

3.0 ENVIRONMENTAL SETTING

Section 15125 of the Guidelines adopted pursuant to the California Environmental Quality Act (CEQA) states that “an EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published”. Also, Section 21060.5 of CEQA defines “environment” as “the physical conditions that exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, or objects of historic or aesthetic significance”. This section summarizes the environmental setting for the Project and its vicinity as it existed when the Notice of Preparation (NOP) was filed in 2015. This section also (1) includes the current land uses on the property and the County zoning and general plan designations for the Project site; (2) discusses the Project site in its regional planning context; and (3) includes an overview of the constraints and opportunities of developing the Project.

3.1 PHYSICAL SETTING

The following provides an overview of the general environmental setting and the Project site’s relationship to the surrounding area. For more detailed information on the overview summary provided in this section, please refer to the appropriate environmental topic in Sections 5.1 through 5.21 of this EIR.

3.1.1 PROJECT LOCATION AND SURROUNDING LAND USES

The Project is proposed on approximately 12,323 acres (19.3 square miles) of land in the northwestern portion of the Antelope Valley in unincorporated Los Angeles County. Exhibit 3-1, Regional Location, depicts the Project site boundary in the context of the larger privately owned Tejon Ranch, which is actively used for grazing; farming; hunting; mineral, oil, and, gas extraction. Tejon Ranch is located mainly north of the Project site, primarily in Kern County.

The Project site is located approximately 35 miles north of the City of Santa Clarita in Los Angeles County; approximately 50 miles south of the City of Bakersfield in Kern County via State Route (SR) 99 and Interstate (I) 5; and approximately 36 and 43 miles west of the Cities of Lancaster and Palmdale, respectively, in Los Angeles County via SR-138. As shown on Exhibit 3-2, Project Vicinity Map, the Project site is bisected by SR-138 and is located approximately one mile east of I-5, just south of the Kern County/Los Angeles County boundary in the vicinity of Quail Lake. The community of Gorman in Los Angeles County is adjacent to I-5 and is approximately four miles north of the I-5/SR-138 junction. The community of Neenach is located approximately 1.2 miles to the east of the Project boundary. The West Branch of the State Water Project’s (SWP) California Aqueduct bisects the Project. Additional Project location information is provided in Section 3.2.

To the north of the Project site in Kern County is the National Cement Plant, which is served by a private paved road: Wayne Hands Road (also known as “National Cement Plant Road”, which is the name this document uses), which runs through the Project site and ends at the National Cement Plant. This road is proposed to be realigned on the Project site as a part of

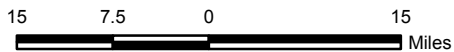


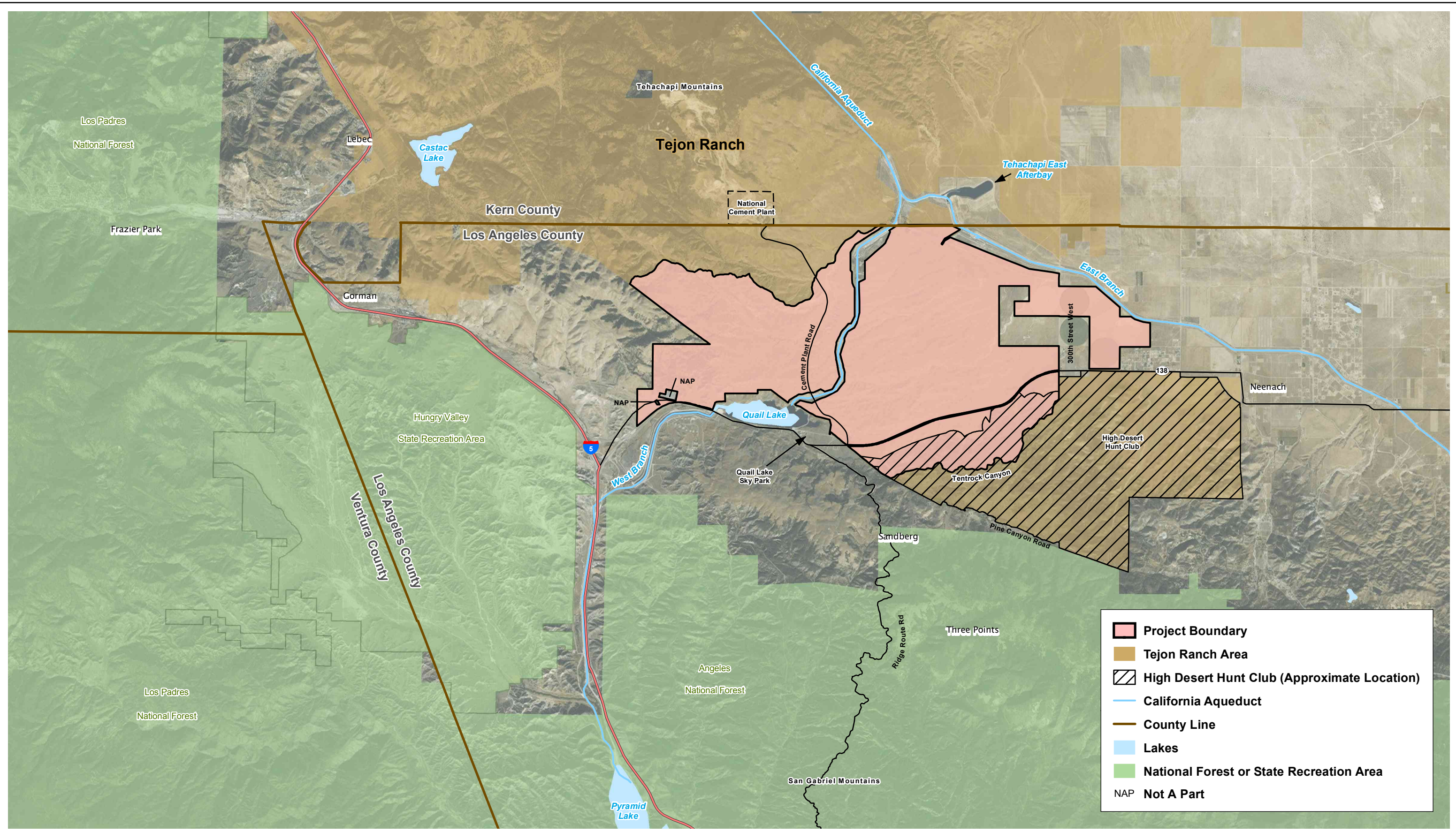
D:\Projects\3CEN\Centennial\MXD\EIR\Ex_regional_location_20150903.mxd

Regional Location

Exhibit 3-1

Centennial Project



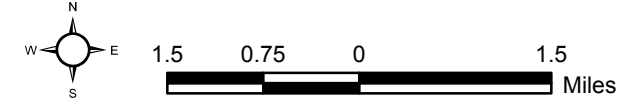


D:\Projects\3CEN\Centennial\MXD\IER\EX_vicinity_aerial_20150831.mxd

Project Vicinity Map

Exhibit 3-2

Centennial Project



the Project. The off-site National Cement Plant manufactures Portland cement from limestone deposits on its site, which is leased from Tejon Ranch.

To the east of the Project site are scattered residential and agricultural uses and the small community of Neenach. The High Desert Hunt Club is located southeast of the Project site and includes approximately 7,530 acres of land located on Tejon Ranch and 6,383 acres south of the Project site along SR-138 that is used for upland bird hunting (see Exhibit 3-2, Project Vicinity Map).

To the west of the Project site is the community of Gorman, located along I-5 approximately four miles from the Project site (as measured from the area just east of Quail Lake). The Hungry Valley State Vehicular Recreation Area (SVRA) is immediately west of I-5 at the Gorman exit, west of the Project area. The Hungry Valley SVRA contains over 19,000 acres, including campgrounds and trails for motorcycles, all-terrain vehicles (ATVs), dune buggies, and four-wheel-drive vehicles. Farther to the west is the 1.75-million-acre Los Padres National Forest located approximately 5 miles from the Project site in Ventura County.

To the south of the Project site is Quail Lake and SR-138, which also runs through the Project site. Residences are scattered throughout the foothills that lead up to the 693,000-acre Angeles National Forest (ANF), located approximately 1 to 3 miles from the Project site's southerly boundary (see Exhibit 3-2, Project Vicinity Map). The ANF extends for approximately 20 miles south to the Santa Clarita Valley.

