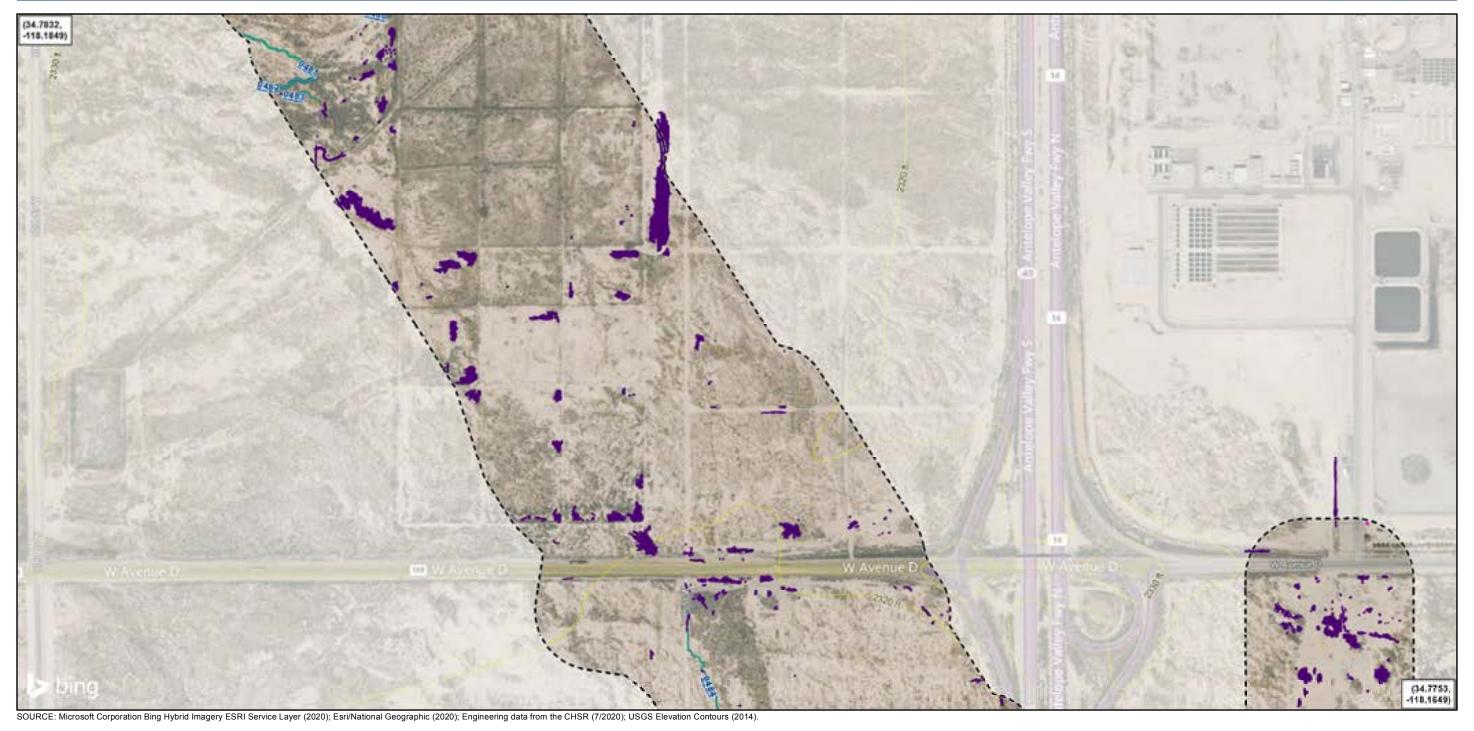


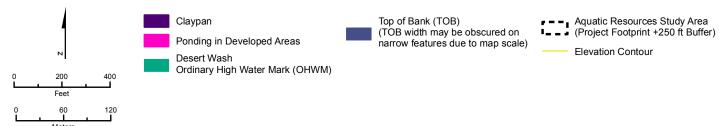
Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian









Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Top of Bank or Edge of Riparian

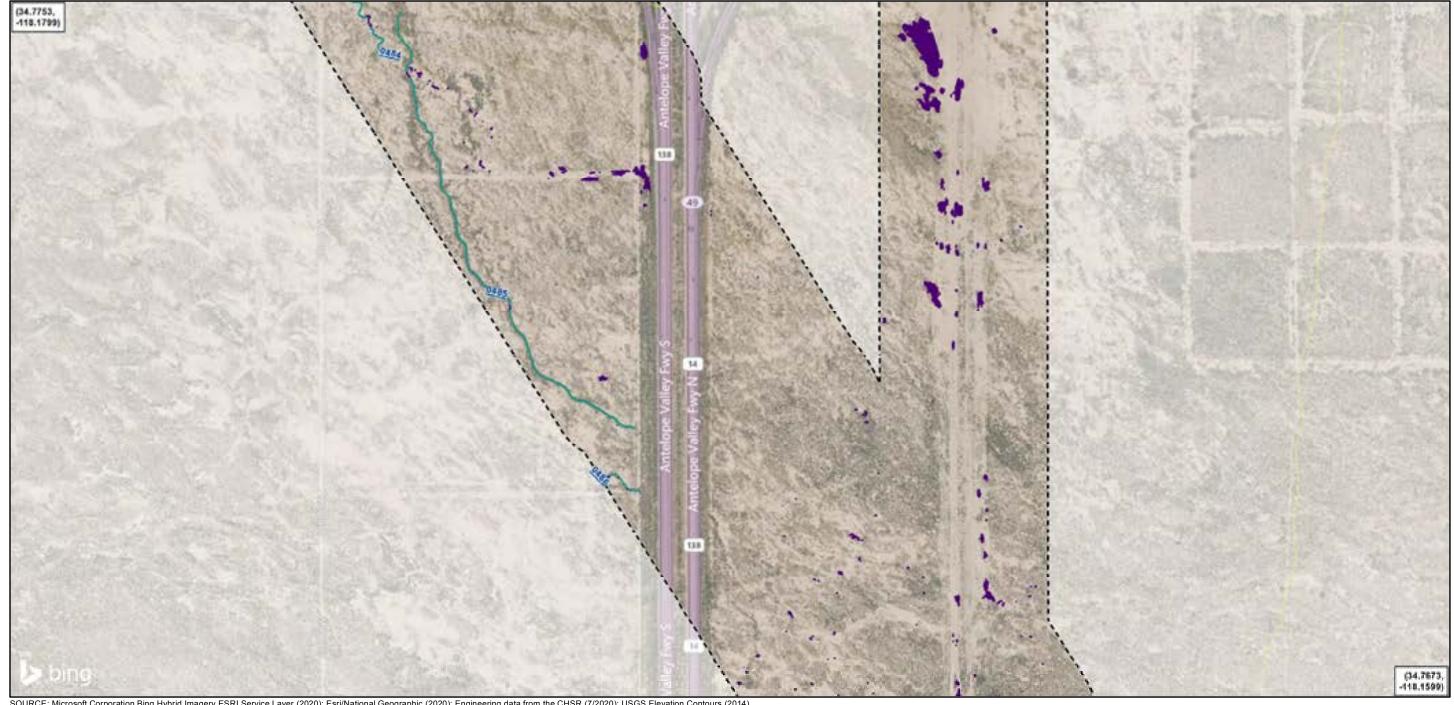
January 27, 2021

California High-Speed Rail Authority

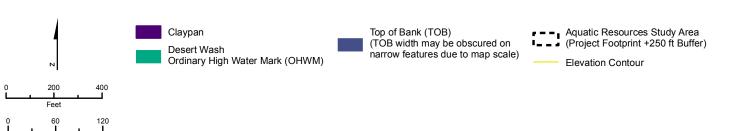


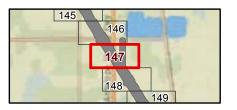
1 inch = 400 feet

California High-Speed Rail Authority

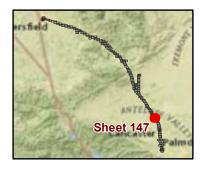


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



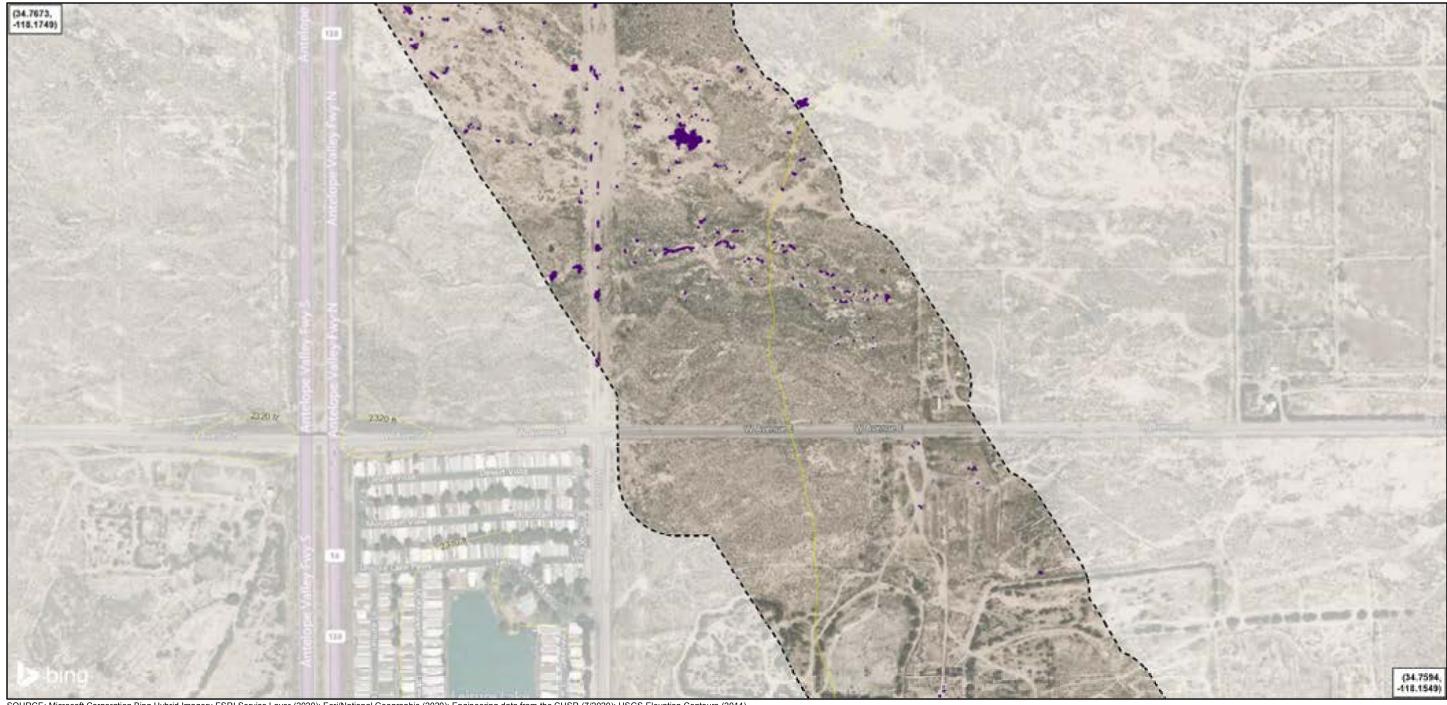


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

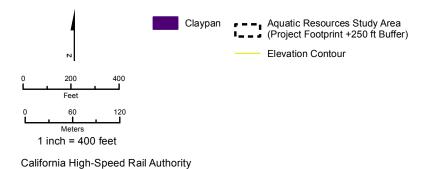


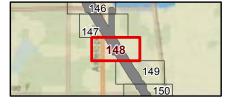
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





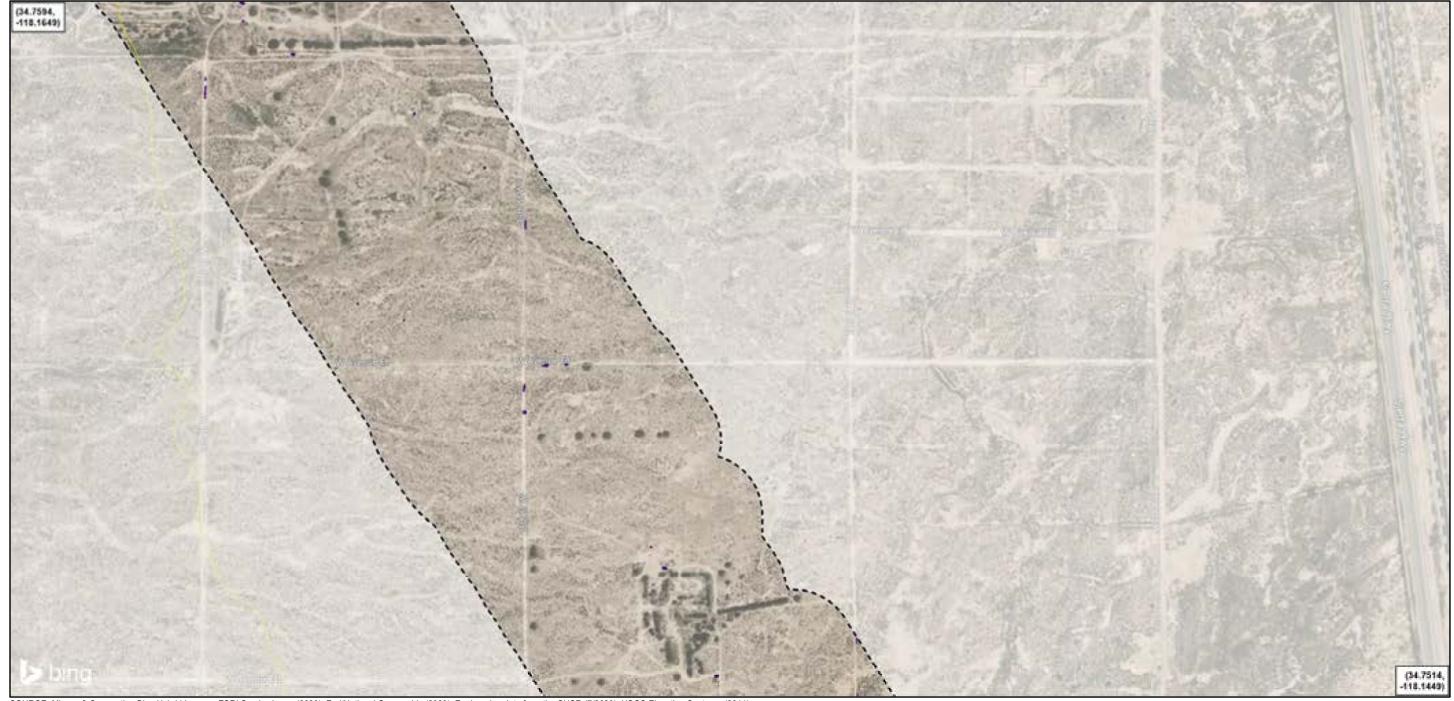
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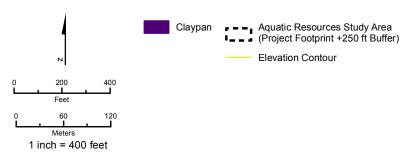
Jurisdictional Delineation to Top of Bank or Edge of Riparian

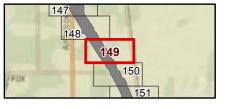
Sheet 148 of 175 Aquatic Resources Memorandum



