3.1.5 Hydrology and Water Quality

This section discusses potential impacts to hydrology, water quality, and groundwater resources resulting from implementation of the Campo Wind Project with Boulder Brush Facilities (Project). The analysis is based on the review of existing resources; technical data; applicable laws, regulations, and guidelines; and the following technical reports:

- Groundwater Resources Evaluation for the Campo Wind Project with Boulder Brush Facilities prepared by Dudek (Appendix J-1)
- Groundwater Resources Investigation Report – Boundary Creek Watershed Analysis (Updated Draft) prepared by Dudek (Appendix J-2)
- Groundwater Resources Investigation Report – Flat Creek Watershed Analysis (Updated Draft) prepared by Dudek (Appendix J-3)
- Preliminary Hydrology Study for the Boulder Brush Facilities prepared by Westwood (Appendix K)
- Water Supply Assessment for the Campo Wind Project with Boulder Brush Facilities prepared by Dudek (Appendix N)

Comments received in response to the Notice of Preparation included concerns regarding the Project's water usage and its impact on local water supplies; impacts to surface and groundwater quality; and impacts relating to flooding. These concerns are considered in the preparation of this section where applicable. A copy of the Notice of Preparation and comment letters received in response to the Notice of Preparation is included in Appendix A of this Environmental Impact Report (EIR).

3.1.5.1 Existing Conditions

Surface Water Resources

The Project Area is located within the boundaries of two Regional Water Quality Control Boards (RWQCBs). The Boulder Brush Facilities and the portion of the Campo Wind Facilities located in the northeastern corner of the Campo Band of Diegueño Mission Indians Reservation (Reservation) fall within the boundary of Colorado River RWQCB (Region 7). The remaining southern portion of the Campo Wind Facilities are located within the boundary of the San Diego RWQCB (Region 9). The division between the Colorado River RWQCB and the San Diego RWQCB is marked by the Tecate Divide, shown in Figure 3.1.5-1, Hydrologic Areas.

With respect to regional hydrology, the majority of the Reservation Boundary within the San Diego RWQCB is located within the Tijuana hydrologic unit, and more specifically within the Campo and Cameron hydrologic areas. These hydrologic areas are subdivided into subareas, and the

Reservation Boundary intersects the Clover Flat, Hill, and Hipass hydrologic subareas. The northeastern corner of the Reservation Boundary and the entirety of the Boulder Brush Facilities within the Colorado River RWQCB is located within the McCain subarea of the Jacumba hydrologic area. These hydrologic units, areas, and subareas are watershed designations used by the RWQCBs in their basin planning efforts, and may differ from other watershed boundaries, such as those used by the U.S. Geological Survey (see Figure 3.1.5-1; Table 3.1.5-1, Watershed Designations by Agency/Source) (Colorado River RWQCB 2017; San Diego RWQCB 2016).

The U.S. Geological Survey Watershed Boundary Dataset indicates the Project Area lies within the Tecate Creek, Upper Cottonwood Creek, and Arroyo Seco watersheds of the Cottonwood-Tijuana sub-basin in Laguna-San Diego Coastal basin and in the Upper Carrizo Creek watershed of the Carrizo Creek sub-basin within the Salton Sea basin (see Figure 3.1.5-2, Watersheds) (USGS 2016). Surface waters from the Project Area ultimately flow to the Pacific Ocean, with the exception of waters from the northeastern portion of the Reservation and the Boulder Brush Boundary, which flow to the Salton Sea (Figure 3.1.5-1). Baseline hydrologic and existing water resources conditions in the Project Area are further addressed in Appendices J-1 through J-3.

A number of gullies, swales, and dry washes transect the Project Area. During heavy rain events, runoff starts as sheet flow and concentrates in several paths as it flows into area streams. The Reservation Boundary includes U.S. Geological Survey blue-line drainages, including Campo Creek, Miller Creek, Diabold Creek, and unnamed dry drainages (USGS 2019). An emergent wetland area is located within the central-western portion of the Reservation, along Diabold Creek, a tributary of Campo Creek just west of Church Road. This is a constructed wetland created by the Campo Band of Diegueño Mission Indians (Tribe) with a permit from the U.S. Army Corps of Engineers. U.S. Geological Survey blue-line drainages that cross the Boulder Brush Facilities consists of Tule Creek and unnamed tributaries to Tule Creek (USGS 2019).

Groundwater Resources

Due to the intermittent flow of surface water within the Project Area during most of the year and the lack of infrastructure to deliver imported water, groundwater wells constitute the sole source of domestic water supply to the Project Area and surrounding vicinity. Consequently, preservation of groundwater levels and quality is vital when evaluating proposed land uses within both the Reservation (by the Tribe and Bureau of Indian Affairs) and within the Boulder Brush Boundary under the jurisdiction of the County of San Diego (County). Water sources during construction would include On- and Off-Reservation facilities such as groundwater production wells on the southern end of the Reservation and commercially obtained non-potable water from permitted Off-Reservation purveyors such as Jacumba Community Services District (JCSD) and Padre Dam Municipal Water District (PDMWD). As water from PDMWD is not sourced from groundwater, the study area for groundwater resources includes both the On-Reservation wellfield and the aquifers that supply JCSD's wells.

Hydrographs for the On-Reservation wellfield and for wells outside the Reservation Boundary, presented as appendices to Appendix J-1, show relatively stable to slightly declining groundwater levels.

An estimated maximum water demand of approximately 173 acre-feet (AF) of water would be required over the 14 months of construction (123 AF for Campo Wind Facilities and 50 AF for Boulder Brush Facilities). Estimated water demand is derived from the expected disturbance acres (dust suppression) and volumes of expected concrete mixing for facilities foundations. For comparison purposes, groundwater use during construction of the San Diego Gas & Electric Company (SDG&E) East County Substation project was 36.4 AF over 4 months. Groundwater level measurements taken when pumps were running for the East County Substation project construction period revealed a decline in water levels of up to 110 feet, and 30 to 50 feet when pumps were shut off. By the end of the 5-year SDG&E East County Substation post-construction period, however, groundwater levels had recovered to near pre-construction levels.

In addition to the fractured rock aquifer underlying the southern portion of the Reservation Boundary, the Project has the potential to draw water from the fractured rock aquifer and alluvial aquifer that underlies the JCSD wells. JCSD's non-potable wells consist of Well 6, Highland Center Well, and Park Well, and are all located in an area immediately north of the international border, approximately 8 miles east of the Reservation's eastern boundary. The fractured rock aquifer underlying JCSD is similar to the aquifer underlying the southern portion of the Reservation, consisting of Cretaceous plutonic rocks known as the tonalite of La Posta (also referred to as the La Posta Quartz Diorite) (Appendix J-2). JCSD Well 6 accesses the fractured rock aquifer, whereas JCSD's Highland Center Well and Park Well accesses an alluvial aquifer. Groundwater resources investigations have been prepared to evaluate the cumulative impacts of supplying non-potable water to the Project and well as all other reasonably foreseeable future projects in the region. One groundwater investigation was prepared for the fractured rock aquifer accessed by Well 6 and its watershed (Appendix J-1), and another was prepared for the alluvial aquifer accessed by the Highland/Park Wells and their watershed (Appendix J-2). The depth to water for JCSD's wells varies seasonally and through time, but was measured to be between 5.53 and 59.15 feet below ground surface in 2019 (Appendix J-2).

As discussed in Appendix J-2, groundwater levels in JCSD Well 6 have been stable over time, even throughout the most recent drought period. Groundwater levels within JCSD's alluvial wells show a greater response to pumping (Well 4 typically supplies a greater amount of water) and dry periods, but has recovered and remained stable since 2017, after declining in the period between 2012 and 2017. The lack of response in Well 6 throughout the period to high levels of pumping in JCSD's alluvial well suggest that the water level of the fractured rock aquifer that Well 6 intercepts does not respond to pumping from the Well 4 (alluvial aquifer) (Appendix J-2). Water levels throughout the Jacumba Valley Alluvial Aquifer have varied historically with changes in climate and land use (e.g.,

agriculture), but have generally varied between 10 and 90 feet below ground surface, more recently being in the range of 30 to 60 feet below ground surface (Appendix J-3 [Exhibit 2-B]). A soil moisture balance method was used to estimate the groundwater in storage of the fractured rock and alluvial aquifer accessed by JCSD (estimated by the watersheds that encompass JCSD). According to Appendix J-2, the total groundwater in storage within the Boundary Creek study area is estimated to be 6,835 acre-feet. According to Appendix J-3, the total groundwater in storage within the Jacumba Valley alluvial aquifer is estimated to be 9,005 acre-feet.

Pursuant to Section 1424(e) of the Safe Drinking Water Act, the Regional Administrator of the U.S. Environmental Protection Agency (EPA) (Region 9) determined on May 28, 1993, that the Campo/Cottonwood Creek aquifer[1] is a sole or principal source of drinking water (i.e., Sole Source Aquifer) for the population in the vicinity of the communities of Boulevard, Campo, and Pine Valley, located in eastern San Diego County. While a majority of the Reservation Boundary lies within the designated boundaries of the Campo/Cottonwood Creek aquifer, the northeastern corner of the Reservation Boundary and the entirety of the Boulder Brush Facilities lies outside the area designated by the EPA as a sole source aquifer.

Water Quality and Supply

Water on the Reservation is provided by both individual on-site wells and community wells through three Public Water Systems[2] regulated by the Tribe, with oversight by the Campo EPA. The Tribe recognizes the need to plan for future water services, as well as to conserve available water. There are currently no land uses that consume water within the Boulder Brush Boundary, and the Boulder Brush Boundary is not connected to a public water system or located within the service area of a retail water supplier.

Limited information exists pertaining to groundwater quality within the Project Area. As part of a study for a landfill project that was proposed (but never constructed) on the southeastern corner of the Reservation Boundary, groundwater quality sampling occurred between 1994 and 2004. Constituents measured in water quality samples include chloride, fluoride, pH, sulfate, total dissolved solids (TDS), Title 22 metals, and volatile organic compounds. Groundwater at sampled locations was primarily sodium-bicarbonate type water, with water quality ranging from good to relatively poor. Poor groundwater quality encountered in some wells was the result of elevated concentrations of naturally occurring metals, primarily arsenic, manganese, iron, and TDS. The study found that TDS concentrations were generally elevated in the shallower parts of the

[1] Note that EPA's aquifer designation is based on surface watersheds (i.e., the Tijuana Hydrologic Unit), and is not the same as a groundwater basin, as defined by the California Department of Water Resources. There are no DWR-designated groundwater basins the underlie the Project Area.

[2] Section 10912 of the California Water Code defines a "public water system" as a system that has 3,000 or more service connections and provides piped water to the public for human consumption.

groundwater flow system, with deeper parts generally having lower TDS concentrations and therefore generally better groundwater quality. Water quality samples collected on the Reservation in 2004 generally met drinking water maximum contaminant levels (MCLs) for constituents sampled. Exceedances of primary MCLs for arsenic occurred in three (of 34) monitoring wells sampled in 2004. Exceedances of secondary MCLs for TDS occurred in four wells sampled, and exceedances of secondary MCLs for manganese occurred in one well sampled. No volatile organic compounds were detected in any of the wells sampled (Appendix J-1).

Because of the arid and ephemeral nature of surface watercourses on in the Project Area and vicinity, there is no systematic monitoring of surface water quality within the U.S. Geologic Survey blue line streams on-site or in the vicinity. However, water quality sampling in 2007 and 2008 lead to Campo Creek being listed as impaired for indicator bacteria on the most recently approved Clean Water Act (CWA) Section 303(d) List of Water Quality Limited Segments (SWRCB 2016). This impairment listing is relevant to the majority of the Reservation Boundary west of the Tecate Divide because storm runoff from the area eventually drains to Campo Creek. CWA Section 303(d) also lists Cottonwood Creek, Morena Reservoir, and Barrett Lake as impaired water bodies for a variety of pollutants/stressors (Table 3.1.5-2, Clean Water Act Section 303(d) Impairments). These waterbodies are all located downstream of the northwestern corner of the Reservation Boundary west of the Tecate Divide, although the Project surface area which contributes run-off to these impaired water bodies is rather limited. There are no CWA Section 303(d) impaired water bodies for the creeks intersected by the Boulder Brush Boundary or the portion of the Reservation Boundary located east of the Tecate Divide.