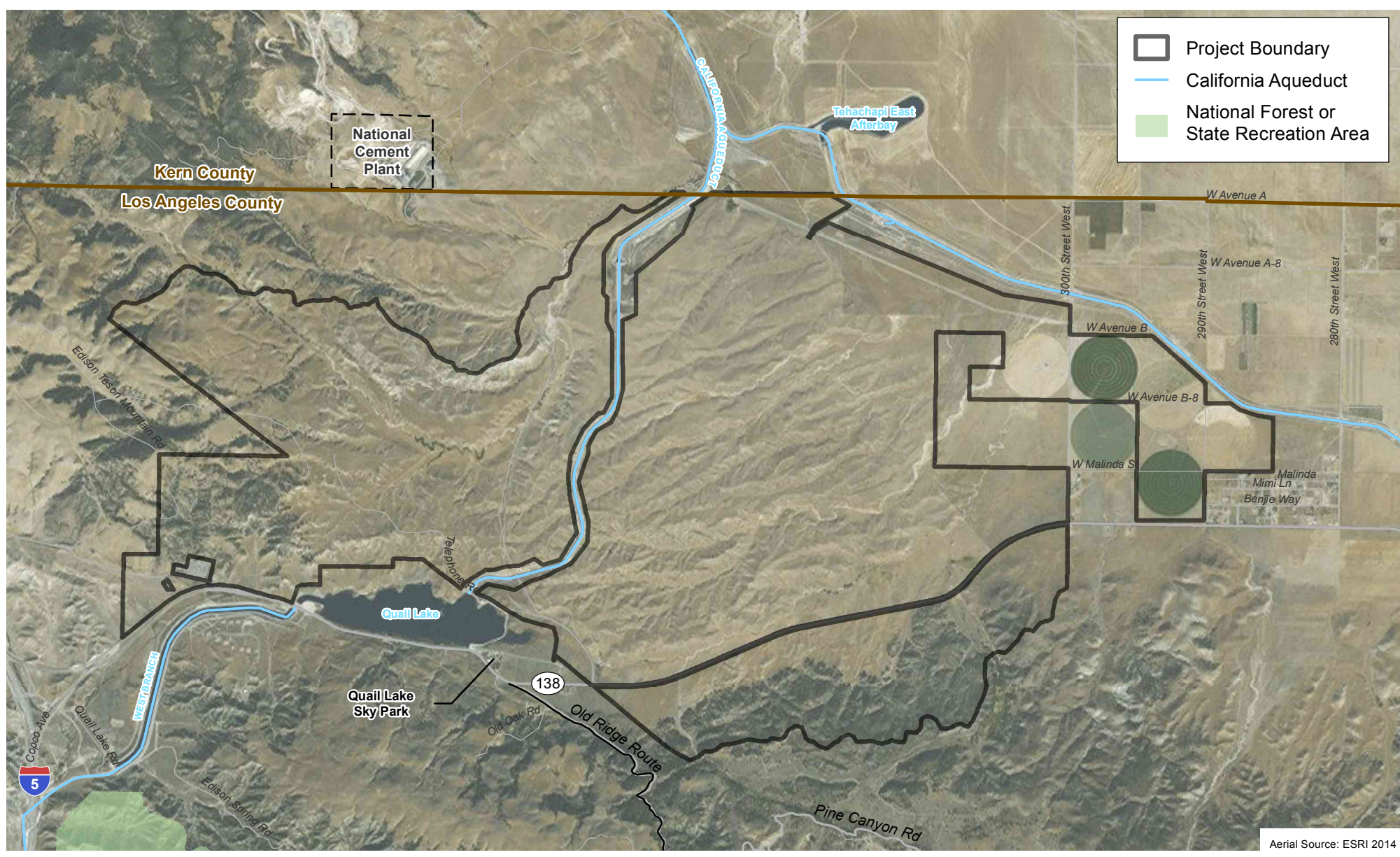
3.1.2 CLIMATE, TOPOGRAPHIC, GEOLOGIC, AND VISUAL SETTING

Temperatures in the area rarely exceed 100 degrees Fahrenheit (°F) in the summer or drop below 20°F in the winter. The average annual temperature measured on Tejon Ranch from 2012 through 2014 was 67°F (WRCC 2015a). Average annual precipitation measured on the Tejon Ranch from 2012 through 2014 was 8.05 inches; however, 2013 and 2014 were drought years and in 2012, a relatively wet year, total annual precipitation was 11.53 inches (WRCC 2015b).

The Project site is situated in the western portion of the Antelope Valley and in the foothills of the Tehachapi Mountains. As shown on Exhibit 3-3, Aerial Photograph and Project Boundary, the Project site is generally bisected by the West Branch of the California Aqueduct. The western portion of the site (i.e., west of the Aqueduct) is characterized by moderate to steep hills and canyons with oak woodlands and riparian areas, and the eastern portion of the site (i.e., east of the Aqueduct) is characterized by open, gently sloping mesa grasslands dissected by a network of arroyos. Elevations range from approximately 3,000 feet above mean sea level (msl) on the Antelope Valley floor in the northeastern portion of the site to approximately 4,250 feet above msl in the southwestern portion of the property.

The Project site, as with Southern California in its entirety, lies in a seismically active region and experiences moderate to strong ground shaking from earthquakes generated on one or more active earthquake faults on or near the site and in the region. The nearest known active fault is the San Andreas Fault, a portion of which transects the southwestern corner of the Project site. In addition, recent site-specific geotechnical studies identified two previously

D:\Projects\3CEN\Centennial\MXD\EX_Site_Plan_20150831.mxd

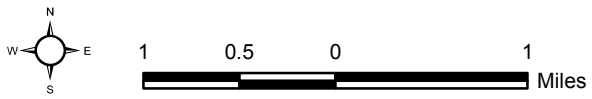


Aerial Source: ESRI 2014

Aerial Photograph and Project Boundary

Exhibit 3-3

Centennial Project



unknown active faults that traverse portions of the site (see Exhibit 5.1-2, Geologic Hazards). Please refer to Section 5.1, Geotechnical, for more information on the geologic setting of the Project site.

The Project site is at a lower elevation than much of the surrounding landforms. The Project site is comprised largely of low rolling hills, with areas of steeper slopes and higher elevations in the western and northwestern portions of the site. The Tehachapi Mountains border the northern and western perimeter of the Project site, and the San Gabriel Mountains are located to the south of the Project site. Therefore, public views of the Project site from the north, west, and portions of the south are blocked by topography. The Project site is primarily visible from public roadways adjacent to the southern and eastern portions of the site, including SR-138, 300th Street West, and 290th Street West. From the eastern bank of Quail Lake to the western site perimeter, the majority of the Project site eastward and to the north of SR-138 is obscured from view by the local hillsides surrounding Quail Lake. Please refer to Section 5.13, Visual Resources, for further discussion of site visibility and the existing and proposed visual character of the Project site.

3.1.3 CULTURAL AND HISTORIC SETTING

Please refer to Section 5.6, Cultural and Tribal Resources, for further discussion of these topics.

Archaeological and Tribal Cultural

The Tejon Ranch region, including the Project site, was a contact point between five separate ethnolinguistic groups immediately prior to the arrival of Euro Americans in California. The general Tejon region was inhabited by the Kitanemuk, Interior Chumash, Tataviam, Southern Valley Yokuts, and Kawaiisu. The first three of these groups are likely to have lived in and/or used the lands comprising the Project site. The Tejon Ranch area became a multi-ethnic, post-Mission Period refuge for many Native Americans. Substantial Native American use of the Tejon Ranch region continued into the American Period, likely due to the relative remoteness of the region from most Euro-American activities.

Paleontological

The literature review completed for the Project reveals that two of the three rock formations identified on the Project site are considered to be sensitive for the presence of fossil resources. They include (1) the marine Late Miocene Quail Lake Formation, which is exposed in the elevated parts of the southwestern portion of the Project site (north of SR-138), northwest of Quail Lake, and in part of the elevated areas of the southeastern portion of the Project site, south of SR-138 and (2) the Late Miocene Oso Canyon Formation, which grades into the Quail Lake Formation. The Neenach Volcanic Formation, exposed in the southeastern portion of the Project area on the west side of Tentrock Canyon and northeast of La Liebre Ranch, will likely lack fossils. Older Quaternary terrace deposits occurring around the exposures of the Oso Canyon Formation may contain significant fossils, probably similar to those from the famous Rancho La Brea asphalt deposits (i.e., the La Brea Tar Pits)

in Los Angeles. Younger Quaternary alluvium, which is located in drainages in the lower-lying areas, is unlikely to contain any fossil deposits.

Historic

Four large Mexican Period land grants in this region occurred during the 1840s that would eventually be united as Tejon Ranch. Because of its remote location from the coast, the Tejon Ranch/Tehachapi Mountains area saw little Euro-American development until about the 1850s. In 1854, Edward Fitzgerald Beale was appointed by President Millard Fillmore to establish an Indian reservation in the southern San Joaquin Valley that eventually moved to Tejon Canyon on the El Tejon Land Grant. The United States established a military post and Indian reservation at the top of Grapevine Canyon in 1854 and named it Fort Tejon. The Fort was a major stopping place for stagecoaches and mule-drawn wagon trains going by an inland route between the cities in Southern California and those in the Central Valley region and San Francisco.