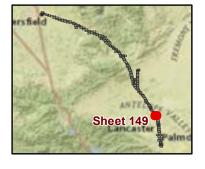


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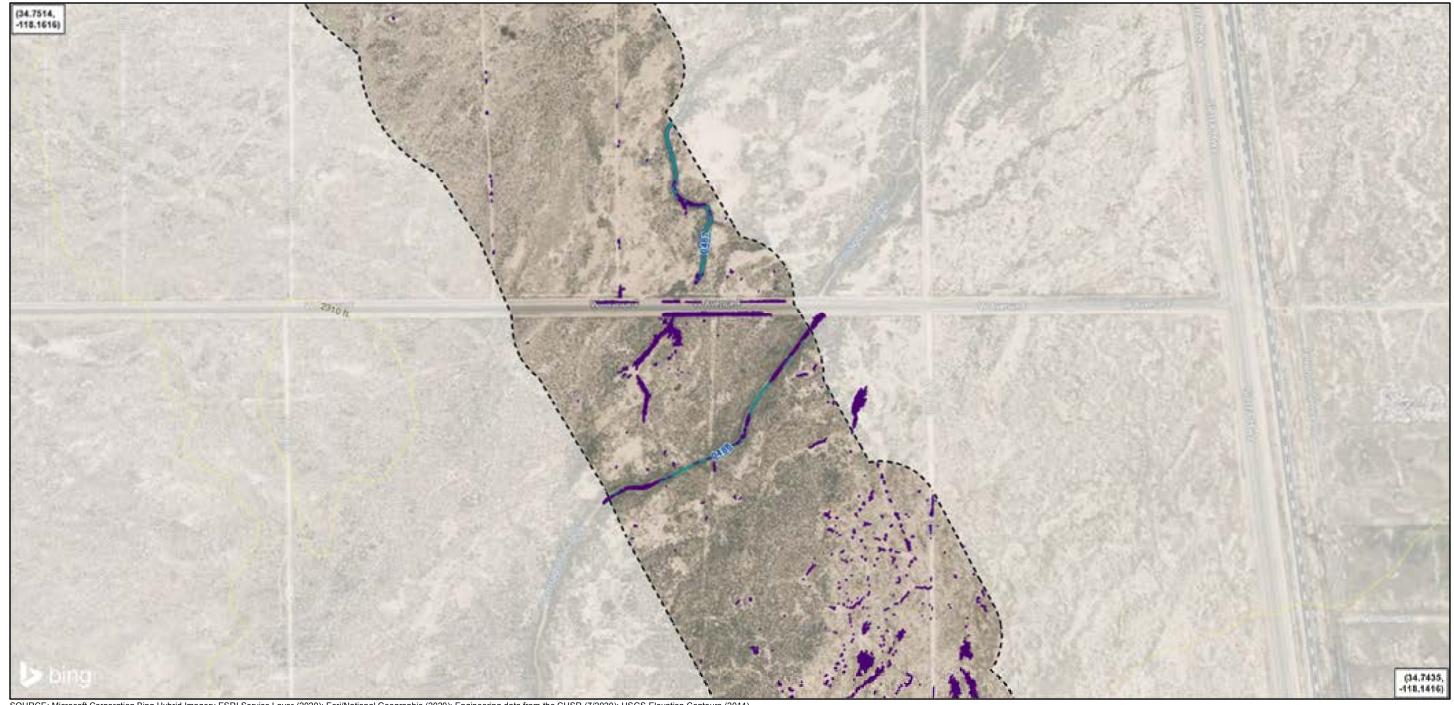


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

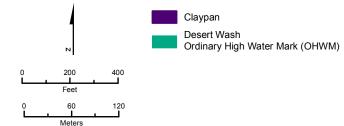


Jurisdictional Delineation to Top of Bank or Edge of Riparian



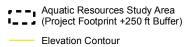


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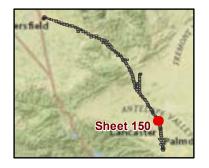


Top of Bank (TOB)

(TOB width may be obscured on narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

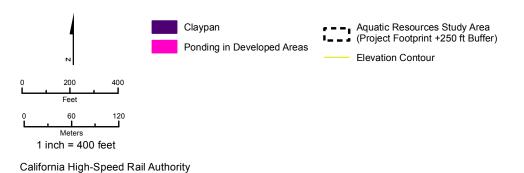
California High-Speed Rail Authority

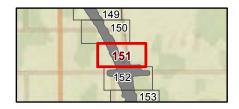
1 inch = 400 feet





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



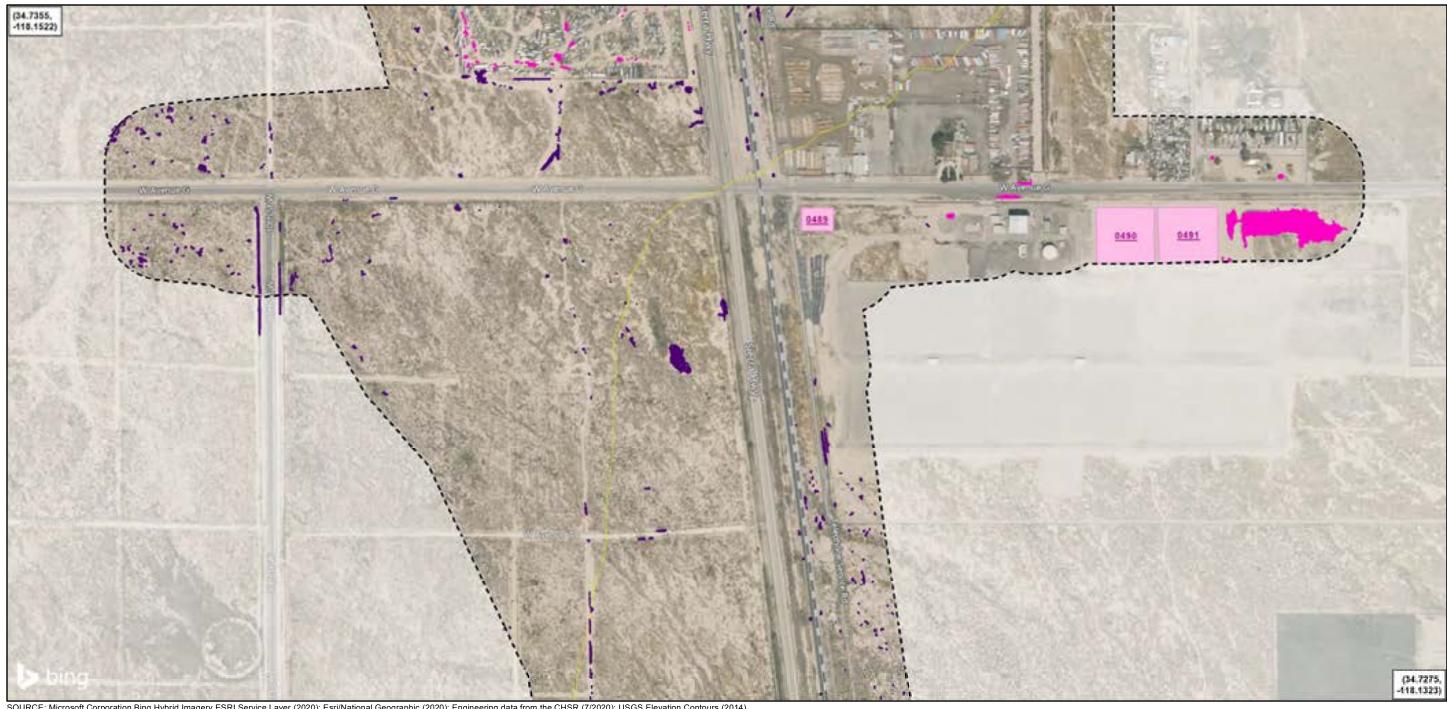


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

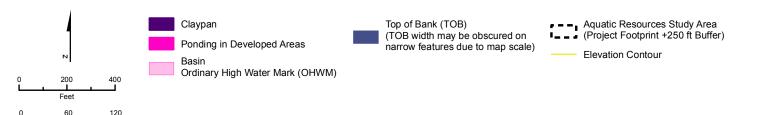


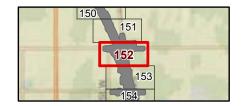
Jurisdictional Delineation to Top of Bank or Edge of Riparian



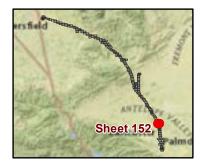


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

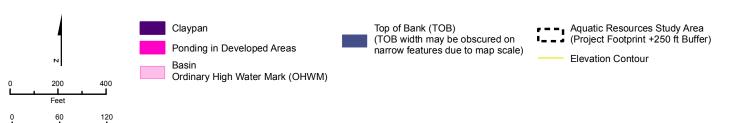


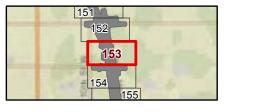
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian



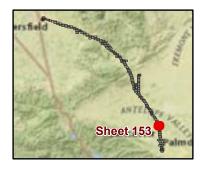


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



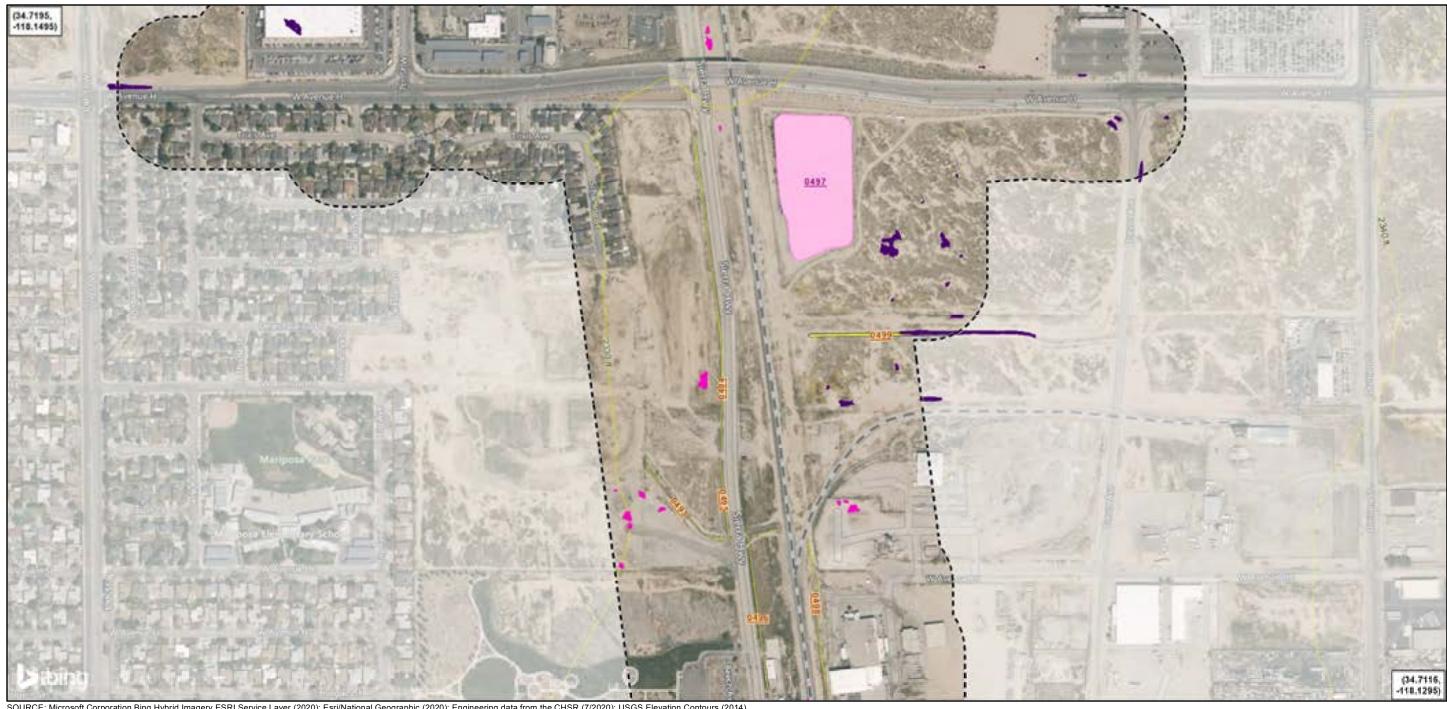


Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

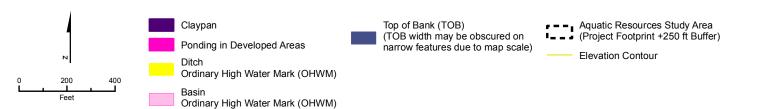


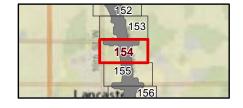
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

January 27, 2021



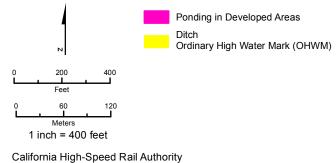


SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Top of Bank (TOB)

(TOB width may be obscured on

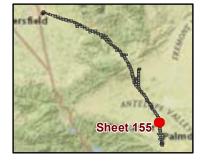
narrow features due to map scale)



• - - Aquatic Resources Study Area
• - - (Project Footprint +250 ft Buffer) **Elevation Contour** 



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

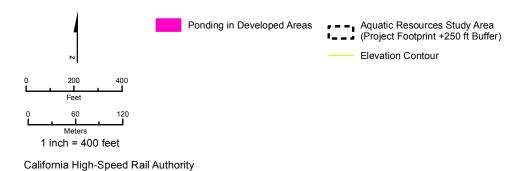


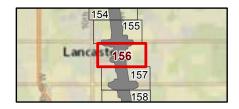
Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



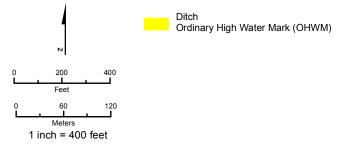
Jurisdictional Delineation to Top of Bank or Edge of Riparian





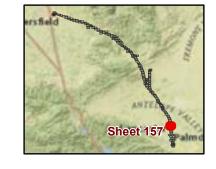
SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Top of Bank (TOB) (TOB width may be obscured on narrow features due to map scale)



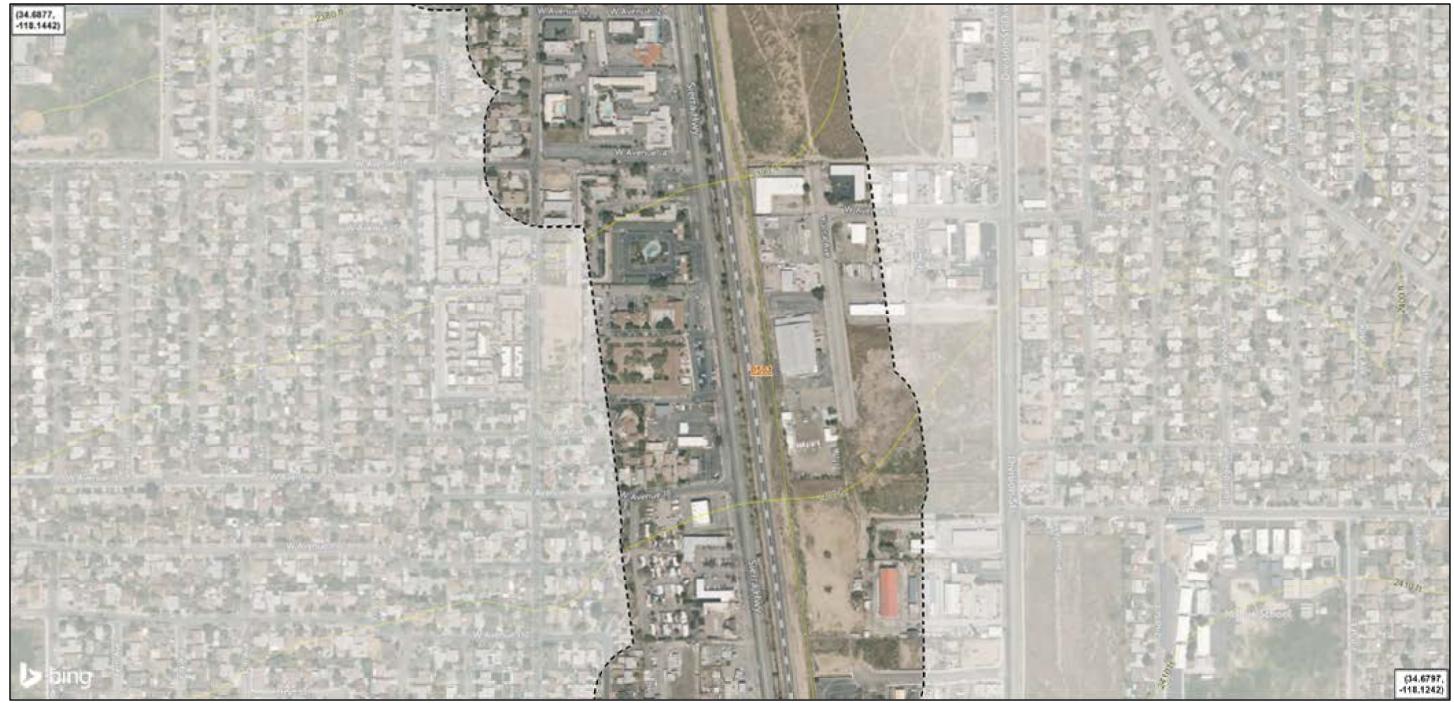
Aquatic Resources Study Area
(Project Footprint +250 ft Buffer) **Elevation Contour** 

