Eagle Mountain Pumped Storage Project
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10 Appendix A – Sensitive Species in Project Area

10.1 Plants

Abram's Spurge (*USFWS: None; CDFG: None; CNPS: List 2*). This prostrate annual (Family: Euphorbiaceae) is found on sandy flats in the Mohave and Sonoran Desert, at elevations below approximately 3,000 feet (Hickman, 1993; CNPS, 2009). Possible locations on the Eagle Mountain Pumped Storage Project (Project) would be the sandier soils in the Chuckwalla Valley, along the water pipeline. In the Project vicinity, there is an extant population just east of the Ford Dry Lake exit (CNDDB, 2008) that was observed in 2008 Project surveys. This species was not seen elsewhere in the 2008 or 2009 surveys or on several previous surveys in the Project vicinity (BLM and IID, 2003; Karl 2002, 2005, and 2003 and 2007 field notes; EPG, 2004; Blythe Energy, 2004). This may be largely due to its growth and flowering in the fall; most plant surveys are conducted in the spring, coincident with the growth and flowering of most California desert species.

Arizona Spurge (*USFWS: None; CDFG: None; CNPS: List 2*). This prostrate to erect perennial (Family: Euphorbiaceae) is found on sandy flats of the Sonoran Desert, below approximately 1,000 feet (Hickman, 1993). While CNPS locations are restricted to the western portion of the desert (CNPS, 2009), the species' range extends to Texas (Hickman, 1993). As such, possible populations could grow along sandier portions of the Project route, especially on the water pipeline north of Desert Center. This species was not seen on the 2008 and 2009 Project surveys or on several previous surveys in the Project vicinity (BLM and IID, 2003; Karl 2002, 2005, and 2003 and 2007 field notes; EPG, 2004; Blythe Energy, 2004).

Ayenia (*USFWS: None; CDFG: None; CNPS: List 2*). This perennial herb (Family: Sterculiaceae) is known from rocky canyons in Mojavean and Sonoran desert scrubs, below 1,600 feet (Hickman, 1993). The range includes Riverside, San Bernardino, and San Diego counties, Arizona, Sonora (Mexico), and Baja California (CNPS, 2009). There are several records in the vicinity of the Project (CNPS, 2009). Potential locations along the Project would be the upper bajada and in the area around the Central Project Area. This species was not seen on the 2008 and 2009 Project surveys or on several previous surveys in the Project vicinity (BLM and IID, 2003; Karl, 2002, 2005, and 2003 and 2007 field notes; EPG, 2004; Blythe Energy, 2004).

California Ditaxis (*USFWS: None; CDFG: None; CNPS: List 3; NECO: Special-status Species*). This herbaceous perennial (Family: Euphorbiaceae) is found in sandy loam soils, especially associated with the edges and low islands of runnels and washes (Karl field notes). It has been recorded from southern San Bernardino County through much of Riverside County, to Arizona, and into Sonora, Mexico (CNPS, 2007). Reported elevations are approximately 2,000 to 3,000 feet (CNPS, 2009). During 2008 and 2009 Project surveys, many California ditaxis were

found on the transmission line and water pipeline ROWs and in the Project vicinity (Tables 3-19 and 3-20, Figure 3.5-3). It is likely to occur on the Central Project Area as well. This species has generally not been sought on recent Project surveys along the transmission line routes because the species is a CNPS List 3 plant and is therefore not eligible for CEQA analysis. However, NECO has included this species as a special-status species, so it was sought in Project surveys.

Cove's Cassia (*USFWS: None; CDFG: None; CNPS: List 2; NECO: Special-status Species*). This subshrub (Family: Fabaceae) occupies sandy microsites (washes and slopes) in Sonoran Desert scrub habitats. It ranges from the Sonoran Desert scrub ecosystem in southeastern California (San Bernardino, Riverside, and Imperial counties) to Arizona, Baja California, and Sonora, Mexico. The elevational range is approximately 1,000 to 3,500 feet (CNPS, 2009). NECO records for this species are for the Chuckwalla Mountains and northeast in the Whipple Mountains (Figure 10-1), but CNPS (2009) has records for Chuckwalla Valley as well as other sites. Based on the geographic range, habitat associations, and previous surveys on this line, Cove's cassia could occur anywhere on the Project, especially on the route of the water pipeline. However, it was not observed on the 2008 and 2009 Project surveys or on several previous surveys in the Project vicinity (BLM and IID, 2003; Karl 2002, 2005, and 2003 and 2007 field notes; EPG, 2004; Blythe Energy, 2004).

Crucifixion Thorn (*USFWS: None; CDFG: None; CNPS: List 2; NECO: Special-status Species*). This much-branched, thorny shrub (Family: Simaroubaceae) is found on gravelly slopes in Mojave and Sonoran desert scrub vegetation, typically in association with drainages (Hickman, 1993). The species range is the southern Mojave and Sonoran deserts, from California east and south to Arizona and Sonora, Mexico.

Four populations were observed on the route of the water pipeline in 2009 Project surveys (Table 3-20, Figure 3.5-4). Another individual was found on the bajada south of the Central Project Area in the Eagle Mountain Landfill studies (County of Riverside and BLM, 1996). There is potential for the species to occur on the Central Project Area. NECO records this species at 13 scattered locations throughout the NECO Plan Area. In 2002, this species was observed south of the Little Chuckwalla Mountains (BLM and IID, 2003). It was not observed in 2008 Project surveys or on previous surveys of the transmission line corridor (BLM and IID, 2003; Karl 2002, 2005, and 2003 and 2007 field notes; EPG, 2004; Blythe Energy, 2004).

Desert Sand Parsley (*USFWS: None; CDFG: None; CNPS: List 2*). Desert sand parsley (Family: Apiaceae) is an annual herb that is known only from one location, at Hayfield Dry Lake (CNPS, 2009). It was last seen there in 1922. The macrohabitat is Sonoran Desert scrub, at 1,300 feet. The microhabitat is undescribed, with the exception that Hickman (1993) describes the occupied soils as heavy soil under shrubs. Since so little is known about this species it has the unlikely potential to occur within most of the Project's linear corridors. It was not observed on the 2008 and 2009 Project surveys or on several previous surveys in the Project vicinity (BLM and IID, 2003; Karl 2002, 2005, and 2003 and 2007 field notes; EPG, 2004; Blythe Energy, 2004).

Desert Unicorn Plant (*USFWS: None; BLM: None; CDFG: None; CNPS: List 4; NECO: Special-status Species*). This herbaceous perennial to subshrub (Family: Martyniaceae) is found throughout southern California deserts, east to Texas and south to Baja California and Sonora, Mexico (Baldwin et al., 2002; CNPS, 2009). It is associated with the warmer, wetter Sonoran Desert scrubs and subtropical thornscrubs below approximately 3,300 feet. Associated soils are generally considered to be sandy (Baldwin et al., 2002; CNPS, 2009; Karl, field notes). Four plants were observed in 2009 Project surveys, on the pipeline ROW NECO (2002) identifies much of the NECO Planning Area as the range of this species (Table 3-20, Figure 3.5-4). The entire Project area is possible habitat for this species (NECO, 2002; CNPS, 2009).

Dwarf Germander (*USFWS: None; CDFG: None; CNPS: List 2*). This annual of the mint family (Lamiaceae) is found on sandy soils, in washes and fields, generally below 1,300 feet (Baldwin et al., 2002). The range includes the Sonoran Desert in California, to Texas and Baja, California. CNDDB (2009b) shows one location in the Project vicinity near Ford Dry Lake. While no plants were observed in either 2008 or 2009 Project surveys, habitat exists along the pipeline, especially in the lower reaches.

Flat-seeded Spurge (*USFWS: None; BLM: Sensitive; CDFG: None; CNPS: List 1B*). This prostrate annual (Family: Euphorbiaceae) is found on sandy flats and dunes in the Sonoran Desert, at elevations below approximately 350 feet (CNPS, 2009). The range extends from the western boundaries of the Colorado Desert in California to western Arizona and northern Sonora, Mexico. It is known from only five sites in California, one of which (San Bernardino County) needs verification (CNPS, 2009). Possible locations on the Project would be the sandy soils on the route of the water pipeline, primarily north of Desert Center. This species was not observed on the 2008 and 2009 Project surveys or on several previous surveys in the Project vicinity (BLM and IID, 2003; Karl 2002, 2005, and 2003 and 2007 field notes; EPG, 2004; Blythe Energy, 2004).

Foxtail Cactus (*USFWS: None; CDFG: None; CNPS: List 4; NECO: Special-status Species*). This cactus typically grows in clumps of several, cylindroid, unbranched stems 4 to 6 inches long and covered in white, dark-tipped spines, 1/2-5/8 inches long (Benson, 1969). It occupies sandy to rocky soils in creosote bush scrub habitats in southeastern California, between 250 and 4,000 feet in elevation (Hickman, 1993).

In 2008 and 2009 Project surveys, well over 600 plants were observed on the route of the transmission line and water pipeline ROWs (Tables 3-19 and 3-20, Figure 3.5-5). Similarly, during the Eagle Mountain Landfill studies (County of Riverside and BLM, 1996), over 280 foxtail cacti were observed on the Central Project Area and bajada to the south. The species was also been observed on previous surveys in the Project vicinity (BLM and IID, 2003; Karl, 2002). NECO (2002) identifies much of the NECO Planning Area as the range of this species.

Glandular Ditaxis (*USFWS: None; CDFG: None; CNPS: List 2; NECO: Special-status Species*). This herbaceous perennial (Family: Euphorbiaceae) is found from the Coachella Valley

to Arizona and Sonora, Mexico at elevations below approximately 1,500 feet (Hickman, 1993; CNPS, 2009). Occupied habitats include sandy soils in Mojave and Sonoran creosote bush scrubs. This species is similar to other species of *Ditaxis*, but is thinly strigose and the leaf blades and sepals subtending female flowers are glandular-serrulate (Munz and Keck, 1968; Hickman, 1993). Aerial portions of the plant die back during dry periods; as such, it often is not evident during drought. One location near the Project is located south of Interstate 10 (Figure 10-1; NECO, 2002; CNDDB, 2008), so glandular ditaxis is possible on most of the Project site, with the exception of the upper bajadas near the Central Project Area. It was not observed during 2008 or 2009 Project surveys.

Harwood's Eriastrum (*USFWS: None; CDFG: None; CNPS: List 1B*). This annual phlox (Family: Polemoniaceae) is a newly described species, formerly treated as a subspecies or variety of Gilia filifolia, Eriastrum diffusum, and then a synonym of E. sparsiflorum. In 2008, it's morphological, ecological, and geographic distinctions prompted separation into a separate species (Gowan, 2008). It is known only from sandy areas in eastern San Bernardino and Riverside counties (Gowan, 2008), including dunes (Karl, pers. obs.). CNDDB (2009a) shows a record in the vicinity of the Project near Ford Dry Lake, however. If this is a correct identification of the species, then Harwood's eriastrum may grow in the lower reaches of the water pipeline, although the soils are probably not sufficiently sandy. No individuals were observed in 2009 surveys.

Harwood's Milk-vetch (*USFWS: None; CDFG: None; CNPS: List 2; NECO: Special-status Species*). This annual herb (Family: Fabaceae) is known to grow in dunes and windblown sand in Mojave and Sonoran creosote bush scrubs, at 300 to 1,200 feet (Munz and Keck, 1968; Hickman, 1993); it is also found in soft sandy soils along dirt roads and in road shoulders (Karl, field notes). Common associates include *Chaenactis fremontii*, *Schismus arabicus*, *Plantago ovata*, *Abronia villosa*, *Oenothera deltoides*, *Cryptantha angustifolia*, and *Lotus strigosus* (Karl, field notes). The geographic range includes northwestern Mexico, northeastern Baja California, southeastern Arizona, and southeastern California (Hickman, 1993; Felger, 2000). In California, reported locations are eastern Riverside, Imperial, and San Diego counties (CNPS, 2009). (*See also* Figure 10-1 for the range in the NECO Planning Area within the Project area.). Possible locations on the Project would be the sandy soils on the route of the water pipeline, primarily north of Desert Center. This species was not observed on the 2009 Project surveys or in 2008 Project surveys in the current Project area. It was observed in 2008 outside the current Project area and on several previous surveys in the Project vicinity (BLM and IID, 2003; Karl 2002, 2005, and 2003 and 2007 field notes; EPG, 2004; Blythe Energy, 2004).