Beale began purchasing large Mexican land grants that had come under ownership of the United States as an outcome of the Mexican War. One of the large grants was the 36,800-acre La Liebre Rancho that had been owned by Jose Mario Florez. Beale secured ownership of this grant, along with the El Tejon grant, and would eventually create the Tejon Ranchos comprising over 276,000 acres of land. The current Project site is located in the extreme southern end of the Tejon Ranchos area.

3.1.4 BIOLOGICAL SETTING

Vegetation

Most of the land on the Project site is currently used for livestock grazing, which is how it has been used for more than 150 years. An approximate 1,000-acre area in the eastern portion of the property is under agricultural cultivation. There are a variety of vegetation types on the Project site; however, the site is dominated by grasslands. There is considerable variation in species composition within these grasslands based on soil type, grazing pressure, slope and aspect, available groundwater, and disturbance history. As is typical in California, both native and non-native species occur within the mosaic of grassland types, producing a mix of patches of non-native grassland and native grassland. Wildflower fields are a component within portions of the grasslands and are expected to occur throughout most of the Project site.

There are also riparian and wetland vegetation types on site occurring in association with drainages, springs, and seeps. Oak woodland vegetation types are dominant in the westernmost and the southern portions of the Project area as a whole, and consist of dense stands of both deciduous and evergreen oak species. Scrub vegetation types (primarily chaparral) are generally found in the western portion of the Project site on somewhat eroded, steep slopes. In the lower elevations of the Project site, a rabbitbrush scrub vegetation type is present. Please refer to Section 5.7, Biological Resources, for a complete description of these resources.

Wildlife

There are a number of wildlife species that have been identified or that would be expected to occur on the Project site. Invertebrate species identified on the site include numerous butterfly species as well as fairy shrimp, an aquatic invertebrate. Fish habitat is extremely limited, and only the most ubiquitous and tolerant species, such as the non-native mosquitofish, are expected to occur. Several common amphibian species are expected to occur or have been found, including the western toad, Pacific treefrog, and several species of slender salamanders. Common reptile species observed or expected to occur on the Project site include the western fence lizard, side-blotched lizard, western whiptail, gopher snake, red coachwhip, and western rattlesnake.

A variety of bird species, including raptors, are expected to reside on the Project site throughout the year, while other species are present only during certain seasons. For example, grassland vegetation types on the site support breeding residents, including the mourning dove, Say's phoebe, horned lark, lark sparrow, and western meadowlark. Migratory birds expected to use this vegetation on the site, either during the summer or winter, include species such as western kingbird and American pipit. Rodents and other small mammals are expected to be among the most diverse and widespread mammals on the Project site. Mammal species include mice, squirrels, skunks, bats, desert cottontail, coyote, gray fox, mule deer, pronghorn antelope, black bear, mountain lion, and bobcat. Please refer to Section 5.7, Biological Resources, for a complete listing of these resources.

3.1.5 HYDROLOGY AND DRAINAGE CHARACTERISTICS

The Project site is located primarily within the limits of the Antelope Valley Watershed, as defined by the County of Los Angeles Department of Public Works. The Antelope Valley Watershed straddles the Los Angeles County-Kern County border and primarily encompasses the valley bottom, receiving flows from nearby streams that originate from the surrounding mountains. The Santa Clara River Watershed is the adjacent watershed to the southwest and is under the jurisdiction of the Los Angeles Regional Water Quality Control Board (Los Angeles RWQCB), which has been designated "Region 4" by the California Water Resources Control Board (SWRCB). Approximately ten percent of the Project site is within Region 4. However, 90 percent of the Project site is located within the jurisdiction of the Lahontan Regional Water Quality Control Board (Lahontan RWQCB), which has been designated "Region 6" by the SWRCB (see Exhibit 5.2-1, Regional Water Quality Control Board Boundaries). The Project site is also contained within the Antelope Hydrologic Unit, as identified in the Lahontan RWQCB's Water Quality Control Plan (Lahontan RWQCB 1994).

Local drainages within the Project site include Oso Canyon; Los Alamos Creek; Tentrock Canyon; Horsecamp Canyon; and Cow Springs Canyon (see Exhibit 5.2-3, Existing Watershed and Drainage Nodes). As indicated above, the West Branch of the California Aqueduct bisects the Project site from the northeast to the southwest (see Exhibit 3-2, Project Vicinity Map). The Project site falls within an approximate 37,500-acre watershed with four distinct drainage basins: the East Drainage Area (in the northeastern portion of the Project site); the Quail Lake Drainage Area; the Gorman Creek Tributary; and the Oso Canyon Drainage Area (see Exhibit 5.2-2, Drainage Areas on the Project Site).

Surface flows on the site generally flow eastward. Most of the water in the on-site drainages infiltrates into the alluvial sandy plain in the eastern portion of the site. The dominant water sources for the site are runoff from the mountains to the west and south, and surface water runoff. Another water source is groundwater discharge (e.g., seeps, springs).

A few small channels (less than 0.1 mile in length) on the western side of the Aqueduct flow into, or toward, Quail Lake. No surface waters from the site enter the lined portions of the California Aqueduct. Culverts under the Aqueduct facilitate eastward-flowing drainage courses. Several small areas of impounded water or depressions generally associated with springs or flats are present on the site. Most, if not all these ponds, were created to provide water for livestock. Project site drainage characteristics are detailed in Section 5.2, Hydrology and Flood.

3.1.6 WATER QUALITY SETTING

Surface and groundwater quality data for the Project site are limited. The U.S. Geological Survey (USGS) and the California Department of Water Resources (DWR) regularly monitor water quality in the California Aqueduct, but existing water quality data in and around the Project site for Oso Canyon Creek (located west of the Aqueduct), the East Drainage Area (located east of the Aqueduct), the Gorman Creek Tributary (located east of Quail Lake), and the Quail Lake Drainage Area (located north of Quail Lake) are not available. Groundwater monitoring has been conducted at several shallow and deep wells in the Project vicinity, and two USGS groundwater wells with limited water quality data are located within five miles of the eastern Project boundary.

Oso Canyon includes several creeks that flow easterly and terminate in the Antelope Valley floor to the northeast of the Project site boundary. Similarly, the East Drainage Area consists of several drainages that originate in the mountains and foothills to the south of the Project site and that flow northward across the valley floor and eventually pond in the dry lakes adjacent to the Kern County line. During large rainfall events, these drainages are likely to carry a high sediment load indicated by elevated total suspended solids (TSS) and turbidity due to the dirt roads, steep slopes, gullied land, and exposed silty and sandy soils in the watershed.

The existing water quality of Quail Lake is likely very similar to that of the State Water Project's (SWP's) water supply in the California Aqueduct directly upstream of the Project boundary. As part of the SWP, the DWR maintains a monitoring station at the Tehachapi Afterbay (Check 41), which is located immediately upstream of Quail Lake. Water quality in Quail Lake is representative of the quality of the SWP's water supply (which discharges into Quail Lake).

Groundwater in the Antelope Valley is generally high in dissolved salts because evapotranspiration increases the concentrations of minerals. Please refer to Section 5.4, Water Quality, for more detailed water quality information.

3.1.7 WATER RESOURCES SETTING

The Project would provide water supplies from multiple sources, including local groundwater, recycled water, Antelope Valley – East Kern Water Agency (AVEK) water, banked water, return flows, and other purchased water supplies from outside the AVEK service area in order to increase water supply reliability in normal (or average rainfall years), in single-dry year, and in multiple-dry year conditions. Each of these sources is described briefly below.

The West Antelope and Finger Buttes sub-basins of the Antelope Valley Groundwater Basin (AVGB) underlie the Project site; these sub-basins are, as a practical matter, hydrologically independent of other AVGB sub-basins, which are located further to the east of the Project site. There are three discrete aquifer systems that underlie the Project site: the western aquifer, southern aquifer, and the deep aquifer. The deep aquifer, which underlies the West Antelope sub-basin (located in the northeastern portion of the Project site), would be the principal groundwater source for the Project.

The West Branch of the California Aqueduct, a component of the SWP operated by the DWR, traverses the site in a north to south direction; Quail Lake, which is also part of the SWP, is located off site to the south of the Project site and just north of SR-138. At the present time, these facilities do not provide water supplies to the Project site. The Project would use some SWP water previously purchased from AVEK as well as from suppliers outside the AVEK service area.

Other non-SWP potable water supplies are also available for use by the Project. These supplies include 8,393 acre-feet (af) of water purchased by the Tejon Ranch Company (TRC) from the Nickel Family, LLC in 2008 and an additional 6,893 af of “Nickel Water” purchased in 2009. Under a separate exchange agreement with AVEK, these supplies would be available to the Project in the future at a ratio of 1.5 times the Nickel Water supplied to AVEK in 2008 and 2009. This agreement will provide a total of 22,180 af of future water to the Project.