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

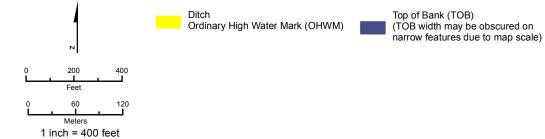


Jurisdictional Delineation to Top of Bank or Edge of Riparian

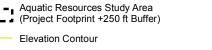




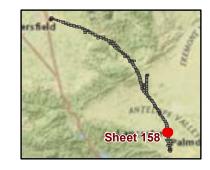
SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Aquatic Resources Study Area
(Project Footprint +250 ft Buffer) **Elevation Contour** 



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Top of Bank or Edge of Riparian

January 27, 2021

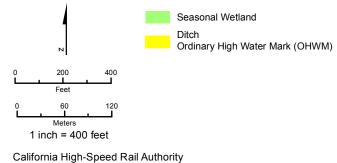
California High-Speed Rail Authority





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Top of Bank (TOB)
(TOB width may be obscured on narrow features due to map scale)



Aquatic Resources Study Area (Project Footprint +250 ft Buffer)

Elevation Contour

157 158 159 160

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

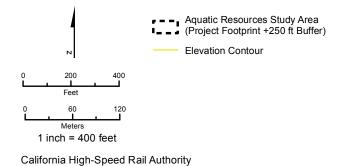


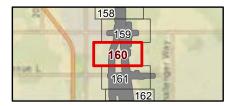
Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

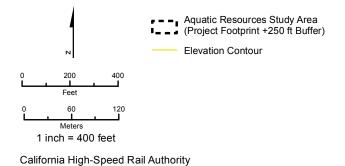


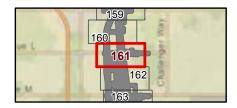
Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

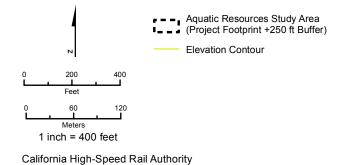


Jurisdictional Delineation to Top of Bank or Edge of Riparian





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

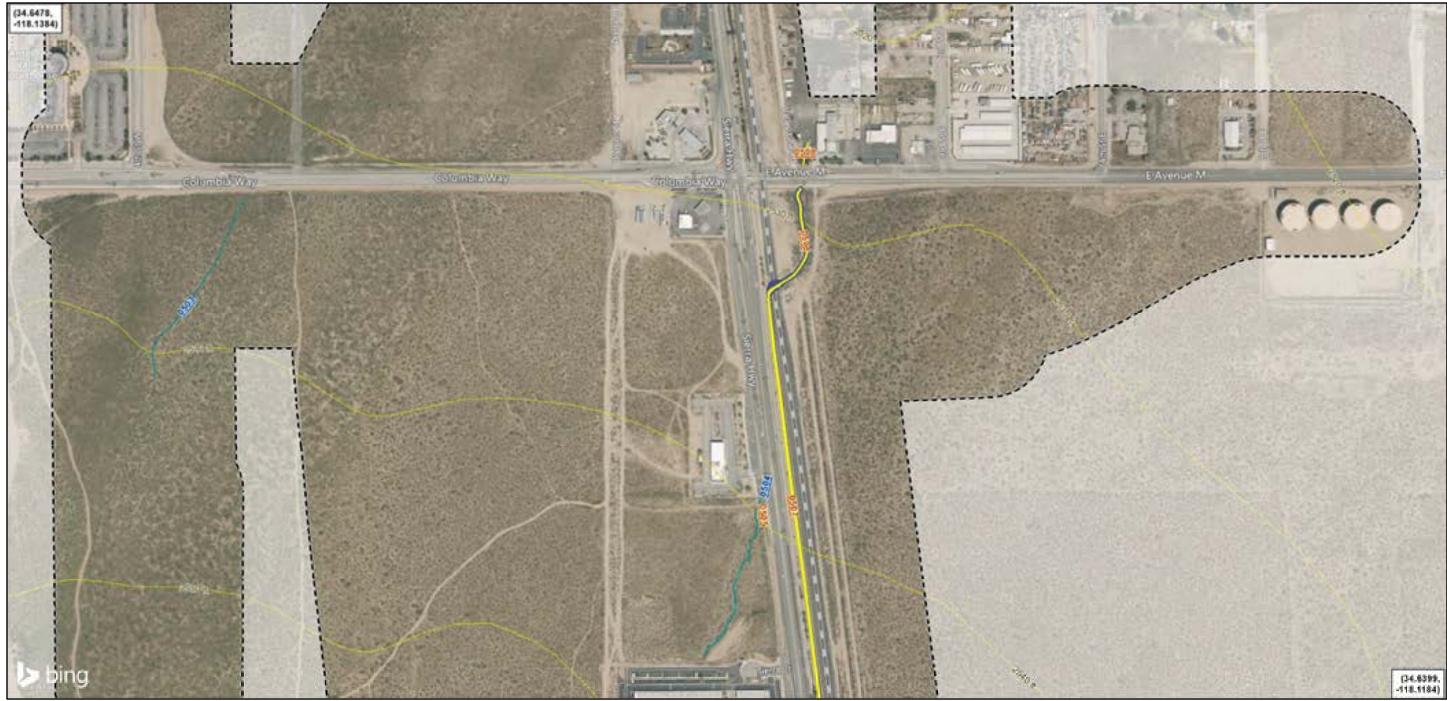


Jurisdictional Delineation to Top of Bank or Edge of Riparian

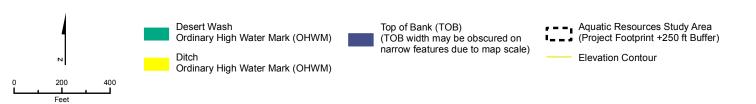
Aquatic Resources Memorandum
Sheet 162 of 175



1 inch = 400 feet



SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Top of Bank or Edge of Riparian

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SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Top of Bank (TOB)

(TOB width may be obscured on narrow features due to map scale)



Aquatic Resources Study Area
(Project Footprint +250 ft Buffer) Elevation Contour

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



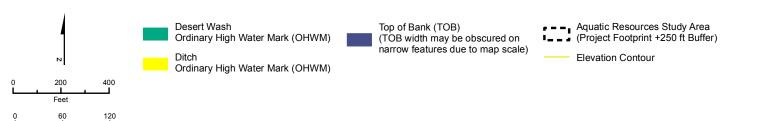
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

January 27, 2021





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



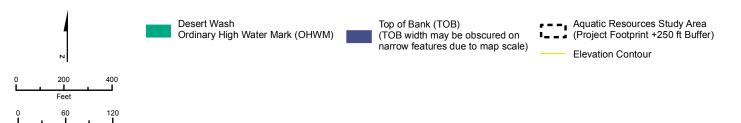
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

January 27, 2021





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



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Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



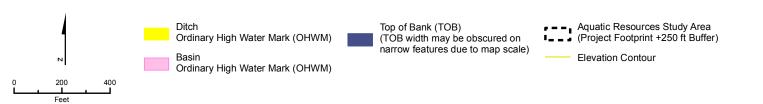
**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

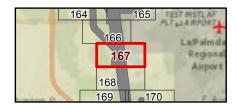
January 27, 2021





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

January 27, 2021

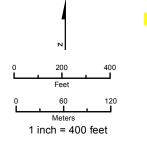




SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

(TOB width may be obscured on narrow features due to map scale)

Ordinary High Water Mark (OHWM)



Aquatic Resources Study Area
(Project Footprint +250 ft Buffer)

**Elevation Contour** 

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

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**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

January 27, 2021

California High-Speed Rail Authority

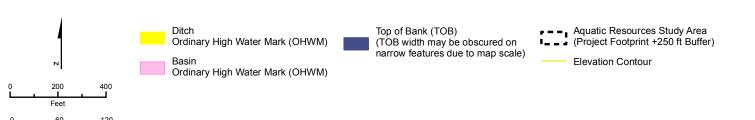


1 inch = 400 feet

California High-Speed Rail Authority



SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

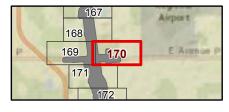
January 27, 2021





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet

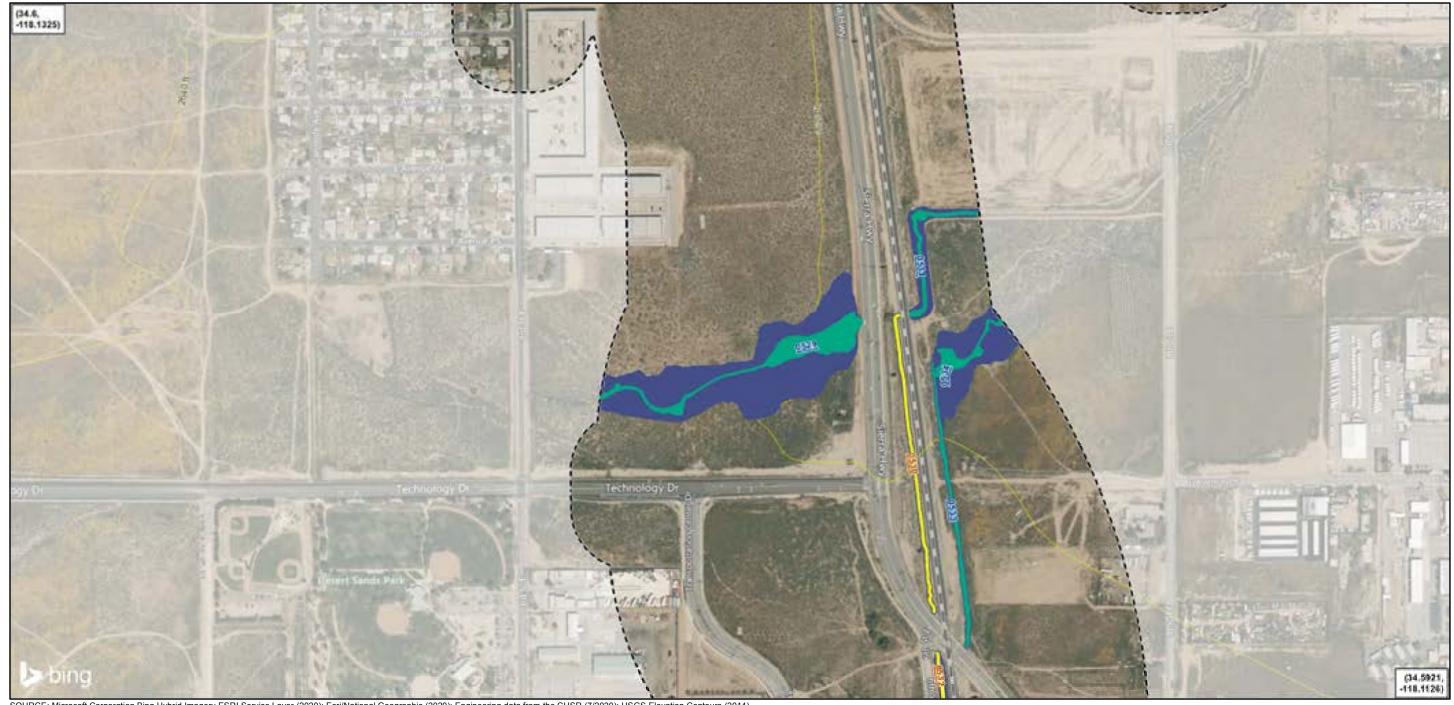


**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

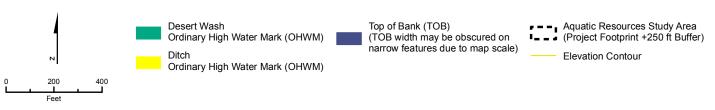
January 27, 2021

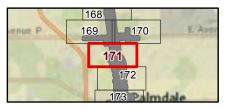
California High-Speed Rail Authority





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

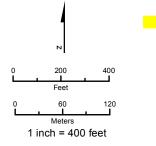
January 27, 2021





SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

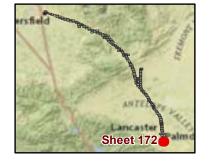
Ditch Ordinary High Water Mark (OHWM)





171 172 173

Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Top of Bank or Edge of Riparian

January 27, 2021

California High-Speed Rail Authority

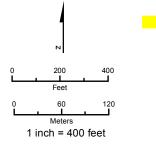




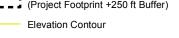
SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).

Top of Bank (TOB) (TOB width may be obscured on narrow features due to map scale)

Ditch Ordinary High Water Mark (OHWM)



Aquatic Resources Study Area
(Project Footprint +250 ft Buffer)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



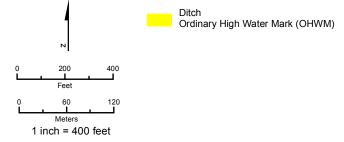
Jurisdictional Delineation to Top of Bank or Edge of Riparian

January 27, 2021

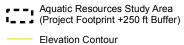




SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).



Top of Bank (TOB) (TOB width may be obscured on narrow features due to map scale)



Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



**Jurisdictional Delineation** to Top of Bank or Edge of Riparian

January 27, 2021

California High-Speed Rail Authority

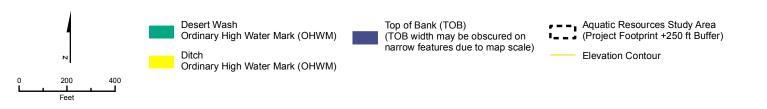


1 inch = 400 feet

California High-Speed Rail Authority



SOURCE: Microsoft Corporation Bing Hybrid Imagery ESRI Service Layer (2020); Esri/National Geographic (2020); Engineering data from the CHSR (7/2020); USGS Elevation Contours (2014).





Coordinate System: NAD 1983 California State Plane V Projection: Lambert Conic Conformal Datum: North American 1983 Vertical Datum: NAVD88, U.S. Feet



Jurisdictional Delineation to Top of Bank or Edge of Riparian

January 27, 2021

Aquatic Resources Memorandum



## **APPENDIX E: JURISDICTIONAL DELINEATION DIMENSIONS**

This Appendix presents summary information for each delineated feature in the CCNM Aquatic Study Area by label and map sheet number. Data contained herein complies with USACE Final Map and Drawing Standards for the South Pacific Division Regulatory Program. Note the Segment Identification number shown is a unique identifier that corresponds with the ORM Tables, continuing from previously submitted documentation provided to the USACE for the AJD.