Jackass Clover (*USFWS: None; CDFG: None; CNPS: List 2*). This annual herb in the caper family (Capparaceae) is an uncommon species of dunes, sandy washes, roadsides, and alkaline flats in Sonoran and Mojave Desert scrubs (Baldwin et al., 2002; CNPS, 2009). The range is southern California to Texas (Baldwin et al., 2002). Elevations are reported as 1,980 to 2,650 feet (Baldwin et al., 2002; CNPS, 2009), although CNDDB (2008) cites a record east of State Route 177 in Chuckwalla Valley at 445 feet. There are no aeolian habitats or playas near the

Project, so the likelihood of the species on the Project is poor. It was not observed in 2008 or 2009 surveys. NECO cites a different variety of jackass clover, *W. refracta* var. *palmeri* for the dunes around Palen Dry Lake, east of the Project (Figure 10-1). Based on the CNPS (2009) electronic inventory, it is possible that the variety reported by NECO for Palen Dry Lake is actually *W. refracta* var. *refracta*.

Las Animas Colubrina (*USFWS: None; CDFG: None; CNPS: List 2; NECO: Special-status Species*). This medium-tall shrub (Family: Rhamnaceae) grows in Sonoran Desert creosote bush scrub below 3,000 feet (Hickman, 1993; CNPS, 2009) and is often associated with gravelly washes (Karl, field notes). It is known from Riverside County south and east to Arizona and Mexico. Near the ROW, this species is known from Chuckwalla Valley area and Chuckwalla Bench (Figure 10-1). While it was not observed on the linear ROWs in 2008 or 2009 Project surveys, it could occur on or near the Central Project Area. It also was not observed on previous surveys in the Project vicinity (BLM and IID, 2003; Karl 2002, 2005, and 2003 and 2007 field notes; EPG, 2004; Blythe Energy, 2004).

Mesquite Nest Straw (*USFWS: None; CDFG: None; CNPS: List 1A*). This annual herb (Family: Asteraceae) is known in California from a single 1930 collection at Hayfield Dry Lake. Its range also extends to southeastern Arizona and northeastern Sonora, Mexico (CNPS, 2007). Known occupied habitat is open, sandy drainages below 1,200 feet (Hickman, 1933). The lack of distinctly identified habitat and range precludes identification of specific portions of the route where the species may be growing. As such, the entire Project should be considered as potential habitat. This species was not observed in 2008 or 2009 Project surveys or on previous surveys in the Project vicinity (BLM and IID, 2003; Karl 2002, 2005, and 2003 and 2007 field notes; EPG, 2004; Blythe Energy, 2004).

Orocopia Sage (*USFWS: None; BLM: Sensitive CDFG: None; CNPS: List 1B*). This species (Family: Lamiaceae) is known from Riverside and Imperial counties near the Chocolate and Orocopia mountains. The elevational range is approximately 100 to 2,800 feet (Hickman, 1993; CNPS, 2009). Habitat is varied Sonoran Desert scrubs, although known sites are gravelly to rocky alluvial fans and canyons. This species is currently known only from the Orocopia Mountains and was observed during the Eagle Mountain Landfill studies along the Eagle Mountain Railroad, on the bajada south of the landfill site (County of Riverside and BLM, 1996). (This sighting should be verified because of possible misidentification.) However, it was not observed in 2008 or 2009 Project surveys or on previous surveys in the Project vicinity (BLM and IID, 2003; Karl 2002, 2005, and 2003 and 2007 field notes; EPG, 2004; Blythe Energy, 2004).

Sand Evening Primrose (*USFWS: None; CDFG: None; CNPS: List 2*). This erect annual or herbaceous perennial in the evening primrose family (Onagraceae) is known from sandy washes and rocky slopes in Sonoran Desert scrubs, below 1,300 feet (Baldwin et al., 2002). The species range includes southeastern California, southwestern Arizona and northern Mexico. CNPS (2009) and CNDDB (2009a) list several records south and southeast of the Project. Based on

their proximity, the species could occur on the entire Project. No individuals were observed in 2008 or 2009 Project surveys.

Slender Woolly-heads (*USFWS: None; CDFG: None; CNPS: List 2*). This annual herb (Family: Polygonaceae) grows in dune habitats in southern California, Arizona, and northwest Mexico (CNPS, 2009). Although the California observations for this species are all substantially west and south of the Project (CNPS, 2009), the geographic range of slender woolly-heads suggests that it may be found in Project vicinity. However, no habitat exists for the species on the Project. It was not observed in 2008 or 2009 Project surveys or on previous surveys in the Project vicinity (BLM and IID, 2003; Karl 2002, 2005, and 2003 and 2007 field notes; EPG, 2004; Blythe Energy, 2004).

Spearleaf (*USFWS: None; CDFG: None; CNPS: List 2; NECO: Special-status Species*). Spearleaf (Family: Asclepiadaceae) is an herbaceous perennial occupying rocky desert scrub habitats from San Bernardino County south to Baja California and east to Texas (CNPS, 2009). Known elevations are approximately 1,400 to 3,600 feet (Baldwin et al., 2002; CNPS, 2009). Based on its habitat associations and geographic range, it is possible, albeit unlikely, on the upper bajada and ravines inside the Central Project Area. It was not observed in 2008 or 2009 Project surveys or on previous surveys in the Project vicinity (BLM and IID, 2003; Karl 2002, 2005, and 2003 and 2007 field notes; EPG, 2004; Blythe Energy, 2004).

Spiny Abrojo (*USFWS: None; CDFG: None; CNPS: List 4; NECO: Special-status Species*). This uncommon shrub (Family: Rhamnaceae) is found in Sonoran Creosote Bush Scrub (Munz and Keck, 1968; Baldwin et al., 2002) in Riverside and Imperial counties, Arizona, and northern Mexico, at elevations of approximately 500 to 3,300 feet (CNPS, 2009). NECO reported that this species is most commonly associated with canyons and gravelly soils; 47 records were from the nearby Chuckwalla Bench and the Chocolate Mountains (Figure 10-1). It was not observed in 2008 or 2009 Project surveys but, based on habitat requirements and range, it is possible near and on the Central Project Area. It was not observed on previous surveys in the Project vicinity (BLM and IID, 2003; Karl 2002, 2005, and 2003 and 2007 field notes; EPG, 2004; Blythe Energy, 2004).

Wiggins' Cholla (*USFWS: None; CDFG: None; CNPS: List 3; NECO: Special-status Species*). This cholla is thought to be a hybrid between pencil cholla (*Cylindropuntia ramosissima*) and silver cholla (*C. echinocarpa*). It needs further study (CNPS, 2009), but is currently not considered a species by either the U.S. Department of Agriculture National Resources Conservation Service Plants Database (http://plants.usda.gov) or the Jepson Herbarium Cal Flora Project (http://ucjeps.berkeley.edu). However, this apparent hybrid is easily distinguished from pencil cholla because of its larger stems, and often from silver cholla by its narrower stems and shorter stature. Small individuals of silver cholla can easily be mistaken for Wiggins' cholla, however. During the 2009 Project surveys, numerous individuals identified as Wiggins' cholla were observed (Table 3-20, Figure 3.5-4), some of which probably were small silver cholla.

The species is found in Sonoran Desert scrubs below 3,000 feet and can occur on the entire Project.

10.2 Invertebrates

Cheeseweed Owlfly (*USFWS: None; CDFG: None*). This species occupies creosote bush scrub in rocky areas (Borror and White, 1970) and is often found near streams (CNDDB, 2001). *O. clara* has a larval stage that probably exceeds one year (AGFD, 2003), and an adult stage of roughly 3 to 4 days (Faulkner, 1990b; AGFD, 2003). The short-lived emergence of the adult in April or May appears to coincide with years of high winter precipitation (BOR, no date). *O. clara* resides in scattered locations throughout the deserts of southeastern California, western Arizona, and southern Nevada (Faulkner, 1990a and b; Wiesenborn, 1998; Arizona Game and Fish Department [AGFD], 2003; Lower Colorado River Multi-Species Conservation Program [LCRMSCP] 2004). It has been collected in Imperial, Riverside, and San Bernardino counties, California; Yuma, La Paz, and Mohave counties, Arizona; and Clark County, Nevada (Wiesenborn, 1998; LCRMSCP, 2004). The species is known from relatively few, perhaps less than 15, scattered populations (Faulkner, 1990a; Wiesenborn, 1998; AGFD, 2003); however, it undoubtedly has a more extensive distribution than is now known (Faulkner, 1990b). Given the limited knowledge about its distribution, this species could be present on the entire Project.

10.3 Amphibians

Couch's Spadefoot (*USFWS: None; CDFG: Species of Special Concern; NECO: Special-status Species*). This species is found from extreme southeastern California, to southwestern Oklahoma, and south across Texas into central Mexico and Baja California. Habitat includes shortgrass plains, mesquite savannah, creosote bush desert, thornforest, tropical deciduous forest, and other areas of low rainfall (Stebbins, 2003). These individuals remain in subterranean burrows for most of the year, emerging to breed in temporary pools after or during periods of rainfall, both winter rains and summer monsoons. Thus, breeding may occur from April or May to September. Breeding can also occur in slow streams, reservoirs, or ditches (Jennings and Hayes, 1994).

This species has the greatest potential to occur naturally along the eastern portion of the transmission line, based on its geographic range (Figure 10-2). However, the possibility that it may occur elsewhere on the Project should be considered. There are no artificial impoundments on the linears that could subsidize reproduction by providing breeding habitat. There may be temporary impoundments on the Central Project Area, such as in the mine pits following significant rain events and other water treatment facilities. Larvae of red-spotted toad (a non-sensitive native species) were observed at the bottom of the East Pit and in the reservoir just south of the East Pit in May 1990 by Brown (1990). They were also observed in 1993 in a pooled area of Eagle Creek Wash (ECE and MDU, 2001).

10.4 Reptiles

Chuckwalla (*USFWS: None; CDFG: None; NECO: Special-status Species*). The range of this lizard includes Utah and Nevada south to the west coast of Sonora and most of the east coast of the Baja Peninsula in Mexico (Stebbins, 2003). Chuckwallas are relatively common in areas of rock outcroppings and large boulders and are often seen basking on rocks in the sun.

Chuckwalla were detected during 2008 and 2009 Project surveys (Tables 3-19 and 3-20, Figure 3.5-6), during surveys for the Eagle Mountain Landfill (County of Riverside and BLM, 1996) and in most suitable rock outcrops in the Project region on previous surveys of the transmission line (BLM and IID, 2003; Karl 2002, 2005, and 2003 and 2007 field notes; EPG, 2004; Blythe Energy, 2004).

Desert Rosy Boa (*USFWS: None; BLM: Sensitive; CDFG: None*). Desert rosy boa inhabits primarily rocky sites in the southern Mojave and the Sonoran deserts of California and Arizona (Stebbins, 2003). While permanent water is not a requirement, this species can often be found near permanent or ephemeral streams. It is primarily a nocturnal species. On the Project, the most likely locations for desert rosy boa are near the Central Project Area (Figure 10-2).

Mojave Fringe-toed Lizard (*USFWS: None; BLM: Sensitive; CDFG: Species of Special Concern; NECO: Special-status Species*). This species can be found in the deserts of Inyo, San Bernardino, Los Angeles, and Riverside counties in California (Palermo, no date) at elevations from 300 to 3,000 feet (Stebbins, 2003). It inhabits Arizona in Yuma County south of Parker (Stebbins, 2003). (*See* Figure 10-2 for the range of the species in the NECO Planning Area; BLM and CDFG, 2002.) This species is restricted to loose, windblown sand from dunes, flats, riverbanks, and washes, where vegetation, especially woody perennials, is often scant.

In the Project region, Mojave fringe-toed lizards have been observed from the Colorado River Substation west to approximately Graham Pass Road (EPG, 2004; Blythe Energy, 2004; Karl 2005, 2007 field notes). Mojave fringe-toed lizards have also been observed in the aeolian soils near the Ford Dry Lake exit (Karl, field notes). During 2008 Project surveys, several individuals were observed in that area. On the Project footprint, there is no Mojave fringe-toed lizard habitat.