Banked water is also available to the Project from the Tejon Ranch Company (TRC) Water Bank located in Kern County (see Exhibit 4-13, Centennial Project - Conceptual Domestic Water System). As of December 2015, approximately 17,287 af of water in the TRC Water Bank is stored for Project use; water banking of approximately 2,362 af of potable water supplies obtained from the SWP in years when surplus water is available (i.e., “Call Water”) can also be used to supply the Project. Centennial has entered into an agreement with Tejon Ranch for the rights to use Tejon Ranch’s water supplies. For informational purposes, there is an additional existing groundwater well in the Project vicinity; however, this well is used solely by the Cement Plant and would not be connected to the Project’s groundwater well system at any time.

Additionally, the Project proposes to use recycled water to help ensure that the Project’s potable water demands are met. Recycled water used for irrigation of landscaping will total approximately 40 percent of the community’s water demand, freeing up potable water for drinking, cooking, and other uses that require water to meet potable standards.

Please refer to Section 5.18, Water Resources, for more detailed existing setting information.

3.1.8 AIR RESOURCES

The Project site is under the jurisdiction of two different air districts and lies within two different air basins. Approximately 85 percent of the site is within the boundaries of the Antelope Valley Air Quality Management District (AVAQMD), while approximately 15 percent of the southwest portion of the Project site is within the jurisdiction of South Coast Air Quality Management District (SCAQMD) (see Exhibit 5.11-1, Air District and Basin Boundaries). The portion of the site under the jurisdiction of the AVAQMD lies within the Mojave Desert Air Basin (MDAB). The portion of the Project site that is under the jurisdiction of the SCAQMD lies within the South Coast Air Basin (SoCAB).

The U.S. Environmental Protection Agency (USEPA) has designated the AVAQMD portion of the MDAB, which includes the majority of the Project site, as being a Severe-15 nonattainment area for ambient ozone (O₃) concentrations; all other criteria pollutants are classified as being in attainment or unclassified. The State of California designates the MDAB as a nonattainment area for O₃ and for respirable particulate matter with a diameter of 10 microns or less (PM₁₀) and in attainment or unclassified for all other criteria pollutants. Generally, State standards are more restrictive than federal standards.

The USEPA has designated the SoCAB, which includes a portion of the Project site, as being as an extreme nonattainment area for O₃; in nonattainment for fine particulate matter with a diameter of 2.5 microns or less (PM_{2.5}); and in attainment/maintenance for PM₁₀, carbon monoxide (CO), and nitrogen dioxide (NO₂). The State has designated the SoCAB as being in nonattainment for O₃, PM₁₀, and PM_{2.5} and in attainment for CO, NO₂, sulfur dioxide (SO₂), and lead.

Air quality data representative of the Project site is collected at the Santa Clarita and Lancaster Monitoring Stations. The Santa Clarita Monitoring Station is approximately 29 miles southeast of the Project site. The Lancaster Monitoring Station is approximately 33 miles east of the Project site. The Santa Clarita and Lancaster monitoring data show that O₃ and PM₁₀ are the air pollutants of primary concern in the Project area, as related State and federal standards have been exceeded in recent years. Federal standards were exceeded for PM_{2.5} at the Lancaster Monitoring Station and State standards were exceeded for PM_{2.5} at the Santa Clarita Monitoring Station. Data collected at the aforementioned monitoring stations and included in Section 5.11, Air Resources, indicates a trend towards lower maximum levels and number of days exceeding the State and federal O₃ standards between 2012 and 2014; however, the data also indicates a trend toward increasing days of exceedances and maximum levels for PM₁₀ during this timeframe.

Please refer to Section 5.11, Air Resources, for more detailed environmental setting information.

3.2 EXISTING LAND USES

3.2.1 EXISTING OPERATIONS

The Project site consists of undeveloped land that has been primarily used for livestock grazing for more than 150 years. The Tejon Ranch Company currently leases most of the Project site to an independent company for grazing. Of the 12,323 acres of land comprising the Project site, approximately 10,950 acres (89 percent) are currently used for cattle grazing. The grazing area is spread almost entirely across the site, and grazing occurs in the spring. The total area of cattle grazing acreage on the Project site represents approximately 5 percent of the 235,829 acres of grazing land in Los Angeles County in the year 2012 (DOC 2015). In addition to cattle grazing, the Tejon Ranch Company owns and cultivates approximately 1,000 acres in the eastern portion of the Project site as 5 separate pivot fields that correlate with the approximate 642 acres of Prime Farmland on the site. The pivot fields are managed for the production of either alfalfa or a three-way forage mix (e.g., barley, oats, sedan grass). The total 1,000-acre area has been cultivated by the Tejon Ranch Company since 1998. Prior to 1998, the land was used primarily for grazing.

The High Desert Hunt Club includes approximately 7,530 acres of land located on Tejon Ranch and 6,383 acres south of the Project site along SR-138 that is used for bird hunting (see Exhibit 3-2, Project Vicinity Map). Additionally, near the northern edge of the Project site, there is an existing residential dwelling unit used to support the grazing and caretaking operations. There are two Not a Part (NAP) areas shown within the southwestern portion of the Project area. These parcels are shown on Exhibit 3-3, Aerial Photograph and Project Boundary, and are not part of the Project site, nor are they owned by the Project Applicant. Both NAPs are owned by Southern California Edison (SCE).

3.2.2 EXISTING PUBLIC FACILITIES AND INFRASTRUCTURE

Open Space and Recreation Areas

There are no existing parks or other recreational features within the Project boundaries, as the site is privately owned. However, a variety of jurisdictions own and/or maintain open space areas, parks, trails, and other recreational facilities in the vicinity of the Project site (see Exhibit 5.14-1, Existing Open Space and Recreational Areas). Section 5.14, Parks and Recreation, provides detailed descriptions of recreational opportunities in the Project vicinity, including the Angeles National Forest, the Los Padres National Forest, the Castaic Lake State Recreation Area, the Hungry Valley SVRA, Quail Lake, and Pyramid Lake. The Pacific Crest National Scenic Trail (PCT), which is administered by the U.S. Department of Agriculture (USDA) Forest Service and Pacific Crest Trail Association (PCTA), is the nearest existing trail in the Project area. It is anticipated that the PCT will be realigned to pass through the Project site adjacent to 300th Street West.

Schools and Libraries

There are no existing schools, libraries, or other educational facilities on the Project site. As described in Section 5.15, Education, and as depicted on Exhibit 5.15-1, Local School

Districts, the Project site is within the jurisdiction of three school districts: Gorman Joint School District, providing public elementary and junior high/middle school education (grades Kindergarten through 8th [K-8]); Westside Union Elementary School District, also providing K-8 education; and the Antelope Valley Union High School District, providing high school education (grades 9-12).

As described in Section 5.17, Other Public Services, the Antelope Valley Bookmobile, based at the Lancaster Library, currently serves the surrounding communities, including the communities of Gorman, Lake Hughes, Leona Valley, Lake Elizabeth, Holiday Valley, Antelope Acres, and Green Valley.

Fire Protection

As described in Section 5.16, Fire and Law Enforcement Services, fire protection service is provided to the Project area by the Consolidated Fire Protection District of Los Angeles County, commonly known as the Los Angeles County Fire Department. Fire Station 77 at 46833 Peace Valley Road in Gorman is the nearest and the jurisdictional Los Angeles County Fire Station for the site. Several other Los Angeles County Fire Stations also provide fire services to the Project area. In addition, the Kern County Fire Department also responds to fires and other emergencies on the Project site and in the surrounding areas under an automatic mutual aid agreement with the Los Angeles County Fire Department.

Portions of the Project site are located in an area designated by the County Fire Department as a Very High Fire Hazard Severity Zone (VHFHSZ). All development within a VHFHSZ is required to meet the building construction and fuel modification requirements specified in the County Building and Safety Code for VHFHSZ areas.

Law Enforcement

As described in Section 5.16, Fire and Law Enforcement Services, the Santa Clarita Valley Station of the County of Los Angeles Sheriff's Department is located near the intersection of Magic Mountain Parkway and Valencia Boulevard at 23740 Magic Mountain Parkway in Valencia, approximately 28 miles south of the Project site, as shown on Exhibit 5.16-2, Existing Law Enforcement Station Locations. This station is responsible for providing general law enforcement to the Project area. The California Highway Patrol (CHP) provides traffic control services to the Project site through its Newhall Area Station, which is located at 28648 The Old Road in Valencia, near the interchange of I-5 and SR-126, although the nearest CHP station to the Project site is the Fort Tejon Area CHP Station, located at 1033 Lebec Road in Lebec.