Pursuant to listing, the San Diego RWQCB has been tasked with developing Total Maximum Daily Loads (TMDLs) for these listed impairments currently lacking EPA-approved TMDLs. Listed 303(d) impairments in waterbodies located downstream from the Reservation Boundary include selenium, pH, ammonia, total nitrogen, manganese, phosphorous, perchlorate, indicator bacteria and water color.

Flood Hazards

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps identify flood zones and areas that are susceptible to 100-year (1% annual chance of occurrence) and 500-year floods (0.2% annual chance of occurrence). These areas are referred to as Special Flood Hazard Areas and Moderate Flood Hazard Areas respectively. Additionally, the County of San Diego Department of Public Works has developed additional flood maps for areas beyond those studied by FEMA. These maps are available through SanGIS (www.sangis.org). The entire Project Area is identified by FEMA as being within Zone D (FEMA 2012), which indicates that flood risk is possible but undetermined because the agency has not conducted a flood hazard analysis. The Project Area is not downstream of a dam and thus would not be subject to inundation in the event

of a dam failure; nor is the Project Area subject to seiche or tsunami (due to the great distance to the ocean or large body of water). The Project Area contains areas designated as County-identified flood hazard areas, but none of these areas traverse the Project Site (e.g., alluvial fan flooding area) (County of San Diego 2007a).

3.1.5.2 Regulatory Setting

Federal Regulations

Clean Water Act

Increasing public awareness and concern for controlling water pollution led to enactment of the Federal Water Pollution Control Act Amendments of 1972. As amended in 1977, this law became commonly known as the Clean Water Act (33 USC 1251 et seq.). The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The CWA established basic guidelines for regulating discharges of pollutants into waters of the United States. The CWA requires that states adopt water quality standards to protect public health, enhance the quality of water resources, and ensure implementation of the CWA.

Section 303 of the Clean Water Act (Beneficial Use and Water Quality Objectives)

The Colorado River RWQCB and San Diego RWQCB are responsible for the protection of the beneficial uses of waters within San Diego County and the Project Area. The RWQCB use their planning, permitting, and enforcement authority to meet their responsibilities adopted in their respective Basin Plans to implement plans, policies, and provisions for water quality management.

In accordance with state policy for water quality control, the RWQCB employs a range of beneficial use definitions for surface waters, groundwater basins, marshes, and mudflats that serve as the basis for establishing water quality objectives and discharge conditions and prohibitions. The Basin Plans for the Colorado River region and San Diego region have identified existing and potential beneficial uses supported by the key surface water drainages throughout its jurisdiction.

The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the nation's waters." Under CWA Section 303(d), the State of California is required to develop a list of impaired water bodies that do not meet water quality standards and objectives. There are no impaired waters within the Project Area, although surface waters could eventually discharge indirectly into the Salton Sea, which has several identified impairments. CWA Section 303(d) impairments associated with the Salton Sea include chloride, low dissolved oxygen, nitrogen/ammonia, toxicity, arsenic, nutrients, salinity, chlorpyrifos, DDT, and enterococcus; these are impairments typically associated with agricultural activities, ranching, and/or surface mining (SWRCB 2016). As previously described, Cottonwood Creek, Morena Reservoir, Barrett

Lake, and a portion of Campo Creek are listed as impaired water bodies under CWA Section 303(d) (Table 3.1.5-2, Clean Water Act Section 303(d) Impairments). A total maximum daily load defines how much of a specific pollutant/stressor a given water body can tolerate and still meet relevant water quality standards. No total maximum daily loads have been established for the aforementioned pollutants/stressors (SWRCB 2016).

Section 401 of the Clean Water Act (Water Quality Certification)

Section 401 of the CWA requires that an applicant for any federal permit (e.g., a U.S. Army Corps of Engineers [USACE] Section 404 Permit) obtain certification from the state that the discharge would comply with other provisions of the CWA and with state water quality standards. For example, an applicant for a permit under Section 404 of the CWA must also obtain water quality certification per Section 401 of the CWA. Section 404 of the CWA requires a permit from USACE prior to discharging dredged or fill material into waters of the United States, unless such a discharge is exempt from CWA Section 404. For the Project Site, the SWRCB must provide the water quality certification required under Section 401 of the CWA as the Project Site is located within multiple Regional Water Board jurisdictions. As discussed in Section 2.3, Biological Resources, a USACE Section 404 Permit is expected to be required for the Project. Water quality certification under Section 401 of the CWA, and the associated requirements and terms, is required to minimize or eliminate the potential water quality impacts associated with actions requiring the federal permit.

Section 402 of the Clean Water Act

The CWA was amended in 1972 to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The NPDES permit program, as authorized by Section 402 of the CWA, was established to control water pollution by regulating point sources that discharge pollutants into waters of the United States (33 USC 1342). In California, the EPA has authorized the SWRCB permitting authority to implement the NPDES program.

Regulations (Phase II Rule) that became final on December 8, 1999, expanded the existing NPDES program to address stormwater discharges from construction sites that disturb land equal to or greater than 1 acre and less than 5 acres (small construction activity). The regulations also require that stormwater discharges from small municipal separate storm sewer systems (MS4s) be regulated by an NPDES General Permit for Storm Water Discharges Associated with Construction Activity, Order No. 99-08-DWQ. Construction General Permits (CGPs) require the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP describes best management practices (BMPs) the discharger would use to protect stormwater runoff. The SWPPP must contain a visual monitoring program, a chemical monitoring program for non-visible

pollutants to be implemented if there is a failure of BMPs, and a sediment-monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment (which the Project Site does not). Routine inspection of all BMPs is required under the provisions of the CGP.

On September 2, 2009, the SWRCB issued a new NPDES General Permit for Storm Water Associated with Construction Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002), that became effective July 1, 2010. This new permit requires that construction and demolition sites meet more stringent, measurable (quantitative) standards for discharge management. New requirements include a risk-based permitting approach, numeric action levels and numeric effluent limitations, post-construction standards for discharges, increased BMP requirements, and increased monitoring and reporting requirements.

Section 404 of the Clean Water Act

Section 404 of the CWA established a permitting program to regulate the discharge of dredged or filled material into waters of the United States, which include wetlands (33 USC 1344). This permitting program is administered by USACE and enforced by the EPA. For more information on Section 404 of the CWA, see Section 2.3, Biological Resources, of this EIR.

Federal Antidegradation Policy

The Federal Antidegradation Policy (40 CFR 131.12) requires states to develop statewide antidegradation policies and identify methods for implementing them. Pursuant to the federal regulation, state antidegradation policies and implementation methods shall, at a minimum, protect and maintain: (1) existing in-stream water uses; (2) existing water quality where the quality of the waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) Water quality in waters considered an outstanding national resource. CWA Section 518(e) expressly provides for Indian tribes to play essentially the same role in Indian country that states do within state lands, authorizing EPA to treat eligible federally recognized Indian tribes in a similar manner as a state for implementing water quality standards including antidegradation policy.

Safe Drinking Water Act

The Federal Safe Drinking Water Act, established in 1974, sets drinking water standards throughout the country and is administered by the EPA. The drinking water standards established in the Safe Drinking Water Act, as set forth in the Code of Federal Regulations (CFR), are referred to as the National Primary Drinking Water Regulations (Primary Standards, Title 40, CFR Part 141) and the National Secondary Drinking Water Regulations (Second Standards, 40 CFR Part 143). EPA directly implements the Safe Drinking Water Act on federal Native American

reservations. Tribes are eligible for delegation of certain Safe Drinking Water Act programs as well as to receive primary enforcement authority for the drinking water program and delegation of the Underground Injection Control program.

National Flood Insurance Program

The National Flood Insurance Program (NFIP) is administered FEMA, a component of the U.S. Department of Homeland Security. The NFIP is a federal program enabling property owners in participating communities to purchase insurance protection against losses from flooding. In support of the NFIP, FEMA identifies flood hazard areas throughout the United States and its territories by producing flood hazard boundary maps, flood insurance rate maps, and flood boundary and floodway maps.

Executive Order 11988, Floodplain Management – Executive Order (EO) 11988 directs all federal agencies to avoid the long-term and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct or indirect support of floodplain development wherever there is a practical alternative.

Executive Order 11990, Protection of Wetlands – EO 11990 directs all federal agencies to avoid to the maximum extent possible the long-term and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practical alternative.

EO 11988 and EO 11990 are among several statutes, regulations, and executive orders that impose requirements on BIA regarding compliance with NEPA (Indian Affairs Manual, Part 59, Chapter 3, Section 3.4).

State Regulations

State regulations are applicable to the Boulder Brush Boundary, which is under the jurisdiction of the County. State regulations are not applicable to the Campo Wind Facilities or the Reservation.

California Fish and Game Code

Sections 1601–1603 of the California Fish and Game Code require a Streambed Alteration Agreement between the California Department of Fish and Wildlife and any entity proposing to substantially divert or obstruct the natural flow or effect changes to the bed, channel, or bank of any river, stream, or lake. The agreement is designed to protect the fish and wildlife values of a river, lake, or stream.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1967 (California Water Code Section 13000 et seq.) is the basic water quality control law for California. It requires the SWRCB and the nine RWQCBs to adopt water quality criteria to protect state waters. The SWRCB establishes statewide policy for water quality control and provides oversight of RWQCB operations. In addition to other regulatory responsibilities, the RWQCBs have the authority to conduct, order, and oversee investigation and cleanup where discharges or threatened discharges of waste to waters of the state could cause pollution or nuisance, including impacts to public health and the environment. The criteria for the Boulder Brush Facilities and the portion of the Campo Wind Facilities located in the northeastern corner of the Reservation are contained in the Water Quality Control Plan for the Colorado River Basin Plan, Region 7, adopted by the Colorado River RWQCB in August 2017 (Basin Plan). The criteria for the remaining portion of the Campo Wind Facilities is located in the Water Quality Control Plan for the San Diego RWQCB in May 2016 (Basin Plan). There are some regulatory tools that are unique to the Porter-Cologne Act, as described below.

Dredge/Fill Activities and Waste Discharge Requirements

Actions that involve, or are expected to involve, discharge of waste are subject to water quality certification under Section 401 of the CWA (e.g., if a federal permit is being sought or granted) and/or waste discharge requirements (WDRs) under the Porter-Cologne Act. Chapter 4, Article 4 of the Porter-Cologne Act (California Water Code Sections 13260–13274) states that persons discharging or proposing to discharge waste that could affect the quality of waters of the state (other than into a community sewer system) must file a Report of Waste Discharge with the applicable RWQCB. For discharges directly to surface water (waters of the United States), an NPDES permit is required, which is issued under both state and federal law; for other types of discharges, such as waste discharges to land (e.g., spoils disposal and storage), erosion from soil disturbance, or discharges to waters of the state (such as isolated wetlands), WDRs are required and are issued exclusively under state law. WDRs typically require many of the same BMPs and pollution control technologies as required by NPDES-derived permits. Further, the WDR application process is generally the same as for CWA Section 401 water quality certification, although for the WDR application process, it does not matter whether the particular project is subject to federal regulation.

General WDRs for Discharges to Land with a Low Threat to Water Quality

In SWRCB Order 2003-0003-DWQ, the SWRCB adopted General WDRs for discharges to land that are considered to be a low threat to water quality and are of low volume with minimal pollutant concentrations. All WDRs must implement the Basin Plan and require dischargers (e.g., the applicant) to comply with all applicable Basin Plan provisions and water quality objectives. The General WDRs

establish minimum standards and monitoring requirements with respect to a few specific categories of discharge, including boring waste discharge, small dewatering projects (e.g., temporary dewatering during construction), and miscellaneous discharges such as small, inert solid waste disposal operations.