10.5 Birds

Bendire's Thrasher (*USFWS: Bird of Conservation Concern; BLM: Sensitive; CDFG: Species of Special Concern; ABC: Watchlist of Birds of Conservation Concern; NECO: Special-status Species*). The breeding range of Bendire's thrasher extends from Guaymas, Sonora, Mexico to Utah, New Mexico, and Inyo County, California. Although migratory, this species may be a year-round resident in the southern portions of its range (Sinaloa, Mexico) (England and Laudenslayer, 1993). Occupied habitat includes fairly open areas with substantial vertical structure, such as washes and woodlands with scattered shrubs and trees (CNDDB, 2001; National Geographic Society, 2002). Rarely is dense vegetation used (England and

Laudenslayer, 1993). NECO cites desert succulent scrub (e.g., *Yucca* spp. and columnar cacti) and microphyll woodland with palo verde trees as occupied habitats in southeastern California.

There is a substantial amount of open desert dry wash woodland on the Project's transmission line and Bendire's thrasher may be present (Figure 10-3). It was not observed during 2008 or 2009 surveys.

Black-tailed Gnatcatcher (*USFWS: None; CDFG: None*). The black-tailed gnatcatcher is a year-round resident in north-central and northwest Mexico, including Baja California, as well as southern California north to Inyo County and east to southwest Texas. It is normally found in arid lowland and montane scrub habitats, but is more typical of desert habitats, commonly among mesquite or creosote scrub, and particularly along washes or ravines (Terres, 1980; American Ornithologists' Union [AOU] 1998; National Geographic Society, 2002).

Black-tailed gnatcatcher is a common inhabitant of the arboreal washes of the region and is likely to be found on the entire Project site in appropriate habitat. It was observed during the spring 2008 surveys for the Project (Table 3-19, Figure 3.5-7). Because of its status change in 2009, it was not sought during 2009 surveys.

Burrowing Owl (*USFWS: Bird of Conservation Concern; BLM: Sensitive; CDFG: Species of Special Concern; NECO: Special-status Species*). This is an owl of open grasslands, prairies, deserts, and farms. It is also common on golf courses, road cuts, and ruderal sites in arid habitats and is highly subsidized in the broad agricultural valleys (e.g., Palo Verde Valley, Imperial Valley). It breeds from southern Canada south throughout much of the United States west of the Mississippi and Mexico, typically wintering in warmer areas. Nesting occurs primarily in burrows built by other species, including ground squirrels, kit fox, badger, and desert tortoise.

Burrowing owl was observed in 2009 Project surveys (Table 3-20, Figure 3.5-7) and could be found throughout the Project site.

Crissal Thrasher (*USFWS: Bird of Conservation Concern; CDFG: Species of Special Concern; NECO: Special-status Species*). The crissal thrasher is a resident of the southwestern United States at lower elevations from southern California north to southern Inyo County, southern Nevada, and extreme southwest Utah, and south into central Sonora and Chihuahua, Mexico. It is also found locally in the Mexican Plateau as far as central Mexico (AOU 1998). This species is fairly common in the Colorado River Valley, but has been in decline for decades in the Imperial, Coachella, and Borrego valleys (Dobkin and Granholm [no date]). BLM and CDFG (2002) do not identify any populations in the NECO Planning Area that are near the Project. The crissal thrasher is quite secretive by habit and may be found in riparian thickets and among dense vegetation, often mesquite or saltbush, in arid lowland and montane scrub (AOU, 1998; Ehrlich et al., 1988; National Geographic Society, 2002).

On the Project, there is no habitat along the linear ROWs. It may be on the Central Project Area, but even there is more likely to be a transient due to the probable lack of quality habitat.

Ferruginous Hawk (*USFWS: Bird of Conservation Concern; BLM: Sensitive; CDFG: Watchlist; ABC: Watchlist of Birds of Conservation Concern; NECO: Special-status Species*). This species is a winter resident in California and the southwest, into Mexico. It forages over open habitat, preying on rodents, rabbits, and other small prey.

This species has not been observed on other surveys in the Project area, although the entire Project constitutes winter foraging habitat for this species (Figure 10-3).

Golden Eagle (*USFWS: Bird of Conservation Concern; BLM: Sensitive; CDFG: Watchlist, Fully Protected; NECO: Special-status Species*). This species is a resident of foothill, mountainous, and open country, foraging over deserts, farmland, and prairies for small mammals, snakes, and birds. It is a year-round resident throughout most of western North America. Nesting occurs in cliffs and large trees.

The entire Project constitutes foraging habitat for this species. While no nesting habitat occur onsite, the mountains adjacent to much of the Project, especially near the Central Project Area, may provide nesting sites. One individual was observed during the Spring 2008 surveys (Table 3-19, Figure 3.5-6).

Loggerhead Shrike (*USFWS: Bird of Conservation Concern; CDFG: Species of Special Concern*). Loggerhead shrike is widely distributed across the United States (National Geographic Society, 2002) and is a fairly common resident of the southwestern deserts (Schram, 1998). It occupies many habitats, including both native habitats and agricultural parcels. In California it may be found in desert, piñon-juniper woodland, savannah, grassland, ranches, and agricultural land (Small, 1977).

Loggerhead shrike is a relatively common desert resident and in each of the previous surveys in the Project area several individuals of loggerhead shrike were observed (County of Riverside and BLM, 1996; Karl, 2002, BLM and IID, 2003; EPG, 2004; TetraTech EC, Inc., 2005). Habitat for this species exists in the entire Project vicinity. Loggerhead shrike was observed during both Spring 2008 and 2009 surveys (Table 3-20, Figure 3.5-7), although the observation in 2008 was not close to the current Project location.

Mountain Plover (*USFWS: Bird of Conservation Concern; BLM: Sensitive; CDFG: Species of Special Concern; ABC: Watchlist of Birds of Conservation Concern; NECO: Special-status Species*). The geographic range of the mountain plover includes the plains of the west-central United States (breeding range) and the lower valleys and plains of central and southern California, Arizona, southern Texas, northern Mexico, and Baja California Norte (wintering range) (Knopf, 2006).

This species is associated with open, flat areas with low sparse vegetation, especially short-grass prairies or sparse habitats with patches of bare ground. Most birds winter in California on alkaline flats, cultivated fields, burned or heavily grazed grasslands, or post-harvest alfalfa fields (Rosenberg et al. 1991, Knopf, 2006). The largest wintering population is in Imperial Valley, and

the species has been described as an "uncommon transient and irregular winter resident" of the lower Colorado River basin (http://www.lrca.org, 1999). (*See* Figure 10-3 for the range of the species in the NECO Planning Area; BLM and CDFG, 2002.)

This species is known from Palen Dry Lake (BLM and CDFG, 2002) but is unlikely to occur on the Project, except as winter visitor to agricultural fields.

Northern Harrier (*USFWS: None; CDFG: Species of Special Concern*). This is a hawk of open habitats, with the habit of flying close to the ground. It is relatively uncommon in the desert and in the area of the Project. It is primarily a winter resident.

This species has a low likelihood of occurrence on the Project, although one individual was observed in surveys for the Eagle Mountain Landfill (County of Riverside and BLM, 1996).

Prairie Falcon (*USFWS: Bird of Conservation Concern; CDFG: Watchlist; NECO: Special-status Species*). This species is a year-round resident of the western United States. (*See* Figure 10-3 for the range of the species in the NECO Planning Area; BLM and CDFG, 2002.) It inhabits open country, including deserts and prairies, occasionally hunting in woodlands. Nesting occurs in cliffs.

One prairie falcon was observed during area surveys (Karl, 2002), although the entire Project constitutes winter foraging habitat for this species. The mountains adjacent to much of the Project may provide nesting sites.

Short-eared Owl (*USFWS: None; CDFG: Species of Special Concern; ABC: Watchlist of Birds of Conservation Concern*). This species is an uncommon winter resident of the southern United States into Mexico. It inhabits a variety of open-country habitats, including marshes, agricultural fields, deserts, and prairies. Short-eared owl also frequents areas intermixed with brush and woodland, provided there is ample open grassland to hunt (Glinsky, 1998). It both hunts over these habitats, chiefly at dawn and dusk, and roosts there during the day.

While not observed during surveys in the Project area, this species may be a winter resident on the entire Project.

Sonoran Yellow Warbler (*USFWS: Bird of Conservation Concern; CDFG: Species of Special Concern; NECO: Special-status Species*). This species frequents willows, poplars, and other streamside trees and shrubs, town shade trees, open woodlands, orchards, and moist thickets. The range for the species includes all of North America, south through Central America, and the West Indies to northern South America. The subspecies *sonorana* is confined to the Colorado River Valley from Nevada to Mexico, and possibly the Imperial Valley.

Habitat for this species on the Project is lacking on the linear ROWs, but may occur on the Central Project Area. One individual was observed at the Eagle Mountain townsite reservoir during 1990 surveys (County of Riverside and BLM, 1996).

Vermilion Flycatcher (*USFWS: None; CDFG: Species of Special Concern; NECO: Special-status Species*). Vermilion flycatcher occupies wooded or shrubby sites near water. Commonly associated trees are mesquite, willows, and cottonwoods. The species is mainly a resident from southern California to the southwestern tip of Utah, western and southern Texas, and south throughout Baja California, Mexico, Honduras, western South America, and the Galapagos Islands. BLM and CDFG (2002) do not identify any populations in the NECO Planning Area that are near the Project.

Habitat for this species on the Project is lacking except, perhaps, on the Central Project Area. Hence the species is unlikely to occur as a resident on the Project.

Yellow-breasted Chat (*USFWS: None; CDFG: Species of Special Concern*). The breeding range for the species includes most of the United States, slightly extending into Canada and Mexico. Nesting habitat is composed of dense, nearly impenetrable thickets in riparian or foothill situations (Ryser, 1985).

On the Central Project Area, the species may be transient. A transient individual was observed at the Eagle Mountain townsite reservoir during 1990 surveys (County of Riverside and BLM, 1996). Another was observed on the surveys for the Desert Southwest Transmission Line Project (BLM and IID, 2003). There is no habitat on the linear ROWs.

10.6 Mammals

American Badger (*USFWS: None; CDFG: Species of Special Concern; NECO: Special-status Species*). American badgers are found on the flats and alluvial fans next to desert mountains (Hoffmeister, 1986). They occupy a wide variety of habitats in California, but open, uncultivated land appears to be a requirement (CDFG, 1986b).

Habitat is available for American badgers throughout the Project. Badger sign was observed during 2008 and 2009 Project surveys (Tables 3-19 and 3-20, Figure 3.5-6) and during 1989-90 and 1995 surveys for the Eagle Mountain Landfill (County of Riverside and BLM, 1996).

Big Free-tailed Bat (*USFWS: None; CDFG: Species of Special Concern; WBWG: Medium to High Priority*). This species is distributed from extreme southern California east to far western Texas, and south nearly to northeastern Argentina (Milner et al., 1990; Constantine, 1998). There are also some isolated occurrences along the coast of California to San Francisco (Constantine, 1998), British Columbia, Kansas, and Iowa (Milner et al., 1990). *N. macrotis* is primarily an inhabitant of rugged, rocky country and has been found in rock crevices of cliffs and under boulders and rock ledges (Barbour and Davis, 1969; Jameson and Peters, 1988); it will also roost in buildings and occasionally in trees (Milner et al., 1990). Documented plant associations have included riparian woodland, desert scrub, desert dry wash woodland, evergreen forest, and mixed tropical deciduous and thorn scrubs (Hoffmeister, 1986; *see* review in Milner et al., 1990). Jameson and Peters (1988) reported that it was an uncommon resident in pinyon-juniper regions

of the arid parts of California. Elevations in the United States are generally below 1,800 meters (6,000 feet) (Milner et al., 1990).

This species emits a distinctive echolocation signal, that is audible to some people. It has not been documented on the Project site, but if it occurred it would be in most likely be found near the high walls of the Eagle Mountain pits (P. Brown, pers. comm. to A. Karl).

Burro Deer (*USFWS: None; CDFG: Game Species; NECO: Special-status Species*). Burro deer are the desert subspecies of mule deer, occupying dense microphyll woodland habitat throughout the Colorado Desert where there are adequate water sources. While not a special-status species, it is a managed game species.