Circulation

The Project site is located east of I-5 and adjacent to SR-138. The northern boundary of the Project site extends to the Los Angeles County/Kern County line, and the southern boundary extends just south of SR-138. The western boundary is approximately one mile east of I-5, and the eastern boundary is approximately 1.5 miles east of 300th Street West. Project-

related traffic is anticipated to utilize the major regional roadways across a broad geographic area (see Exhibit 3-2, Project Vicinity Map).

Existing roads on the Project site with public access include, as stated previously, (1) 300th Street West; (2) the National Cement Plant Road, which runs north-south through the Project site, crossing the Aqueduct's West Branch; and (3) a small portion of Gorman Post Road in the southwestern-most part of the site where it connects to SR-138. Additionally, there is a network of unpaved roadways that traverse the Project site for ranch activities, including through the areas that are to be preserved on site.

The major highway in the area is SR-138, which runs through the southern portion of the Project site and is currently built as a two-lane rural highway. The primary regional access road is via I-5, an eight-lane portion of the highway that connects with SR-138 approximately one mile west of the Project site's westernmost boundary. Major access to the Antelope Valley is via SR-14, which connects with I-5 southeast of the Project site in the Santa Clarita Valley; SR-14 then moves northeast and becomes the major north-south access into Lancaster and Palmdale. Just north of Lancaster, SR-14 connects with SR-138 east of the Project area (see Exhibit 3-1, Regional Location).

Section 5.10 (Traffic, Access, and Circulation) summarizes the existing capacities of these regional highways. No transit services currently exist in the Project area.

3.3 LAND USE DESIGNATIONS AND ZONING

The Project site is located within the boundaries of the Antelope Valley Area Plan (AVAP), a component of the County of Los Angeles 2035 General Plan that provides a coordinated statement of public policy relating to the future of the Antelope Valley. The Land Use Policy Map of the AVAP designates the Project site as having the following land-use designations: H5: Residential 5 (0-5 dwelling units [du]/net acre); OS-C: Open Space Conservation; CR: Rural Commercial; RL1: Rural Land 1 (1 du/1 gross acre); IL: Light Industrial; RL2: Rural Land 2 (1 du/2 gross acres). The Project site is designated on the AVAP land use map as within the West Economic Opportunity Area (DRP 2015a).

The existing zoning of the Project site includes: OS: Open Space; A-1-2: Light Agriculture; RPD: Residential Planned Development; CPD-DP: Commercial Planned Development; and MPD-DP: Manufacturing industrial planned development (DRP 2015a). The adoption of the Centennial Project would not require any amendments to the County of Los Angeles General Plan or the AVAP. A detailed discussion of land use and the related planning programs is provided in Section 5.8, Land Use, Entitlements, and Planning.

3.4 REGIONAL PLANNING CONTEXT

3.4.1 POPULATION AND HOUSING

As discussed in Section 5.9, Population, Housing, and Employment, there is an existing residential dwelling unit occupied by a Tejon Ranch employee at the northern-central end of the site.

Los Angeles County had a resident population of 10,241,335 in January 2016 (DOF 2016). This represented an increase in population of approximately 422,730 people (4.31 percent) between 2010 and 2016. The Southern California Association of Governments' (SCAG's) 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) projects the County's population to increase to 10.40 million people by the year 2020 and to 11.35 million by 2035 (SCAG 2012a). The recently adopted 2016-2040 RTP/SCS projects the County's population to increase to 10.33 million by 2020; to 11.15 million by 2035; and to 11.51 million by 2040 (SCAG 2016a).

The North Los Angeles County Subregion, as defined by SCAG, encompasses unincorporated County land and the Cities of Santa Clarita, Palmdale, and Lancaster. North Los Angeles County also includes the unincorporated Towns of Gorman, Neenach, Lake Hughes, Acton, and Castaic. The unincorporated Towns of Lebec and Frazier Park are within the regional vicinity of the Project site and are located in Kern County (see Exhibit 3-2, Project Vicinity Map).

The North Los Angeles County Subregion, which includes the Project site, had a population of approximately 658,755 people in 2010 (SCAG 2016b), which was 6.71 percent of the total County population of 9,818,605 persons (DOF 2016). From 2020 through 2040, the population is anticipated to grow considerably in the Cities of Santa Clarita, Lancaster, and Palmdale and in unincorporated areas of North Los Angeles County. The population of the North Los Angeles County Subregion is projected to increase by 32.97 percent between 2020 and 2040. Additionally, this subregion is projected to house approximately 8.56 percent of the County's entire population by 2040 (SCAG 2016b). This is up from 6.63 percent in 2012.

The North Los Angeles County Subregion had approximately 200,990 households in 2012. This is projected to grow to 245,473 households by 2020 and to 331,399 households by 2040. In turn, the County's estimated 2012 total of over 3.26 million households will increase to 3.49 million households by 2020 and to 3.95 million households by 2040 (SCAG 2016b). In order to meet future housing demand in the County, approximately 30,145 new housing units will be required in the unincorporated areas of Los Angeles County between 2014 and 2021 (DRP 2015a). The Project would aid in providing housing to North Los Angeles County, a subregion of the County that is projected to have an increased in demand for housing units over the next decades.

3.4.2 EMPLOYMENT

Employment in Los Angeles County is estimated at over 4.24 million jobs in 2012 and is expected to increase by 415,900 jobs between 2012 and 2020 and by 563,300 jobs between 2020 and 2040 (SCAG 2016a). The North Los Angeles County Subregion had a 2012 job base of approximately 181,089 jobs, which is projected to increase to 211,300 jobs in 2020 and to 280,447 jobs by 2040 (SCAG 2016b). Additional information on employment growth and forecasts is provided in Section 5.9, Population, Housing, and Employment.

3.4.3 JOBS AND HOUSING BALANCE

Jobs and housing are considered in balance when a subregion has enough employment opportunities for most people who live in the area and enough housing opportunities for most people who work in the area. A balanced condition would ultimately benefit the community by reducing the number of workers commuting to jobs outside the area and decreasing commuting times and distances for workers who do commute. This balance would minimize impacts to the regional transportation network and the quantity of related air emissions and would enhance the quality of life for Centennial residents.

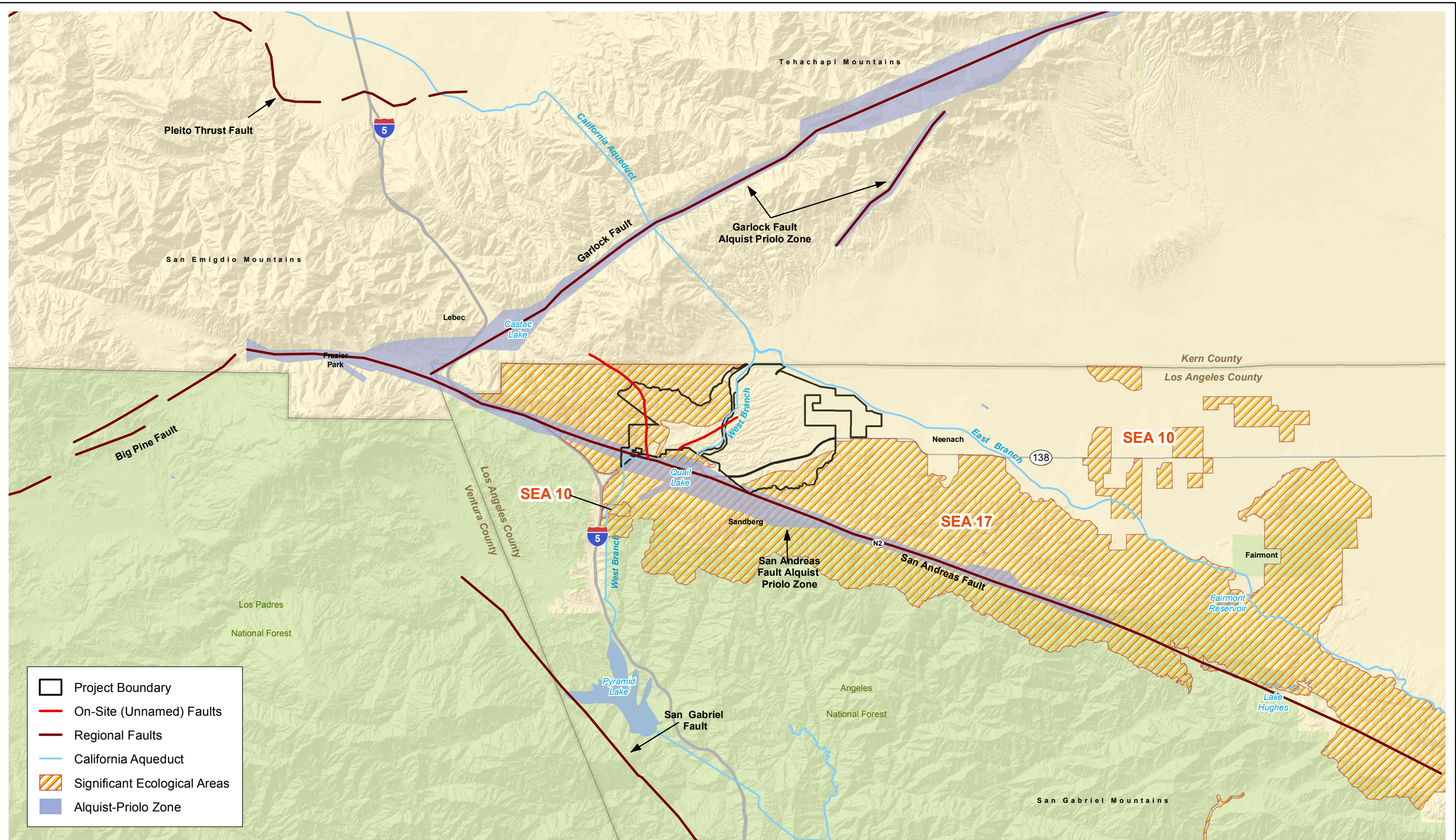
No State, regional, County, or local requirements for a specific jobs/housing balance exist at the present time. The Economic Development Element of the AVAP states that the AVAP provides for a jobs/housing ratio of 1.3 jobs per dwelling unit in the unincorporated area of the Antelope Valley.