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Table E-1 Aquatic Resource Jurisdictional Delineation Dimensions in the Aquatic Resources Study Area

Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
C/D-1A	Canal	perennial	n/a	n/a	n/a	30	C/D-1A	1.41	5, 6	Kern Island Canal- Frontal Kern Lake Bed
							C/D-1B- 001	0.01	5	Kern Island Canal- Frontal Kern Lake Bed
C/D-1B	Canal	perennial	n/a	n/a	n/a	30	C/D-1B- 002	0.01	5	Kern Island Canal- Frontal Kern Lake Bed
							C/D-1B- 003	0.63	5	Kern Island Canal- Frontal Kern Lake Bed
C/D-1C	Canal	perennial	n/a	n/a	n/a	30	C/D-1C	0.03	5	Kern Island Canal- Frontal Kern Lake Bed
C/D-1D	Canal	perennial	n/a	n/a	n/a	30	C/D-1D	1.96	4, 5	Kern Island Canal- Frontal Kern Lake Bed
0/D 4F	Canal			-1-		20	C/D-1E- 001	0.08	2	Kern Island Canal- Frontal Kern Lake Bed
C/D-1E	Canal	perennial	n/a	n/a	n/a	30	C/D-1E- 002	0.23	2	Kern Island Canal- Frontal Kern Lake Bed
C/D-1F	Canal	perennial	n/a	n/a	n/a	30	C/D-1F	0.47	1	Kern Island Canal- Frontal Kern Lake Bed



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
C/D-2A	Canal	perennial	n/a	n/a	n/a	30	C/D-2A	0.15	2	Kern Island Canal- Frontal Kern Lake Bed
C/D 2D	Canal	navanial		- la	- la	30	C/D-2B- 001	0.02	2	Kern Island Canal- Frontal Kern Lake Bed
C/D-2B	Canal	perennial	n/a	n/a	n/a	30	C/D-2B- 002	0.001	2	Kern Island Canal- Frontal Kern Lake Bed
C/D-2C	Canal	perennial	n/a	n/a	n/a	30	C/D-2C	0.01	1, 2	Kern Island Canal- Frontal Kern Lake Bed
C/D-2D	Canal	perennial	n/a	n/a	n/a	30	C/D-2D	0.22	1	Kern Island Canal- Frontal Kern Lake Bed
C/D-2E	Canal	ial	n/a	n/a	26	30	C/D-2E- 001	0.55	1	Kern Island Canal- Frontal Kern Lake Bed
G/D-ZE	Canai	perennial	п/а	п/а	n/a	30	C/D-2E- 002	1.06	1	Kern Island Canal- Frontal Kern Lake Bed
R/DB-1	Basin	intermittent - artificial	Palustrine emergent	PEM	Lacustrine		R/DB-1	0.40	5, 6	Kern Island Canal- Frontal Kern Lake Bed
R/DB-2	Basin	intermittent - artificial	Palustrine emergent	PEM	Lacustrine		R/DB-2	0.11	2	Kern Island Canal- Frontal Kern Lake Bed



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
R/DB-3	Basin	intermittent -	Palustrine	PEM	Lacustrine		R/DB-3- 001	0.37	1, 2	Kern Island Canal- Frontal Kern Lake Bed
K/DD-3	Dasiii	artificial	emergent	PEW	Lacustine		R/DB-3- 002	0.14	1, 2	Kern Island Canal- Frontal Kern Lake Bed
R/DB-4	Basin	intermittent - artificial	Palustrine emergent	PEM	Lacustrine		R/DB-4	0.04	1	Kern Island Canal- Frontal Kern Lake Bed
0001	Canal	no no no ni ol	n/a	- l-	-1-	30	0001-001	2.37	6	Kern Island Canal- Frontal Kern Lake Bed
0001	Canai	perennial	Tiva	n/a	n/a	30	0001-002	0.01	6	Kern Island Canal- Frontal Kern Lake Bed
0002	Ditch	ephemeral	n/a	n/a	n/a	1	2	0.02	6	Kern Island Canal- Frontal Kern Lake Bed
0003	Ditch	ephemeral	n/a	n/a	n/a	2	3	0.003	7	Kern Island Canal- Frontal Kern Lake Bed
0004	Basin	intermittent - artificial	Palustrine emergent	PEM	Lacustrine	0	4	0.72	7	Kern Island Canal- Frontal Kern Lake Bed
0005	Ditch	ephemeral	n/a	n/a	n/a	6	5	0.04	7	Kern Island Canal- Frontal Kern Lake Bed
0006	Basin	intermittent - artificial	Palustrine emergent	PEM	Lacustrine	0	6	3.47	7, 8	Kern Island Canal- Frontal Kern Lake Bed



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0007	Basin	ephemeral	Palustrine unconsolidated	PUBx	n/a	0	0007-001	0.18	8	Kern Island Canal- Frontal Kern Lake Bed
0007	Dasiii	ерпешега	bottom	PUDX	II/a	U	0007-002	0.63	8	Kern Island Canal- Frontal Kern Lake Bed
0008	Basin	ephemeral	Palustrine unconsolidated	PUBx	n/a	0	0008-001	0.67	8	Kern Island Canal- Frontal Kern Lake Bed
0006	Dasiii	ерпешега	bottom	PUDX	II/a	U	0008-002	0.02	8	Kern Island Canal- Frontal Kern Lake Bed
0009	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	9	0.36	8	Kern Island Canal- Frontal Kern Lake Bed
0010	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	10	0.28	8	Kern Island Canal- Frontal Kern Lake Bed
0011	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	11	0.30	8	Kern Island Canal- Frontal Kern Lake Bed
0012	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	12	0.33	8	Kern Island Canal- Frontal Kern Lake Bed
0013	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	13	0.23	8	Kern Island Canal- Frontal Kern Lake Bed
0014	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	14	0.11	8	Kern Island Canal- Frontal Kern Lake Bed



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0015	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	15	0.05	8	Kern Island Canal- Frontal Kern Lake Bed
0016	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	16	0.01	8	Kern Island Canal- Frontal Kern Lake Bed
0017	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	17	0.03	8	Kern Island Canal- Frontal Kern Lake Bed
0018	Basin	anhamaral	Palustrine unconsolidated	PUBx	n/a	0	0018-001	0.05	8	Kern Island Canal- Frontal Kern Lake Bed
0016	DaSiii	ephemeral	bottom	PUDX	II/a	U	0018-002	0.15	8	Kern Island Canal- Frontal Kern Lake Bed
0019	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	19	0.15	8	Kern Island Canal- Frontal Kern Lake Bed
0000	Desir	intermittent -	Palustrine	DEM	Lacostria	0	0020-001	0.09	9	Kern Island Canal- Frontal Kern Lake Bed
0020	Basin	artificial	emergent	PEM	Lacustrine	0	0020-002	0.03	9	Kern Island Canal- Frontal Kern Lake Bed
0021	Basin	perennial	Palustrine unconsolidated bottom	PUBx	n/a	0	21	0.11	9	Kern Island Canal- Frontal Kern Lake Bed
0022	Basin	perennial	Palustrine unconsolidated bottom	PUBx	n/a	0	22	0.12	9	Kern Island Canal- Frontal Kern Lake Bed



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0023	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	23	0.05	11	Kern Island Canal- Frontal Kern Lake Bed
0024	Basin	intermittent -	Palustrine	PEM	Lacustrine	0	0024-001	1.15	11	Kern Island Canal- Frontal Kern Lake Bed
0024	Basin	artificial	emergent	PEIVI	Lacustine	U	0024-002	0.09	11	Kern Island Canal- Frontal Kern Lake Bed
0025	Basin	intermittent -	Palustrine	PEM	Lacustrine	0	0025-001	0.03	12	Kern Island Canal- Frontal Kern Lake Bed
0025	Basin	artificial	emergent	PEIVI	Lacustine	U	0025-002	0.86	11, 12	Kern Island Canal- Frontal Kern Lake Bed
0027	Basin	perennial -	Palustrine	PEM	Lacustrine	0	0027-001	0.05	13	Kern Island Canal- Frontal Kern Lake Bed
0027	Basin	artificial	emergent	PEIVI	Lacustine	U	0027-002	0.59	13	Kern Island Canal- Frontal Kern Lake Bed
0028	Basin	perennial - artificial	Palustrine emergent	PEM	Lacustrine	0	28	0.04	13	Kern Island Canal- Frontal Kern Lake Bed
0020	Ditak			- la	-1-	1	0029-001	0.002	13	Kern Island Canal- Frontal Kern Lake Bed
0029	Ditch	ephemeral	n/a	n/a	n/a	ı	0029-002	0.001	13	Kern Island Canal- Frontal Kern Lake Bed



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
							0030-001	0.01	13, 15	Kern Island Canal- Frontal Kern Lake Bed
0030	Ditch	onhomoral	n/a	n/a	n/a	1	0030-002	0.001	13	Kern Island Canal- Frontal Kern Lake Bed
0030	Ditcii	ephemeral	TI/a	II/a	II/a	, I	0030-003	0.02	13, 15	Kern Island Canal- Frontal Kern Lake Bed
							0030-004	0.001	13	Kern Island Canal- Frontal Kern Lake Bed
0031	Basin	perennial	Palustrine unconsolidated bottom	PUBx	n/a	0	31	0.33	14	Kern Island Canal- Frontal Kern Lake Bed
0032	Basin	intermittent - artificial	Palustrine unconsolidated bottom	PUB	n/a		32	0.03	16	Kern Island Canal- Frontal Kern Lake Bed
0033	Basin	perennial - artificial	Palustrine emergent	PEM	Lacustrine	0	33	1.15	17	Kern Island Canal- Frontal Kern Lake Bed
0034	Ditch	intermittent	n/a	n/a	n/a	2	0034-001	0.003	17	Kern Island Canal- Frontal Kern Lake Bed
0034	Ditcii	memmem	П/а	II/a	II/a	2	0034-002	0.001	17	Kern Island Canal- Frontal Kern Lake Bed
0035	Basin	perennial - artificial	Palustrine emergent	PEM	Lacustrine	0	35	0.65	17	Kern Island Canal- Frontal Kern Lake Bed



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0036	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	36	0.22	17	Kern Island Canal- Frontal Kern Lake Bed
							0037-001	0.38	19	Kern Island Canal- Frontal Kern Lake Bed
0037	Basin	perennial -	Palustrine	PEM	Lacustrine	0	0037-002	0.34	19	Kern Island Canal- Frontal Kern Lake Bed
0037	Dasiii	artificial	emergent	PEW	Lacustine	U	0037-003	0.98	19	Kern Island Canal- Frontal Kern Lake Bed
							0037-004	0.04	19	Kern Island Canal- Frontal Kern Lake Bed
0038	Basin	perennial - artificial	Palustrine emergent	PEM	Lacustrine	0	38	0.52	19	Kern Island Canal- Frontal Kern Lake Bed
0039	Basin	perennial - artificial	Palustrine emergent	PEM	Lacustrine	0	39	0.02	19	Kern Island Canal- Frontal Kern Lake Bed
							0040-001	0.01	21	Kern Island Canal- Frontal Kern Lake Bed
0040	Ditch	intermittent	n/a	n/a	n/a	4	0040-002	0.23	19	Kern Island Canal- Frontal Kern Lake Bed
							0040-003	0.001	19	Kern Island Canal- Frontal Kern Lake Bed



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
							0041-001	0.06	20	Kern Island Canal- Frontal Kern Lake Bed
0041	Basin	perennial	Palustrine unconsolidated bottom	PUBx	n/a	0	0041-002	0.07	20	Kern Island Canal- Frontal Kern Lake Bed
							0041-003	0.08	20	Kern Island Canal- Frontal Kern Lake Bed
0042	Basin	intermittent - artificial	Palustrine unconsolidated bottom	PUB	n/a	0	42	0.04	20	Kern Island Canal- Frontal Kern Lake Bed
0043	Basin	perennial -	Palustrine	PEM	Lacustrine	0	0043-001	0.07	21	Kern Island Canal- Frontal Kern Lake Bed
0043	Dasiii	artificial	emergent	FEIVI	Lacustinie	U	0043-002	0.90	20, 21	Kern Island Canal- Frontal Kern Lake Bed
0044	Basin	intermittent - artificial	Palustrine emergent	PEM	Lacustrine	0	44	0.66	20, 21	Kern Island Canal- Frontal Kern Lake Bed
							0046-001	0.001	22	Lower Caliente Creek
							0046-002	0.16	22, 23	Lower Caliente Creek
0046	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	532	0046-003	2.51	22, 23	Lower Caliente Creek
	Juodin		opnomoral				0046-004	0.60	22, 23	Lower Caliente Creek
							0046-005	0.04	22, 23	Lower Caliente Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
							0047-001	0.21	22	Lower Caliente Creek
0047	Ephemeral	anhamaral	Riverine,	R6	n/a	100	0047-002	0.02	22	Lower Caliente Creek
0047	Stream	ephemeral	ephemeral	K0	II/a	100	0047-003	0.63	22, 23	Lower Caliente Creek
							0047-004	0.28	22, 23	Lower Caliente Creek
	Basin - In		Palustrine				0049-001	0.02	23	Lower Caliente Creek
0049	Stream	ephemeral	unconsolidated bottom	PUB	n/a	0	0049-002	0.14	23	Lower Caliente Creek
			<b>.</b>				0050-001	0.002	23	Lower Caliente Creek
0050	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1	0050-002	0.01	23	Lower Caliente Creek
	Otroam		Cpricincial				0050-003	0.003	23	Lower Caliente Creek
0051	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	9	51	0.09	23	Lower Caliente Creek
-							0052-001	0.01	23	Lower Caliente Creek
0052	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0052-002	0.01	23	Lower Caliente Creek
	Olleani		ерпетнега				0052-003	0.01	23, 24	Lower Caliente Creek
0053	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1.5	53	0.02	23	Lower Caliente Creek
0054	Basin - In Stream	perennial	Palustrine unconsolidated bottom	PUB	n/a	0	54	0.33	23	Lower Caliente Creek
							0055-001	0.01	23	Lower Caliente Creek
0055	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	6	0055-002	0.07	23	Lower Caliente Creek
	Otteam		Cpriemeral				0055-003	0.02	23	Lower Caliente Creek
0056	Ephemeral	a m h a ma a ma l	Riverine,	R6	2/2	2.5	0056-001	0.01	23	Lower Caliente Creek
0056	Stream	ephemeral	ephemeral	K0	n/a	2.5	0056-002	0.01	23	Lower Caliente Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
			D				0057-001	0.01	24	180300030602
0057	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	6	0057-002	0.15	23, 24	180300030602
	Outdam		opriomoral				0057-003	0.04	24	180300030602
							0059-001	0.001	24	180300030602
0059	Ephemeral	onhomoral	Riverine,	R6	n/a	2	0059-002	0.01	24	180300030602
0059	Stream	ephemeral	ephemeral	RO	II/a	2	0059-003	0.01	24	180300030602
							0059-004	0.01	24	180300030602
							0060-001	0.001	24	180300030602
0060	Ephemeral	anhamaral	Riverine,	R6	n/a	5	0060-002	0.01	24	180300030602
0000	Stream	ephemeral	ephemeral	RO	11/a	5	0060-003	0.03	24	180300030602
							0060-004	0.004	24	180300030602
							0061-001	0.01	25	180300030602
0061	Ephemeral		Riverine,	R6	-/-	6	0061-002	0.02	25	180300030602
0061	Stream	ephemeral	ephemeral	K0	n/a	O	0061-003	0.04	25	180300030602
							0061-004	0.004	25	180300030602
							0062-001	0.01	25	180300030602
0062	Ephemeral		Riverine,	R6	2/2	4	0062-002	0.01	25	180300030602
0062	Stream	ephemeral	ephemeral	K0	n/a	4	0062-003	0.06	25	180300030602
							0062-004	0.005	25	180300030602
							0063-001	0.005	25	180300030602
0063	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0063-002	0.004	25	180300030602
	Olicani		орпешега				0063-003	0.01	25	180300030602



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0064	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0064-001	0.01	25	180300030602
	Sueam						0064-002	0.002	25	180300030602
		ephemeral	Riverine, ephemeral	R6	n/a	6	0065-001	0.04	27	180300030602
0005	Ephemeral						0065-002	0.04	27	180300030602
0065	Stream						0065-003	0.13	27	180300030602
							0065-004	0.22	25, 27	180300030602
							0065-005	0.01	25, 27	180300030602
	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	20	0066-001	0.02	26	180300030602
0066							0066-002	0.03	26	180300030602
							0066-003	0.10	26	180300030602
							0066-004	0.02	26	180300030602
0007	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0067-001	0.005	27	180300030602
0067							0067-002	0.02	27	180300030602
							0067-003	0.01	27	180300030602
	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	0069-001	0.004	27, 28	180300030602
							0069-002	0.01	27, 28	180300030602
0069							0069-003	0.03	27, 28	180300030602
							0069-004	0.03	27, 28	180300030602
							0069-005	0.02	27, 28	180300030602



