

3.0 Environmental Analysis

The proposed Eagle Mountain Pumped Storage Project (Project) lies in the California portion of the western Sonoran Desert, commonly called the “Colorado Desert.” This includes the area between the Colorado River Basin and the Coast Ranges south of the Little San Bernardino Mountains and the Mojave Desert. Rainfall amounts are low, approximately 2.8 to 5.4 inches per year (Turner and Brown, 1982). Rainfall is typically seasonal with winter storms occurring from October through March and intense summer thunderstorms occurring from July to September. Very little rain falls from April to June. Winter temperatures average approximately 54 degrees Fahrenheit (°F) (Turner and Brown, 1982) and summer temperatures are extreme, commonly reaching 110+ °F for long periods. This period of extremely warm weather is also lengthy, extending from mid-spring through the fall. From 1951 to 1980 the coldest month was January with average maximum temperature of 64 °F. Evaporation rates are high and vary with elevation. An estimated evaporation rate of 85.7 inches per year was used to assess the proposed Project, which is conservative given the relatively high elevation of the reservoirs.

The Project is located at the edge of the Eagle Mountains (Figure 3.0-1). Gently sloping to undulating bajadas and valleys are found in the area of the proposed linear features (water pipeline and transmission line). Elevations range from approximately 400 to 2,500 feet.

There are no perennial streams or natural wetlands in the Project vicinity. Drainages in this part of Riverside County are generally limited to high-energy runoff via desert washes that are usually dry. As water from these events quickly percolates into the surrounding soil or evaporates, the establishment of wetland vegetation is precluded.

There are several highly disturbed habitats in the Project area. The reservoirs are proposed to be constructed in inactive mining pits from the Eagle Mountain Mine. Eagle Mountain Mine was operated by Kaiser Steel Corporation from 1948 to 1982 for the mining and concentrating of iron ore through excavation of four open pits located on the property (Kaiser Steel Resources, 1990). In the Chuckwalla Valley, the Project intersects several abandoned jojoba and asparagus farms.

Common wildlife species in this region are adapted to arid conditions and/or are migratory. In the habitats intersecting the Project, taxa include ungulates, small and midsized mammals, birds, reptiles, and invertebrates.

Soils generally range from soft sand to coarse-sandy loams, with aeolian patches of loose sand and intermittent incipient dunes. Boulders and cobbles are common in the upper bajadas and toeslopes, with smaller particles downslope. Desert pavement is intermittently present in the immediate area of the Central Project Area.

Drainage patterns reflect the local topography. Along the broad bajadas traversed by the Project's linear facilities, drainage is primarily characterized both by scattered, well-defined washes and networks of numerous narrow runnels. The former are several yards wide, sandy to cobbly drainages that carry periodic runoff to a regional drainage. They are often incised, from a half to several yards deep, and vegetated along the banks by both shrubs and trees. By contrast, the numerous, shallow runnels are typically only a yard or less wide, one to three inches deep, and irregularly vegetated by locally common shrub species.

Two basic native plant communities (after Holland, 1986) are intersected by the Project. The reservoir area of the Project site is largely heavily disturbed by prior mining activities, but is bordered by Sonoran Creosote Bush Scrub (County of Riverside and BLM, 1996). An aerial view of the Project area in the Chuckwalla Valley near the proposed water pipeline corridor is shown in Figure 3.0-2. From the reservoir area east, the plant community is characterized by variations of Sonoran Creosote Bush Scrub. Throughout Chuckwalla Valley and in bajadas to the east, the Project also intersects broad plains of contiguous to intermittent, arboreal washes (Desert Dry Wash Woodland).

The Project site lies almost entirely within the Eagle Mountain Mine, an idle iron ore mine encompassing approximately 4,700 acres in eastern Riverside County. Primary mining operations were suspended in 1982, and although Kaiser Ventures, LLC. (Kaiser) maintains a management office at Eagle Mountain, ore crushing and concentrating facilities have been dismantled for salvage, and major mining equipment sold.

The Eagle Mountain Mine is located south and east of the Joshua Tree National Park (JTNP). The Project boundary is located about 1.5 miles from the closest JTNP boundary. The JTNP encompasses approximately 558,000 acres of land of which 467,000 have been designated wilderness. The JTNP attracts over 1 million visitors annually, concentrated mostly in the center of the JTNP and not in the areas near the Eagle Mountain Mine site.

The town of Eagle Mountain is a 460-acre townsite, fenced with controlled access, and is now owned by Kaiser (Figure 3.0-3). The townsite is fenced with controlled access and is mostly vacant; (at the January 16, 2009 site visit conducted as a part of the FERC scoping process Kaiser representative indicated that as many as nine of the houses may still be occupied).

The townsite and the mine are accessed by Kaiser Road, a two-lane county-maintained roadway. Numerous dirt roads intersect Kaiser Road, leading to individual residences and agricultural fields. Agricultural activities near the Project site include irrigated cropland producing primarily jojoba and asparagus. These crops are irrigated by pumping groundwater within the Chuckwalla Valley. None of the area is mapped as "Important Farmland" by the State Department of Conservation.