Any dewatering activity that would discharge to the land surface would need to comply with the provisions of these General WDRs (or, alternatively, the applicant and/or its contractor would need to obtain an individual WDR). To obtain coverage under these General WDRs and ensure compliance with the applicable Basin Plan, the applicant and/or its contractor would submit the following to the RWQCB: a Notice of Intent to comply with these General WDRs, which would include a project map, evidence of California Environmental Quality Act (CEQA) compliance, the requisite fee, a discharge monitoring plan, and any additional information requested by the applicable RWQCB. RWQCB staff would determine whether coverage under the applicable General WDRs is appropriate and, if so, would notify the applicant by letter of coverage. In the event of any conflict between the provisions of the General WDRs and the Basin Plan, the more stringent provision would prevail.

As part of the California Safe Drinking Water Act, the State Department of Health Services sets primary and secondary standards for drinking water supplies. MCLs set by the Department of Health Services are either as stringent or more stringent than federal MCLs.

California Code of Regulations Title 22 Standards for the Use of Recycled Water

Title 22 of the California Code of Regulations (CCR) contains standards for the use of recycled water for general construction purposes, as detailed in Chapter 3, Article 3, Section 60307, Use of Recycled Water for Other Purposes. Recycled water can be used for soil compaction, mixing concrete, and/or dust control on roads and streets provided the water meets at least disinfected secondary-23 recycled water standards. Disinfected secondary-23 recycled water means recycled water that has been oxidized and disinfected so that the median concentration of total coliform bacteria in the disinfected effluent does not exceed a most probable number of 23 per 100 milliliters using the bacteriological results of the last 7 days for which analyses have been completed, and the number of total coliform bacteria does not exceed the most probable number of 240 per 100 milliliters in more than one sample in any 30-day period.

In addition, Chapter 3, Article 4, Section 60310—Use Area Requirements, states that no irrigation with, or impoundment of, disinfected secondary-2.2 or disinfected secondary-23 recycled water can take place within 100 feet of any domestic water supply well, and that any use of recycled water must comply with the following: any irrigation runoff must be confined to the recycled water use area, unless the runoff does not pose a public health threat and is authorized by the regulatory agency; spray, mist, and runoff must not enter dwellings, designated outdoor eating areas, or food handling facilities; and drinking water fountains must be protected against contact with recycled water spray, mist, and runoff.

Regional Water Quality Control Board

The statutes that govern Project activities that may affect water quality fall under the United States Code (USC) under the federal CWA (33 USC 1251 et seq.) and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) (California Water Code Section 13000 et seq.). These acts provide the basis for water quality regulation in the Project Area.

The California Legislature has assigned the primary responsibility to administer and enforce statutes for the protection and enhancement of water quality to the State Water Resources Control Board (SWRCB) and its nine RWQCBs. The SWRCB provides state-level coordination of the water quality control program by establishing statewide policies and plans for the implementation of state and federal regulations. The nine RWQCBs throughout California adopt and implement water quality control plans that recognize the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, and water quality problems. The RWQCB adopts and implements a Basin Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan (California Water Code Sections 13240–13247). The Project Site is located within the jurisdiction of the San Diego RWQCB and Colorado River RWQCB.

California Water Code

In the California Water Code there are 22 kinds of districts or local agencies with specific statutory provisions to manage surface water. Many of these agencies have statutory authority to exercise some forms of groundwater management. For example, a Water Replenishment District (Water Code Section 60000 et seq.) is authorized to establish groundwater replenishment programs and collect fees for that service, and a Water Conservation District (Water Code Section 75500 et seq.) can levy groundwater extraction fees. Through special acts of the Legislature, 13 local agencies have been granted greater authority to manage groundwater. Most of these agencies, formed since 1980, have the authority to limit export and control some in-basin extraction upon evidence of overdraft or the threat of an overdraft condition. These agencies can also generally levy fees for groundwater management activities and for water supply replenishment. The Project Area is not located within one of these districts or local agencies that mange surface water or groundwater (see below for discussion of San Diego County Flood Control District).

Assembly Bill 3030 – Groundwater Management Act

In 1992, Assembly Bill 3030 was passed, which greatly increased the number of local agencies authorized to develop a groundwater management plan and set forth a common framework for management by local agencies throughout California. These agencies could possess the same authority as a water replenishment district to “fix and collect fees and assessments for groundwater

management" (Water Code Section 10754), provided they receive a majority of votes in favor of the proposal in a local election (Water Code Section 10754.3). The Project Area is not located within a local agency authorized to develop a groundwater management plan.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) is intended to achieve sustainable management of groundwater resources for long-term reliability for multiple benefits while avoiding undesirable results. The SGMA directed the California Department of Water Resources (DWR) to assign priority ratings to groundwater basins throughout the state. All counties and cities that draw water from basins identified as "high" or "medium" priority must comply with the SGMA. The SGMA identifies two compliance options for "high" or "medium" priority basins: form a groundwater sustainability agency and adopt a groundwater sustainability plan, or submit a groundwater sustainability plan alternative if basin conditions demonstrate that the basin has operated under sustainable yield for the past 10 years. The Project Area is not within a DWR–defined groundwater basin; the closest DWR groundwater basins are the Campo Valley and Cottonwood Valley Groundwater Basins, located approximately 1 to 2 miles west of the Project Area. The Jacumba Valley Groundwater Basin which is identified as a potential source for Project water supply is located approximately 8 miles southeast of the Project Area. The DWR has designated all three of these groundwater basins as a very low priority basin (DWR 2019). Based on this determination, a Groundwater Sustainability Plan is not currently required (per SGMA) to be prepared for the Jacumba Valley Groundwater Basin.

Local Regulations

Local regulations are applicable to the Boulder Brush Facilities which is under the jurisdiction of the County. Local regulations are not applicable to the Campo Wind Facilities or the Reservation.

Colorado River Basin Plan

The Basin Plan for the Colorado River Basin, most recently amended in 2017, sets forth water quality objectives for constituents that could potentially cause an adverse impact on the beneficial uses of water. Specifically, the Basin Plan is designed to designate beneficial uses for surface water and groundwater; set the narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy; describe mitigation measures to protect the beneficial uses of all waters within the region; and describe surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan. The Basin Plan incorporates by reference all applicable SWRCB and RWQCB plans and policies.

San Diego Basin Plan

The Basin Plan for the San Diego Basin, most recently amended in 2016, sets forth water quality objectives for constituents that could potentially cause an adverse impact on the beneficial uses of water. Specifically, the Basin Plan is designed to designate beneficial uses for surface water and groundwater; set the narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy; describe mitigation measures to protect the beneficial uses of all waters within the region; and describe surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan. The Basin Plan incorporates by reference all applicable SWRCB and RWQCB plans and policies.

San Diego Municipal Stormwater Permit

On January 24, 2007, the Colorado River RWQCB issued an NPDES Municipal Stormwater Permit (Order No. R9-2007-0001) to the County and 20 other cities and jurisdictions in the region. Similarly, the San Diego RWQCB issued an NPDES Municipal Stormwater Permit (Order No. R9-2013-0001) on May 8, 2013 to the County and 38 other municipal, county government, and special district entities located throughout San Diego County, southern Orange County, and southwestern Riverside County. Both permits require development and implementation of BMPs in planning and construction of private and public development projects. Development projects are also required to include BMPs to reduce pollutant discharges from project sites in their permanent design. BMPs associated with final designs are described in the BMP Design Manual (County of San Diego 2019). In addition, the County requires a Storm Water Quality Management Plan (SWQMP) to describe potential construction and post-construction pollutants and to identify BMPs to protect water resources. The San Diego County Department of Public Works (DPW) prepared the *Design Manual for Permanent Site Design, Storm Water Treatment and Hydromodification Management*, which includes a comprehensive list of low-impact development planning and stormwater management techniques to assist in complying with the municipal permit (County of San Diego 2019). In addition, the County, in conjunction with other municipalities within the County, has prepared a Countywide BMP Design Manual (DM) as required by the Colorado River RWQCB and the San Diego RWQCB NPDES Permits. The BMP DM incorporates low-impact design measures, site design, source control and engineered, small-scale integrated management practices, such as bioretention basins, and provides a single integrated design option that complies with overlapping NPDES permit low-impact-design requirements, stormwater treatment requirements, and runoff peak-and-duration-control (hydromodification management) requirements (County of San Diego 2019).

San Diego County Flood Control District

The San Diego County Flood Control District (FCD), formed in 1966 by an act of the State Legislature, is responsible for flood control issues in the unincorporated areas of the County. The FCD protects land, properties, facilities, and people within the FCD from damage caused by stormwater and flood waters through control of the flood and stormwater. The FCD is also responsible for preserving such waters for beneficial uses, such as water supply, groundwater percolation, recreation, and the environment. The FCD uses its property and facilities, when not immediately needed for the control of flood and stormwater, in a manner beneficial to the general public. The FCD has legal authority to establish flood control and water quality policies, build and maintain recreational facilities within the watercourses of the County, purchase land and build and maintain facilities for the conveyance of stormwater and flood waters, provide flood warning services within the County, repair and restore affected watersheds, provide a water supply to County residents without existing service, and conduct investigations on the local watershed (San Diego County Flood Control District 2019).

San Diego County Groundwater Ordinance

The County currently manages anticipated future groundwater demand through its Groundwater Ordinance (San Diego County Code of Regulatory Ordinances, Sections 67.701–67.703, 67.710–67.711, and 67.720–67.722). This ordinance does not limit the number of wells or the amount of groundwater extraction from existing landowners. However, the ordinance does identify specific measures to mitigate potential groundwater impacts of projects requiring specified discretionary permits. Existing land uses are not subject to the ordinance unless a listed discretionary permit is required. Additionally, Major Use Permits or Major Use Permit Modifications that involve construction of agricultural and ranch support facilities or those involving new or expanded agricultural land uses are among the exemptions from the ordinance. However, the agricultural exemption does not supersede or limit the application of any law or regulation, including CEQA. The Groundwater Ordinance separates the County into three areas of regulations: Borrego Valley, Groundwater Impacted Basins, and All Other Projects.

Permitting of New Well, Replacement Well, and/or Well Destruction/Abandonment

The County Department of Environment, Health, Land and Water Quality Division, regulates the design, construction, modification, and destruction of water wells throughout San Diego County to protect San Diego County's groundwater resources. San Diego County Code, Sections 67.401 through 67.424, provide the regulatory authority to DEH to require and issue water well permits. In addition, Section 67.421 adopts standards from DWR Bulletin 74-81 and 74-90 (i.e., California Well Standards) for the construction, repair, reconstruction or destruction of wells (DWR 1981, 1991). California's Water Well Standards include requirements to avoid sources of contamination

or cross-contamination, proper sealing of the upper annular space (i.e., first 50 feet), disinfection of the well following construction work, use of appropriate casing material, and other requirements. The County requires wells to meet certain setback criteria (e.g., septic system setback) and specific construction and sealing requirements. In addition, well drilling activities are required to reduce pollution to the maximum extent practicable using BMPs such as installing a sediment basin to contain run-off, using geotextile fabric to contain sediments and drilling mud, or eliminating the use of drilling foam (County of San Diego 2016).

San Diego County Watershed Protection, Stormwater Management, and Discharge Control Ordinance

The County's Watershed Protection, Stormwater Management, and Discharge Control Ordinance (WPO) was adopted in March 2008 and revised in January 2016 (County Code of Regulatory Ordinances, Sections 67.801–67-815). The purpose of the WPO is to protect water resources and improve water quality by controlling the non-stormwater conveyance system and receiving waters, to cause the use of management practices by the County and its citizens that would reduce the adverse effects of polluted run-off discharges on waters of the state, to secure benefits from the use of stormwater as a resource, and to ensure that the County is compliant with state and federal law. The WPO establishes standards and requirements that are legally enforceable by the County within the County's jurisdiction. Projects that require a permit (e.g., administrative permit, major use permit, grading permit) are required to demonstrate compliance with the WPO. Section 67.804, for example, specifically addresses waste discharge and prohibits the discharge of pollutants to the stormwater system unless they are permitted through the NPDES program. Section 67.804 identifies minimum required construction and post-construction water quality BMPs applicable to all dischargers (County of San Diego 2010).