This species was observed in 2008 Project surveys well east of the current Project location and has been observed on other surveys in the Project area (EPG, 2004). While not observed in 2009, it is still possible, especially in the woodland and arboreal drainages on the transmission line and Central Project Area. (*See* Figure 10-7 for the range of the species in the NECO Planning Area per BLM and CDFG [2002].)

California Leaf-nosed Bat (*USFWS: None; BLM: Sensitive; CDFG: Species of Special Concern; WBWG: High Priority*; *NECO: Special-status Species*. California leaf-nosed bat occurs from southern Nevada, southern California, and western Arizona southward through Baja California Sur and Sonora, Mexico (Barbour and Davis, 1969). In California, it occupies the low-lying desert areas. It formerly inhabited the coastal basins of southern California, but populations have disappeared there due to loss of foraging habitat (CDFG, 1983). (*Also see* Figure 10-6 for the range of the species in the NECO Planning Area per BLM and CDFG [2002].) Occupied habitats include manmade structures (deserted mine tunnels, deserted buildings, bridges, culverts (Tatarian, 2001), and caves (CDFG, 1983). NECO notes that the two largest roosts are in mines in extreme southeastern California (BLM and CDFG, 2002). Temperature requirements restrict roosts to mines with temperatures of approximately 80 ºF (BLM and CDFG, 2002).

During surveys for the Eagle Mountain Landfill, a population of California leaf-nosed bats was observed at Kaiser Mine between 1990 and 2000; none was found in any other locatable mines in the Eagle and Coxcomb mountians (Brown 1996, 2000). In the previous surveys, over 100 male and female bats used the Kaiser Mine in the winter, with fewer bats (mainly males) in the summer. In 1996, a re-survey found fewer animals, but there was summer maternity use and bats were found at Kaiser Mine, Black Eagle Mine, a U-shaped tunnel at the scales and a cylindrical building (Brown, 1996).

Colorado Valley Woodrat (*USFWS: None; CDFG: None; NECO: Special-status Species*). The Colorado Valley woodrat is a subspecies of the white-throated woodrat (*N. albigula*), inhabiting desert habitats in Imperial, San Diego, and Riverside counties. Occupied plant communities include creosote bush scrub, mesquite bosques, woodland, chaparral, and piñon-juniper, often where cholla (*Cylindropuntia* spp.) and prickly pear cacti (*Opuntia* spp.) are present (Hoffmeister, 1986).

Colorado Valley woodrat may be found throughout the Project, based on habitat associations (Figure 10-4).

Mountain Lion (*USFWS: None; CDFG: Species of Special Concern; NECO: Special-status Species*). The puma is a large, uniformly colored, tawny to grayish cat with a brown-tipped tail. In the NECO Planning Area, it is found from Joshua Tree National Park (JTNP) to the Colorado River (Figure 10-4), in direct association with burro deer populations (BLM and CDFG, 2002).

While not previously detected on area or Project surveys, this species is possible throughout the Project area where microphyll woodland habitat supports burro deer, especially near mountains where lion coversites are present. Based on this, lions would be most likely on the transmission line ROW and Central Project Area.

Nelson's Bighorn Sheep (*USFWS: None; BLM: Sensitive; CDFG: None; NECO: Special-status Species*). Nelson's or desert bighorn are widely distributed from the White Mountains in Mono County to the Chocolate Mountains in Imperial County (CNDDB, 2001). They live most of the year close to the desert floor in canyons and rocky areas (Ingles, 1965). In summer, they move to better forage sites and cooler conditions in the mountains. Migration routes can occur across valleys between mountain ranges.

BLM management of desert bighorn sheep is guided by the *Mountain Sheep Ecosystem Management Strategy (EMS) in the 11 Western States and Alaska* (BLM, 1995). The EMS goal was to "ensure sufficient habitat quality and quantity to maintain and enhance viable big game populations, and to sustain identifiable economic and social contributions to the American people" (BLM and CDFG, 2002). This management plan identified eight metapopulations, two of which are included in the NECO Planning Area: the Southern Mojave and Sonoran metapopulations. These metapopulations were further divided into demes, or populations. The Project is located in the Southern Mojave Metapopulation, adjacent to the Eagle Mountain deme and near the Coxcomb deme.

NECO further provides for enhancing the viability of these populations through maintenance of genetic variability, providing connectivity between demes, enhancing and restoring habitat, augmenting depleted demes, and re-establishing demes. To this end, a Bighorn Sheep Wildlife Habitat Management Area (WHMA) has been established that encompasses and connects the Eagle Mountain and Coxcomb demes (BLM and CDFG, 2002) (Figure 3.5-9).

Bighorn scat was observed at Central Project Area site during 1989-90 and 1995 surveys for the Eagle Mountain Landfill and during related Project surveys (County of Riverside and BLM, 1996). A 2-year study for the landfill project (Divine and Douglas, 1996) identified a reproductive population of 21±9 sheep overlapping the northern and western portion of the mine. Sheep were found within the landfill project boundaries in all four seasons, with ewes using the western end of the mine complex for lambing and other activities.

Pallid Bat (*USFWS: None; BLM: Sensitive; CDFG: Species of Special Concern; WBWG: High Priority*). The pallid bat is found in arid, low-elevation habitats from Mexico and the southwestern United States north through Oregon, Washington, and western Canada. It is found throughout most of California, where it is a yearlong resident (CDFG, 2005c). (*See* Figure 10-6 for the range of the species in the NECO Planning Area; BLM and CDFG, 2002.) *Antrozous pallidus* occupies a wide variety of habitats, including grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. This species is most common in open, dry habitats below 200 meters (660 feet), with rocky areas for roosting (Findley et al., 1975; CDFG, 2005c). While rock crevices, caves, and mine tunnels are common roosts, roosts may also include the attics of houses, eaves of barns, hollow trees, and abandoned adobe buildings (Davis and Schmidly, 1994). Pallid bats feed on large arthropods (scorpions, beetles, moths) captured on or near the ground. Although this species may be found in the absence of rocky terrain or water (Findley et al., 1975), water can enhance habitat due to he high proportion of protein in this insectivorous bat's diet and their high rates of evaporative water loss. Overall, accessible surface water, suitable maternity roost sites, and food may be important components of good habitat (Chung-MacCoubrey, 1995), although pallid bats also occur in areas where there is never surface water (P. Brown, pers. comm. to A. Karl).

One pallid bat was captured and guano was observed at two adits west of the Project during 1990 surveys of the Eagle Mountain Landfill (County of Riverside and BLM, 1996). Based on available habitat, this species is possible near the Central Project Area. Because pallid bats roost often in rock crevices, any activities on site that result in disturbance of rock faces can have adverse consequences to this species.

Pocketed Free-tailed Bat (*USFWS: None; CDFG: Species of Special Concern; WBWG: Medium Priority; NECO: Special-status Species*). This species is found in arid lowlands of the southwest, ranging from Baja California and southwestern Mexico through southwestern Texas, southern New Mexico, south-central Arizona, and southern California (Kumairi and Jones, 1990; Pierson and Rainey, 1998). One source (California Department of Health Services cited in Pierson and Rainey, 1998) suggested that pocketed free-tailed bats could be expected anywhere in southern California south of the San Bernardino Mountains. (*See* Figure 10-5 for the range of the species in the NECO Planning Area; BLM and CDFG, 2002.) Reported elevation ranges include sea level to 2,250 meters (7,400 feet) (Kumairi and Jones, 1990).

Habitats used by the pocketed free-tailed bat include pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis (CDFG, 1983). In several collecting studies in Texas, Arizona, and northern Mexico, *N. femorosaccus* was collected in pine (*Pinus*) – oak (*Quercus*) forests, floodplains and low, arid valleys in desert scrubs (creosote bush, giant dagger [*Yucca carnerosana*], candelilla [*Euphorbia antisyphilitica*], sotol [*Dasylirion leiophyllum*]) and in river plain arroyo habitats (mesquite [*Prosopis* spp.] and sycamores [*Platanus*]). Cliffs or hills with rocky ledges were always adjacent to the trapping sites (*see* review in Kumairi and Jones, 1990). In California, this species has been found only in the Lower and Upper Sonoran life zones, associated with creosote bush

and chaparral habitats (Pierson and Rainey, 1998). *Pocketed free-tailed bat* roosts primarily in rock crevices or under boulders on slopes and cliffs (Cockrum, 1956; Barbour and Davis, 1969); it has also been observed to roost in buildings and under roofing tiles (Barbour and Davis, 1969; Jameson and Peters, 1988).

On the Project site, this species may be found in association with the Central Project Area, near the Eagle Mountains, especially in the vicinity of the pit high walls. Like *N. macrotus*, this species emits a distinctive echolocation signal and could be identified acoustically. Distinctive echolocation signals have been recorded in JTNP just west of the Project area, and specimens have been collected in the Park (P. Brown, pers. comm. to A. Karl).

Spotted Bat (*USFWS: None; BLM: Sensitive; CDFG: Species of Special Concern; WBWG: High Priority*). Initially thought to be extremely rare, the spotted bat is now known to occupy a rather large range throughout central western North America from southern British Columbia to northern Mexico (Bat Conservation International, 2005) and possibly southern Mexico (Watkins, 1977). In the United States, it is most common in California, Arizona, New Mexico, southern Colorado, and southern Utah (Barbour and Davis, 1969). Occupied habitats in California are broad, ranging from below sea level in arid desert regions, through grasslands, to montane coniferous forests (Watkins, 1977). The species is apparently dependent on rock crevices in cliffs for refugia (Easterly, 1973, in Watkins 1977; Bat Conservation International, 2005). Foraging has been observed in forest openings, pinyon juniper woodlands, large riverine habitats, riparian habitat associated with small to mid-sized streams in narrow canyons, wetlands, meadows, and old agricultural fields.

Based on habitat associations, this species is most likely to occur on the Project near the pit walls of the Central Project Area.

Townsend's Big-eared Bat (*USFWS: None; BLM: Sensitive; CDFG: Species of Special Concern; WBWG: High Priority; NECO: Special-status Species*). Townsend's big-eared bat is found throughout western North America, from British Columbia south to Oaxaca, Mexico. (*See* Figure 10-5 for the range of the species in the NECO Planning Area [BLM and CDFG, 2002].) In California, *C. t. townsendii* inhabits the humid coastal regions of northern and central California and *C. t. pallescens* resides in the remainder of the State, including desert regions (Zeiner et al., 1990). The species is known from both mesic and desert habitats, coastal lowlands, cultivated valleys, and hills of mixed vegetation types (*see* review in Kunz and Martin, 1982). In California, the species has been encountered in every natural community in California except alpine and subalpine (Zeiner et al., 1990). Elevation limits range from sea level to above 3,160 m (10,000 feet) (*see* review in Kunz and Martin, 1982). The species has been found in limestone and gypsum caves, lava tubes, and human-made structures such as mine tunnels and buildings (Williams, 1986). Townsend's big-eared bat requires roosting, maternity, and hibernacula sites and may use separate sites for each behavior (Williams, 1986; Zeiner et al., 1990b).

Evidence of Townsend's big-eared bat was found at an Eagle Mountain underground adit during 1990 surveys of the Eagle Mountain Landfill (County of Riverside and BLM, 1996). Based on available habitat, this species is possible near the Central Project Area, where it would roost in mines and cave-like structures.

Western Mastiff Bat (*USFWS: None; BLM: Sensitive; CDFG: Species of Special Concern; WBWG: High Priority; NECO: Special-status Species y*). In the United States, western mastiff bat is found in California, Nevada, Arizona, Texas, and Mexico. In California, it is widely distributed, including significant populations in northern California, the central and southern coast ranges, and many Sierra Nevada river drainages, as well as southern California (Los Angeles, Imperial, Riverside, San Bernardino, and San Diego counties) (Constantine, 1998; Pierson and Rainey, 1998). (*See* Figure 10-5 for the range of the species in the NECO Planning Area; [BLM and CDFG, 2002].) It is a non-migratory resident of caves and buildings, but makes seasonal movements throughout the year (Jameson and Peeters, 1988). Mastiff bats prefer dry, open-country habitats, and because of their very large size appear to be unable to launch themselves from the ground. They require daytime roosts with crevices high enough to provide drop-off clearance for flight. These crevices can be in cliffs, trees, tunnels, or high buildings, usually with a minimum vertical drop of at least 20 feet (Barbour and Davis, 1969). For raising young, tight, very deep crevices are required in rock faces or buildings (Zeiner et al., 1990). After young are independent, colonies often rotate among alternate day roost locations (Barbour and Davis, 1969) depending on temperature or other microclimate factors. The western mastiff bat is non-migratory and active year round (Zeiner et al., 1990).