Two other small communities of Lake Tamarisk and Desert Center are located approximately 9 and 10 miles southeast of the Central Project Area. Lake Tamarisk consists of approximately 70

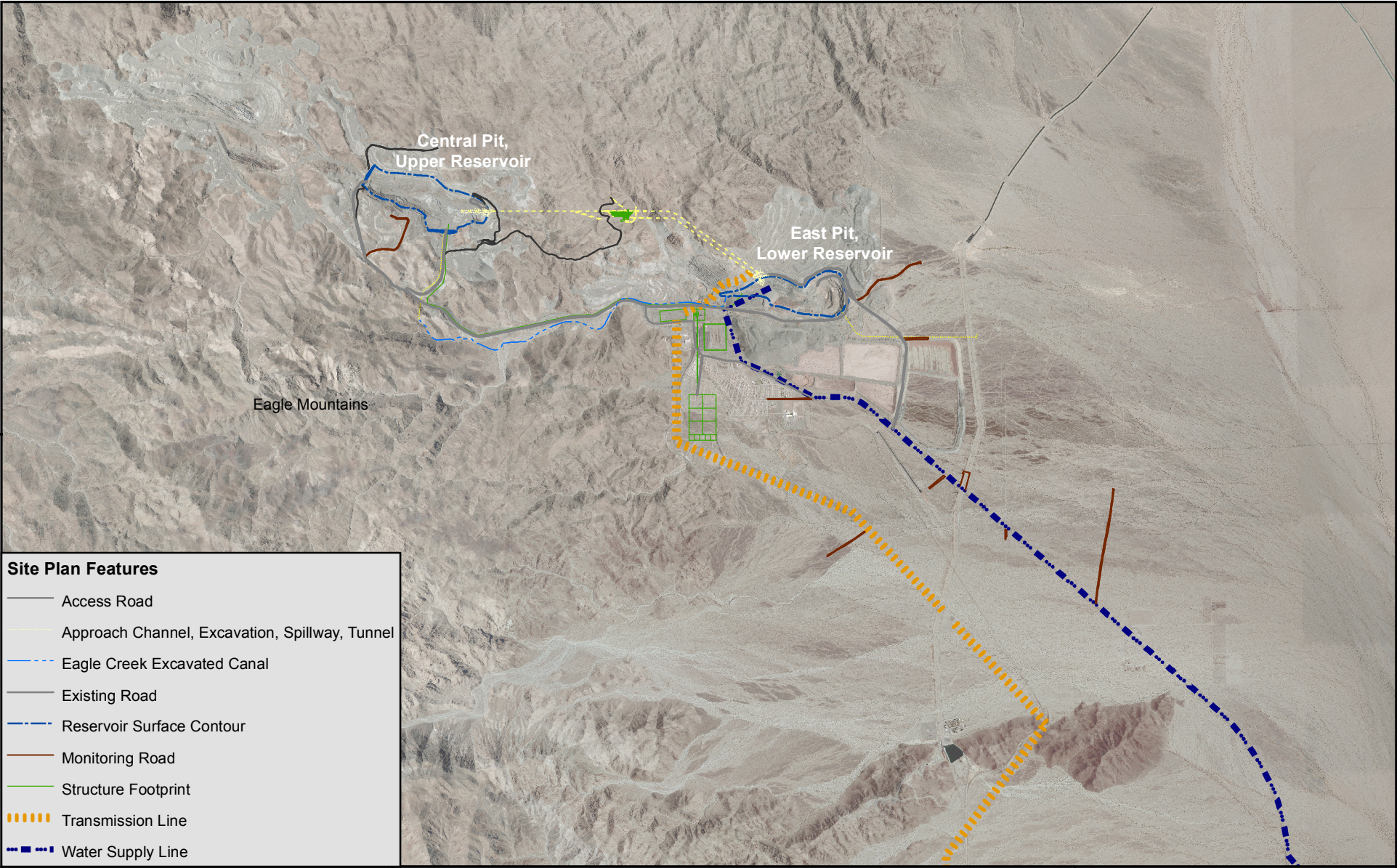
single family dwellings, an executive golf course, a recreational vehicle park, 150 undeveloped lots, and two small lakes.

Desert Center is located at the junction of Interstate 10 and State Route 177. Desert Center consists of a few small single-family dwellings, a mini-market, café, and bar. The community included gas stations at one time but they are now closed. Public facilities include a county fire station, branch library, post office, and several churches.

Both communities, as well as the Eagle Mountain townsite are accessed by Kaiser Road, which connects to Interstate 10 at Desert Center.

Numerous transmission lines and service roads cross the area south of the Project site. The Colorado River Aqueduct extends through the Coxcomb Mountains northeast of the Project area, and continues in a southwesterly direction, passing the northeastern portion of the mine site as an open channel before converting into a tunnel to the Metropolitan Water District of Southern California's Eagle Mountain Pumping Plant south of the Eagle Mountain townsite.

19-Jan-2012 Z:\Projects\080472_EagleMtn_fromDenver\ER_Figures\Figure_2-2_air_photo_proj_area.mxd SET



Site Plan Features

- Access Road
- Approach Channel, Excavation, Spillway, Tunnel
- Eagle Creek Excavated Canal
- Existing Road
- Reservoir Surface Contour
- Monitoring Road
- Structure Footprint
- Transmission Line
- Water Supply Line

SOURCE: USDA FSA Aerial Photography Field Office: County image mosaic for Riverside, CA (2010).

Environmental Impact Report
prepared for State Water Resources Control Board
by GEI Consultants, Inc.

Eastern Riverside County, California



AERIAL OVERVIEW
OF PROJECT SITE

January 2013 Figure 3.0-1



Figure 3.0-2. Aerial view of water pipeline corridor, November 2008, from southeast towards the northwest.

The Central Project Area is visible in the background.



Figure 3.0-3. Aerial view of the town of Eagle Mountain.