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0070	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1.5	0070-001	0.02	27, 28	180300030602
_							0070-002	0.001	27, 28	180300030602
0071	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1.5	0071-001	0.003	28	180300030602
							0071-002	0.01	28	180300030602
							0071-003	0.01	27, 28	180300030602
							0071-004	0.001	27, 28	180300030602
0072	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	5	0072-001	0.01	28	180300030602
							0072-002	0.03	28	180300030602
							0072-003	0.03	28	180300030602
_							0072-004	0.003	28	180300030602
0074	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0074-001	0.01	28	180300030602
							0074-002	0.03	28, 29	180300030602
							0074-003	0.01	28	180300030602
							0074-004	0.01	28	180300030602
0075	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1.5	0075-001	0.002	28, 29	180300030602
							0075-002	0.01	28, 29	180300030602
							0075-003	0.01	28, 29	180300030602



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0076	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1.5	0076-001	0.002	28, 29	180300030602
							0076-002	0.01	28, 29	180300030602
							0076-003	0.01	28, 29	180300030602
							0076-004	0.001	28, 29	180300030602
0077	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0077-001	0.01	29	180300030602
							0077-002	0.14	28, 29	180300030602
							0077-003	0.04	28, 29	180300030602
0078	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0078-001	0.01	29	180300030602
							0078-002	0.03	29	180300030602
							0078-003	0.01	29	180300030602
0080	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	5	0080-001	0.02	30	Lower Caliente Creek
							0080-002	0.06	30	Lower Caliente Creek
							0080-003	0.01	30	Lower Caliente Creek
0081	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0081-001	0.03	31	Lower Caliente Creek
							0081-002	0.11	30, 31	Lower Caliente Creek
							0081-003	0.01	31	Lower Caliente Creek
0082	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	0082-001	0.02	31	Lower Caliente Creek
							0082-002	0.001	31	Lower Caliente Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0083	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0083-001	0.02	31	Lower Caliente Creek
							0083-002	0.01	31	Lower Caliente Creek
0084	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0084-001	0.004	31	Lower Caliente Creek
							0084-002	0.001	31	Lower Caliente Creek
0086	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0086-001	0.01	31	Lower Caliente Creek
							0086-002	0.07	31	Lower Caliente Creek
							0086-003	0.11	31	Lower Caliente Creek
							0086-004	0.01	31	Lower Caliente Creek
0087	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	87	0.03	31	Lower Caliente Creek
0088	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0088-001	0.002	31	Lower Caliente Creek
							0088-002	0.001	31	Lower Caliente Creek
							0088-003	0.01	31	Lower Caliente Creek
							0088-004	0.002	31	Lower Caliente Creek
0089	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	8	89	0.32	31, 32	Lower Caliente Creek
0090	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	8	90	0.34	31, 32	Lower Caliente Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0091	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	33	0091-001	0.04	31	Lower Caliente Creek
							0091-002	0.03	32	Lower Caliente Creek
							0091-003	0.48	31, 32	Lower Caliente Creek
							0091-004	0.38	31, 32	Lower Caliente Creek
							0091-005	0.02	31, 32	Lower Caliente Creek
0092	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	10	0092-001	0.01	32	Lower Caliente Creek
							0092-002	0.02	32	Lower Caliente Creek
							0092-003	0.25	31, 32	Lower Caliente Creek
							0092-004	0.02	31	Lower Caliente Creek
0093	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	6	0093-001	0.01	31	Lower Caliente Creek
							0093-002	0.01	31	Lower Caliente Creek
0095	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	6	0095-001	0.01	32	Lower Caliente Creek
							0095-002	0.01	32	Lower Caliente Creek
							0095-003	0.07	32	Lower Caliente Creek
0096	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	6	0096-001	0.01	32	Lower Caliente Creek
							0096-002	0.03	32	Lower Caliente Creek
0097	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	6	97	0.02	32	Lower Caliente Creek
0098	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	15	98	0.18	32	Lower Caliente Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0100	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	100	0.07	32	Lower Caliente Creek
0101	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	101	0.05	33	Lower Caliente Creek
0102	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	6	0102-001	0.001	33	Lower Caliente Creek
							0102-002	0.01	33	Lower Caliente Creek
0103	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0103-001	0.02	33	Lower Caliente Creek
							0103-002	0.12	33	Lower Caliente Creek
							0103-003	0.001	33	Lower Caliente Creek
0104	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	8	0104-001	0.03	33	Lower Caliente Creek
							0104-002	0.07	33	Lower Caliente Creek
							0104-003	0.05	33	Lower Caliente Creek
0105	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	8	105	0.12	33	Lower Caliente Creek
0106	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	11	0106-001	0.05	33	Lower Caliente Creek
							0106-002	0.07	33, 34	Lower Caliente Creek
0107	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0107-001	0.005	33	Lower Caliente Creek
							0107-002	0.01	33	Lower Caliente Creek
							0107-003	0.13	33	Lower Caliente Creek
							0107-004	0.04	33	Lower Caliente Creek
							0107-005	0.01	33	Lower Caliente Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0108	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0108-001	0.005	33	Lower Caliente Creek
							0108-002	0.04	33	Lower Caliente Creek
							0108-003	0.002	33	Lower Caliente Creek
0109	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	4	109	0.01	33	Lower Caliente Creek
0110	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	110	0.03	33	Lower Caliente Creek
0111	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	5	0111-001	0.002	33	Lower Caliente Creek
							0111-002	0.03	33	Lower Caliente Creek
							0111-003	0.02	33	Lower Caliente Creek
							0111-004	0.02	33	Lower Caliente Creek
0112	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0112-001	0.01	36	Lower Caliente Creek
							0112-002	0.04	36	Lower Caliente Creek
							0112-003	0.01	36	Lower Caliente Creek
							0112-004	0.01	36	Lower Caliente Creek
0113	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0113-001	0.01	36	Lower Caliente Creek
							0113-002	0.01	36	Lower Caliente Creek
							0113-003	0.12	36	Lower Caliente Creek
							0113-004	0.31	36, 37, 38	Lower Caliente Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0118	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0118-001	0.11	38, 39	Lower Caliente Creek
							0118-002	0.01	38	Lower Caliente Creek
0119	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0119-001	0.10	38, 39	Lower Caliente Creek
							0119-002	0.01	38	Lower Caliente Creek
0120	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	8	120	0.001	38	Lower Caliente Creek
0121	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0121-001	0.02	41	Lower Caliente Creek
							0121-002	0.39	38, 40, 41	Lower Caliente Creek
							0121-003	0.12	38, 39, 40, 41	Lower Caliente Creek
							0121-004	0.01	39	Lower Caliente Creek
0122	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	10	0122-001	0.82	39	Lower Caliente Creek
							0122-002	0.02	39	Lower Caliente Creek
0125	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	125	0.11	41	Lower Caliente Creek
0126	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1.5	0126-001	0.002	41	Lower Tehachapi Creek
							0126-002	0.01	41	Lower Tehachapi Creek
							0126-003	0.01	41	Lower Tehachapi Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0127	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0127-001	0.005	41	Lower Tehachapi Creek
							0127-002	0.08	41	Lower Tehachapi Creek
							0127-003	0.002	41	Lower Tehachapi Creek
							0127-004	0.01	41	Lower Tehachapi Creek
0129	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	12	0129-001	0.02	41	Lower Tehachapi Creek
							0129-002	0.33	41, 42	Lower Tehachapi Creek
							0129-003	0.03	42	Lower Tehachapi Creek
							0129-004	0.32	41, 42	Lower Tehachapi Creek
0130	Perennial Stream	perennial	Riverine, lower perennial, unconsolidated bottom	R2UB	n/a	12	0130-001	0.06	42, 43	Lower Tehachapi Creek
							0130-002	0.06	42, 43	Lower Tehachapi Creek
							0130-003	0.04	43	Lower Tehachapi Creek
							0130-004	1.37	41, 42, 43	Lower Tehachapi Creek
							0130-005	0.04	41, 42, 43	Lower Tehachapi Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0136	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1.5	0136-001	0.03	43, 44	Lower Tehachapi Creek
							0136-002	0.01	44	Lower Tehachapi Creek
							0136-003	0.001	44	Lower Tehachapi Creek
0138	Seasonal Wetland	intermittent	Palustrine emergent	PEM	Riverine		138	0.51	43	Lower Tehachapi Creek
0140	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	20	0140-001	0.01	45	Lower Tehachapi Creek
							0140-002	0.66	45, 46	Lower Tehachapi Creek
							0140-003	0.03	45	Lower Tehachapi Creek
							0140-004	0.07	46	Lower Tehachapi Creek
							0140-005	2.27	43, 45, 46, 48	Lower Tehachapi Creek
							0140-006	0.18	43, 45, 46	Lower Tehachapi Creek
0142	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1.5	0142-001	0.02	43, 44	Lower Tehachapi Creek
							0142-002	0.004	44	Lower Tehachapi Creek
							0142-003	0.01	44	Lower Tehachapi Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0143	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1.5	0143-001	0.003	46	Lower Tehachapi Creek
							0143-002	0.001	46	Lower Tehachapi Creek
							0143-003	0.02	46	Lower Tehachapi Creek
0144	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	8	0144-001	0.02	45	Lower Tehachapi Creek
							0144-002	0.15	45, 46	Lower Tehachapi Creek
							0144-003	0.03	45, 46	Lower Tehachapi Creek
							0144-004	0.38	45, 46	Lower Tehachapi Creek
0154	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	0154-001	0.09	46, 50	Lower Tehachapi Creek
							0154-002	0.01	46, 50	Lower Tehachapi Creek
							0154-003	0.01	46	Lower Tehachapi Creek
							0154-004	0.02	46, 50	Lower Tehachapi Creek
							0154-005	0.01	46	Lower Tehachapi Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0155	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	0155-001	0.05	46	Lower Tehachapi Creek
							0155-002	0.004	46	Lower Tehachapi Creek
0156	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	0156-001	0.05	47, 50	Lower Tehachapi Creek
							0156-002	0.01	47	Lower Tehachapi Creek
0159	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0159-001	0.001	48	Lower Tehachapi Creek
							0159-002	0.001	48	Lower Tehachapi Creek
							0159-003	0.01	48	Lower Tehachapi Creek
							0159-004	0.001	48	Lower Tehachapi Creek
0160	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	10	0160-001	0.001	48	Middle Tehachapi Creek
							0160-002	0.003	48	Middle Tehachapi Creek
							0160-003	0.01	48	Middle Tehachapi Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0161	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	20	0161-001	0.10	48	Middle Tehachapi Creek
							0161-002	0.04	48	Middle Tehachapi Creek
							0161-003	0.13	48	Middle Tehachapi Creek
0163	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	10	0163-001	1.20	48, 52	Tweedy Creek
							0163-002	0.03	52	Tweedy Creek
							0163-003	0.03	52	Tweedy Creek
							0163-004	0.02	48	Tweedy Creek
							0163-005	0.58	48, 52	Tweedy Creek
0164	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	25	0164-001	0.15	62, 63, 64	Middle Tehachapi Creek
							0164-002	0.15	62	Middle Tehachapi Creek
							0164-003	0.07	61	Middle Tehachapi Creek
							0164-004	3.49	48, 49, 59, 61, 62, 63, 64	Middle Tehachapi Creek
							0164-005	0.58	48, 49, 59, 61	Middle Tehachapi Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
							0164-006	4.91	48, 49, 59, 61, 62, 63, 64	Middle Tehachapi Creek
0166	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	166	0.08	47, 50	Lower Tehachapi Creek
0167	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	4	0167-001	0.08	50	Tweedy Creek
							0167-002	0.005	50	Tweedy Creek
							0167-003	0.03	50	Tweedy Creek
0168	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	6	168	0.24	50, 52	Tweedy Creek
0169	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	4	0169-001	0.06	50	Tweedy Creek
							0169-002	0.01	50	Tweedy Creek
							0169-003	0.03	50	Tweedy Creek
0170	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	4	0170-001	0.12	51, 52	Tweedy Creek
							0170-002	0.01	51	Tweedy Creek
							0170-003	0.02	51	Tweedy Creek
0171	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1.5	171	0.001	52	Tweedy Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0173	Basin - In Stream	perennial	Palustrine unconsolidated bottom	PUB	n/a		173	0.08	52	Tweedy Creek
0174	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	5	0174-001	0.01	53	Tweedy Creek
							0174-002	0.17	52, 53	Tweedy Creek
							0174-003	0.02	52, 53	Tweedy Creek
							0174-004	0.03	53	Tweedy Creek
							0174-005	0.26	52, 53	Tweedy Creek
0176	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	4	0176-001	0.07	52	Tweedy Creek
							0176-002	0.005	52	Tweedy Creek
							0176-003	0.03	52	Tweedy Creek
0177	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	4	0177-001	0.01	52	Tweedy Creek
							0177-002	0.03	52	Tweedy Creek
0178	Basin - In Stream	perennial	Palustrine unconsolidated bottom	PUB	n/a		178	0.11	52	Tweedy Creek
0179	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1	179	0.01	53	Tweedy Creek
0180	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	0180-001	0.01	53	Middle Tehachapi Creek
							0180-002	0.02	53, 55	Middle Tehachapi Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0182	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0182-001	0.03	53, 55	Middle Tehachapi Creek
							0182-002	0.01	55	Middle Tehachapi Creek
0183	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	0183-001	0.01	53	Middle Tehachapi Creek
							0183-002	0.06	53, 55	Middle Tehachapi Creek
							0183-003	0.02	55	Middle Tehachapi Creek
0186	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0186-001	0.15	55, 57	Middle Tehachapi Creek
							0186-002	0.005	55	Middle Tehachapi Creek
							0186-003	0.01	57	Middle Tehachapi Creek
							0186-004	0.11	55, 57	Middle Tehachapi Creek
							0186-005	0.01	57	Middle Tehachapi Creek
							0186-006	0.02	55, 57	Middle Tehachapi Creek

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Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0187	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1.5	0187-001	0.03	55, 57	Middle Tehachapi Creek
							0187-002	0.002	55	Middle Tehachapi Creek
							0187-003	0.01	55	Middle Tehachapi Creek
							0187-004	0.001	55	Middle Tehachapi Creek
0188	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	0188-001	0.12	55, 56, 57	Middle Tehachapi Creek
							0188-002	0.005	55, 56	Middle Tehachapi Creek
							0188-003	0.05	55, 56	Middle Tehachapi Creek
							0188-004	0.001	55	Middle Tehachapi Creek
0190	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0190-001	0.04	57	Middle Tehachapi Creek
							0190-002	0.01	57, 59	Middle Tehachapi Creek
							0190-003	0.05	57, 59	Middle Tehachapi Creek
0191	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	6	0191-001	0.41	57, 59	Middle Tehachapi Creek
							0191-002	0.02	57	Middle Tehachapi Creek
							0191-003	0.04	57	Middle Tehachapi Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
							0191-004	0.01	57, 58	Middle Tehachapi Creek
							0191-005	0.002	59	Middle Tehachapi Creek
							0191-006	0.07	57, 58, 59	Middle Tehachapi Creek
0192	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0192-001	0.06	57, 58	Middle Tehachapi Creek
							0192-002	0.01	57	Middle Tehachapi Creek
							0192-003	0.001	57	Middle Tehachapi Creek
0193	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	193	0.02	57	Middle Tehachapi Creek
0194	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	194	0.03	58	Middle Tehachapi Creek
0196	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1.5	0196-001	0.04	59	Middle Tehachapi Creek
							0196-002	0.01	59	Middle Tehachapi Creek
							0196-003	0.01	59	Middle Tehachapi Creek
							0196-004	0.01	59	Middle Tehachapi Creek
0197	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	5	197	0.02	59	Middle Tehachapi Creek