No western mastiff bats were observed during 1990 bat surveys of the Eagle Mountain Landfill (County of Riverside and BLM, 1996), but they were recorded during surveys conducted in February 2000 (Brown, 2000). Based on available habitat, this species is very likely to occur near the Central Project Area, where it could roost in the pit high walls. Distinctive echolocation signals have also been recorded in JTNP just west of the Project area, and in the Chuckawalla Mountains (P. Brown, pers. comm. to A. Karl).

11.0 Appendix B – Fish and Wildlife Observed in Project Area

Taxon	Scientific Name	Common Name
REPTILES		
	Callisaurus draconoides	Zebra-tail Lizard
	Cnemidophorus tigris	Western Whiptail
	Crotalus cerastes	Sidewinder
	C. mitchelli	Speckled Rattlesnake
	Dipsosaurus dorsalis	Desert Iguana
	Gambelia wislizenii	Leopard Lizard
	Gopherus agassizii	Desert Tortoise
	Masticophis flagellum	Coachwhip
	Phrynosoma platyrhinos	Desert Horned Lizard
	Sauromalus obesus	Chuckwalla
	Sceloporus magister	Desert Spiny Lizard
	Uma scoparia	Mojave Fringe-toed Lizard
	Urosaurus graciosus	Brush Lizard
	Uta stansburiana	Side-blotched Lizard
MAMMALS		
	Ammospermophilus leucurus	Antelope Ground Squirrel
	Canis latrans	Coyote (scat)
	Dipodomys sp.	Kangaroo Rat (burrows)
	Equus asinus	Feral Burro
	Lepus californicus	Black-tailed Hare
	Neotoma lepida	Desert Woodrat (midden)
	Odocoileus hemionus eremicus	Desert Mule Deer
	Thomomys bottae	Pocket Gopher
	Spermophilus tereticaudus	Round-tailed Ground Squirrel
	Sylvilagus audubonii	Desert Cottontail
	Vulpes macrotis	Desert Kit Fox (digs, scat)
BIRDS		
	Auriparus flaviceps	Verdin
	Buteo jamaicensis	Red-tailed Hawk
	Campylorhynchus brunneicapillus	Cactus Wren
	Callipepla gambelii	Gambel's Quail
	Cathartes aura	Turkey Vulture
	Catherpes Mexicana	Canyon Wren
	Chordeiles acutipennis	Lesser Nighthawk
	Corvus corax	Common Raven
	Dendroica coronata	Yellow-rumped Warbler
	Eremophila alpestris	California Horned Lark
	Falco mexicanus	Prairie Falcon
	Geococcyx californianus	Greater Roadrunner
	Lanius ludovicianus	Loggerhead Shrike
	Mimus polyglottos	Mockingbird
	Myiarchus cinerascens	Ash-throated Flycatcher
	Phainopepla nitens	Phainopepla

Taxon	Scientific Name	Common Name
	Piranga ludoviciana	Western Tanager
	Polioptila melanura	Black-tailed Gnatcatcher
	Salpinctes obsoletus	Rock Wren
	Sayornis nigricans	Black Phoebe
	Tyrannus verticalis	Western Kingbird
	Zenaida macroura	Mourning Dove
	Zonotrichia albicollis	White-crowned Sparrow
PLANTS		
	Abronia villosa	Sand Verbena
	Acacia greggii	Catclaw Acacia
	Achyronychia cooperi	Frost-mat
	Allionia incarnata	Windmills
	Allysum fremontii	Desert Allysum
	Ambrosia acanthicarpa	Annual Bursage
	A. dumosa	White Bursage
	A. (=Hymenoclea) salsola	Cheesebush
	Argemone munita	Chicalote
	Aristida purpurea	Three-awn
	Arundo donax	Giant Reed
	Asclepias albicans	Buggy-whip Milkweed
	A. subulata	Desert Milkweed
	Astragalus aridus	Astragalus
	A. didymocarpus	
	A. insularis var. *harwoodii*	Harwood's Milkvetch
	A. lentiginosus var. *coachellae*	Coachella Valley Milkvetch
	Atrichoseris platyphylla	Gravel-ghost
	Atriplex canescens	Four-winged Saltbush
	A. hymenelytra	Desert Holly
	A. lentiformis	Quailbush
	A. polycarpa	Allscale
	Baileya pauciradiata	Desert Marigold
	B. pleniradiata	Woolly Marigold
	Bebbia juncea	Chuckwalla Bush
	Bouteloua spp.	Grama Grass
	Brandegea bigelovii	Brandegea
	Brassica tournefortii	Mustard
	Calyptridium monandrum	Sand-cress
	Camissonia arenaria	Sun Cup
	C. boothii decorticans	Bottlebrush Primrose
	C. brevipes	Sun Cup
	C. palmeri	Palmer Primrose
	C. claviformis	Brown-eyed Primrose
	Cercidium floridum (=*Parkinsonia florida*)	Blue Paloverde
	Chaenactis carphoclina	Pebble Pincushion
	C. fremontii	Fremont's Pincushion
	Chamaesyce polycarpa	Spurge
	C. setiloba	Bristle-lobed Sand Mat
	Chilopsis linearis	Desert Willow
	Chorizanthe brevicornu	Brittle Spine-flower
	C. rigida	Rigid Spinyherb
	Croton californica	Croton
	Cryptantha angustifolia	Forget-me-not
	C. micrantha	Purple-rooted Forget-me-not

Taxon	Scientific Name	Common Name
	C. maritime	White-haired Forget-me-not
	C. nevadensis	Nevada Forget-me-not
	C. pterocarya	Wing-nut Forget-me-not
	Cucurbita palmata	Palmate-leaved Gourd
	Cuscuta sp.	Dodder
	Cylindropuntia acanthocarpa	Staghorn Cholla
	C. bigelovii	Teddybear Cholla
	C. echinocarpa	Silver Cholla
	C. ramosissima	Pencil Cholla
	Dalea mollis	Silk Dalea
	D. mollissima	Silk Dalea
	Datura wrightii	Jimsonweed
	Dicoria canescens	Desert Dicoria
	D. lanceolata	Lance-leaved Ditaxis
	D. neomexicana	Ditaxis
	D. serrata	Saw-toothed Ditaxis
	D. serrata var. *californica*	California Ditaxis
	Dithyrea californica	Spectacle-pod
	Echinocactus polycephalus	Cottontop Cactus
	Echinocereus engelmannii	Hedgehog Cactus
	Emmenanthe penduliflora	Whispering Bells
	Encelia farinosa	Brittlebush
	E. frutescens	Rayless Encelia
	Ephedra californica	Mormon Tea
	E. nevadensis	Mormon Tea
	Eremalche rotundifolium	Desert Five-spot
	Eriastrum diffusum	Phlox
	Eriogonum deflexum	Skeleton Weed
	E. inflatum	Desert Trumpet
	Erioneuron pulchellum	Fluff Grass
	Eriophyllum lanosum	Woolly Eriophyllum
	Erodium cicutarium	Filaree
	Eschscholtzia glyptosperma	Gold-poppy
	E. minutiflora	Small-flowered Gold-poppy
	Escobaria vivipera var. *alversonii*	Foxtail Cactus
	Fagonia pachyacantha	Chinese Lanterns
	Ferocactus cylindraceus	Barrel Cactus
	Fouquieria splendens	Ocotillo
	Funastrum (=*Sarcostemma*) *cynanchoides hartwegii*	Climbing Milkweed
	Geraea canescens	Desert Sunflower
	Galium proliferum	Desert Bedstraw
	Gilia spp.	Phlox
	Hesperocallis undulata	Desert Lily
	Hibiscus denudatus	Rock Hibiscus
	Hoffmannseggia microphylla	Little-leafed Hoffmannseggia
	H. glauca	Pig-nut
	Hordeum marinum	Barley
	Hyptis emoryi	Desert Lavender
	Isomeris arborea	Bladderpod
	Justicia californica	Beloperone
	Krameria grayi	White Rhatany

Taxon	Scientific Name	Common Name
	Langloisia setosissima punctata	Spotted Sunbonnet
	Larrea tridentata	Creosote Bush
	Lepidium fremontii	Desert Allysum
	L. lasiocarpum	Pepper Grass
	Loeseliastrum schottii	Schott Gilia
	Lotus strigosus	Hairy Lotus
	Lupinus sp.	Lupine
	Lycium andersonii	Anderson Boxthorn
	L. brevipes	Fruitilla
	Malacothrix glabrata	Desert Dandelion
	Mammillaria tetrancistra	Fish-hook Cactus
	M. grahamii var. *grahamii* (=*milleri*)	Fish-hook Cactus
	Marina parryi	Parry Dalea
	Mentzelia involucrata	Sand Blazing Star
	Mentzelia sp.	Blazing Star
	Mimulus bigelovii var. *bigelovii*	Monkeyflower
	Mirabilis laevis (= *bigelovii*)	Wishbone Bush
	Mohavea confertifolia	Ghost Flower
	Monoptilon bellioides	Mojave Desert-star
	Nama demissum	Purple Mat
	Nicotiana obtusifolia (= *trigonophylla*)	Desert Tobacco
	Oenothera deltoides	Dune Primrose
	Oligomeris linifolia	Mignonette
	Olneya tesota	Ironwood
	O. basilaris	Beavertail Cactus
	O. wigginsii	Wiggins' Cholla
	Palafoxia arida (= *linearis*)	Spanish Needle
	Pectocarya penicillata	Hairy-leaved Comb-bur
	P. recurvata	Arch-nutted Comb-bur
	Perityle emoryi	Emory Rock Daisy
	Petalonyx thurberi	Sandpaper Plant
	Peucephyllum schottii	Desert Fir
	Phacelia campanularia	Campanulate Phacelia
	P. crenulata	Notch-leaved Phacelia
	P. fremontii	Yellow-throats
	P. tanacetifolia	Heliotrope
	Phoradendron californicum	Desert Mistletoe
	Physalis crassifolia	Ground-cherry
	Plantago ovata	Plantago
	Pleuraphis rigida	Big Galleta
	Pluchea sericea	Arrow-weed
	Polypogon sp.	Rabbit's Foot Grass
	Porophyllum gracile	Odora
	Proboscidea althaefolia	Devil's Claw
	Prosopis glandulosa	Honey Mesquite
	P. pubescens	Screwbean Mesquite
	Prunus fasciculatum	Desert Peach
	Psathyrotes ramosissima	Turpentine Plant
	Psorothamnus arborescens var. *simplicifolus*	Indigo Bush

Taxon	Scientific Name	Common Name
	P. emoryi	Emory Dalea
	P. fremontii	Indigo Bush
	P. schottii	Indigo Bush
	P. spinosus	Smoke Tree
	Rafinesquia neomexicana	Chicory
	Salazaria mexicana	Paperbag Bush
	Salsola tragus	Russian Thistle
	Salvia columbariae	Chia
	Schismus arabicus	Arabian Grass
	Senna armata	Desert Senna
	Simmondsia chinensis	Jojoba
	Sisymbrium irio	Mustard
	Sphaeralcea ambigua	Desert Mallow
	S. angustifolia	Fendler Globe Mallow
	Stephanomeria parryi	Parry Rock-pink
	S. pauciflora	Desert Straw
	Stillingia paucidentata	Stillingia
	S. spinulosa	Broad-leaved Stillingia
	Stylocline micropoides	Desert Nest-straw
	Streptanthella longirostris	Mustard
	Tamarix parviflora	Tamarisk
	Tiquilia palmeri	Palmer Coldenia
	T. plicata	Plicate Coldenia
	Tidestromia oblongifolia	Honey-sweet
	Tribulus terrestris	Caltrops
	Trichoptilium incisum	Yellow-head
	Xylorhiza tortifolia	Mojave Aster
	Yucca schidigera	Mojave Yucca
	Ziziphus obtusifolia var. *canescens*	Gray-leaved Abrojo

12 Appendix C – Technical Memorandum

Bound Separately

Section 13.0 – Appendix D, Scoping Materials

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Section 13.1 – State Clearinghouse Notice of Preparation (NOP)

Eagle Mountain Pumped Storage Project

SCH Number: 2009011010

Document Type: NOP - Notice of Preparation

Project Lead Agency: State Water Resources Control Board

Project Description

The proposed project would be a pumped storage project using two existing mining pits near the town of Eagle Mountain, California. Water would be pumped from a lower/pit reservoir to an upper pit/reservoir during periods of low demand to generate peak energy during periods of high demand. To obtain the needed storage volume at the existing upper pit, two dams would be constructed along its perimeter. The lower pit has enough storage volume, so no dams would be needed. Eagle Crest is proposing to initially fill the reservoirs with either water from wells in the nearby Chuckwalla Basin or from surface water purchased from willing sellers elsewhere and transferred to the project through the Colorado River Aqueduct. Reservoir losses would be replaced by water from the nearby wells.