Details of the 2012 and 2040 projected jobs/housing ratios for the Project, the North Los Angeles County Subregion, and the County as a whole can be found in Section 5.9, Population, Housing, and Employment. As identified, the Centennial Project proposes development of 19,333 dwelling units and anticipates creation of approximately 23,675 permanent jobs within its commercial areas and employment centers. The projected jobs/housing balance for the Project would be approximately 1.22 to 1.

3.5 CONSTRAINTS AND OPPORTUNITIES

3.5.1 CONSTRAINTS

Exhibit 3-4, Local Area Constraints, provides a depiction of several physical and policy constraints to development on the Project site, including the Alquist-Priolo Zones and fault lines, the California Aqueduct, and designated Significant Ecological Areas (SEAs). The AVAP has designated a majority of the Project site as having Class 2 Constraints (i.e., moderate constraints), as depicted on their Map 4.1, Hazards and Environmental Constraints (DRP 2015a). The easternmost and northernmost portions of the Project site include small areas of land designated with Class 1 Constraints (i.e., minimal constraints), and the southwesternmost portion of the Project site includes small areas of land designated with Class 3 Constraints (i.e., severe constraints), which are related to the Alquist-Priolo Earthquake Fault Zone.



- Project Boundary
- On-Site (Unnamed) Faults
- Regional Faults
- California Aqueduct
- Significant Ecological Areas
- Alquist-Priolo Zone

Local Area Constraints

Centennial Project



D:\Projects\3C\EN\Centennial\MXD\EIR\Ex_local_area_constraints_20150831.mxd

Geotechnical Features

As discussed above, the southwestern corner of the Project site overlies the northern edge of the San Andreas Fault Zone (see Exhibit 3-4, Local Area Constraints). The San Andreas Fault runs an approximate length of 660 miles throughout California and is considered the longest active fault in the state. There is a designated Alquist-Priolo Earthquake Fault Zone associated with the San Andreas Fault (labeled Alquist Priolo Zone on Exhibit 3-4). The San Andreas Earthquake Fault Zone crosses the southwestern edge and southernmost point of the Project site. There are three faults on the Project site; site-specific geotechnical investigations identified that two of these three faults were previously unknown active faults (Geocon 2015). These unnamed faults traverse portions of the western half of the Project site (west of the California Aqueduct).

In addition to identifying the San Andreas Fault and the on-site faults, site-specific geotechnical investigations have identified a large ancient landslide in the northwestern portion of the Oso Canyon area (see Exhibit 5.1-2, Geologic Hazards). Please refer to Section 5.1, Geotechnical, for more information regarding the geotechnical features present on and around the Project site.

Hydrology and Flooding

Numerous watercourses traverse the Project site, some of which are identified as blueline streams on the USGS Lebec and La Liebre Quadrangles (see Exhibit 5.2-3, Existing Watershed and Drainage Nodes). Notable drainages within the Project site include Oso Canyon and Tentrock Canyon. There are also a few springs scattered north and east of Quail Lake. The Federal Emergency Management Agency (FEMA) has identified the 100-year floodplain for Oso Creek as a flood-prone area subject to special requirements governing construction materials and methods, structure elevation and flood proofing, and utility standards. The FEMA 100-year floodplain traverses some northern portions of the Project site, both east and west of the Aqueduct (see Exhibit 4-5, Centennial Project - Safety Overlay Zones).

The California Aqueduct and National Cement Plant Road

As mentioned above, the East Branch of the California Aqueduct is entirely off-site and runs in a northwest to southeast direction just north of the Project site. The West Branch of the Aqueduct bisects the Project site roughly north to south and widens at the southern Project boundary to empty into Quail Lake. Quail Lake, a part of the California Aqueduct system, is situated southwest of the Project site. The Aqueduct does not connect to any on-site drainages, but several drainages cross under the Aqueduct via culverts or flow over the Aqueduct siphon. The National Cement Plant Road runs north from SR-138 to the National Cement Plant, which is located approximately one mile north of the Project site. This road crosses over the West Branch in the southern portion of the Project site, just north of Quail Lake, and continues north running parallel to the West Branch along its western side.

Wildfires

The Los Angeles County Fire Department (County Fire Department) designates lands within Los Angeles County that are determined to be highly vulnerable to wildfire as VHFHSZs (Los Angeles County Code, Title 32). The Antelope Valley area, including the Project site, is designated as a VHFHSZ. Project site characteristics that contribute to this designation include (a) access; (b) lack of existing adequate fire flows; (c) topography; and (d) vegetative cover. Because of this designation, development of the Project is subject to the County Fire Department's Fuel Modification Plan Guidelines and specific development standards. Please refer to Section 5.3.3, Fire Safety, for more information regarding wildfire potential on and around the Project site.

Cultural and Historic Resources

The Project site as a whole contains numerous prehistoric and historic archaeological sites and paleontological localities. All but three of the sites in the western portion of the Project site have been determined not to be significant. The three significant sites will remain in open space and will not be affected by the current project. Prehistoric and historic archaeological sites in the eastern portion of the Project site are considered significant until further study confirms otherwise.

Biological Resources

Vegetation and Wildlife Habitat

As discussed above in Section 3.1, Physical Setting, there is a variety of vegetation types on the Project site; however, the site is dominated by grasslands, with wildflower fields in some portions of the grasslands. The other main groups of vegetation types identified on the site include scrub and chaparral, oak woodland, riparian and bottomland habitat, and bog and marsh.

Some vegetation types are considered "special status" by various agencies, such as the California Department of Fish and Wildlife (CDFW). Special status vegetation types on the Project site include the following: Wright's buckwheat scrub; mixed oak woodland; alluvial scrub; cottonwood woodland; riparian herb; rush riparian grassland; southern arroyo willow riparian; southern cottonwood-willow woodland; southern willow scrub; unvegetated wash; valley oak riparian woodland; willow riparian forest; willow riparian woodland; alkali meadow; Baltic rush; coastal and valley freshwater marsh; seeps and ephemeral ponds; and native perennial grasslands and wildflower fields that are coincident and mixed with annual grasslands and other vegetation types.

Special Status Plant and Wildlife Species

The Project site supports a variety of special status plant and wildlife species either year round or seasonally. Populations of special status plants—including California androsace, round-leaved filaree, Mojave spineflower, Sylvan microseris, and Piute Mountains navarretia—occur in a patchy distribution scattered across the grassland areas of the site.

Most of the special status wildlife species are identified as species of concern by the CDFW. State- and or federally listed wildlife species may occur as flyovers, such as the California condor, or seasonal migrants, such as Swainsons hawk, but are not expected to breed on the site. However, focused surveys were negative for most special status species potentially occurring in the region.

Wildlife Movement

Due to the Project site's position at the edge of the Tehachapi Mountains and largely desert and high desert topography and vegetation, mountain wildlife species would not be expected to traverse the Project site with any regularity. The California Aqueduct and I-5 represent existing constraints to regional wildlife movement on the Project site. Because most of the larger wildlife species in the region do not typically cross large expanses of sparsely vegetated landscape (such as the majority of the Project site), the central and eastern portions of the Project site are not likely to be used by wildlife to move between and within the regional open space areas in the site vicinity. The Project site provides unobstructed local movement opportunities for small animals within large portions of the site. Therefore, wildlife movement at local scales would be expected to occur throughout the Project site.