County of San Diego BMP Design Manual, 2019 Storm Water Requirements for Development Applications

The County's BMP DM is intended to help implement one part of the County's stormwater program. The BMP DM addresses storm water requirements for development applications. It is focused on project design requirements and related post-construction requirements, not on the construction process itself (County of San Diego 2019). The Project's compliance with the CGP requires preparation of a SWPPP and implementation of construction-specific BMPs, as described under the CGP (SWRCB Order 2009-0009-DWQ, as amended by Order 2010-0014-DWQ).

Although the bulk of the BMP DM is devoted to requirements applicable to priority development projects, it also includes requirements for all land development projects regardless of status, including the following (County of San Diego 2019):

- Implementation of source control BMPs as listed in Appendix E of the BMP DM
- Inclusion of site design features that conserve natural features, set back development from natural water bodies, minimize imperviousness, maximize infiltration, and retain and slow runoff
- Compliance with requirements for construction-phase controls on sediment and other pollutants

The County uses a stormwater intake form to determine a project's status, and requires land development projects that are not priority development projects to complete a Standard Storm Water Quality Management Plan identifying how the project intends to comply with the WPO. This includes identification of the type and location of BMPs and site design methods to be implemented.

San Diego County General Plan

Updated (and adopted) in August 2011, the San Diego County General Plan guides future growth in the unincorporated areas of the County and considers projected growth anticipated to occur within various communities.

Land Use Element

The General Plan Land Use Element includes a requirement to encourage sustainable use of groundwater and properly manage groundwater recharge areas (LU-8). Specifically, Goal LU-8 includes the following policies (County of San Diego 2011a):

- **Policy LU-8.1:** Require land use densities in groundwater dependent areas to be consistent with the long-term sustainability of groundwater supplies, except in the Borrego Valley.
- **Policy LU-8.2:** Require development to identify adequate groundwater resources in groundwater dependent areas, as follows:
    - In areas dependent within currently identified groundwater overdrafted basins, prohibit new development from exacerbating overdraft conditions, and
    - In areas without current overdraft groundwater conditions, evaluate new groundwater-dependent development to assure a sustainable long-term supply of groundwater is available that will not adversely impact existing groundwater users.
- **Policy LU-8.3:** Discourage development that would significantly draw down the groundwater table to the detriment of groundwater-dependent habitat.

Conservation and Open Space Element

The General Plan Conservation and Open Space Element identifies and describes the natural resources of the County and includes policies and action programs to conserve those resources. The Conservation and Open Space Element identifies policies necessary to achieve long-term viability of the County's water quality and supply through a balanced and regionally integrated water management approach (Goal COS-4), and protection and maintenance of local reservoirs, watersheds, aquifer-recharge areas, and natural drainage systems to maintain high-quality water resources (Goal COS-5) (County of San Diego 2011b).

Safety Element

The General Plan Safety Element was developed to introduce safety considerations into the planning and decision-making processes to reduce the risk of injury, loss of life, and property damage associated with the hazards identified in the element. The Safety Element identifies policies necessary to minimize personal injury and property damage losses resulting from flood events (Goal S-9), and ensure that floodways and floodplains have acceptable capacity to accommodate flood events (Goal S-10). These goals are achieved through policies encouraging the improvement and development of floodplain maps, regulating the types of development that can occur in floodplains, and ensuring that development outside of floodplains employ proper stormwater design and management practices necessary to increase the volume of stormwater entering waterways. The element also proposes policies and recommendations aimed at hazard mitigation, disaster preparedness, and emergency response. Chapter 3, Geologic Hazards, of the Safety Element, addresses non-seismic hazards, specifically slope instability/erosion and landslides, which can cause flooding (County of San Diego 2011c).

Campo Band of Mission Indians Land Use Code

The Campo Band of Mission Indians Land Use Code was adopted by the Tribe on June 15, 1992, and amended on June 1, 2011. The purpose of the Code is the promotion of the health, safety, and general welfare of the residents of the Reservation. The Tribe is guided by the goals set forth in its Land Use Plan with protecting the natural and physical resources on the Reservation. Under the Campo Lease, Tribal regulations and plans are not applicable to the Campo Wind Facilities, but are included for informational purposes.

Campo Band of Mission Indians Land Use Plan

The Campo Band of Mission Indians Land Use Plan was originally adopted by the Tribe in June 1978, and most recently revised and adopted in December 2010 (Campo Band of Mission Indians 2010). The purpose of this Land Use Plan is to ensure that future development within the Reservation occurs in an environmentally and culturally sustainable manner. In addition, it is

important to the Tribe to achieve economic growth, job growth, and standard of living. The Plan is meant to help direct orderly and appropriate growth and change. This Land Use Plan is described in more detail in the Project's Environmental Impact Statement (BIA 2019), which is incorporated by reference. Under the Campo Lease, Tribal regulations and plans are not applicable to the Campo Wind Facilities, but are included here for informational purposes.

3.1.5.3 Analysis of Project Effects and Determination as to Significance

Guidelines for the Determination of Significance

The following evaluates the potential for a project to violate water quality/quantity standards by examining potential surface water and groundwater issues. Based on Appendix G of the CEQA Guidelines, a significant impact would result if a project would:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality;

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

   (i) Result in substantial erosion or siltation on or off site.

   (ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

   (iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

   (iv) Impede or redirect flood flows.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Analysis and Effects

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality?

Project

Excavation activities for construction and decommissioning of the Project, without proper BMP controls in place, could contaminate groundwater through erosion, sedimentation, and accidental material spills. Construction and decommissioning activities are expected to necessitate excavation to a depth of no more than 25 feet, and only in limited locations. Weathering of freshly exposed soils from trenching, foundation excavation, or road construction could release various chemicals through oxidation and leaching processes. These activities could then affect the surface water and groundwater quality of down gradient locations. Degradation of groundwater resulting from excavation is unlikely to occur, primarily because encountering groundwater at the Project Site is not expected at the depths of excavation necessary for construction. Construction must comply with the CWA, the NPDES Permit(s) for the Project, and the SWPPPs prepared for the Project, as well as other applicable water quality and waste discharge regulations. Separate SWPPPs are required for the Campo Wind Facilities and the Boulder Brush Facilities. The SWPPPs would be prepared as part of the U.S. Environmental Protection Agency's NPDES Multi-Sector General Permit for Storm Water Discharges, and would document the selection, design, and installation of stormwater control measures. Implementation of the Project-specific SWPPPs would reduce the potential for water quality impacts related to erosion and sedimentation and other construction-related pollutants. BMPs identified in the SWPPPs would conform to EPA requirements. If dewatering is required on the Project Site, the dewatering would occur in compliance with all EPA requirements, and potential contaminants would be kept at least 200 feet from the dewatering activities. Conformance with the SWPPPs and all applicable regulations pertaining to water quality would avoid adverse effects during construction and decommissioning activities.

The Project does not entail any major sources of pollutant discharges. Although the Project does not include of potential pollutants, ground disturbance, and erosion could potentially lead to elevated turbidity that could exacerbate existing 303(d) impairments such as pH and/or color. These impairments are relevant to the Reservation Boundary because runoff from the Project Site (along with runoff from the whole watershed) would eventually discharge into CWA Section 303(d)-listed waters west of the Tecate Divide. A septic system is proposed to provide sewer service to the operations and maintenance (O&M) facility during operation. Sewage disposal is anticipated via a proposed septic

system that would be sufficient to provide service for employees and would include a leach field located adjacent the O&M facility on the Reservation and not subject to County jurisdiction.

Operation must comply with the CWA and the NPDES Permit program, as well as other applicable water quality and waste discharge regulations. Given this mandatory regulatory compliance, adverse operational impacts are not anticipated.

For the reasons stated above, the Project would result in **less-than-significant impacts** related to violation of water quality standards.

Boulder Brush Facilities

Construction and decommissioning activities must comply with the CWA, the NPDES Permit(s) for the Project, the SWPPP prepared for the Boulder Brush Facilities, as well as other applicable water quality and waste discharge regulations. Implementation of the Boulder Brush Facilities SWPPP and the BMPs contained within, would reduce the potential for water quality impacts related to erosion and sedimentation and other construction-related pollutants. Therefore, the Boulder Brush Facilities would result in **less-than-significant impacts** related to violation of water quality standards.

Campo Wind Facilities

Construction and decommissioning activities must comply with the CWA, the NPDES Permit(s) for the Project, the SWPPP prepared for the Campo Wind Facilities, as well as other applicable water quality and waste discharge regulations. Implementation of the Campo Wind Facilities SWPPP and the BMPs contained within, would reduce the potential for water quality impacts related to erosion and sedimentation and other construction-related pollutants. Therefore, the Campo Wind Facilities would result in **less-than-significant impacts** related to violation of water quality standards.

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Project

The O&M facility would require a potable water source for employee uses for the restrooms (regular and compliant with the Americans with Disabilities Act), a kitchen sink, and emergency wash station. During Project operations, the long-term annual water demand is estimated to be approximately 210 gallons per day (0.25 AF per year) for the

O&M facility. It is anticipated that groundwater sourced from a new or existing On-Reservation groundwater well would be used for Project operations, otherwise water would be trucked in from JCSD or PDMWD. The volume of water required for operation and maintenance of the Project is minimal (i.e., less than the amount of water assumed to be consumed for the indoor and outdoor water demands of a single-family home), and would not have a substantial impact on groundwater resources. A water balance analysis and a well interference analysis, documented in the Groundwater Resources Evaluations prepared for the Project (Appendices J-1 through J-3), shows that use of approximately 0.25 AF of water for operation and maintenance would not exceed the County's significance thresholds for groundwater resources.

According to the Water Supply Assessment included as Appendix N, an estimated maximum water demand of approximately 173 AF of water would be required over the 14 months of construction (123 AF for Campo Wind Facilities and 50 AF for Boulder Brush Facilities). Construction water supply is anticipated to be sourced via groundwater from the Reservation wellfield, groundwater from the JCSD, and/or recycled water provided by PDMWD. While the exact amount of water to come from each source is not known, the Developer and Boulder Brush Developer will prioritize use of nearby sources. Therefore, and for the purposes of a conservative analysis, the entire water demand for construction of both the Campo Wind Facilities and the Boulder Brush Facilities is assumed to consist of groundwater derived from the fractured rock aquifer underlying the Reservation wellfield and/or the aquifers accessed by JCSD.

To analyze the impacts of Project construction on groundwater resources, three groundwater reports were prepared: one to analyze the effects of using the On-Reservation wellfield to supply 100% of the water demand for Project construction (Appendix J-1), and two reports to analyze the effects of using JCSD wells to supply 100% of the Project's construction water demand (Appendix J-2 for the Boundary Creek Watershed, and Appendix J-3 for the Flat Creek Watershed). A soil moisture balance analysis was performed to evaluate the 1,702-acre contributing watershed to the Reservation wellfield considering 59 years of historical precipitation record. The analysis indicated 23 years of no rainfall recharge, 13 years where rainfall recharge was less than 196 AF (the approximate demand of all uses within the Project Area during construction, including existing water demands), and 23 years with more than 196 AF of rainfall recharge (Appendix J-1). Even if construction were to occur during a period of no rainfall, the total water demand in the Project Area, including demand from the Golden Acorn Casino, would amount to a reduction of only 7% of the total groundwater in storage, which is considered a less-than-significant impact. Additionally, following the

construction of the East County Substation project, groundwater recovered to near pre-construction levels within the 5-year time period specified by County standards of significance. The analysis of potential impacts from using water from JCSD's wells also found that there would be no significant impact on groundwater in storage (Appendices J-2 and J-3). Therefore, long-term depletion of groundwater storage due to 14-month Project construction and O&M usage is not anticipated.