Contact Information

Primary Contact:
Camilla Williams
State Water Resources Control Board
(916) 327-4807
Division of Water Rights
1001 I Street, 14th Floor
Sacramento, CA 95814

Project Location

County: Riverside
City:
Region:
Cross Streets:
Latitude/Longitude:
Parcel No:

Township:
Range:
Section:
Base:
Other Location Info:

Proximity To

Highways:
Airports:
Railways:
Waterways:
Schools:
Land Use:

Development Type

Local Action

Project Issues

Archaeologic-Historic, Biological Resources, Geologic/Seismic, Soil Erosion/Compaction/Grading, Landuse, Aesthetic/Visual, Air Quality

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Reviewing Agencies (Agencies in **Bold Type** submitted comment letters to the State Clearinghouse)

Resources Agency; **Colorado River Board**; California Energy Commission; Cal Fire; Department of Parks and Recreation; **Department of Water Resources**; Department of Fish and Game, Region 6; Office of Emergency Services; **Native American Heritage Commission**; Public Utilities Commission; State Lands Commission; Caltrans, District 8; Regional Water Quality Control Board, Region 7; **Other - Public Comments**

Date Received: 1/7/2009 **Start of Review:** 1/7/2009 **End of Review:** 2/5/2009

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Section 13.2 – Notice of Preparation Distribution List

The project applicant maintains a mailing list which includes entities on the FERC Service List and the FERC Mailing List for the project, as well as other individuals and organizations who have expressed an interest in the project. A notice was sent to the mailing list notifying them of the availability of the license application.

First	Last	Organization	Location
John	Rydzik	Bureau of Indian Affairs	Palm Springs Field Office
Ronald	Jaeger	Bureau of Indian Affairs	Pacific Regional Office, Sacramento, CA
Tom	Dang	Bureau of Indian Affairs	Pacific Regional Office Sacramento, CA
Virgil	Townsend	Bureau of Indian Affairs	Southern California Agency
Mike	Bennett	Bureau of Land Management	Palm Springs South Coast Field Office
Claude	Kirby	Bureau of Land Management	Palm Springs South Coast Field Office
Mark	Massar	Bureau of Land Management	Palm Springs South Coast Field Office
John	Kalish	Bureau of Land Management	Palm Springs South Coast Field Office
Greg	Hill	Bureau of Land Management	Palm Springs South Coast Field Office
Tom	Gey	Bureau of Land Management	Palm Springs South Coast Field Office
		Bureau of Land Management	California State Office
Donald	Bryce	Department of Interior, Bureau of Reclamation	Lower Colorado Regional Office
Ann	McPherson	Environmental Protection Agency	Regional Office
Alexis	Strausss	Water Division, Environmental Protection Agency	San Francisco, CA
Gregor	Blackburn, CFM	Federal Emergency Management Agency	Region IX
Edward	Perez	Federal Energy Regulatory Commission	Portland Regional Office
		Regional Engineer, Federal Energy Regulatory Commission	Portland Regional Office
		National Marine Fisheries Service	Regional Office
		National Marine Fisheries Service	Southwest Fishery Science Center
Karin	Messaros	National Park Service	Joshua Tree National Park
Steve	Bowes	National Park Service	Regional Office
Curt	Sauer	National Park Service	Joshua Tree National Park
Michael	Vamstad	National Park Service	Joshua Tree National Park

First	Last	Organization	Location
Luke	Sabala	National Park Service	Joshua Tree National Park
Eric	Theiss	NOAA Fisheries	Southwest Region
Scott	John	U.S. Army Corps of Engineers	State District Office, REGULATORY BRANCH/PERMITS
Mark	Durham	U.S. Army Corps of Engineers	State District Office, REGULATORY BRANCH/PERMITS
		U.S. Army Corps of Engineers	Divisional Office Regulatory Branch
		U.S. Army Corps of Engineers	Southern CA Area Office
		U.S. Army Corps of Engineers	San Francisco District Office
		U.S. Fish and Wildlife Service	Sacramento, California
		U.S. Fish and Wildlife Service	Ventura, California
		U.S. Fish and Wildlife Service	Attn: FERC Coordinator
		U.S. Fish and Wildlife Service	Arcata FWO
Pete	Sorenson	U.S. Fish and Wildlife Service	Carlsbad Fish & Wildlife Office
Tannika	Engelhard	U.S. Fish and Wildlife Service	Carlsbad Fish & Wildlife Office
Peggy	Bartels, MS	U.S. Fish and Wildlife Service	Carlsbad Fish & Wildlife Office
		U.S. Forest Service	Pacific Southwest Region
Hon. Barbara	Boxer	United States Senate	
Hon. Dianne	Feinstein	United States Senate	
Doug	McPherson	Department of Interior, Bureau of Reclamation	Temecula, California
		U.S. Geological Survey, Water Resources Division	Sacramento, California
		American River Conservancy	Sacramento, California
Steve	Rothert	American Rivers	Nevada City, CA
Steve	Wald	California Hydropower Reform Coalition	Berkeley, CA
Nate	Rangel	California Outdoors	Coloma, CA
Jim	Crenshaw	California Sportfishing Protection Alliance	Woodland, CA
Curtis	Knight	California Trout	San Francisco, CA
Jim	Edmondson	California Trout	San Francisco, CA
Traci	Sheehan Van Thull	California Wild Heritage Campaign	Sacramento, CA
Joan	Clayburgh	Center for Sierra Nevada Conservation	Georgetown, CA
Dave	Steindorf	Chico Paddleheads	Paradise
Pete	Bell	Foothill Conservancy	Pine Grove, CA
Kelly	Catlett	Friends of the River	Sacramento, CA
Richard	Roos-Collins	Natural Heritage Institute	Berkeley, CA
Jerry	Meral	Planning and Conservation League	Sacramento, CA

First	Last	Organization	Location
		Sierra Club	San Francisco, CA
Joan	Clayburgh	Sierra Nevada Alliance	So. Lake Tahoe, CA
John	Beuttler	California Sportfishing Protection Alliance	Berkeley, CA
Charlton	Bonham	Trout Unlimited	Berkeley, CA
Stephen	Lowe	Eagle Crest Energy Company	Palm Desert, CA
Terry	Cook	Kaiser Ventures, LLC	Ontario, CA
Jan Roberts	Roberts	Kaiser Eagle Mountain	Desert Center, CA
Tom	Covey	S.P. Pazargad	Van Nuys, CA
Veronica	Evans	Lake Tamarisk Library	Desert Center, CA
Larry	Charpied	Citizens for the Chuckwalla Valley	Desert Center, CA
Donna	Charpied	Citizens for the Chuckwalla Valley	Desert Center, CA
Kristine	Wilson	Perkins Coie LLP	Bellevue, WA
Markham	Quehrn	Perkins Coie LLP	Bellevue, WA
Stephen	Maguin	County Sanitation Districts of Los Angeles County	Whittier, CA
		Office of Planning and Research	Sacramento, CA
Michael	Campbell	Imperial Irrigation District	Imperial, CA
Perry	Rosen	Akin Gump Strauss Hauer & Feld LLP	Washington, D.C.
Michael	Postar	Duncan Weinberg Genzer and Pembroke PC	Washington, D.C.
Alexander	Shipman	Lewis, Brisbois Bisgaard & Smith LLP	Los Angeles, CA
Daniel	Hyde	Lewis, Brisbois Bisgaard & Smith LLP	Los Angeles, CA
Donald	Clarke	Law Offices of GKRSE	Washington, D.C.
Rekha	Rao	Law Offices of GKRSE	Washington, D.C.
Margit	Chiriaco Rusche		Chiriaco Summit, CA
Gary	Johnson	Mine Reclamation, LLC	Palm Desert, CA
		California Air Resources Board	Sacramento, CA
		Resources Agency of California	Sacramento, CA
James	Sheridan	California Department of Fish and Game	Eastern Sierra Inland Deserts Region
		California Department of Fish and Game	Regional Office, Region 6
Mike	Meinz	California Department of Fish and Game	Rancho Cordova, CA
		California Department of Fish and Game	Sacramento, CA
Gary	Watts	California State Parks	Inland Empire District
Glen	Eastman	Metropolitan Water District of Southern California	Desert Center, CA
Robert	Perdue	California Department of Water Resources	California Regional Water Quality Control Board
		California Department of Water	Sacramento, CA

First	Last	Organization	Location
		Resources, Department of Safety of Dams	
Beth	Hendrickson	California Dept. of Conservation	Office of Mine Reclamation
Kip	Gonzalez	California Dept. of Conservation	Office of Mine Reclamation
Greg	Sonorio	California Dept. of Conservation	Office of Mine Reclamation
Paul	Marshall	California Dept. of Conservation	Compliance Section
		California Fish and Game Commission	Environmental Services Division
		California Office of Attorney General	Los Angeles, CA
Cherilyn	Widell	California Office of Historic Preservation	Sacramento, CA
		California Office of the Governor	State Capitol Building
Nicholas	Sher	California Public Utilities Commission	San Francisco, CA
Marina	Brand	California State Lands Commission	Division of Environmental Planning
Jim	Porter	California State Lands Commission	Sacramento, CA
Greg	Pelka	California State Lands Commission	Sacramento, Ca
Camilla	Williams	California State Water Resources Control Board	Division of Water Rights
Paul	Murphey	California State Water Resources Control Board	Division of Water Rights
Nathan	Jacobsen	State Water Resources Control Board	Office of Chief Counsel
Craig	Weightman	California Department of Fish and Game	
Anna	Milloy	California Department of Fish and Game	Regional Office
Michael	Flores	California Department of Fish and Game	Regional Office
Beth	Hendrickson	California Dept. of Conservation	Office of Mine Reclamation
Jim	Canady	California State Water Resources Control Board	Sacramento, CA
		County Sanitation Districts of Los Angeles County, CA	Los Angeles, CA
Randy	Baysinger, P.E.	Turlock Irrigation District	Turlock, CA
	Chief	California Department of Parks and Recreation	Sacramento, CA
Peter	vonHaam	Metropolitan Water District of Southern California	Los Angeles, CA
Matthew	Hacker	Metropolitan Water District of Southern California	Los Angeles, CA
Delaine W.	Shane	Environmental Planning Team, Metropolitan Water District of Southern California	Los Angeles, CA
MaryLisa	Lynch	California Department of Fish and	Rancho Cordova

First	Last	Organization	Location
		Game	
Matthew	Campbell	California Office of Attorney General	Sacramento
Lamia	Mamoon	California Public Utilities Commission	San Francisco
		California Public Utilities Commission	San Francisco
Cheri	Sprunck	Placer County Water Agency	Auburn
Kathleen	Smith	Placer County Water Agency	Auburn
Michael	Harrod	Riverside County	Riverside
	County Clerk	Riverside County	Riverside
David	Jones	Riverside County	TLMA- Planning
Mike	Cipra	National Parks Conservation Association	Joshua Tree, CA
Karen	Goebel	U.S. Fish and Wildlife Service	Carlsbad, CA
		South Coast Air Quality Air Management District	Diamond Bar, CA
David	Jump	Cathedral City	Cathedral City, CA
Renata	DiBattista	City of Indio	Community Development Department
Clifford	LaChappa	Barona Band of Mission Indians	Lakeside
John	James	Cabazon Tribal Business Committee	Indio
Celeste	Hughes	Cahuilla Band of Mission Indians	Anza
Edward	Smith	Chemehuevi Tribal Council	Havasu Lake
Robert	Martin	Morongo Band of Mission Indians	Cabazon
Britt	Wilson	Morongo Band of Mission Indians	Cabazon
Mary	Belardo	Torres-Martinez Desert Cahuilla Indians	Thermal
Kurt	Russo	Native American Lands Conservancy	Bellingham
Dean	Mike	Twenty-Nine Palms Band of Mission Indians	Coachella
Richard	Milanovich	Aqua Caliente Band of Cahuilla Indians	Palm Springs
Richard	Begay	Aqua Caliente Band of Cahuilla Indians	Palm Springs
Thomas	Davis	Aqua Caliente Band of Cahuilla Indians	Palm Springs
Julie	Branchini	Aqua Caliente Band of Cahuilla Indians	Palm Springs
Sean	Milanovich	Aqua Caliente Band of Cahuilla Indians	Palm Springs
David	DeRosa	Aqua Caliente Band of Cahuilla Indians	Palm Springs