Significant Ecological Areas

The southern and western portions of the Project site include lands designated as a SEAs. SEAs do not necessarily require protection or preservation, but instead require additional review of development proposals via the Significant Ecological Area Technical Advisory Committee (SEATAC) to ensure that heightened consideration is given to the biological resources that contribute to the long-term sustainability of the SEA. The objective of SEAs is to conserve genetic and physical diversity by designating biological resource areas that are capable of sustaining themselves into the future (DRP 2015b). There is one SEA-designated portion within the Project boundaries, SEA 17, San Andreas. SEA 17 would be conserved and would not be affected by Project-related grading or development.

Circulation

Currently, access to the Project site can only be made from the south at SR-138, through the exit of Gorman Post Road south of the Project site and from 300th Street West. There are no access points in other directions. The West Branch of the California Aqueduct is another circulation constraint which runs in a north-south direction and bisects the Project site. Access across the Aqueduct will be limited to two bridges: one that will need to be widened and one new crossing that will be constructed as part of the Project. Because the Project site is currently used as grazing land, there is a network of unpaved private ranch roads that traverse the property. The Project's internal circulation system will be entirely new construction, with the exception of a portion of 300th Street West and the existing National Cement Plant Road, which is used to travel to the National Cement Plant located just north of the Project site's northernmost boundary.

Noise

Because the Project site and surrounding areas are rural, they are relatively quiet. The primary source of existing noise in the Project area is traffic, both on the local streets and on major thoroughfares, including I-5 and SR-138. Other existing noise sources include activities at the Oso Pumping Station (located off site), at the Alamo Power Plant (located off site), at the SCE Bailey Substation (located on both Not a Part areas in the southwestern corner of the Project site), the Quail Lake Sky Park Airport (located off site and to the southeast of Quail Lake), the High Desert Hunt Club (south of SR-138, and farther to the southeast of the Project boundary), and the National Cement Plant (located in Kern County to the north of the Project). Detailed discussions of existing and projected noise conditions at the Project site are included in Section 5.12, Noise.

Water Resources

The Project site is not within the jurisdiction of a public agency with responsibility for managing and delivering water supply and wastewater reclamation services to future residents. However, to address this constraint, Centennial Founders, LLC has requested the Golden Valley Municipal Water District (GVMWD or District) Board of Directors to consider annexing the Project area and operating the Project's proposed potable water, water recycling, wastewater, and, storm water facilities. The GVMWD is a California municipal water district formed and operated under Section 71000 of the *California Water Code*. The District's service area encompasses approximately 12.5 square miles and is adjacent to the Project's western boundary (GVMWD 2011). The GVMWD currently operates approximately 20 municipal water service connections and a wastewater treatment facility for the unincorporated community of Gorman. The GVMWD has approved the Centennial Project Water Supply Assessment, which contains the water demand projections that provide the basis for the Project's water supply need projections.

After completion of the annexation process, the Project's water, wastewater, and storm water systems would be owned and operated by the GVMWD or by another public utility district (PUD) that manages potable water supply systems and wastewater collection, treatment, recycled water, and storm water systems. Annexation of the Project into a PUD service area would require approval by the Los Angeles County Local Agency Formation Commission (LAFCO) and would occur after certification of this EIR.

3.5.2 OPPORTUNITIES

Hydrology and Flood

The Centennial Project's Green Development Program, in combination with the Drainage Plan will provide a combination of debris basins, water quality basins, infiltration and retention/detention basins, flood-control structures, and other Low Impact Development (LID) techniques to preserve natural drainage features, incorporating techniques that will mimic undeveloped storm water runoff rates and volumes and prevent water quality and hydromodification impacts to natural drainage systems. These systems, in combination with the Project's preservation of primary drainage corridors, would provide a storm water

management system that is highly sustainable because of its use of natural systems to control runoff rates and to promote groundwater recharge.

This integrated water resources management approach would promote natural hydrologic processes to manage storm water runoff, including implementation of the Floodplain Safety Overlay District, the Flood Control Systems Plan (Exhibit 4-16, Centennial Project - Conceptual Drainage and Flood Control System), specific Best Management Practices (BMPs), other requirements of the Standard Urban Stormwater Management Plan (SUSMP), and additional features. Implementation of these proposed storm water management features ensures that habitable structures are not constructed within a 100-year floodplain. The Project includes these storm water management techniques as Project Design Features (PDFs) and would incorporate these techniques into Project plans and specifications as part of the development plan approval process for building and grading permits.

Wildfires

With development of the Project site, fire hazards associated with the natural vegetative cover would be reduced through its replacement with urban landscape vegetation. In accordance with State law, fire-safe landscaping and minimum clearance (defensible space) requirements will be used in areas susceptible to wildland fire. While the potential for fire hazards would still exist, the potential for fires to burn out of control through undeveloped land would be minimized with development. Detailed discussions of existing and projected fire hazard conditions at the Project site are included in Section 5.3, Hazards and Fire Safety.

Biological Resources

Because the Project site is both large and undeveloped, there is an opportunity to preserve open space areas in perpetuity. The development of a planned community allows for the strategic incorporation of open space areas while still providing an appropriate mix of land uses needed for a new community. Conservation of open space areas also provides the opportunity to improve the biological value of these lands through habitat management, enhancement, and/or restoration. For appropriate portions of the preserved open space areas on the Project site and proposed conservation lands adjacent to the site, mitigation efforts would restore previously impacted biological resources, which would result in a higher biological value than currently exists given the history of grazing activity.

The proposed Grassland Adaptive Management Plan includes managed grazing activity as a component of maintaining the preserved grassland areas (refer to Section 5.7, Biological Resources, for more detail). However, this grazing activity would differ from current grazing activity in that the primary goal would be protection of the biological resources. Only the preserved grasslands would incorporate grazing as a management tool. Other vegetation types that would be preserved, such as oak woodlands and riparian habitat, would have limited grazing.

The location of proposed preservation areas presents an opportunity to support local wildlife movement because these areas are positioned contiguous to off-site open space areas, thereby providing a larger total area of continuous preserved open space for local

wildlife to use as habitat and for movement. The preservation of enhanced or restored open space is also an opportunity to preserve portions of SEA-designated lands. As discussed above, the SEA designation does not confer protection of those lands, but only designates these SEA lands as having high biological value. As such, development is not prohibited on SEA lands, but allowed only with a discretionary permit. Portions of the proposed preservation areas associated with the Project overlap portions of the San Andres SEA; therefore, these areas would preserve the biological resources important to the SEA in perpetuity, providing permanent protection.

Land Use and Planning

As discussed above under Section 3.1.1, the Project site occupies 12,323 acres of the Antelope Valley with elevations that range from 3,635 feet above msl along a ridge overlooking Quail Lake to approximately 2,975 feet above msl in the alluvial drainage area in the east portion of the site. As such, the Project site occupies a large expanse of relatively flat topography, with the majority of the site having low rolling hills. Because of this, there is an opportunity to design a land use plan that harmoniously incorporates a wide variety of different land uses and sustainable features that are more difficult to achieve in a high-relief setting. As discussed earlier, the Project is designed to comply with the vision, assumptions, goals, and policies of the AVAP, which was approved by the Los Angeles County Board of Supervisors on June 16, 2015. The Project implements the requirements of the AVAP by including a balance of land uses consistent with the intent and the land use designations set forth in the West Economic Opportunity Area (EOA) and consistent with the AVAP.

Population, Housing, and Employment

Because the Project site is largely undeveloped, development of a planned community would provide the opportunity to accommodate projected increases in population, housing, and employment in the region while allowing for a jobs/housing balance and the protection of open space and environmentally sensitive areas. The potential implementation of the Project was known at the time of the development of the AVAP and was accounted for in the AVAP's land use and population/employment growth assumptions.

The Project has been designed to provide a variety of housing stock ranging from estate to small lot single-family detached residences and single-family and multi-family attached residences (including townhomes, condominiums and apartments) in a region of Los Angeles County projected to experience substantial population growth through 2040 (see Table 5.9-2, Los Angeles County Population Projections, from Section 5.9, Population, Housing, and Employment).

The Project would include up to 19,333 housing units and would have a buildout population of approximately 57,150 residents. In addition, the Project would include the development of employment-generating uses, resulting in the creation of an estimated 23,675 permanent jobs. These jobs would be located in the West EOA, where future growth is planned and in accordance with the AVAP's Land Use Policy Map. This growth would also be consistent with adopted economic development as well as population and housing plans and projections included in the AVAP and SCAG's 2016–2040 RTP/SCS. By providing a mix of both residential

and employment-generating development on site, and in consideration of the Project's location in the vicinity of the Tejon Industrial Complex along the I-5, the Project would capitalize on the existing regional transportation network and would serve to implement regional policies aimed at environmental protection and the location of housing near job opportunities, thus reducing vehicle trips and related emissions.

Circulation

The Project is adjacent to and will be served by SR-138, which removes the need for Project-generated vehicles to travel through existing neighborhoods and communities in order to access a major highway. SR-138 runs in an east-west direction and connects to I-5 to the west and SR-14 to the east. The Project site is also close to I-5, which runs the length of California. SR-14 provides access to the Palmdale-Lancaster area.