Besides potential effects on the volume of groundwater in storage, which is less than significant, use of groundwater for the Project could also impact groundwater levels, potentially causing well interference with the nearest Off-Reservation groundwater well. Estimated drawdown at the nearest Off-Reservation well, located approximately 4,500 feet from the wellfield on the Reservation, after 5 years with 1 year[3] of construction pumping and 4 years of O&M pumping, is anticipated to range from 13 to 31 feet (Appendix J-1). Thus, based on the short-term drawdown analysis, groundwater drawdown at Off-Reservation wells could exceed the County limit of 20 feet for fractured rock aquifers, which if it occurred, would be a significant impact. The Campo Environmental Protection Agency (CEPA) routinely monitors groundwater well levels on the Reservation and will continue to do so through the course of the Project. In addition, in the event the Tribe decides to supply water to the Project, the Tribe would implement PDF-HY-1 that would ensure that declines in groundwater levels in On-Reservation wells remain at less than 20 feet resultant from On-Reservation pumping for Project construction. PDF-HY-1 ensures that construction activities would not adversely affect groundwater supply on the Reservation. As the magnitude of groundwater level decline in the aquifer is proportional to the distance from On-Reservation production wells, monitoring groundwater levels at On-Reservation wells would reduce potential indirect impacts to Off-Reservation wells. If monitoring indicates that On-Reservation groundwater pumping for Project construction threatens to drawdown groundwater levels in a manner that compromises On-Reservation groundwater wells, pumping shall be halted until levels recover, and/or water for construction would be sourced from JCSD and/or PDMWD.

The analysis of well interference found that supplying Project construction-related water demand from the Reservation wellfield could result in a significant impact to the nearest Off-Reservation well if it exceeds 20 feet of water level decline. However, PDF-HY-1

[3] The construction schedule for the Project is 14 months, however, the analysis assumed the entire construction water demand would be pumped in the first 12 months because grading, foundations, and utility work have the highest water demand in the beginning of the construction period, and the tail end of construction consists of testing and commissioning with minimal need for construction water.

would ensure water levels at the closest On-Reservation wells to pumping would remain at less than 20 feet and consequently those wells Off-Reservation, that are further from pumping, would not experience water level declines of 20 feet or greater. Given CEPA's continued and routine monitoring of On-Reservation groundwater levels, and the establishment of the identified threshold as part of PDF-HY-1, potential Project impacts on the groundwater accessed by the Reservation would be less than significant.

JCSD has been identified as a source of water supply for the Project. JCSD has historically supplied non-potable water for construction purposes to multiple energy generation and infrastructure projects in the past, and has continually implemented a program to limit its pumping to a level that is protective of the groundwater resources. Appendices J-2 and J-3 evaluate the underlying fractured rock and alluvial aquifers, respectively, to ensure JCSD's provision of non-potable water to multiple renewable energy projects—including the full water demand of the Campo Wind Project with Boulder Brush Facilities—would not adversely impact groundwater resources through well interference, depletion of groundwater in storage and/or impacts to groundwater dependent ecosystems. The other projects included in JCSD's analysis includes Torrey Wind, Rugged Solar, and Cameron Solar, because their construction phases have the potential to overlap with the Project's construction phase. The analysis concludes that impacts would be less than significant.

Moreover, to further ensure water purchased from the JCSD does not result in impacts to the aquifers accessed by JCSD's non-potable water production wells (Well 6, Highland Center Well, and Park Well), the Developer will implement the Groundwater Mitigation Monitoring and Mitigation Plans (GMMPs) for the Flat Creek and Boundary Creek Watersheds. PDF-HY-2 continues the implementation of the JCSD's existing GMMPs, which consist of weekly and monthly recording of non-potable water pumping and groundwater levels within the pumping wells and within a groundwater monitoring network. PDF-HY-2 ensures that JCSD continues to conduct the GMMPs, continues reporting to the County of San Diego Planning and Development Services (PDS) annually, and ceases pumping from non-potable wells if applicable thresholds are exceeded. In this event, the GMMP requires pumping of the subject non-potable well to cease until the groundwater level at the well that experienced the threshold exceedance has increased above the threshold and remained there for at least 30 continuous days. PDF-HY-2 ensures that groundwater sustainability in JCSD's territory is maintained throughout its provision of non-potable water for the Project.

Moreover, a Water Supply Assessment was prepared for the Project (Appendix N) to discuss the Project's identified water supply under normal-year, single-dry-year, and multiple-dry-year conditions over a 20-year projection, accounting for the projected water demand of the Project in addition to other existing and planned future uses of the identified water supply. According to the Water Supply Assessment and based on estimated Project water demands and the availability of on-site groundwater, the Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge (Appendix N).

For the reasons stated above and provided in the Groundwater Resources Evaluation prepared for the Project (Appendix J-1), including the implementation of PDF-HY-1 and PDF-HY-2, the Project would result in **less-than-significant impacts** to groundwater. Campo Environmental Protection Agency monitors its groundwater resources, and would require the applicant to switch to an alternative source, such as JCSD and/or PDMWD, if it detects adverse effects of pumping on water levels, the groundwater evaluation concludes that impacts to Off-Reservation well would be **less than significant**.

Boulder Brush Facilities

Boulder Brush Facilities construction activities would require an estimated maximum water demand of approximately 50 AF of water. As discussed above and determined in the technical report (Appendices J-1 through J-3), the estimated maximum water demand of approximately 173 AF of water during Project construction would result in **less-than-significant impacts** to groundwater. PDF-HY-1 ensures that if groundwater from the On-Reservation wellfield is used for construction of the Boulder Brush Facilities groundwater levels would not decline by 20-feet or greater at the closest wells to pumping and impacts would be less than significant. In addition, implementation of PDF-HY-2 ensures that if groundwater from JCSD is used for construction of the Boulder Brush Facilities, it would not be used in a manner that exceeds the County's CEQA significance thresholds for groundwater resources. Thus, the Project would result in **less-than-significant impacts** to groundwater.

Campo Wind Facilities

Campo Wind Facilities construction activities would require an estimated maximum water demand of approximately 123 AF of water during construction. The Campo Environmental Protection Agency routinely monitors groundwater well levels on the Reservation and will continue to do so through the course of the Project. In the event the Tribe decides to supply water to the Project for construction of the Campo Wind Facilities, the Tribe would implement PDF-HY-1 that would ensure that declines in groundwater levels in On-

Reservation wells remain at less than 20 feet resultant from On-Reservation pumping for Project construction. Because the Campo Environmental Protection Agency closely monitors groundwater resources and would not allow further pumping beyond the established groundwater level drawdown threshold, and with JCSD's implementation of their GMMPs, construction of the Campo Wind Facilities would result in **less-than-significant impacts** to groundwater.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would result in substantial erosion or siltation on- or off-site?

Project

Gullies, swales, and dry washes transect the Project Site. Construction and decommissioning of the Project would expose erodible soils on steep slopes due to ground surface disturbance, heavy equipment traffic, and alteration of surface runoff patterns. However, the Project layout is designed in a manner that would minimalize impacts to existing drainage and flow paths. Project grading would be designed to avoid defined flow paths where possible and Project features would be placed to avoid creeks, streams, tributaries and jurisdictional waters to the extent feasible. The construction of new access roads across drainage features on the Reservation, however, is unavoidable. Crossing structures, such as culverts and low water crossings, would be designed in compliance with the applicable regulations, including the Army Corps of Engineers, California Department of Fish and Wildlife, and the Regional Water Quality Board regulations. These crossing structures would pass storm flows in a similar manner to that of existing conditions, and would not alter the flow patterns, runoff quantity, or increase the erosive effects of the storm flow (Appendix K). As discussed above, SWPPPs would be prepared and implemented as part of Project construction and would document the selection, design, and installation of stormwater control measures such as installation of silt fences and/or straw bales at road drainage outlets to prevent soil erosion and drainage into water courses; revegetation of disturbed areas; stockpiling and then reapplying topsoil; and strategic placement of stockpiled materials such that it cannot reach water courses.

Coordination with the U.S. Army Corps of Engineers as part of the CWA 401/404 permit process would ensure that impacts to any jurisdictional wetlands and ephemeral streams are avoided to the extent practicable.

During Project operations, no grading, trenching, or excavation activities are expected. As such, the drainage pattern of the Project Area would not be altered during Project

operations. In addition, no stream or river would be altered that would result in substantial erosion effects, directly or indirectly. No significant adverse operational impacts related to erosion or siltation are anticipated.

For the reasons stated above, potential Project impacts related to erosion or siltation to would be **less than significant**.

Boulder Brush Facilities

The Boulder Brush Facilities include an Off-Reservation generation transmission (gen-tie) line with access roads and pole structures, a switchyard and high-voltage substation, an approximately 3.5-mile-long and up to 30-foot-wide paved main access road from the Boulder Brush Facilities site entrance to the high-voltage substation and switchyard. As the switchyard and high-voltage substation would be located on elevated lands adjacent to the Sunrise Powerlink transmission line, these facilities would not have a significant impact on erosion within the Boulder Brush Boundary. The paved main access road would be constructed away from drainage bottoms, wetlands, and erodible soils to the greatest extent practicable. This access road would originate from the existing, unpaved portion of Ribbonwood Road, which would be improved (paved) to the point where it intersects Opalocka Road. Utilization of an existing road would not substantially change drainage patterns in a manner that would result in substantial erosion or siltation on- or off-site. The gen-tie line is proposed to cross Tule Creek, just to the west of Ribbonwood Road. No pole structures would be placed within the creek bed which will limit associated water quality and erosional effects. Furthermore, the layout of the Boulder Brush Facilities is designed in a manner that would minimize impacts to existing drainage and flow paths for the following reasons (Appendix K):

- Access roads are proposed along existing disturbed areas and, where new, would follow topography, minimizing impacts to drainage patterns (i.e., watershed capture).
- Grading would avoid defined flow paths where possible.
- Crossing structures have been designed to pass storm flows in a similar manner to that of existing conditions, and would not alter the flow patterns, runoff quantity, or increase the erosive effects of the storm flow.

With implementation and compliance with the Boulder Brush Facilities SWPPP and construction BMPs, and biological resources mitigation measures relevant to erosion and siltation (M-BI-4 [SWPPP], M-BI-11 [Erosion and Runoff Control], and M-BI-16 [Federal and State Agency Permits]), the Boulder Brush Facilities would result in **less-than-significant impacts** related to erosion or siltation.

Campo Wind Facilities

The Campo Wind Facilities include 60 wind turbines, three permanent and six temporary meteorological (MET) towers, a collector substation, underground electrical collection and communications system, an O&M facility with water collection and septic systems, a temporary concrete batch plant and temporary staging and parking area for use during construction, an On-Reservation gen-tie line with pole structures and associated access roads. Project disturbances associated with the construction of the Campo Wind Facilities within the Campo Corridor are expected to be approximately 800 acres. Project wind turbines and MET towers are planned for elevated lands within the Campo Corridor to maximize wind capture. The bases of these structures would encompass a limited portion of the anticipated 800 acres of disturbance within the Campo Corridor and would not have a major impact on erosion. Proposed access roads, as well as the collector substation, O&M facility, and temporary concrete batch plant and temporary staging area and parking area would be located away from drainage bottoms, wetlands, and erodible soils to the greatest extent practicable. Any trenching necessary for construction of the underground electrical collection and communications system would be backfilled to natural grades. Placement of On-Reservation gen-tie line pole structures would avoid drainages, wetlands, and erodible soils to limit water quality and erosional effects. Additionally, a SWPPP and appropriate BMPs would be implemented during construction to limit the movement of graded soils. With implementation and compliance with the Campo Wind Facilities SWPPP and construction BMPs, and biological resources recommended mitigation measures relevant to erosion and siltation (M-BI-C [SWPPP] and M-BI-F [Erosion and Runoff Control]), the Project would result in **less-than-significant impacts** related to erosion or siltation.

d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

Project

Project construction would expose erodible soils on steep slopes due to ground surface disturbance, heavy equipment traffic, and alteration of surface runoff patterns. Additionally, weathering of freshly exposed soils from trenching, foundation excavation, or access road construction could release various chemicals through oxidation and leaching processes. These activities could affect the surface water and groundwater quality of down gradient locations if not properly controlled. On-site stormwater runoff could alter existing drainage patterns if adequate measures were not taken to channel and direct runoff. However, the Project layout is designed in a manner that would minimalize impacts to existing drainage

and flow paths. Project grading would avoid defined flow paths where possible. In addition, no stream or river would be altered that would result in substantial erosion effects, directly or indirectly. When the avoidance of streams is not feasible, crossing structures, such as culverts and low water crossings, have been designed in compliance with the appropriate jurisdictions, including the Army Corps of Engineers, California Department of Fish and Wildlife, and the Regional Water Quality Board. Coordination with U.S. Army Corps of Engineers as part of the CWA 401/404 permitting process would ensure that impacts to any jurisdictional wetlands and ephemeral streams are avoided to the extent practicable. The crossing structures have been designed to pass storm flows in a similar manner to that of existing conditions, and would not alter the flow patterns, runoff quantity, or increase the erosive effects of the storm flow (Appendix K).