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Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0199	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	0199-001	0.01	59	Middle Tehachapi Creek
							0199-002	0.01	59	Middle Tehachapi Creek
							0199-003	0.03	59	Middle Tehachapi Creek
0200	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	200	0.001	58, 59	Middle Tehachapi Creek
0201	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	5	0201-001	0.09	59	Middle Tehachapi Creek
							0201-002	0.01	59	Middle Tehachapi Creek
							0201-003	0.10	59	Middle Tehachapi Creek
0203	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	203	0.01	61	Middle Tehachapi Creek
0205	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1.5	0205-001	0.002	61	Middle Tehachapi Creek
							0205-002	0.04	61	Middle Tehachapi Creek
							0205-003	0.01	61	Middle Tehachapi Creek
							0205-004	0.001	61	Middle Tehachapi Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0207	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	5	0207-001	0.003	61	Middle Tehachapi Creek
							0207-002	0.15	61	Middle Tehachapi Creek
							0207-003	0.08	61	Middle Tehachapi Creek
0210	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0210-001	0.02	62	Middle Tehachapi Creek
							0210-002	0.06	62	Middle Tehachapi Creek
							0210-003	0.05	62	Middle Tehachapi Creek
							0210-004	0.001	62	Middle Tehachapi Creek
0214	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1	0214-001	0.002	63	Middle Tehachapi Creek
							0214-002	0.001	63	Middle Tehachapi Creek
							0214-003	0.01	63	Middle Tehachapi Creek
0215	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0215-001	0.002	63	Middle Tehachapi Creek
							0215-002	0.01	63	Middle Tehachapi Creek
							0215-003	0.01	63	Middle Tehachapi Creek
							0215-004	0.001	63	Middle Tehachapi Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0222	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	8	0222-001	0.01	64	Middle Tehachapi Creek
							0222-002	0.52	64	Middle Tehachapi Creek
							0222-003	0.21	64	Middle Tehachapi Creek
							0222-004	0.01	64	Middle Tehachapi Creek
0223	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0223-001	0.02	64	Middle Tehachapi Creek
							0223-002	0.20	64, 65	Middle Tehachapi Creek
							0223-003	0.06	64, 65	Middle Tehachapi Creek
							0223-004	0.001	64	Middle Tehachapi Creek
0224	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	224	0.06	64, 65	Middle Tehachapi Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0225	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0225-001	0.01	65, 66	Middle Tehachapi Creek
							0225-002	0.47	64, 65, 66	Middle Tehachapi Creek
							0225-003	0.01	65	Middle Tehachapi Creek
							0225-004	0.06	65, 66	Middle Tehachapi Creek
							0225-005	0.001	65, 66	Middle Tehachapi Creek
0226	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0226-001	0.01	65	Middle Tehachapi Creek
							0226-002	0.06	65	Middle Tehachapi Creek
							0226-003	0.02	65	Middle Tehachapi Creek
0228	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0228-001	0.001	65, 66	Middle Tehachapi Creek
							0228-002	0.02	65, 66	Middle Tehachapi Creek
							0228-003	0.005	65, 66	Middle Tehachapi Creek
							0228-004	0.05	65, 66	Middle Tehachapi Creek
							0228-005	0.001	66	Middle Tehachapi Creek

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Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0229	Basin - In Stream	intermittent	Palustrine unconsolidated bottom	PUB	n/a		0229-001	0.10	65, 66	Middle Tehachapi Creek
							0229-002	0.02	65, 66	Middle Tehachapi Creek
							0229-003	0.02	65, 66	Middle Tehachapi Creek
0231	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0231-001	0.01	66	Middle Tehachapi Creek
							0231-002	0.002	66	Middle Tehachapi Creek
							0231-003	0.09	66, 67	Middle Tehachapi Creek
0232	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1.5	0232-001	0.001	66	Middle Tehachapi Creek
							0232-002	0.005	66	Middle Tehachapi Creek
							0232-003	0.001	66	Middle Tehachapi Creek
							0232-004	0.01	66	Middle Tehachapi Creek
0233	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0233-001	0.01	67	Middle Tehachapi Creek
							0233-002	0.01	67	Middle Tehachapi Creek
							0233-003	0.04	67	Middle Tehachapi Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0234	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	7	0234-001	0.02	67	Middle Tehachapi Creek
							0234-002	0.01	67	Middle Tehachapi Creek
							0234-003	0.08	67	Middle Tehachapi Creek
0235	Basin	intermittent - artificial	Palustrine unconsolidated bottom	PUB	n/a		235	0.09	67, 69	Upper Tehachapi Creek
0236	Ditch	ephemeral	n/a	n/a	n/a	2.5	236	0.04	67, 68, 69	Upper Tehachapi Creek
0237	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2.5	0237-001	0.003	69	Upper Tehachapi Creek
							0237-002	0.02	69	Upper Tehachapi Creek
							0237-003	0.05	67, 69	Upper Tehachapi Creek
							0237-004	0.001	67, 69	Upper Tehachapi Creek
0238	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2.5	0238-001	0.003	67, 69	Upper Tehachapi Creek
							0238-002	0.01	67, 69	Upper Tehachapi Creek
							0238-003	0.03	67, 69	Upper Tehachapi Creek

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Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0239	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0239-001	0.05	68	Middle Tehachapi Creek
							0239-002	0.001	68	Middle Tehachapi Creek
0240	Ditch	ephemeral	n/a	n/a	n/a	2.5	0240-001	0.001	68	Upper Tehachapi Creek
							0240-002	0.02	68	Upper Tehachapi Creek
0242	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0242-001	0.002	69	Upper Tehachapi Creek
							0242-002	0.01	69	Upper Tehachapi Creek
0243	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	5	0243-001	0.01	69	Upper Tehachapi Creek
							0243-002	0.16	69	Upper Tehachapi Creek
							0243-003	0.01	69	Upper Tehachapi Creek
							0243-004	0.02	69	Upper Tehachapi Creek
0244	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0244-001	0.005	69	Upper Tehachapi Creek
							0244-002	0.05	69	Upper Tehachapi Creek
							0244-003	0.02	69	Upper Tehachapi Creek
							0244-004	0.04	69	Upper Tehachapi Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0245	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1	0245-001	0.001	69, 70	Upper Tehachapi Creek
							0245-002	0.01	69, 70	Upper Tehachapi Creek
							0245-003	0.01	69, 70	Upper Tehachapi Creek
							0245-004	0.001	69	Upper Tehachapi Creek
0246	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	6	0246-001	0.02	70	Upper Tehachapi Creek
							0246-002	0.09	70	Upper Tehachapi Creek
							0246-003	0.08	69, 70	Upper Tehachapi Creek
							0246-004	0.001	69, 70	Upper Tehachapi Creek
0248	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1	0248-001	0.002	70	Upper Tehachapi Creek
							0248-002	0.005	70	Upper Tehachapi Creek
							0248-003	0.001	70	Upper Tehachapi Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0249	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1	0249-001	0.001	70	Upper Tehachapi Creek
							0249-002	0.003	70	Upper Tehachapi Creek
							0249-003	0.001	70	Upper Tehachapi Creek
							0249-004	0.01	70	Upper Tehachapi Creek
0250	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	6	0250-001	0.01	71	Upper Tehachapi Creek
							0250-002	0.03	71	Upper Tehachapi Creek
							0250-003	0.11	71	Upper Tehachapi Creek
0251	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	8	0251-001	0.03	71	Upper Tehachapi Creek
							0251-002	0.17	71	Upper Tehachapi Creek
0252	Seasonal Wetland	intermittent	Palustrine emergent	PEM	Riverine		252	0.10	71	Upper Tehachapi Creek
0253	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	0253-001	0.004	71	Upper Tehachapi Creek
							0253-002	0.001	71	Upper Tehachapi Creek
							0253-003	0.02	71	Upper Tehachapi Creek
							0253-004	0.01	71	Upper Tehachapi Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0254	Basin	intermittent - artificial	Palustrine unconsolidated bottom	PUB	n/a	0	254	0.19	73, 75	Proctor Lake
0255	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	255	0.06	75	Upper Tehachapi Creek
0256	Basin	perennial - artificial	Palustrine emergent	PEM	Lacustrine	0	0256-001	0.53	75	Upper Tehachapi Creek
							0256-002	0.13	75	Upper Tehachapi Creek
							0256-003	6.14	75	Upper Tehachapi Creek
							0256-004	0.09	75	Upper Tehachapi Creek
0257	Basin	perennial - artificial	Palustrine emergent	PEM	Lacustrine	0	0257-001	0.83	75	Upper Tehachapi Creek
							0257-002	4.65	75	Upper Tehachapi Creek
							0257-003	0.005	75	Upper Tehachapi Creek
							0257-004	1.18	75	Upper Tehachapi Creek
0258	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	0258-001	0.07	75	Proctor Lake
							0258-002	0.02	75	Proctor Lake
0259	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	259	0.10	75	Proctor Lake



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0260	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	0260-001	0.96	77	Upper Tehachapi Creek
							0260-002	0.01	77	Upper Tehachapi Creek
0261	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	5	0261-001	0.01	78	Proctor Lake
							0261-002	0.04	78, 79	Proctor Lake
							0261-003	0.002	79	Proctor Lake
							0261-004	0.03		Proctor Lake
0262	Ditch	ephemeral	n/a	n/a	n/a	5	0262-001	0.17	78	Proctor Lake
							0262-002	0.12	78	Proctor Lake
0263	Ditch	ephemeral	n/a	n/a	n/a	5	0263-001	0.02	78	Proctor Lake
							0263-002	0.002	78	Proctor Lake
							0263-003	0.03	78	Proctor Lake
0265	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	20	0265-001	0.08	79	Proctor Lake
							0265-002	0.12	79	Proctor Lake
							0265-003	0.19	79, 80	Proctor Lake
							0265-004	0.23	80	Proctor Lake
0267	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	6	0267-001	0.08	80	Proctor Lake
							0267-002	0.01	80	Proctor Lake
							0267-003	0.01	80	Proctor Lake
							0267-004	0.06	80	Proctor Lake
							0267-005	0.01	80	Proctor Lake



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0269	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	5	0269-001	0.07	80	Proctor Lake
							0269-002	0.01	80	Proctor Lake
							0269-003	0.01	80	Proctor Lake
							0269-004	0.05	80	Proctor Lake
							0269-005	0.01	80	Proctor Lake
0271	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	10	0271-001	0.05	81	Proctor Lake
							0271-002	0.01	81	Proctor Lake
							0271-003	0.004	81	Proctor Lake
							0271-004	0.14	81, 82	Proctor Lake
							0271-005	0.001	81	Proctor Lake
0275	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	8	0275-001	0.49	82, 83	Proctor Lake
							0275-002	0.001	82	Proctor Lake
0278	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	5	278	0.05	83	Oak Creek
0279	Forested Wetland	intermittent	Palustrine Scrub Shrub	PSS	Riverine		279	0.39	83	Oak Creek
0280	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0280-001	0.05	84	Oak Creek
							0280-002	0.02	84	Oak Creek
							0280-003	0.01	84	Oak Creek
							0280-004	0.05	83, 84	Oak Creek
0281	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	281	0.001	84	Oak Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0283	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	0283-001	0.01	85	Oak Creek
							0283-002	0.003	85	Oak Creek
							0283-003	0.07	84, 85	Oak Creek
							0283-004	0.001	85	Oak Creek
0284	Seasonal Wetland	intermittent	Palustrine emergent	PEM	Slope		284	0.13	84	Oak Creek
0285	Seasonal Wetland	intermittent	Palustrine emergent	PEM	Slope		285	0.24	84	Oak Creek
0287	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	10	0287-001	0.03	84	Oak Creek
							0287-002	0.01	84	Oak Creek
							0287-003	0.23	84, 85	Oak Creek
							0287-004	0.001	85	Oak Creek
0288	Seasonal Wetland	intermittent	Riverine, intermittent, streambed	R4SB	Riverine	10	288	0.003	84	Oak Creek
0292	Seasonal Wetland	intermittent	Palustrine emergent	PEM	Slope		0292-001	0.10	84	Oak Creek
							0292-002	0.03	84	Oak Creek
							0292-003	0.06	84	Oak Creek
0293	Forested Wetland	intermittent	Palustrine Scrub Shrub	PSS	Riverine		0293-001	0.43	84	Oak Creek
							0293-002	0.09	84	Oak Creek
							0293-003	0.06	84	Oak Creek
0294	Forested Wetland	intermittent	Palustrine Scrub Shrub	PSS	Riverine		294	0.51	84	Oak Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0295	Forested Wetland	intermittent	Palustrine Scrub Shrub	PSS	Riverine		295	0.14	84	Oak Creek
0296	Forested Wetland	intermittent	Palustrine Scrub Shrub	PSS	Riverine		296	0.17	84	Oak Creek
0297	Seasonal Wetland	intermittent	Riverine, Intermittent	R4SB	Riverine	8	0297-001	0.01	85, 86	Oak Creek
			Riverine, intermittent, streambed	R4SB	Riverine	8	0297-002	0.44	84, 85, 86	Oak Creek
							0297-003	0.002	85, 86	Oak Creek
							0297-004	0.04	85, 86	Oak Creek
							0297-005	0.01	84	Oak Creek
							0297-006	0.60	84, 85, 86	Oak Creek
							0297-007	0.001	86	Oak Creek
0298	Forested Wetland	intermittent	Palustrine Scrub Shrub	PSS	Riverine		298	0.06	84, 85, 86	Oak Creek
0299	Forested Wetland	intermittent	Palustrine Scrub Shrub	PSS	Riverine		0299-001	0.21	84	Oak Creek
							0299-002	0.01	84	Oak Creek
0300	Seasonal Wetland	intermittent	Riverine, intermittent, streambed	R4SB	Riverine	10	0300-001	0.04	84	Oak Creek
							0300-002	0.001	84	Oak Creek
0301	Forested Wetland	intermittent	Palustrine Scrub Shrub	PSS	Riverine		0301-001	0.48	84	Oak Creek
							0301-002	0.02	84	Oak Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0302	Forested Wetland	intermittent	Palustrine Scrub Shrub	PSS	Riverine		0302-001	0.001	84	Oak Creek
							0302-002	0.003	84	Oak Creek
0308	Seasonal Wetland	intermittent	Palustrine emergent	PEM	Slope		308	0.27	85, 86	Oak Creek
0312	Forested Wetland	intermittent	Palustrine Scrub Shrub	PSS	Riverine		312	0.23	85, 86	Oak Creek
0315	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	15	0315-001	0.58	87	Oak Creek
							0315-002	0.03	87	Oak Creek
							0315-003	0.01	87	Oak Creek
							0315-004	0.32	87	Oak Creek
0320	Seasonal Wetland	intermittent	Palustrine emergent	PEM	Riverine		320	0.85	87	Oak Creek
0321	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	0321-001	0.10	87	Oak Creek
							0321-002	0.002	87	Oak Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0322	Intermittent Stream	intermittent	Riverine, intermittent, streambed	R4SB	n/a	8	0322-001	0.01	87	Oak Creek
							0322-002	0.19	87	Oak Creek
							0322-003	0.01	87	Oak Creek
							0322-004	0.02	87	Oak Creek
							0322-005	0.02	87	Oak Creek
							0322-006	0.20	87	Oak Creek
							0322-007	0.06	87	Oak Creek
							0322-008	0.25	87	Oak Creek
0323	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	323	0.02	87	Oak Creek
0324	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	1.5	324	0.01	87	Oak Creek
0325	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	3	0325-001	0.01	89, 90	Oak Creek
							0325-002	0.001	89	Oak Creek
0326	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	10	0326-001	0.05	90	Oak Creek
							0326-002	0.09	90	Oak Creek
							0326-003	0.21	90	Oak Creek
0327	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	25	0327-001	0.08	91	Oak Creek
							0327-002	0.02	91	Oak Creek
							0327-003	0.44	90, 91	Oak Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0328	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	18	0328-001	0.12	91	Oak Creek
							0328-002	0.05	90, 91	Oak Creek
							0328-003	0.01	91	Oak Creek
							0328-004	1.22	90, 91	Oak Creek
0329	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	2	0329-001	0.02	90	Oak Creek
							0329-002	0.01	90	Oak Creek
							0329-003	0.002	90	Oak Creek
							0329-004	0.02	90	Oak Creek
0330	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	5	0330-001	0.14	90	Oak Creek
							0330-002	0.001	90	Oak Creek
0334	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	15	0334-001	0.09	91	Oak Creek
							0334-002	0.01	91	Oak Creek
							0334-003	0.01	91	Oak Creek
							0334-004	0.59	91, 92	Oak Creek
							0334-005	0.002	92	Oak Creek
0335	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0335-001	0.13	92	Oak Creek
							0335-002	0.01	92	Oak Creek
							0335-003	0.03	92	Oak Creek
							0335-004	0.06	92	Oak Creek
							0335-005	0.001	92	Oak Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0336	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	4	0336-001	0.11	92	Oak Creek
							0336-002	0.01	92	Oak Creek
							0336-003	0.02	92	Oak Creek
							0336-004	0.06	92	Oak Creek
							0336-005	0.001	92	Oak Creek
0338	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	7	0338-001	0.14	93	Oak Creek
							0338-002	0.002	93	Oak Creek
							0338-003	0.04	93	Oak Creek
							0338-004	0.18	93	Oak Creek
							0338-005	0.001	93	Oak Creek
0339	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0339-001	0.04	93, 94	Oak Creek
							0339-002	0.003	94	Oak Creek
							0339-003	0.01	94	Oak Creek
							0339-004	0.001	94	Oak Creek
0340	Ephemeral Stream	ephemeral	Riverine, ephemeral	R6	n/a	15	340	0.09	93	Oak Creek
0341	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	10	0341-001	0.27	93	Oak Creek
							0341-002	0.03	93	Oak Creek
							0341-003	0.02	93	Oak Creek
							0341-004	0.12	93	Oak Creek
							0341-005	0.06	93, 94	Oak Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0343	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	15	0343-001	0.53	94	Oak Creek
							0343-002	0.06	94	Oak Creek
							0343-003	0.02	94	Oak Creek
							0343-004	0.07	94	Oak Creek
							0343-005	0.44	94	Oak Creek
							0343-006	0.03	94	Oak Creek
0344	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0344-001	0.03	95	Tropico Hill
							0344-002	0.02	95	Tropico Hill
							0344-003	0.02	95	Tropico Hill
0345	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	5	0345-001	0.10	97	Tropico Hill
							0345-002	0.01	97	Tropico Hill
							0345-003	0.02	97	Tropico Hill
							0345-004	0.04	97	Tropico Hill
0346	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	4	0346-001	0.15	98	Tropico Hill
							0346-002	0.02	98	Tropico Hill
							0346-003	0.01	98	Tropico Hill
							0346-004	0.02	98	Tropico Hill
							0346-005	0.16	98	Tropico Hill