Section 13.3 – FERC Notice of Scoping

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Eagle Crest Energy Company	Project Nos. 13123-000 12509-001

NOTICE OF SCOPING MEETINGS AND SITE VISIT

(December 17, 2008)

a. Type of Filing: Notice of Intent to File a License Application; Pre-Application Document; and Request to Use the Traditional Licensing Process.

b. Project Nos.: 13123-000 and 12509-001[1]

c. Dated Filed: October 16, 2008

d. Submitted By: Eagle Crest Energy Company (Eagle Crest)

e. Name of Project: Eagle Mountain Pumped Storage Project

f. Location: The Eagle Mountain Project would be located at two depleted mining pits in the Eagle Mountain Mine in Riverside County, California, near the town of Desert Center, California.

g. Filed Pursuant to: 18 CFR Part 5 of the Commission's Regulations

h. Applicant Contact: Arthur Lowe, Eagle Crest Energy Company, 1 El Paso, Suite 204, Palm Desert, California 92260.

i. FERC Contact: Kim Nguyen (202) 502-6105 or e-mail kim.nguyen@ferc.gov.

j. Eagle Crest filed Pre-Application Document (PAD) and draft License Application (LA) for the Eagle Mountain Pumped Storage Project, including proposed process plan and schedule, with the Commission pursuant to 18 CFR 5.6 of the Commission's regulations.

[1] Previously, the project was given FERC Project No. 12509-001. Upon issuance of a new preliminary permit on August 13, 2008, the project was given FERC Project No. 13123-000.

k. Copies of the PAD, draft LA, and Scoping Document 1 (SD1) are available for review at the Commission in the Public Reference Room or may be viewed on the Commission's website (http://www.ferc.gov), using the "eLibrary" link. Enter the docket number, excluding the last three digits, in the docket number field to access the document. For assistance, contact FERC Online Support at FERCONlineSupport@ferc.gov or toll free at 1-866-208-3676, or for TTY, (202) 502-8659. The applicant maintains a project website with meeting information www.eaglemountainenergy.net.

   Register online at http://ferc.gov/esubscribenow.htm to be notified via e-mail of new filings and issuances related to these or other pending projects. For assistance, contact FERC Online Support.

l. With this notice, we are soliciting comments on SD1. In addition, all comments on the PAD, draft LA, and SD1, study requests, requests for cooperating agency status, and all communications to Commission staff related to the merits of the potential applications (original and eight copies) must be filed with the Commission at the following address: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Washington, D.C. 20426. All filings with the Commission relevant to the Eagle Mountain Hydroelectric Project must include on the first page, the project name and number (P-13123-000), and bear the heading, as appropriate, "Comments on Scoping Document 1." Any individual or entity interested in commenting on SD1 must do so no later than 60 days from receipt of this notice.

   Comments on SD1 and other permissible forms of communications with the Commission may be filed electronically via the Internet in lieu of paper. The Commission strongly encourages electronic filings. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's website (http://www.ferc.gov) under the "e-filing" link.

m. At this time, Commission staff intends to prepare an Environmental Impact Statement for the project, in accordance with the National Environmental Policy Act.

n. Scoping Meetings

   We will hold two scoping meetings for each project at the times and places noted below. The daytime meetings will focus on resource agency, Indian tribes, and non-governmental organization concerns, while the evening meetings are primarily for receiving input from the public. We invite all interested individuals, organizations, Indian tribes, and agencies to attend one or all of the meetings, and to assist staff in

identifying particular study needs, as well as the scope of environmental issues to be addressed in the environmental document. The times and locations of these meetings are as follows:

Daytime Scoping Meeting

Date: January 16, 2009
Time: 9:00 am
Location: University of California at Riverside
Palm Desert Graduate Center
75-080 Frank Sinatra Drive, Room B114/117
Palm Desert, California 92211

Evening Scoping Meeting

Date: January 15, 2009
Time: 7:00 pm
Location: University of California at Riverside
Palm Desert Graduate Center,
75-080 Frank Sinatra Drive, Room B200
Palm Desert, California 92211

SD1, which outlines the subject areas to be addressed in the environmental document, has been mailed to the individuals and entities on the Commission's mailing list. Copies of SD1 will be available at the scoping meetings, or may be viewed on the web at http://www.ferc.gov, using the "eLibrary" link. Follow the directions for accessing information in paragraph k. Depending on the extent of comments received, a Scoping Document 2 (SD2) may or may not be issued.

Site Visit

The applicant will conduct a site visit of the project on January 15, 2009 at 9:00 a.m. Those wishing to participate in the site visit should meet at the University of California at Riverside, Palm Desert Graduate Center, 75-080 Frank Sinatra Drive, Room B200, Palm Desert, California. To appropriately accommodate persons interested in attending the site visit, participants should contact Andrea Oliver with Eagle Crest at (760) 346-4900 or e-mail at aoliver@eaglecrestenergy.com by January 8, 2009.

Scoping Meeting Objectives

At the scoping meetings, staff will: (1) present the proposed list of issues to be addressed in the EA; (2) review and discuss existing conditions and resource agency management objectives; (3) review and discuss existing information and identify preliminary information and study needs; (4) review and discuss the process plan and schedule for pre-filing activity that incorporates the time frames provided for in Part 5 of the Commission's regulations and, to the extent possible, maximizes coordination of federal, state, and tribal permitting and certification processes; and (5) discuss requests by any federal or state agency or Indian tribe acting as a cooperating agency for development of an environmental document.

Meeting participants should come prepared to discuss their issues and/or concerns. Please review the PAD and draft LA in preparation for the scoping meetings. Directions on how to obtain a copy of the PAD, draft LA, and SD1 are included in item k of this notice.

Scoping Meeting Procedures

The scoping meetings will be recorded by a stenographer and will become part of the formal Commission records for the projects.

Kimberly D. Bose,
Secretary.

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426
December 17, 2008

OFFICE OF ENERGY PROJECTS

Project No. 13123-000 – California
Eagle Mountain Pumped Storage
Hydroelectric Project
Eagle Crest Energy Company

Subject: Scoping of environmental issues for the licensing of the Eagle Mountain Pumped Storage Hydroelectric Project

To the Parties Addressed:

On January 10, 2008, Eagle Crest Energy Company (Eagle Crest) filed with the Federal Energy Regulatory Commission (Commission) a Notice of Intent to file a license application, a request to use the Traditional Licensing Process, and a Pre-Application Document for the proposed 1,300- megawatt Eagle Mountain Pumped Project.[2]

The project would be located in two depleted mining pits in the Eagle Mountain Mine in Riverside County, California, near the town of Desert Center, California. The proposed project would occupy federal lands administered by the Bureau of Land Management (BLM) and private lands owned by Kaiser Eagle Mountain, LLC.

On June 16, 2008, Eagle Crest submitted a Draft License Application (DLA). The Commission has reviewed the DLA and provided comments along with many interested stakeholders. These comments can be viewed on the Commission's website at http://elibrary.FERC.gov/idmws/file_list.asp?accession_num=20081015-5009.

On October 17, 2008, Eagle Crest filed a request for approval of an early scoping process to coordinate both federal and California state environmental procedures. The Commission approved this request on October 29, 2008 and will hold early scoping to coordinate the Commission's National Environmental Policy Act (NEPA) with the State Water Resources Control Board's California Environmental Quality Act (CEQA).

[2] Previously, the project was given FERC Project No. 12509-001. Upon issuance of a new preliminary permit on August 13, 2008, the project was given FERC Project No. 13123-000. On March 4, 2008, the Commission approved Eagle Crest's request to use the TLP.

Based on the comments filed for the DLA and pursuant to NEPA, the Commission staff intends to prepare an Environmental Impact Statement for the project, which will be used by the Commission to determine whether, and under what conditions, to issue new hydropower licenses for the projects. To support and assist our environmental review, we are beginning the public scoping process to ensure that all pertinent issues are identified and analyzed, and that the environmental document is thorough and balanced.

We invite your participation in the scoping process and are circulating the enclosed Scoping Document 1 (SD1) to provide you with information on the project and to solicit comments and suggestions on our preliminary list of issues and alternatives to be addressed in the EIS. Please review this scoping document and, if you wish to provide comments, follow the instructions included in section 5.0.

As part of our scoping process and in an effort to identify issues, concerns, and opportunities associated with the proposed action, we will hold two scoping meetings on Thursday and Friday, January 15 and 16, 2009, to receive input on the scope of the EIS. A daytime meeting on Friday focused on resource agencies, Indian tribes, and non-governmental organizations (NGO's), will begin at 9:00 a.m. An evening meeting on Thursday, primarily for the public, will start at 7:00 p.m. Both meetings will be held at the University of California at Riverside, University of California at Riverside, Palm Desert Graduate Center, 75-080 Frank Sinatra Drive, Palm Desert, California. The public, agencies, Indian tribes, and NGOs may attend either or both meetings.

Further, the Eagle Crest and Commission staff will conduct a site visit of the project on Thursday, January 15, 2009, starting at 9:00 a.m. Those wishing to participate should meet at the University of California at Riverside, University of California at Riverside, Palm Desert Graduate Center, 75-080 Frank Sinatra Drive, Room B200, Palm Desert, California. To appropriately accommodate persons interested in attending the site visit, participants should contact Andrea Oliver with Eagle Crest by January 8, 2009 at (760) 346-4900 or e-mail at aoliver@eaglecrestenergy.com. More information about the scoping meetings and site visit is available in the scoping document.

The SD1 is being distributed to the Commission's official mailing list (see section 9.0). If you wish to be added to or removed from the Commission's official mailing list, please send your request by mail to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Room 1A, Washington, DC 20426. All written, electronic filings, or e-mailed requests must specify your wish to be removed or added to the mailing list and must clearly identify the following on the first page: Eagle Mountain Pumped Storage Project No. 13123-000. For assistance with electronic filing or e-mail notification registration, please refer to the instructions in section 5.0 of the scoping document.

For any questions about the SD1, the scoping process, or how Commission staff will develop the EIS for this project, please contact Kim Nguyen at (202) 502-6105 or e-mail at kim.nguyen@ferc.gov. Any questions concerning CEQA, the water quality certification, and the California water rights process should be directed to Camilla Williams at (916) 327-4807 or email at CKWilliams@waterboards.ca.gov. Additional information about the Commission's licensing process and the Eagle Mountain Project may be obtained from our website, http://www.ferc.gov.

Enclosure: Scoping Document 1

cc: Mailing List
Public Files

Section 13.4 – Scoping Document 1

NEPA SCOPING DOCUMENT 1

and

CEQA NOTICE OF PREPARATION

EAGLE MOUNTAIN PUMPED STORAGE HYDROELECTRIC PROJECT

CALIFORNIA

FERC PROJECT NO. 13123-000

State of California
Environmental Protection Agency
State Water Resources Control Board

Federal Energy Regulatory Commission
Office of Energy Projects
Division of Hydropower Licensing
Washington, DC

December 2008

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS

APE	area of potential effects
BLM	U. S. Bureau of Land Management
CEQA	California Environmental Quality Act
Commission	Federal Energy Regulatory Commission
DLA	draft license application
Eagle Crest	Eagle Crest Energy Company or Applicant
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FPA	Federal Power Act
HPMP	Historic Properties Management Plan
Joshua Tree NP	Joshua Tree National Park
MW	megawatt
NEPA	National Environmental Policy Act
NGO	Nongovernmental organization
PAD	Pre-Application Document
Project	Eagle Mountain Pumped Storage Project
SHPO	California State Historic Preservation Officer
Water Board	California State Water Resources Control Board

INTRODUCTION

The Federal Energy Regulatory Commission (Commission), under the authority of the Federal Power Act (FPA),[3] may issue licenses for terms ranging from 30 to 50 years for the construction, operation, and maintenance of non-federal hydroelectric projects. On January 10, 2008, Eagle Crest Energy Company (Eagle Crest) filed a Notice of Intent to file a license application, a request to use the Traditional Licensing Process, and a Pre-Application Document (PAD) for the proposed 1,300-megawatt (MW) Eagle Mountain Pumped Project.[4]

The project would be located in two depleted mining pits in the Eagle Mountain Mine in Riverside County, California, near the town of Desert Center, California. See Figure 1. The proposed project would occupy federal lands administered by the Bureau of Land Management (BLM) and private lands owned by Kaiser Eagle Mountain, LLC.