During Project operations no grading, trenching, or excavation activities are expected. As such, the drainage pattern of the Project Area would not be altered during Project operations. No significant adverse operational impacts related to runoff or flooding are anticipated.

For the reasons stated above, the Project would result in **less-than-significant impacts** related to runoff or flooding.

Boulder Brush Facilities

As described above, the Boulder Brush Facilities have been designed in a manner that minimizes impacts to existing drainage and flow paths to the extent feasible. Grading would avoid defined flow paths where possible. When the avoidance of drainages is not possible, crossing structures, such as culverts and low water crossings, have been designed in compliance with the appropriate jurisdictions. There are 42 culverts, low water crossings (LWC) and culvert/LWC combinations for the Boulder Brush Facilities (Appendix K). The crossing structures have been designed to pass storm flows in a similar manner to that of existing conditions, and would not alter the flow patterns, runoff quantity, or increase the erosive effects of the storm flow.

The Boulder Brush Facilities include a 3.5-mile-long and up to 30-foot-wide paved main access road from the Boulder Brush Facilities site entrance to the high-voltage substation and switchyard. Paved roads have a lower rate of infiltration than unpaved roads and thus can contribute to increased runoff volumes and velocities. Paving of this access road would be accompanied by construction components such as drainage ditches and crossing structures that have been designed to pass storm flows in a similar manner to that of existing conditions so that flow patterns and runoff quantities would not be altered and the erosive effects of the storm flow would not increase. Crossing structures would not increase the

severity, extent or frequency of flooding on-site or off-site relative to pre-Project conditions. Per Appendix K, culverts and crossings are designed for the 10-year 24 hour storm return interval. In the event a more severe storm hits, such as a 100-year storm, such crossings would be damaged or washed out, but would not result in substantial effects on the rate or volume of floodwater, and would not have a greater effect on people or property outside the Boulder Brush Boundary than would have otherwise occurred without the Boulder Brush Facilities. Furthermore, coordination with U.S. Army Corps of Engineers as part of the CWA 401/404 permitting process would ensure that streams are not altered during the installation of stream crossings for Boulder Brush Facilities access roads. Therefore, the Boulder Brush Facilities would result in **less-than-significant impacts** to the rate or amount of surface runoff within the Boulder Brush Boundary.

Campo Wind Facilities

Coordination with U.S. Army Corps of Engineers as part of the CWA 401/404 permitting process would ensure that streams are not altered during the installation of stream crossings for Campo Wind Facilities access roads. The Campo Wind Facilities are sited in a manner that would not substantially alter existing drainage patterns. Impervious surfaces would consists of foundation pads for wind turbines, certain collector substation facilities, the O&M facility, and MET towers. These would not be located along or adjacent to major washes or drainages and would not generate runoff sufficient to produce an increase in the volume, rate, or extent of runoff compared to existing conditions. Since these impervious surfaces are individually small and dispersed over a very wide area, they are insignificant when compared to the size of the area that contributes to flow in Campo Creek during rain events (i.e., the 69,000 acre Campo Hydrologic Area). Any minimal increase in runoff produced by individual foundation bases would be absorbed in the natural ground cover and/or gravel surface immediately surrounding individual sites. Therefore, Campo Wind Facilities are not expected to increase the rate or volume of surface runoff in a manner that would result in flooding within the Reservation. Thus, the Campo Wind Facilities would result in **less-than-significant impacts** to flooding within the Reservation.

e) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Project

Project construction could result in on-site stormwater runoff, potentially altering existing drainage patterns if adequate measures are not taken to channel and direct runoff.

SWPPPs would be prepared and employed during Project construction, and site-specific design measures would be developed and submitted to the Campo Environmental Protection Agency (CEPA) and EPA as part of the Project permitting process. Compliance with the required SWPPPs prepared for the Project would ensure that no adverse impacts related to exceeding existing capacities of the stormwater drainage system and polluted stormwater would occur. Additionally, as described above, the Project is designed in a manner that would minimalize impacts to existing drainage and flow paths. Grading would avoid defined flow paths where possible. Proposed crossing structures have been designed to pass storm flows in a similar manner to that of existing conditions, and would not alter the flow patterns, runoff quantity, or increase the erosive effects of the storm flow.

During the operation of the Project, no grading, trenching, or excavation activities are expected. The O&M facility sanitary system would collect wastewater from sanitary facilities such as sinks and toilets. This waste stream would be sent to an on-site sanitary waste underground septic system, which would not increase runoff from the Project. Operation of the Project would therefore be in compliance with the CWA, the NPDES Permit program, and the SWPPPs prepared for the Project, as well as other applicable water quality and stormwater regulations. Compliance with applicable regulations would prevent polluted runoff and exceeding existing capacities of the stormwater drainage.

For the reasons stated above, the Project would result in **less-than-significant impacts** to stormwater runoff.

Boulder Brush Facilities

The Boulder Brush Boundary is located in an area that lacks an existing engineered storm drain system. Stormwater drainage within the Boulder Brush Boundary occurs along natural watercourses including Tule Creek. The Boulder Brush Facilities have been designed in a manner that minimizes impacts to existing drainage and flow paths. Grading would avoid defined flow paths where possible. When the avoidance of streamlines is not possible, culverts and crossings have been designed for the 10-year 24 hour storm return interval in compliance with applicable regulations. There are 42 culverts, low water crossings (LWC) and culvert/LWC combinations proposed for the Boulder Brush Facilities (Appendix K). The culverts were sized to pass the 10-year design flow rate with one foot of headwater above the pipe entrance. The minimum pipe diameter considered was 18 inches. The crossing structures have been designed to pass storm flows in a similar manner to that of existing conditions, and would not significantly alter the flow patterns, runoff quantity, or increase the erosive effects of the storm flow. Furthermore, through

the implementation of a SWPPP during the construction of the Boulder Brush Facilities, potential sources of polluted runoff would be reduced and prevented from substantially increasing stormwater runoff or degrading stormwater quality. There is one paved road crossing of Tule Wash that contains engineered components but, as indicated in Appendix K, would not increase the volume or velocity of storm runoff and thus would not affect the capacity of this existing crossing. Because the Boulder Brush Facilities would not result in an increase in flow rate or volume during peak storm events, and because the Boulder Brush Facilities would be located in an area that lacks an existing engineered storm drain system, the Boulder Brush Facilities would result in a **less-than-significant impact** on the capacity of existing or planned stormwater drainage systems. The impact of polluted runoff is addressed under impact criteria (a).

Campo Wind Facilities

As described above, the Campo Wind Facilities are sited in a manner that would minimize impacts to existing drainage and flow paths. Grading is would avoid defined flow paths where possible. Stream crossings would be designed to accommodate the surface runoff of the 100-year storm and other applicable requirements. Through the implementation of a SWPPP during the construction of the Campo Wind Facilities, potential sources of polluted runoff would be reduced and prevented from substantially increasing stormwater runoff or degrading stormwater quality. Thus, the Campo Wind Facilities would result in a **less-than-significant impact** to stormwater runoff on the Reservation.

f) Would the project impede or redirect flood flows?

Project

FEMA Flood Insurance Rate Maps identify flood zones and areas that are susceptible to 100-year (1% annual chance of occurrence) and 500-year floods (0.2% annual chance of occurrence). These areas are referred to as Special Flood Hazard Areas and Moderate Flood Hazard Areas respectively. The entire Project Area is identified by FEMA as being within Zone D (FEMA 2012), which indicates that flood risk is possible but undetermined because the agency has not conducted a flood hazard analysis. As such, construction and operation of the Project could potentially place structures within a 100-year flood hazard area. During a 100-year flood event, the flood depths across the majority of the Project Site would be less than 0.5 feet with velocities less than 1 foot per second, with the exception of the narrow channelized areas between local ridges, where flows near the Project can reach depths of up to 6 feet and velocities up to 7 feet per second (Appendix K). Design of the Project has avoided areas of high flood depths

and velocities in channelized flow areas, and no turbines, transmission poles, or other structural components are proposed in areas where flood depths would be greater than 0.5 feet during a 100-year storm event. Moreover, as discussed in Section 3.1.9, Utilities and Service Systems, drainage within the Project Site has been designed to approximate pre-construction drainage patterns to the extent feasible and the Project would not impede or redirect flows. As such, no adverse impacts related to impeding or redirecting flood flows would result from construction of the Project. Therefore, impacts would be **less than significant**.

Boulder Brush Facilities

The entire Boulder Brush Boundary is identified by FEMA as being within Zone D (FEMA 2012), which indicates that flood risk is possible but undetermined because the agency has not conducted a flood hazard analysis. As such, construction and operation of the Boulder Brush Facilities could potentially place structures within a 100-year flood hazard area. During a 100-year flood event, the flood depths across the majority of the Boulder Brush Corridor would be less than 0.5 feet with velocities less than 1 foot per second, with the exception of the narrow channelized areas between local ridges, where flows can reach depths of up to 6 feet and velocities up to 7 feet per second (Appendix K). Design of the Boulder Brush Facilities has avoided areas of high flood depths and velocities in channelized flow areas, and no gen-tie line support poles or other structural components (e.g., switchyard or high-voltage substation) are proposed in areas where flood depths would be greater than 0.5 feet during a 100-year storm event. Moreover, as discussed in Section 3.1.9, Utilities and Service Systems, drainage within the Boulder Brush Corridor has been designed to approximate pre-construction drainage patterns to the extent feasible and the Boulder Brush Facilities would not impede or redirect flows. As such, no adverse impacts related to impeding or redirecting flood flows would result from the construction of the Boulder Brush Facilities. Therefore, impacts would be **less than significant**.

Campo Wind Facilities

The entire Reservation is identified by FEMA as being within Zone D (FEMA 2012), which indicates that flood risk is possible but undetermined because the agency has not conducted a flood hazard analysis. As such, construction and operation of the Campo Wind Facilities could potentially place structures within a 100-year flood hazard area. Design of the Campo Wind Facilities has avoided areas of high flood depths and velocities in channelized flow areas, and no turbines, gen-tie line support poles, or other structural components are proposed in areas where flood depths would be greater than 0.5 feet during a 100-year storm event. Moreover, as discussed in Section 3.1.9, Utilities and

Service Systems, drainage within the Campo Corridor has been designed to approximate pre-construction drainage patterns to the extent feasible and the Campo Wind Facilities would not impede or redirect flows. As such, no adverse impacts related to impeding or redirecting flood flows would result from construction of the Campo Wind Facilities. Therefore, impacts would be **less than significant**.

g) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Project

Seiches are seismically induced tidal phenomena that occur in enclosed bodies of water. Two bodies of water, Morena Reservoir and Barrett Lake, are located approximately 8 and 15 miles west of the Project Area, respectively. The distance and difference in topography between the Project Area and these bodies of water mean there is no risk of a seiche resulting in damage to the Project. Therefore, no adverse impacts would result from the Project associated with pollutants released due to seiche.

Tsunamis are seismically induced tidal phenomena that affect low-lying coastal areas. The Project Area is located approximately 45 miles east of the Pacific Ocean at an elevation of approximately 3,500 to 4,600 feet above mean sea level, and therefore, is not located within a designated tsunami hazard area or susceptible to inundation by tsunami. Therefore, no adverse impacts would result from the Project associated with pollutants released by tsunamis.

The Project Area is mountainous and contains major hills and steep slopes. However, the Project Area is not in a designated landslide/mudslide area. Thus, the Project Area is not at elevated risk for mudflows. Therefore, no adverse impacts would result from a release of pollutants due to mudflow from the Project. Impacts as a result of the Project would be **less than significant**.