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0347	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	5	0347-001	0.01	99	Tropico Hill
							0347-002	0.002	99	Tropico Hill
							0347-003	0.002	99	Tropico Hill
							0347-004	0.06	99	Tropico Hill
0348	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	348	0.02	100	Tropico Hill
0349	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0349-001	0.04	100	Tropico Hill
							0349-002	0.004	100	Tropico Hill
0350	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0350-001	0.01	102	Tropico Hill
							0350-002	0.01	102, 103	Tropico Hill
							0350-003	0.10	100, 101, 102, 103	Tropico Hill
							0350-004	0.01	100	Tropico Hill
							0350-005	0.08	100, 102, 103	Tropico Hill
							0350-006	0.01	102, 103	Tropico Hill



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0351	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0351-001	0.01	100, 101, 103	Tropico Hill
							0351-002	0.03	100, 101, 103	Tropico Hill
							0351-003	0.05	100, 101, 103	Tropico Hill
							0351-004	0.001	100, 101, 103	Tropico Hill
0352	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0352-001	0.005	104	Bean Canyon
							0352-002	0.01	104	Bean Canyon
							0352-003	0.01	102, 104	Bean Canyon
0355	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0355-001	0.001	112	Tropico Hill
							0355-002	0.01	112	Tropico Hill
							0355-003	0.001	112	Tropico Hill
							0355-004	0.03	112	Tropico Hill
0356	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	6	0356-001	0.01	112	Tropico Hill
							0356-002	0.02	112	Tropico Hill
							0356-003	0.13	112	Tropico Hill
							0356-004	0.001	112	Tropico Hill
0357	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	357	0.02	114, 115	Oak Creek
0358	Ditch	ephemeral	n/a	n/a	n/a	4	358	0.02	114	Oak Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0359	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0359-001	0.002	114	Oak Creek
							0359-002	0.01	114	Oak Creek
							0359-003	0.05	114	Oak Creek
							0359-004	0.001	114	Oak Creek
0360	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	360	0.06	115	Oak Creek
0361	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	8	0361-001	0.01	117	Oak Creek
							0361-002	0.04	117	Oak Creek
							0361-003	0.29	117, 118	Oak Creek
							0361-004	0.001	117	Oak Creek
0362	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	362	0.03	118	Oak Creek
0363	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	6	0363-001	0.004	118	Oak Creek
							0363-002	0.09	118	Oak Creek
0364	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	0364-001	0.002	118	Oak Creek
							0364-002	0.01	118	Oak Creek
							0364-003	0.08	118	Oak Creek
							0364-004	0.001	118	Oak Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0365	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0365-001	0.002	118	Oak Creek
							0365-002	0.01	118	Oak Creek
							0365-003	0.02	118	Oak Creek
							0365-004	0.001	118	Oak Creek
0366	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	8	0366-001	0.06	119	Oak Creek
							0366-002	0.001	118, 119	Oak Creek
0367	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	8	0367-001	0.01	119	Oak Creek
							0367-002	0.02	119	Oak Creek
							0367-003	0.12	119	Oak Creek
0368	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	0368-001	0.001	121	Tropico Hill
							0368-002	0.01	121	Tropico Hill
							0368-003	0.03	120, 121	Tropico Hill
							0368-004	0.001	120	Tropico Hill
0370	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0370-001	0.002	123, 124, 125	Oak Creek
							0370-002	0.01	123, 124, 125	Oak Creek
							0370-003	0.03	123, 125	Oak Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0371	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	6	0371-001	0.003	123, 124	Town of Mojave
							0371-002	0.01	123, 124	Town of Mojave
							0371-003	0.11	123, 124	Town of Mojave
							0371-004	0.001	123, 124	Town of Mojave
0372	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0372-001	0.01	123, 125	Oak Creek
							0372-002	0.001	123, 125	Oak Creek
0373	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	0373-001	0.001	123, 124, 125	Oak Creek
							0373-002	0.01	123, 124, 125	Oak Creek
							0373-003	0.06	123, 124, 125	Oak Creek
							0373-004	0.001	123, 124, 125	Oak Creek
0374	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	8	0374-001	0.003	124	Oak Creek
							0374-002	0.001	124	Oak Creek
							0374-003	0.05	124	Oak Creek
							0374-004	0.001	124	Oak Creek
0375	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	1	0375-001	0.002	128, 129	Tropico Hill
							0375-002	0.03	128, 129	Tropico Hill



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0376	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	1	0376-001	0.002	129	Tropico Hill
							0376-002	0.02	129	Tropico Hill
							0376-003	0.01	128, 129	Tropico Hill
0378	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0378-001	0.01	129	Tropico Hill
							0378-002	0.05	129	Tropico Hill
							0378-003	0.03	129, 130	Tropico Hill
0379	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	1	379	0.01	129	Tropico Hill
0380	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3.5	0380-001	0.01	130	Tropico Hill
							0380-002	0.06	130	Tropico Hill
							0380-003	0.04	130	Tropico Hill
							0380-004	0.003	130	Tropico Hill
0381	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3.5	0381-001	0.07	130	Tropico Hill
							0381-002	0.03	130	Tropico Hill
0382	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	4	382	0.09	130	Tropico Hill
0383	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	1.5	0383-001	0.002	130	Tropico Hill
							0383-002	0.01	130	Tropico Hill
							0383-003	0.01	130	Tropico Hill
0384	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	7	384	0.15	130	Tropico Hill



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0385	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	1.5	0385-001	0.002	130	Tropico Hill
							0385-002	0.01	130	Tropico Hill
							0385-003	0.001	130	Tropico Hill
0386	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	4	386	0.50	130, 131, 132	Tropico Hill
0387	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	5	387	0.02	132	Tropico Hill
0388	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	4	0388-001	0.04	132	Tropico Hill
							0388-002	0.06	132	Tropico Hill
							0388-003	0.03	132	Tropico Hill
0389	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	4	389	0.04	133	Tropico Hill
0390	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	15	0390-001	0.01	133	Tropico Hill
							0390-002	0.29	133	Tropico Hill
_							0390-003	0.002	133	Tropico Hill
0391	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	5	391	0.001	135	Bean Canyon
0392	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	5	392	0.04	135	Bean Canyon
0393	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	5	393	0.04	135	Bean Canyon



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0394	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	5	0394-001	0.002	135	Bean Canyon
							0394-002	0.01	135	Bean Canyon
							0394-003	0.25	135	Bean Canyon
							0394-004	0.001	135	Bean Canyon
0395	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	5	395	0.03	135	Bean Canyon
0396	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	7	396	0.03	135	Bean Canyon
0397	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	0397-001	0.001	138	Tylerhorse Canyon
							0397-002	0.06	137, 138	Tylerhorse Canyon
							0397-003	0.01	137, 138	Tylerhorse Canyon
							0397-004	0.03	137, 138	Tylerhorse Canyon
							0397-005	0.003	137, 138	Tylerhorse Canyon
0398	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	7	0398-001	0.03	137	Rosamond Lake
							0398-002	0.08	137	Rosamond Lake
0399	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	10	399	0.09	137	Rosamond Lake
0400	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	4	0400-001	0.001	137, 138	Tylerhorse Canyon
							0400-002	0.02	137, 138	Tylerhorse Canyon
							0400-003	0.005	137, 138	Tylerhorse Canyon
							0400-004	0.02	138	Tylerhorse Canyon



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0401	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	0401-001	0.04	138	Tylerhorse Canyon
							0401-002	0.01	138	Tylerhorse Canyon
							0401-003	0.02	138	Tylerhorse Canyon
0403	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0403-001	0.003	138	Tylerhorse Canyon
							0403-002	0.04	138	Tylerhorse Canyon
							0403-003	0.01	138	Tylerhorse Canyon
							0403-004	0.02	138	Tylerhorse Canyon
							0403-005	0.003	138	Tylerhorse Canyon
							0403-006	0.001	138	Tylerhorse Canyon
							0403-007	0.02	138	Tylerhorse Canyon
0405	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	10	405	0.02	138	Tylerhorse Canyon
0406	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0406-001	0.01	139	Tylerhorse Canyon
							0406-002	0.03	139	Tylerhorse Canyon
							0406-003	0.01	139	Tylerhorse Canyon
							0406-004	0.02	139	Tylerhorse Canyon
							0406-005	0.02	139	Tylerhorse Canyon
0407	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0407-001	0.004	139	180902062403
							0407-002	0.01	139	180902062403



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0409	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0409-001	0.02	139	Tylerhorse Canyon
							0409-002	0.01	139	Tylerhorse Canyon
							0409-003	0.002	139	Tylerhorse Canyon
0410	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	410	0.002	139	180902062403
0411	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	411	0.002	139	Tylerhorse Canyon
0412	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	412	0.003	139	180902062403
0413	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	11	0413-001	0.02	139	Tylerhorse Canyon
							0413-002	0.01	139	Tylerhorse Canyon
							0413-003	0.12	139	Tylerhorse Canyon
0414	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	414	0.003	139	Tylerhorse Canyon
0415	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	0415-001	0.01	139	180902062403
							0415-002	0.04	139	180902062403
							0415-003	0.01	139	180902062403
							0415-004	0.04	139	180902062403
							0415-005	0.001	139	180902062403



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0416	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0416-001	0.01	139	180902062403
							0416-002	0.02	139	180902062403
							0416-003	0.01	139	180902062403
							0416-004	0.004	139	180902062403
0417	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	9	0417-001	0.01	139	Tylerhorse Canyon
							0417-002	0.05	139	Tylerhorse Canyon
0418	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	418	0.02	139	Tylerhorse Canyon
0419	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	8	419	0.05	140	180902062403
0420	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0420-001	0.01	140	180902062403
							0420-002	0.03	140	180902062403
							0420-003	0.01	140	180902062403
							0420-004	0.03	140	180902062403
							0420-005	0.01	140	180902062403
0421	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0421-001	0.02	140	180902062403
							0421-002	0.01	140	180902062403
							0421-003	0.01	140	180902062403
							0421-004	0.01	140	180902062403



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0422	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	0422-001	0.001	140	180902062403
							0422-002	0.02	140	180902062403
							0422-003	0.001	140	180902062403
0423	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	423	0.01	140	180902062403
0424	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	12	0424-001	0.02	140	180902062403
							0424-002	0.22	140	180902062403
							0424-003	0.01	140	180902062403
							0424-004	0.09	140	180902062403
0425	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	12	0425-001	0.02	140	180902062403
							0425-002	0.17	140, 141	180902062403
							0425-003	0.02	141	180902062403
							0425-004	0.19	140, 141	180902062403
							0425-005	0.07	140, 141	180902062403
0426	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2.5	0426-001	0.002	140	180902062403
							0426-002	0.004	140	180902062403
0428	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	10	0428-001	0.01	141	180902062403
							0428-002	0.18	141	180902062403
							0428-003	0.02	141	180902062403
							0428-004	0.14	141	180902062403
							0428-005	0.01	141	180902062403



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0429	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	8	0429-001	0.01	141	180902062403
							0429-002	0.05	141	180902062403
0430	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	4	430	0.03	141	180902062403
0431	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	8	431	0.04	141	180902062403
0432	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	8	432	0.02	141	180902062403
0433	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	7	0433-001	0.01	141	180902062403
							0433-002	0.02	141	180902062403
							0433-003	0.07	141	180902062403
0434	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	4	0434-001	0.02	141	180902062403
							0434-002	0.01	141	180902062403
							0434-003	0.01	141	180902062403
0435	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	4	0435-001	0.005	141	180902062403
							0435-002	0.09	141	180902062403
							0435-003	0.01	141	180902062403
							0435-004	0.05	141	180902062403
							0435-005	0.01	141	180902062403



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0436	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	6	0436-001	0.01	141	180902062403
							0436-002	0.06	141	180902062403
							0436-003	0.04	141	180902062403
							0436-004	0.01	141	180902062403
0437	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	6	0437-001	0.01	141	180902062403
							0437-002	0.11	141	180902062403
							0437-003	0.02	141	180902062403
							0437-004	0.09	141	180902062403
							0437-005	0.001	141	180902062403
0438	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	4	0438-001	0.01	141, 142	180902062403
							0438-002	0.001	141, 142	180902062403
0439	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	439	0.07	142	180902062403
0440	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	4	0440-001	0.003	142	180902062403
							0440-002	0.04	142	180902062403
0441	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	441	0.06	142	180902062403
0442	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	1	0442-001	0.02	143	Kings Canyon
							0442-002	0.01	142, 143	Kings Canyon
							0442-003	0.005	142, 143	Kings Canyon



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0443	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	443	0.10	142	180902062403
0444	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	7	0444-001	0.01	142	180902062403
							0444-002	0.24	142	180902062403
							0444-003	0.04	142	180902062403
							0444-004	0.03	142	180902062403
0446	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	446	0.02	143	Kings Canyon
0447	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	4	0447-001	0.09	143, 144	Piute Ponds
							0447-002	0.02	143, 144	Piute Ponds
							0447-003	0.04	143, 144	Piute Ponds
0448	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	4	0448-001	0.22	143, 144	Kings Canyon
							0448-002	0.02	143	Kings Canyon
							0448-003	0.04	143	Kings Canyon
0449	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2.5	0449-001	0.05	143	Kings Canyon
							0449-002	0.01	143	Kings Canyon
0450	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	12	0450-001	0.17	143	Kings Canyon
							0450-002	0.001	143	Kings Canyon
0451	Ditch	ephemeral	n/a	n/a	n/a	3	451	0.02	143	Kings Canyon
0452	Ditch	ephemeral	n/a	n/a	n/a	3	0452-001	0.06	143, 144	Kings Canyon
							0452-002	0.001	143, 144	Kings Canyon



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0453	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	5	0453-001	0.003	143	Kings Canyon
							0453-002	0.001	143	Kings Canyon
0454	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0454-001	0.002	143	Kings Canyon
							0454-002	0.001	143	Kings Canyon
0455	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	455	0.01	144	Piute Ponds
0456	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	456	0.001	144	Piute Ponds
0457	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	457	0.03	144	Piute Ponds
0458	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	458	0.04	144	Piute Ponds
0459	Ditch	ephemeral	n/a	n/a	n/a	3	0459-001	0.04	144	Piute Ponds
							0459-002	0.01	144	Piute Ponds
							0459-003	0.03	144	Piute Ponds
0460	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	4	0460-001	0.003	144	Piute Ponds
							0460-002	0.15	144	Piute Ponds
							0460-003	0.02	144	Piute Ponds
0461	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	0461-001	0.06	144	Piute Ponds
							0461-002	0.02	144	Piute Ponds
							0461-003	0.002	144	Piute Ponds