Existing Open Space and Recreation Areas

The Project site is situated in northern Los Angeles County, an area with numerous public open space and recreation areas. There are federal, State-, County-, and privately operated open space and recreational areas in the Project site vicinity, including but not limited to the Angeles National Forest, the Los Padres National Forest, the Castaic Lake State Recreation Area, Quail Lake, Pyramid Lake, the Hungry Valley SVRA, the Antelope Valley California Poppy State Reserve, the Arthur B. Ripley Woodland State Park, the Fort Tejon State Historic Park, the Castaic Sports Complex, Frazier Mountain Park, the Wind Wolves Preserve, and a portion of the PCT (see Exhibit 5.14-1, Existing Open Space and Recreation Areas). Please refer to Section 5.14, Parks and Recreation, for more information on existing and proposed parks and other recreational facilities that would serve the Project site.

Water Resources

Recognizing that various water sources vary in reliability and access difficulty from year to year in sometimes unpredictable ways, the Project relies upon multiple sources of water that collectively exceed the expected demand at full buildout: local groundwater, recycled water, AVEK water (including SWP water previously purchased by the Project), banked water, and imported water from sources other than the AVEK service area (described more fully in Section 5.18, Water Resources). This approach gives reliability to the Project in that, if one or more of its sources are not available in the expected amounts or in a given year, other sources of water are available to make up the difference until future years when the other sources become fully available again.

The Project's water strategy is based on principles that balance the following practices, which would ensure the Project will meet growth demands in a way that most efficiently uses scarce water resources:

- Incorporation of comprehensive water conservation design features to limit Project demand;
- Maximum use of recycled water to meet non-potable Project demands;

- California Department of Water Resources (DWR) supplies purchased or received, when available, and other AVEK (allocated or third party purchased) supplies; and
- Water banking for additional water supply security allowing for excess water supplies, when available, to be used as banked supplies in dry years to supplement or even entirely replace direct annual supplies.

Existing Utility Infrastructure

Although the Project site is largely undeveloped, there is existing dry utility infrastructure on and immediately surrounding the site (see Exhibit 4-17, Centennial Project - Dry Utilities Plan) that could be extended to and/or upgraded, as necessary, to serve Project site development. Specifically, there are (1) SCE electric lines running north-south to the Oso Pumping Plant and National Cement Plant and east-west along SR-138 as well as the Bailey Substation located on an SCE-owned parcel in the southwestern portion of the Project site; (2) an AT&T underground telephone line running northwest to southeast across the western portion of the Project site, lines along National Cement Plant Road and the California Aqueduct, and a line along SR-138 along California Department of Transportation (Caltrans) right-of-way; (3) a SoCalGas high-pressure line along SR-138 and a line running north-south immediately west of the Project site; and (4) fiber-optic lines installed by Quest Communications adjacent to I-5. In addition, the Bailey Substation, also operated by SCE, is located adjacent to the southwestern corner but is not a part of the Project site. Please see Section 5.20, Dry Utilities, for more information regarding existing dry utility infrastructure.

Because the site is largely undeveloped, there is an opportunity to incorporate widespread energy conservation features into a planned development at several levels, from site planning to individual building construction. The Centennial Project incorporates a Green Development Program with an energy conservation element, which integrates required resource efficiency and conservation features throughout the Project (see Appendix 1-B of EIR Appendix 4.0-A).

Climate Change

As previously discussed, the Project site is largely undeveloped; therefore, there is an opportunity to incorporate Project Design Features into a planned development that would minimize the Project's contribution to global climate change. The Project incorporates (1) a Green Development Program, which includes construction-related measures to reduce pollutant emissions from construction equipment and activity; (2) measures promoting reduction in local vehicle trips, including opportunities for pedestrian movement and reliance on public transportation; (3) required energy conservation measures intended to lower energy consumption, thereby reducing pollution associated with generation, storage, and distribution of power; (4) a community open space, landscaping, and urban forestry program to enhance greenhouse gas emissions reduction benefits; (5) water conservation measures to reduce the energy expenditures on water service; and (6) resource conservation measures to reduce the need for and associated energy cost of mining and extraction of raw materials.

Because the Project would be an entirely new and independent development, it would not rely on aging infrastructure systems, obsolete structural engineering, or land planning constraints associated with an existing urban environment. Rather, the Project will use cutting-edge technology and land use planning principles to create a balanced master-planned community where a mix of land uses are proximate to each other and connected by a network of pathways to reduce reliance on automobile use and offsite commuting in order to actively reduce greenhouse gas emissions.

3.6 REFERENCES

California Department of Conservation, Division of Land Resources Protection (DOC). 2015 (May 6, access date). Farmland Mapping and Monitoring Program: Los Angeles County, Important Farmland Data Availability (Land Use Conversion Tables for 2002–2004, 2004–2006, 2006–2008, 2008–2010, 2010–2012). Sacramento, CA: DOC. <http://www.conservation.ca.gov/dlrp/fmmp/Pages/LosAngeles.aspx>.

California Department of Finance (DOF). 2016 (May 1). E-5 Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011 – 2016, with 2010 Benchmark. Sacramento, CA: DOF. <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/>.

California, State of. 2015a (access date). *California Code of Regulations* (Title 14, Natural Resources; Division 6, Resources Agency; Chapter 3, Guidelines for Implementation of the California Environmental Quality Act). Sacramento, CA: the State.

———. 2015b (access date). *California Public Resources Code* (Division 13, Environmental Quality; Sections 21000–21189.3). Sacramento, CA: California Resource Agency. http://leginfo.legislature.ca.gov/faces/codes_displayexpandedbranch.xhtml?tocCode=PRC&division=13.&title=&part=&chapter=&article=

———. 2015c (access date). *California Water Code* (Division 20, Municipal Water Districts). Sacramento, CA: the State. http://leginfo.legislature.ca.gov/faces/codes_displayexpandedbranch.xhtml?tocCode=WAT&division=20.&title=&part=&chapter=&article=

Golden Valley Municipal Water District (GVMWD). 2011 (May). *Centennial Water Supply Assessment and Verification Report, SB 610/221*. Gorman, CA: GVMWD (Appendix 5.18-A).

Los Angeles County Department of Regional Planning (DRP). 2015a (June). *Antelope Valley Area Plan: Town & Country*. Los Angeles, CA: DRP. <http://planning.lacounty.gov/tnc>.

———. 2015b (May 27, last accessed). Los Angeles County General Plan 2035. Los Angeles, CA: DRP. <http://planning.lacounty.gov/generalplan>.

———. 2015c (May 27, last accessed). Town & County—Antelope Valley Area Plan Update. Los Angeles, CA: DRP. <http://planning.lacounty.gov/tnc>.

- . 2004 (March 2004). *Notice of Preparation: Centennial Specific Plan Project Description* (Project Number 02-232, Specific Plan, Conditional Use Permits, Oak Tree Permit, Zone Change, Development Agreement, Vesting Tentative Tract Map Numbers 60020, 60021, 60023, and Vesting Tentative Parcel Map Number 60022). Los Angeles, CA: DRP (Appendix 2.0-A).
- Los Angeles, County of. 2015a (last accessed). *Los Angeles County, California – Code of Ordinances* (Title 26, Building Code). Tallahassee, FL: Municipal Code Corporation for the County of Los Angeles. https://www.municode.com/library/ca/_angeles_county/codes/code_of_ordinances.
- . 2015b (last accessed). *Los Angeles County, California – Code of Ordinances* (Title 32, Fire Code). Tallahassee, FL: Municipal Code Corporation for the County of Los Angeles. https://www.municode.com/library/ca/angeles_county/codes/code_of_ordinances.
- Southern California Association of Governments (SCAG). 2016a (April 13). 2016-2040 RTP/SCS Final Growth Forecast by Jurisdiction. Los Angeles, CA: SCAG. http://www.scag.ca.gov/Documents/2016_2040RTPSCS_FinalGrowthForecastbyJurisdiction.pdf.
- . 2016b (April 25). Personal communication. Email from Y. Zhou (SCAG) to J. Alido (BonTerra Psomas) with an attachment entitled “RTP12_subregion_021612v2.csv”.
- . 2012a (April). 2012 Regional Transportation Plan/Sustainable Communities Strategy – Growth Forecast Appendix. Los Angeles, CA: SCAG. http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP_GrowthForecast.pdf.
- Western Regional Climate Center (WRCC). 2015a. (May 19). Tejon Ranch, CA—Monthly Average of Average Daily Temperature. Reno, NV: WRCC. <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca8839>.
- . 2015b (May 19). Tejon Ranch, CA—Monthly Sum of Precipitation. Reno, NV: WRCC. <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca8839>.

This page is intentionally left blank.