Boulder Brush Facilities

As previously discussed, there is no risk of a seiche resulting in damage to the Boulder Brush Facilities. Therefore, no adverse impacts would result from the Boulder Brush Facilities associated with pollutant release due to seiche. Additionally, the Boulder Brush Facilities are not located within a designated tsunami hazard area or susceptible to inundation by tsunami. Therefore, no adverse impacts associated with pollutant release by tsunami would result from the Boulder Brush Facilities. Lastly, the Boulder Brush Facilities are not located in a designated landslide/mudslide area, and therefore, is not at

risk for mudflows. No adverse impacts would result from the Boulder Brush Facilities associated with pollutant release due to mudflow. Impacts as a result of the Boulder Brush Facilities would be **less than significant**.

Campo Wind Facilities

As previously discussed, there is no risk of a seiche resulting in damage to the Campo Wind Facilities. Therefore, no adverse impacts would result from the Campo Wind Facilities associated with pollutant release due to seiche. Additionally, the Campo Wind Facilities are not located within a designated tsunami hazard area or susceptible to inundation by tsunami. Therefore, no adverse impacts associated with pollutant release by tsunami would result from the Campo Wind Facilities. Lastly, the Campo Wind Facilities are not located in a designated landslide/mudslide area, and therefore, is not at risk for mudflows. No adverse impacts would result associated with pollutant release due to mudflow would result from the Campo Wind Facilities. Impacts as a result of the Campo Wind Facilities would be **less than significant**.

k) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Project

The Project does not overlie an alluvial groundwater basin identified by the DWR Bulletin 118. Thus, groundwater resources underlying the Project would not be subject to a sustainable groundwater management plan, mandated by the Sustainable Groundwater Management Act for DWR basins determined to be of medium to high priority.

As noted above, the Project is not expected to violate any water quality standards and measures would be taken both during construction and throughout operation to prevent potential contaminants from leaving the site by runoff. Through compliance with RWQCB requirements and a NPDES permit, implementation of construction phase and industrial phase SWPPPs, and coordination with the USACE for any applicable permits, the Project would not conflict with or obstruct implementation of the San Diego Basin Water Quality Control Plan (Basin Plan). Therefore, impacts would be **less than significant**.

Boulder Brush Facilities

The Boulder Brush Facilities would not overlie an alluvial groundwater basin identified by the DWR Bulletin 118 and thus would not be subject to a sustainable groundwater management plan. By following the regulatory and permitting requirements mentioned

above for the overall Project, Boulder Brush Facilities would not conflict with or obstruct implementation of the San Diego Basin Water Quality Control Plan (Basin Plan). Therefore, impacts would be **less than significant**.

Campo Wind Facilities

The Campo Wind Facilities would not overlie an alluvial groundwater basin identified by the DWR Bulletin 118 and thus would not be subject to a sustainable groundwater management plan. By following the regulatory and permitting requirements mentioned above for the overall Project, Campo Wind Facilities would not conflict with or obstruct implementation of the San Diego Basin Water Quality Control Plan (Basin Plan). Therefore, impacts would be **less than significant**.

3.1.5.4 Cumulative Impact Analysis

The geographic scope of cumulative impacts on hydrology and water quality differs depending on the issue being addressed. The geographic scope for surface water quality and hydrology is typically watershed-based, whereby projects contributing flow to the same water bodies would be considered in the cumulative analysis. For groundwater impacts, the geographic scope of cumulative impacts would be the groundwater aquifer affected by a project. For fractured rock aquifers such as that underlying the Project, the edges of the basin are typically presumed to be the topographic divides or watershed boundaries.

Project impacts to surface water and groundwater resources were found to be less than significant because they did not exceed County thresholds. In the cumulative context, for wells within the same sub-basin, each well's extraction adds to the cumulative drawdown of the basin as a whole even if the volume relative to total basin storage is minor. Projects considered in the cumulative scenario include other utility-scale renewable energy projects in the vicinity, including energy generation and transmission projects, as well as projections based on assumed General Plan buildout.

Hydrology, Drainage Patterns, and Water Quality

In the absence of regulatory controls, the primary impact of the Project in the cumulative scenario would be alteration of the natural hydrology of the region through increases in the area covered by impervious surfaces, development of access roads and utility corridors, and the release of non-point-source pollutants (e.g., motor fuels, trash, sediment). The typical impact of substantial increases in impervious surfaces is that peak flows within the watershed's drainages are greater in magnitude, shorter in duration, and more responsive to storm events, since a greater portion of precipitation is carried by surface runoff rather than percolated into the soil. New roads and/or transmission line corridors can often block or redirect stormwater flows if improperly designed. These impacts are undesirable with respect to flood hazards, water quality, and habitat quality.

However, the Project, along with other projects occurring in the area, would be required to comply with applicable federal, state, and local water quality regulations. The Project, along with other projects of greater than 1 acre (which includes most of the projects in the cumulative scenario), would be required to obtain coverage under the NPDES CGP, which requires project proponents to identify and implement stormwater BMPs that effectively control erosion and sedimentation and other construction-related pollutants. Further, nearly all projects identified in the cumulative scenario would meet the definition of "new development and redevelopment projects" under the San Diego County MS4 Permit. Such projects are required to implement site design; source control; and, in some cases, treatment control BMPs to control the volume, rate, and water quality of stormwater runoff from the project during long-term operations. This is implemented locally by the County by requiring new development projects to submit and implement a Storm Water Management Plan.

The various NPDES permits required are aimed at maintaining the beneficial uses of the water bodies discussed in the RWQCB Basin Plan, and meeting water quality objectives associated with specific pollutants of concern. Because adverse water quality and major hydrologic alterations are linked to large-scale development projects and industrial and agricultural land uses, the provisions within the various NPDES permits seek to address cumulative conditions. Additionally, projects located on lands under the jurisdiction of the County of San Diego would be required to comply with County ordinances, as described in the Regulatory Setting above. These federal, state, and local regulations would ensure that the Project's impacts to hydrologic resources and water quality **would not be cumulatively considerable**.

Groundwater Resources

According to the County Groundwater Guidelines, off-site well interference (i.e. off-site from a particular development or property) would be a significant impact if, after a 5-year projection of drawdown, the results indicate a decrease in water level of 20 feet or more in said off-site wells (County of San Diego 2007c).

As detailed in Appendix J-1 of this EIR, based on the short-term drawdown analysis, the total estimated drawdown at the nearest Off-Reservation well, after 5 years with 1 year of construction pumping and 4 years of O&M pumping ranged from 13 to 31 feet. The analysis includes cumulative water demands on the wellfield, including existing demands and future demands; therefore, groundwater extraction interference with off-site wells, if it occurred, would be considered to be cumulatively significant. The Campo Environmental Protection Agency routinely monitors groundwater well levels on the Reservation. PDF-HY-1 prescribes a standard operation procedure for the Project that would ensure that declines in groundwater levels in On-Reservation wells remain at less than 20 feet resultant from On-Reservation pumping for Project construction (if the On-Reservation wellfield is used to supply the construction water demand), would reduce the cumulative impact to a less than cumulatively considerable level.

JCSD has historically supplied non-potable water for construction purposes to multiple energy generation and infrastructure projects in the past, and has continually implemented a program to limit its pumping to a level that is protective of the groundwater resources. Appendices J-2 and J-3 evaluate the underlying fractured rock and alluvial aquifers, respectively, to ensure JCSD's provision of non-potable water to multiple renewable energy projects—including the full water demand of the Campo Wind Project with Boulder Brush Facilities—would not adversely impact groundwater resources through well interference, depletion of groundwater in storage and/or impacts to groundwater dependent ecosystems. The other projects included in JCSD's analysis includes Torrey Wind, Rugged Solar, and Cameron Solar, because their construction phases have the potential to overlap with the Project's construction phase. The JVR Energy Park Project is not proposing to have water supplied by JCSD and therefore is not included in the cumulative effects analysis. Although it is not known whether construction of these projects will overlap, groundwater impact evaluation assumed they would, as a worst-case scenario. The analysis concludes that impacts would be less than significant. PDF-HY-2 continues the implementation of the JCSD's existing GMMPs, which enforces groundwater level thresholds that if exceeded, requires JCSD to cease pumping until groundwater levels recover to above specified thresholds. Given JCSD limits it's pumping from non-potable wells and PDF-HY-2 would enable JCSD to continue to implement GMMPs, which monitor the impacts of providing non-potable water to renewable energy customers, and if applicable, ceases doing so if groundwater level thresholds are exceeded, the cumulative impact of multiple renewable energy projects (including the Project's contribution) on the groundwater aquifers accessed by JCSD would be less than cumulatively considerable.

According to the County Groundwater Guidelines, a soil moisture balance or equivalent analysis using a minimum 30 years precipitation data must show that groundwater in storage is not reduced to a level of 50% of less (County of San Diego 2007b). The watershed-scale soil moisture balance analysis to evaluate the cumulative impacts of pumping to supply construction water included several local projects (Appendix J-1). The soil moisture balance analysis incorporated historical climate data (using a 59-year precipitation record), which includes historical periods of increased rainfall and periods of extended drought. The results of this analysis indicated that reduction in groundwater storage would be less than significant.

The Project's cumulative impact with regard to groundwater and storage for both the On-Reservation wellfield and the aquifers accessed by JCSD, as well as the impacts of using JCSD's non-potable wells on well interference, would be less than significant. Also with implementation of PDF-HY-1 and PDF-HY-2, the impact of the Project's water demand on well interference for the On-Reservation wellfield and on the aquifers underlying JCSD's non-potable wells, **would not by cumulatively considerable**.

3.1.5.5 Significance of Impacts Prior to Mitigation

Project

Based on the analysis above, Project impacts related to hydrology and water quality would be **less than significant**.

Boulder Brush Facilities

The Boulder Brush Facilities would result in **less-than-significant impacts** to hydrology and water quality.

Campo Wind Facilities

The Campo Wind Facilities would result in **less-than-significant impacts** to hydrology and water quality.

3.1.5.6 Mitigation Measures

Project

The Project would not result in significant impacts to hydrology and water quality, including groundwater; therefore, no mitigation measures would be required. The Project's Environmental Impact Statement (BIA 2019) includes implementation of PDF-HY-1 as outlined below.

PDF-HY-2 would ensure that, as part of project implementation, significant impacts on water levels in the aquifers accessed by off-site water sources would be avoided.

PDF-HY-1 **Groundwater Monitoring:** Campo Environmental Protection Agency (CEPA) will monitor the depth to groundwater in wells located between existing On-Reservation production wells anticipated to be a source of groundwater supply for Project construction and other nearby On-Reservation production wells. A groundwater level drawdown threshold for On-Reservation monitoring wells should be established to ensure that declines in groundwater levels in On-Reservation wells remain at less than 20 feet resultant from On-Reservation pumping for Project construction. Groundwater level monitoring should be conducted at least weekly during Project construction and do not interfere with individual and Public Water System (PWS) wells that provide drinking water to residents and others. Should the groundwater drawdown threshold be exceeded, CEPA will require the cessation of on-site pumping for Project construction, from such production wells as is necessary, until groundwater levels in the monitoring wells rise above the threshold.

PDF-HY-2 **Implementation of GMMP for JCSD:** To ensure non-potable water purchased from the Jacumba Community Services District (JCSD) does not result in impacts to the aquifers accessed by JCSD's non-potable water production wells (Well 6, Highland Center Well, and Park Well), the Boulder Brush Developer will implement the Groundwater Mitigation Monitoring and Mitigation Plans (GMMPs) for the Flat Creek and Boundary Creek Watersheds.

Boulder Brush Facilities

No mitigation measures are required since Boulder Brush Facilities impacts would be **less than significant**. PDF-HY-1 and PDF-HY-2 would ensure that, as part of project implementation, significant impacts on water levels in the aquifers accessed by off-site water sources would be avoided.

Campo Wind Facilities

No mitigation measures are required since Campo Wind Facilities impacts would be less than significant. PDF-HY-1 would ensure water levels at the closest On-Reservation Wells do not drop significantly (by 20-feet or greater) and thereby Off-Reservation wells that are further away from pumping would also not experience significant declines. CEPA routinely monitors groundwater well levels on the Reservation and will continue to do so through the course of the Project. In addition, and in the event the Tribe decides to supply water to the Project, the Tribe would implement PDF-HY-1 that prescribes a standard operation procedure for the Project that would ensure water levels at the closest On-Reservation wells would not drop by 20 feet or greater.