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0462	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0462-001	0.02	144, 145	Piute Ponds
							0462-002	0.03	144, 145	Piute Ponds
							0462-003	0.02	144, 145	Piute Ponds
0463	Ditch	ephemeral	n/a	n/a	n/a	3	463	0.04	144	Piute Ponds
0464	Ditch	ephemeral	n/a	n/a	n/a	3	0464-001	0.03	144, 145	Piute Ponds
							0464-002	0.01	145	Piute Ponds
0465	Ditch	ephemeral	n/a	n/a	n/a	3	0465-001	0.01	144	Piute Ponds
							0465-002	0.01	144	Piute Ponds
							0465-003	0.03	144	Piute Ponds
							0465-004	0.001	144	Piute Ponds
0466	Ditch	ephemeral	n/a	n/a	n/a	3	0466-001	0.01	144	Piute Ponds
							0466-002	0.03	144	Piute Ponds
							0466-003	0.001	144	Piute Ponds
0467	Ditch	ephemeral	n/a	n/a	n/a	3	0467-001	0.002	144	Piute Ponds
							0467-002	0.02	144	Piute Ponds
0469	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	469	0.001	145	Lower Amargosa Creek
0470	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	470	0.01	145	Piute Ponds



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0471	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0471-001	0.003	145	Piute Ponds
							0471-002	0.04	145	Piute Ponds
							0471-003	0.001	145	Piute Ponds
							0471-004	0.03	145	Piute Ponds
							0471-005	0.001	145	Piute Ponds
0472	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	472	0.02	145	Piute Ponds
0473	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	0473-001	0.02	145	Lower Amargosa Creek
							0473-002	0.06	145	Lower Amargosa Creek
							0473-003	0.01	145	Lower Amargosa Creek
							0473-004	0.02	145	Lower Amargosa Creek
0474	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	474	0.01	145	Piute Ponds
0475	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	475	0.02	145	Lower Amargosa Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0476	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	6	0476-001	0.01	145	Lower Amargosa Creek
							0476-002	0.11	145	Lower Amargosa Creek
							0476-003	0.02	145	Lower Amargosa Creek
							0476-004	0.08	145	Lower Amargosa Creek
							0476-005	0.001	145	Lower Amargosa Creek
0477	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	0477-001	0.002	145	Lower Amargosa Creek
							0477-002	0.01	145	Lower Amargosa Creek
0478	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	1.5	478	0.01	145	Lower Amargosa Creek
0479	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	0479-001	0.01	145	Lower Amargosa Creek
							0479-002	0.001	145	Lower Amargosa Creek
0480	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	6	0480-001	0.01	145	Lower Amargosa Creek
							0480-002	0.06	145	Lower Amargosa Creek
							0480-003	0.05	145	Lower Amargosa Creek
							0480-004	0.001	145	Lower Amargosa Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0481	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	6	0481-001	0.05	146	Lower Amargosa Creek
							0481-002	0.01	146	Lower Amargosa Creek
0482	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	6	482	0.03	146	Lower Amargosa Creek
0483	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2.5	483	0.01	146	Lower Amargosa Creek
0484	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	0484-001	0.02	146, 147	Lower Amargosa Creek
							0484-002	0.05	146, 147	Lower Amargosa Creek
0485	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	3	0485-001	0.001	147	Lower Amargosa Creek
							0485-002	0.02	147	Lower Amargosa Creek
							0485-003	0.13	147	Lower Amargosa Creek
0486	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	486	0.01	147	Lower Amargosa Creek
0487	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	5	0487-001	0.001	150	Middle Amargosa Creek
							0487-002	0.09	150	Middle Amargosa Creek
							0487-003	0.001	150	Middle Amargosa Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0488	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	5	0488-001	0.01	150	Middle Amargosa Creek
							0488-002	0.05	150	Middle Amargosa Creek
							0488-003	0.01	150	Middle Amargosa Creek
							0488-004	0.07	150	Middle Amargosa Creek
							0488-005	0.001	150	Middle Amargosa Creek
0489	Basin	intermittent - artificial	Palustrine unconsolidated bottom	PUB	n/a	0	489	0.29	152	Middle Amargosa Creek
0490	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	0490-001	1.29	152	Middle Amargosa Creek
							0490-002	0.01	152	Middle Amargosa Creek
0491	Basin	ephemeral	Palustrine unconsolidated bottom	PUBx	n/a	0	0491-001	1.30	152	Middle Amargosa Creek
							0491-002	0.01	152	Middle Amargosa Creek
0492	Basin	intermittent - artificial	Palustrine unconsolidated bottom	PUB	n/a	0	492	0.82	153	Middle Amargosa Creek

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Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0493	Ditch	ephemeral	n/a	n/a	n/a	1.5	0493-001	0.01	154	Upper Amargosa Creek
							0493-002	0.01	154	Upper Amargosa Creek
							0493-003	0.01	154	Upper Amargosa Creek
0494	Ditch	ephemeral	n/a	n/a	n/a	2	494	0.06	154	Middle Amargosa Creek
0495	Ditch	ephemeral	n/a	n/a	n/a	1.5	495	0.01	154	Upper Amargosa Creek
0496	Ditch	ephemeral	n/a	n/a	n/a	1.5	496	0.02	154	Upper Amargosa Creek
0497	Basin	perennial - artificial	Palustrine unconsolidated bottom	PUB	n/a	0	497	3.93	154	Middle Amargosa Creek
0498	Ditch	ephemeral	n/a	n/a	n/a	2	498	0.04	154, 155	Upper Amargosa Creek
0499	Ditch	ephemeral	n/a	n/a	n/a	7	0499-001	0.005	154	Middle Amargosa Creek
							0499-002	0.02	154	Middle Amargosa Creek
							0499-003	0.05	154	Middle Amargosa Creek
							0499-004	0.001	154	Middle Amargosa Creek
0500	Ditch	ephemeral	n/a	n/a	n/a	2	500	0.08	157	Upper Amargosa Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0501	Ditch	ephemeral	n/a	n/a	n/a	2	501	0.24	157, 158, 159	Upper Amargosa Creek
0502	Seasonal Wetland	ephemeral	Palustrine emergent	PEM	Depress		0502-001	0.06	159	Upper Amargosa Creek
							0502-002	0.002	159	Upper Amargosa Creek
							0502-003	0.26	159	Upper Amargosa Creek
							0502-004	0.002	159	Upper Amargosa Creek
0503	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	1	0503-001	0.001	163	Upper Amargosa Creek
							0503-002	0.02	163	Upper Amargosa Creek
							0503-003	0.004	163	Upper Amargosa Creek
0504	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	1	504	0.04	163	Upper Amargosa Creek
0505	Ditch	ephemeral - artificial	n/a	n/a	n/a	1	505	0.005	163	Upper Amargosa Creek
0506	Ditch	ephemeral - artificial	n/a	n/a	n/a	8	506	0.08	163	Upper Amargosa Creek
0507	Ditch	ephemeral - artificial	n/a	n/a	n/a	12	0507-001	0.59	163, 165	Upper Amargosa Creek
							0507-002	0.07	163, 165	Upper Amargosa Creek
							0507-003	0.32	165	Upper Amargosa Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0508	Ditch	ephemeral - artificial	n/a	n/a	n/a	6	0508-001	0.001	163	Upper Amargosa Creek
							0508-002	0.004	163	Upper Amargosa Creek
							0508-003	0.01	163	Upper Amargosa Creek
0509	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	200	509	0.29	164	Upper Amargosa Creek
0510	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	2	510	0.02	165	Upper Amargosa Creek
0511	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	17	0511-001	0.01	166	Upper Amargosa Creek
							0511-002	0.003	165	Upper Amargosa Creek
							0511-003	0.28	165	Upper Amargosa Creek
							0511-004	0.29	165, 166	Upper Amargosa Creek
0513	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	18	513	0.04	165	Lower Amargosa Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0514	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	1	0514-001	0.001	166	Upper Amargosa Creek
							0514-002	0.001	166	Upper Amargosa Creek
							0514-003	0.01	166	Upper Amargosa Creek
							0514-004	0.01	166	Upper Amargosa Creek
							0514-005	0.001	166	Upper Amargosa Creek
0515	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	4	0515-001	0.003	166	Upper Amargosa Creek
							0515-002	0.01	166	Upper Amargosa Creek
							0515-003	0.02	166	Upper Amargosa Creek
							0515-004	0.10	166	Upper Amargosa Creek
							0515-005	0.001	166	Upper Amargosa Creek
0517	Basin	intermittent - artificial	Palustrine emergent	PEM	Lacustrine	0	517	2.01	167	Lower Amargosa Creek
0518	Basin	intermittent - artificial	Palustrine emergent	PEM	Lacustrine	0	518	1.73	167	Lower Amargosa Creek
0519	Ditch	ephemeral	n/a	n/a	n/a	12	519	0.68	167, 168	Lower Amargosa Creek
0520	Ditch	ephemeral - artificial	n/a	n/a	n/a	2	520	0.09	168	Lower Amargosa Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0521	Ditch	ephemeral - artificial	n/a	n/a	n/a	6	521	0.002	168	Lower Amargosa Creek
0522	Ditch	ephemeral - artificial	n/a	n/a	n/a	8	0522-001	0.03	169	Anaverde Creek
							0522-002	0.07	169	Anaverde Creek
0523	Basin	intermittent - artificial	Palustrine unconsolidated bottom	PUB	n/a	0	523	0.04	169	Anaverde Creek
0524	Basin	intermittent - artificial	Palustrine emergent	PEM	Lacustrine	0	0524-001	0.16	170	Anaverde Creek
							0524-002	0.01	170	Anaverde Creek
0525	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	16	0525-001	0.08	170	Anaverde Creek
							0525-002	0.05	170	Anaverde Creek
0526	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	35	0526-001	0.25	170	Anaverde Creek
							0526-002	0.26	170	Anaverde Creek
0527	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	8	527	0.03	170	Anaverde Creek
0528	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	10	528	0.06	170	Anaverde Creek
0529	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	80	0529-001	1.01	171	Anaverde Creek
							0529-002	0.09	171	Anaverde Creek
							0529-003	0.001	171	Anaverde Creek
							0529-004	0.001	171	Anaverde Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0530	Ditch	ephemeral - artificial	n/a	n/a	n/a	12	530	0.35	171	Anaverde Creek
0531	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	15	0531-001	0.18	171	Anaverde Creek
							0531-002	0.10	171	Anaverde Creek
0532	Ditch	ephemeral - artificial	n/a	n/a	n/a	15	532	0.14	171, 172	Anaverde Creek
0533	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	10	533	0.31	171	Anaverde Creek
0534	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	40	0534-001	0.18	171	Anaverde Creek
							0534-002	0.11	171	Anaverde Creek
							0534-003	0.001	171	Anaverde Creek
							0534-004	0.001	171	Anaverde Creek
0535	Ditch	ephemeral - artificial	n/a	n/a	n/a	15	535	1.18	172, 173	Anaverde Creek
0536	Ditch	ephemeral - intermittent	n/a	n/a	n/a	15	536	0.50	173, 174	Anaverde Creek
0537	Ditch	ephemeral - artificial	n/a	n/a	n/a	4	537	0.02	174	Anaverde Creek
0538	Ditch	ephemeral - artificial	n/a	n/a	n/a	2	0538-001	0.01	174	Anaverde Creek
							0538-002	0.001	174	Anaverde Creek
0539	Ditch	ephemeral - artificial	n/a	n/a	n/a	2	539	0.01	175	Lake Palmdale
0540	Ditch	ephemeral - artificial	n/a	n/a	n/a	6	540	0.01	175	Lake Palmdale



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
0541	Desert Wash	ephemeral	Riverine, ephemeral	R6	n/a	6	541	0.01	175	Lake Palmdale
CP Sheet 135	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.36	135	Bean Canyon, Rosamond Lake
CP Sheet 136	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.75	136	Rosamond Lake
CP Sheet 137	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.44	137	Rosamond Lake
CP Sheet 138	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			1.51	138	Tylerhorse Canyon
CP Sheet 139	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.22	139	Tylerhorse Canyon



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
CP Sheet 139	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			1.57	139	180902062403
CP Sheet 140	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.49	140	180902062403
CP Sheet 141	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			1.25	141	180902062403
CP Sheet 142	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.06	142	Kings Canyon
CP Sheet 142	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.73	142	180902062403
CP Sheet 143	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			1.09	143	Kings Canyon, Piute ponds



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
CP Sheet 145	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.04	145	Lower Amargosa Creek
CP Sheet 145	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.92	145	Piute Ponds
CP Sheet 146	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			2.52	146	Lower Amargosa Creek
CP Sheet 147	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.98	147	Lower Amargosa Creek
CP Sheet 148	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.41	148	Lower Amargosa Creek
CP Sheet 149	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.005	149	Lower Amargosa Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
CP Sheet 149	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.01	149	Middle Amargosa Creek
CP Sheet 150	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			1.22	150	Middle Amargosa Creek
CP Sheet 151	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.87	151	Middle Amargosa Creek
CP Sheet 152	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.78	152	Middle Amargosa Creek
CP Sheet 153	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.15	153	Middle Amargosa Creek
CP Sheet 154	Claypan	ephemeral	Palustrine emergent/ Palustrine unconsolidated bottom	PEM/PUB	Depressional			0.42	154	Middle Amargosa Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
PD Sheet 135	Ponding in Developed Areas	ephemeral	Palustrine unconsolidated bottom	PUB	n/a			0.19	135	Bean Canyon, Rodamond Lake, Tropico Hill
PD Sheet 136	Ponding in Developed Areas	ephemeral	Palustrine unconsolidated bottom	PUB	n/a			0.01	136	Rosamond Lake
PD Sheet 140	Ponding in Developed Areas	ephemeral	Palustrine unconsolidated bottom	PUB	n/a			0.17	140	180902062403
PD Sheet 146	Ponding in Developed Areas	ephemeral	Palustrine unconsolidated bottom	PUB	n/a			0.002	146	Lower Amargosa Creek
PD Sheet 151	Ponding in Developed Areas	ephemeral	Palustrine unconsolidated bottom	PUB	n/a			0.11	151	Middle Amargosa Creek
PD Sheet 152	Ponding in Developed Areas	ephemeral	Palustrine unconsolidated bottom	PUB	n/a			1.05	152	Middle Amargosa Creek
PD Sheet 153	Ponding in Developed Areas	ephemeral	Palustrine unconsolidated bottom	PUB	n/a			0.02	153	Middle Amargosa Creek
PD Sheet 154	Ponding in Developed Areas	ephemeral	Palustrine unconsolidated bottom	PUB	n/a			0.08	154	Middle Amargosa Creek
PD Sheet 154	Ponding in Developed Areas	ephemeral	Palustrine unconsolidated bottom	PUB	n/a			0.04	154	Upper Amargosa Creek
PD Sheet 155	Ponding in Developed Areas	ephemeral	Palustrine unconsolidated bottom	PUB	n/a			0.08	155	Upper Amargosa Creek



Map Label	Feature Type	Hydroperiod	Cowardin Class	Cowardin Code	HGM Code	Typical OHWM Width (Ft.)	Segment ID	Potential USACE Jurisdictional Area (Acres)	Map Sheet(s)	HUC12 Watershed
PD Sheet 156	Ponding in Developed Areas	ephemeral	Palustrine unconsolidated bottom	PUB	n/a			0.02	156	Upper Amargosa Creek
PD Sheet 138	Ponding in Developed Areas	ephemeral	Palustrine unconsolidated bottom	PUB	n/a			0.001	138	Tylerhorse Canyon
PD Sheet 141	Ponding in Developed Areas	ephemeral	Palustrine unconsolidated bottom	PUB	n/a			0.24	141	180902062403

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