3.1.5.7 Conclusion

Project

The Project would result in less-than-significant impacts to hydrology and water quality. The potential for impacts to hydrology and water quality in general is attributable to construction activities during which applicable regulations and the implementation of BMPs as described in SWPPPs would be undertaken during development. For the reasons stated above and provided in the technical reports (Appendices J-1 through J-3, Appendix K, and Appendix N), the Project would result in **less-than-significant impacts** to hydrology and water quality.

Boulder Brush Facilities

For the reasons stated above, the Boulder Brush Facilities would result in **less-than-significant impacts** to hydrology and water quality.

Campo Wind Facilities

For the reasons stated above, the Campo Wind Facilities would result in **less-than-significant impacts** to hydrology and water quality.

Table 3.1.5-1
Watershed Designations by Agency/Source

Agency/Source	Analysis Scale	HUC/Basin No.	Name	Size (Sq. Mi.)
USGS Watershed Boundary Dataset	Basin	180703	Laguna–San Diego Coastal	5,460
		181002	Salton Sea	8,220
	Sub-basin	18070305	Cottonwood–Tijuana	1,719
		18100202	Carrizo Creek	654
	Watershed	1807030511	Tecate Creek	167
		1807030509	Upper Cottonwood Creek	148
		1807030505	Arroyo Seco	199
		1810020202	Upper Carrizo Creek	238
	Subwatershed	180703051101	Miller Creek–Campo Creek	42
		180703051102	Campo Valley–Campo Creek	32
		180703050901	La Posta Creek	47
		180703050501	Santa Margarita	32
		181002020204	Tule Creek	34
		181002020205	Walker Canyon–Carrizo Creek	35
San Diego RWQCB Basin Plan	RWQCB Region	9	San Diego	3,849
		7	Colorado River	19,925
	Hydrologic Unit	911.00	Tijuana	467
		722.00	Anza-Borrego	1,501
	Hydrologic Area	911.80	Campo	108
		911.70	Cameron	47
		722.70	Jacumba	135
	Hydrologic Sub-Area	911.82	Canyon City	50
		911.83	Clover Flat	27
		911.84	Hill	12
		911.85	Hipass	10
		722.71	McCain	110

Sources: USGS 2016; San Diego RWQCB 2016; Colorado River RWQCB 2017.
HUC = hydrologic unit code; sq. mi. = square miles; USGS = U.S. Geological Survey; RWQCB = Regional Water Quality Control Board.

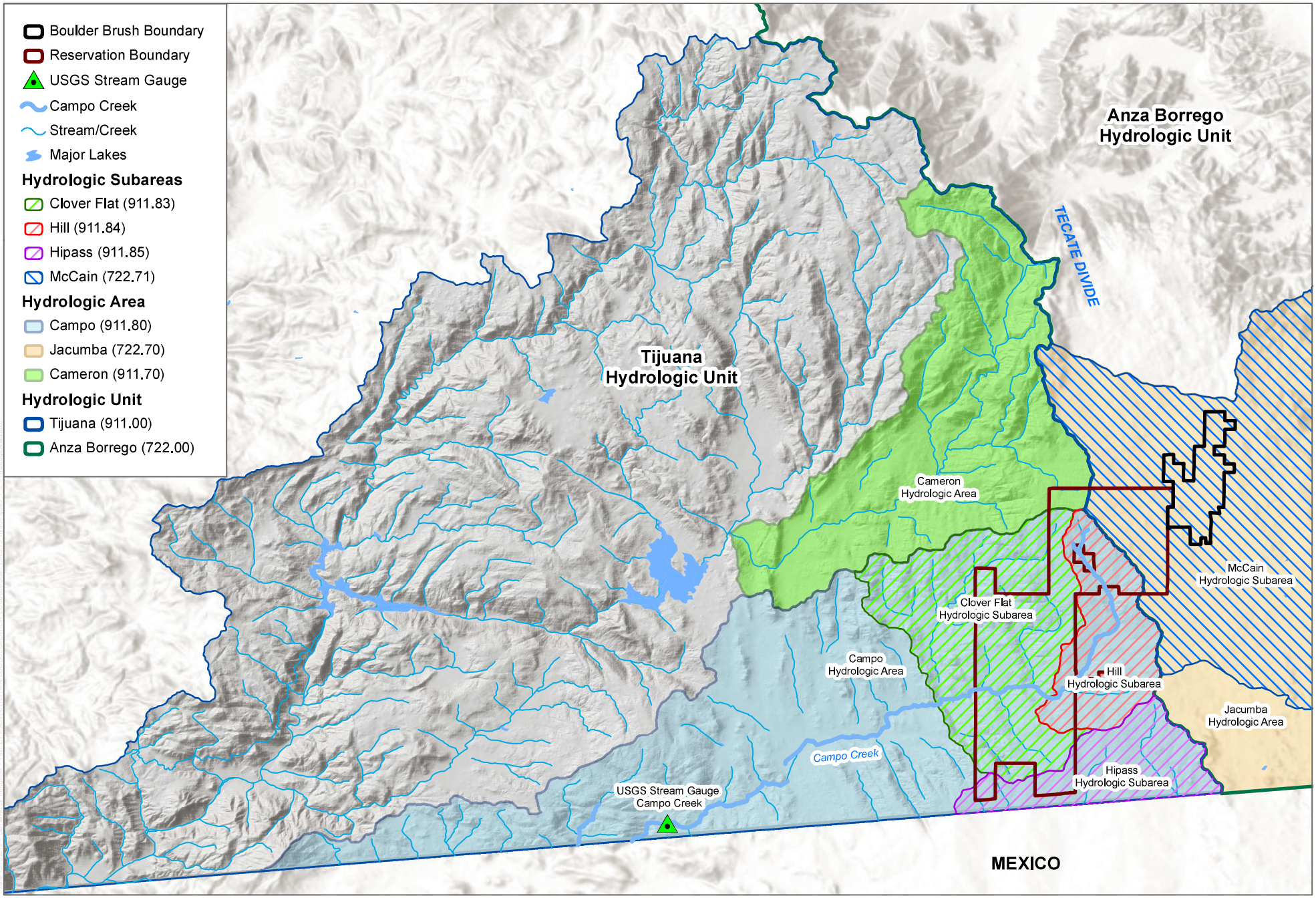
Table 3.1.5-2
Clean Water Act Section 303(d) Impairments

Name	Pollutant/ Stressor	Potential Sources	TMDL Status	Year
Cottonwood Creek	Selenium	Source unknown	Scheduled	2019
	Indicator bacteria	Source unknown	Scheduled	2029
Morena Reservoir	pH	Source unknown, unknown nonpoint source	Scheduled	2019
	Nitrogen	Source unknown	Scheduled	2023
	Ammonia as nitrogen	Agriculture–animal, natural sources, unknown nonpoint source	Scheduled	2019
	Manganese	Source unknown	Scheduled	2019

Table 3.1.5-2
Clean Water Act Section 303(d) Impairments

Name	Pollutant/ Stressor	Potential Sources	TMDL Status	Year
	Phosphorus	Natural sources, unknown nonpoint source, urban runoff/storm sewers	Scheduled	2021
	Color	Agriculture	Scheduled	2019
Barrett Lake	Perchlorate	Source unknown	Scheduled	2019
	pH	Source unknown	Scheduled	2019
	Total nitrogen as N	Natural sources, unknown nonpoint source, urban runoff/storm sewers	Scheduled	2019
	Phosphorus	Source unknown	Scheduled	2023
	Manganese	Source unknown	Scheduled	2019
	Color	Source unknown	Scheduled	2019
Campo Creek	Indicator bacteria	Source unknown	Scheduled	2029

Source: SWRCB 2018.
TMDL = total maximum daily load.



SOURCE: SANGIS 2019; USGS 2018

DUDEK

0 2 4 Miles

FIGURE 3.1.5-1

Hydrologic Areas

Campo Wind Project with Boulder Brush Facilities

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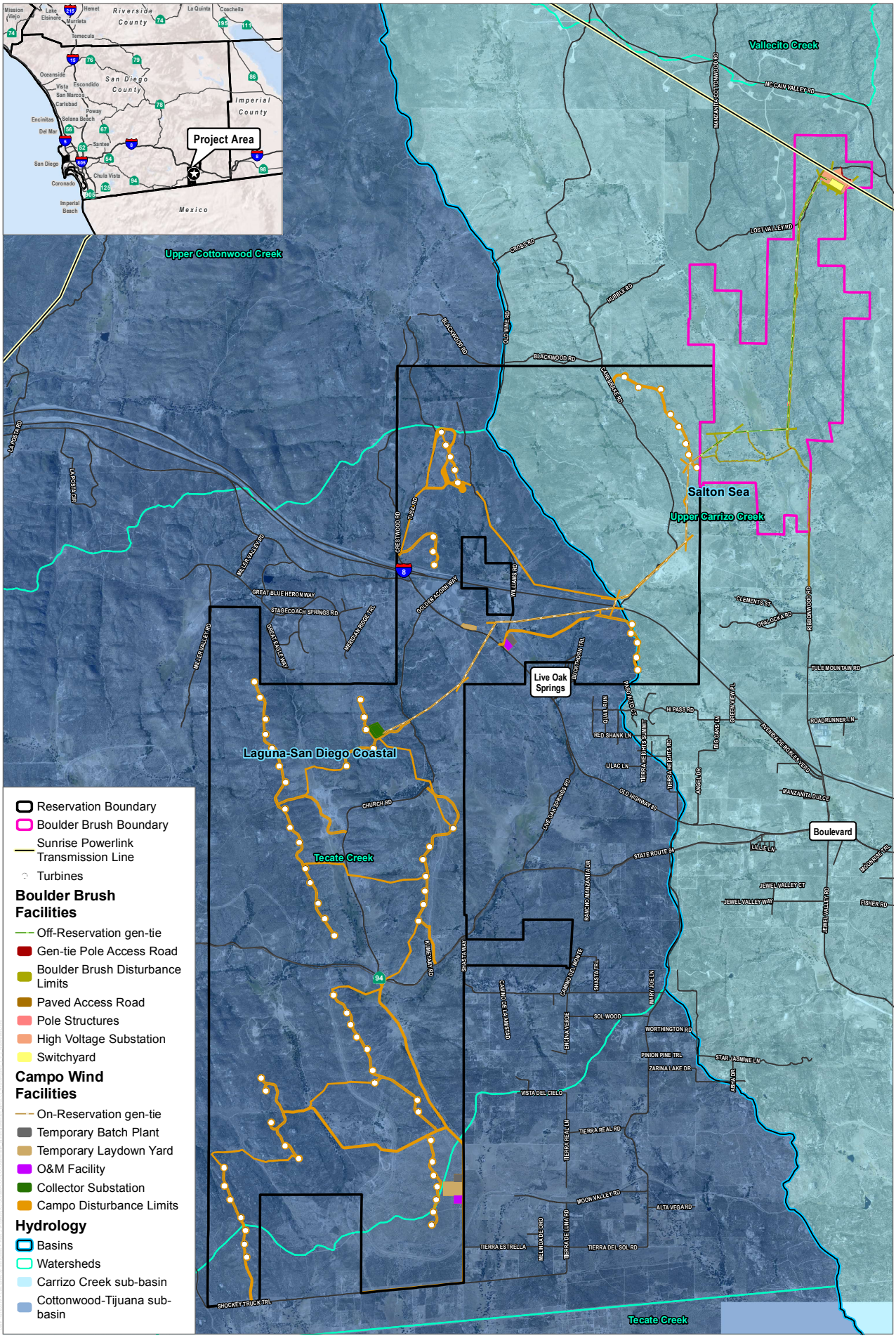

SOURCE: SANGIS 2017; USGS 2018

DUDEK

0 1,950 3,900 Feet

FIGURE 3.1.5-2

Watersheds

Campo Wind Project with Boulder Brush Facilities

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