Following the submission of the PAD, there was a 60-day comment period when interested stakeholders were invited to submit requests for additional studies. In addition, a joint meeting and site visit was held on April 9 and 10, 2008. Transcripts from the joint meeting are available on the Commission's website at www.ferc.gov.

On June 16, 2008, Eagle Crest submitted a Draft License Application (DLA) to the Commission. Comments on this DLA were filed by many interested stakeholders and can be viewed on the Commission's website at http://elibrary.FERC.gov/idmws/file_list.asp?accession_num=20081015-5009.

On September 26, 2008, Eagle Crest applied to the State Water Resources Control Board (Water Board) for water quality certification under section 401 of the Clean Water Act. For purposes of the California Environmental Quality Act (CEQA), the Water Board will be the California state lead agency for the preparation of an Environmental Impact Report (EIR) for California public agency approvals relating to environmental impacts associated with the proposed licensing of the project. On October 15, 2008, the Water Board determined that the application met the requirements for a complete application and was acceptable for processing.

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[3] 16 U.S.C. §§ 791(a)-825(r) (2000).

[4] Previously, the project was given FERC Project No. 12509-001. Upon issuance of a new preliminary permit on August 13, 2008, the project was given FERC Project No. 13123-000. On March 4, 2008, the Commission approved Eagle Crest's request to use the TLP.

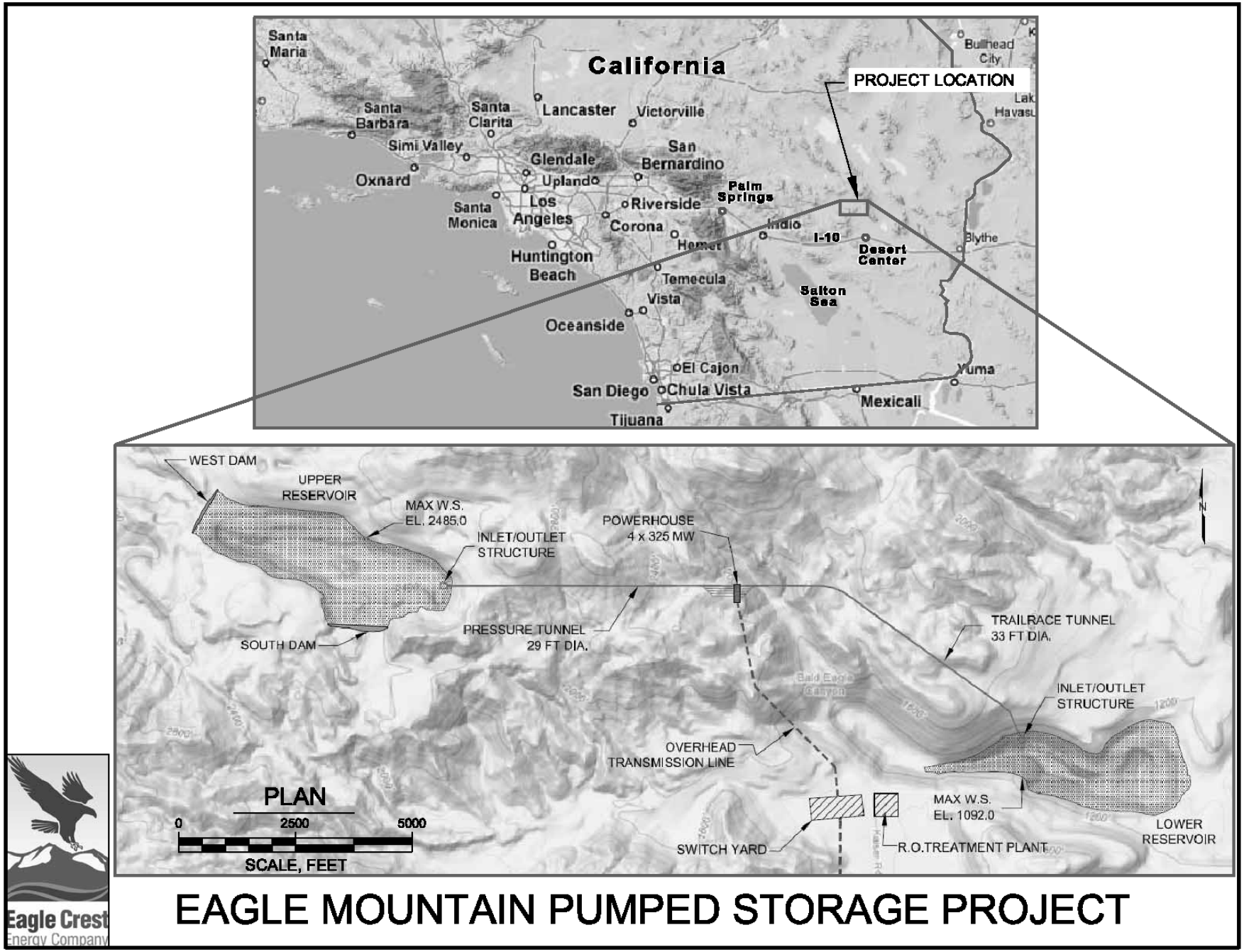

Figure 1. Location of the Eagle Mountain Pumped Storage Project (Source: Eagle Crest Energy Company, 2008).

The National Environmental Policy Act (NEPA) of 1969,[5] the Commission's regulations, and other applicable laws require that we independently evaluate the environmental effects of licensing the project as proposed, as well as consider reasonable alternatives to the proposed action. At this time, we intend to prepare a draft and final Environmental Impact Statement (EIS) that describes and evaluates the probable impacts, including an assessment of the site-specific and cumulative effects, if any, of the proposed action and alternatives considered. This scoping process will help the Commission and Water Board staff to identify the pertinent issues for analysis in the EIS and EIR.

SCOPING

This scoping document is intended to advise all participants about the proposed scope of the EIS and EIR and to seek additional information pertinent to this analysis. This document contains: (1) a description of the scoping process and schedule for developing the EIS and EIR; (2) a description of the proposed action and alternatives; (3) a preliminary identification of environmental issues; (4) a request for comments and information; (5) proposed EIS and EIR outlines; and (6) a preliminary list of comprehensive plans that may be applicable to the project.

14.1 Purposes of Scoping

Scoping is the process used to identify issues, concerns, and opportunities for protection or mitigation associated with a proposed action. The process should be conducted early in the planning stage of a project.

The purposes of the scoping process are as follows:

- Invite participation of federal, state, and local resource agencies; Indian tribes; non-governmental organizations (NGOs); and the public to help identify significant environmental and socioeconomic issues related to the proposed action.

- Determine the resource areas, depth of analysis, and significance of issues to be addressed in the EIS and EIR.

- Identify how the project would or would not contribute to cumulative impacts in the project area.
- Identify reasonable alternatives to the proposed action that should be evaluated in the EIS and EIR.

[5] National Environmental Policy Act of 1969, as amended (Pub. L. 91-190. 42 U.S.C. 4321-4347, January 1, 1970, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258, §4(b), Sept. 13, 1982).

- Solicit from participants available information on the resources at issue.

- Determine the resource areas and potential issues that do no require detailed analysis during review of the project.

14.2 Comments and Scoping Meetings

Between now and the Commission's decision on the proposed project and the Water Board's notice of determination, there will be several opportunities for the public, resource agencies, Indian tribes, and NGOs to provide input. These opportunities occur:

- During the public scoping process, prior to preparation of the draft EIS and draft EIR, so Commission and Water Board staff can receive written comments regarding scope of the issues and analysis for the EIS and EIR.

- In response to the Commission's ready for environmental analysis notice when we solicit comments, recommendations, terms, conditions, and prescriptions for the proposed project.

- After issuance of the Draft EIS and Draft EIR with draft 401 water quality certification, so that staff can receive written comments.

In addition to written comments solicited by this scoping document, the Commission and the Water Board staff will hold two public scoping meetings in the vicinity of the project. A daytime meeting will focus on concerns of the resource agencies, Indian tribes, and NGOs and an evening meeting will focus on receiving input from the public. We invite all interested agencies, Indian tribes, NGOs, and individuals to attend one or both of the meetings to assist staff in identifying environmental issues that should be analyzed in the EIS and EIR. The times and locations of the meetings are listed below.

Daytime Scoping Meeting

Date: January 16, 2009
Time: 9:00 am
Location: University of California at Riverside
Palm Desert Graduate Center
75-080 Frank Sinatra Drive, Room B114/117
Palm Desert, California 92211

Evening Scoping Meeting

Date: January 15, 2009
Time: 7:00 pm
Location: University of California at Riverside
Palm Desert Graduate Center,
75-080 Frank Sinatra Drive, Room B200
Palm Desert, California 92211

The scoping meetings will be recorded by a court reporter, and both written and verbal statements will become part of the Commission's and the Water Board's public records for the project. Individuals presenting statements at the meetings will be asked to clearly identify themselves for the record. Interested entities who choose not to speak or who are unable to attend any of the scoping meetings may provide written comments and information to the Commission and the Water Board as described in section 5.0 of this scoping document. These meetings will be posted on the Commission's calendar, located on the internet at http://www.ferc.gov/EventCalendar/EventsList.aspx, along with other related information. In addition, the applicant maintains a project website with meeting information www.eaglemountainenergy.net.

Meeting participants are encouraged to come to the scoping meetings prepared to discuss their issues and/or concerns as they pertain to licensing the project. To prepare for the scoping meetings, participants are asked to please review the DLA. A copy of the DLA is available for review at the Commission in the Public Reference Room or may be viewed on the Commission's website (http://www.ferc.gov), using the "eLibrary" link. Enter the docket number, P-13123, to access the document. Contact FERC Online Support at FERCOnlineSupport@FERC.gov, call toll free at 866-208-3676, or TTY, 202-502-8659 for assistance.

The applicant will conduct a site visit of the project on January 15, 2009 at 9:00 a.m. Those wishing to participate in the site visit should meet at the University of California at Riverside, Palm Desert Graduate Center, 75-080 Frank Sinatra Drive, Room B200, Palm Desert, California. To appropriately accommodate persons interested in attending the site visit, participants should contact Andrea Oliver with Eagle Crest at (760) 346-4900 or e-mail at aoliver@eaglecrestenergy.com by January 8, 2009.

Following the scoping meetings and comment period, all issues raised will be reviewed and decisions will be made about the level of analysis needed. If preliminary analysis shows that any issues presented in this scoping document have little potential for causing significant effects, the issue(s) will be identified and the reasons for not providing a more detailed analysis will be given in the EIS and EIR.

If the Commission receives no substantive comments on this scoping document, then the Commission will not prepare a Scoping Document 2 (SD2). We will so notify participants by letter. If the Commission issues an SD2, it will be for informational use only and will not require a response from any participant in the process.

PROPOSED ACTION AND ALTERNATIVES

In accordance with NEPA and CEQA, our environmental analysis will consider the following alternatives, at a minimum: (1) the applicant's proposed action; (2) alternatives to the proposed action; and (3) no-action.

14.3 Eagle Crest Energy Company's Proposed Action

Eagle Crest is seeking an original license to construct and operate the Eagle Mountain Pumped Storage Project. The Commission will consider whether, and under what conditions, to issue an original license for the project. The Water Board will consider whether, and under what conditions, to issue water quality certification for the project.

14.3.1 Proposed Project Facilities

The proposed project would be a pumped storage project using two existing mining pits near the town of Eagle Mountain, California. Water would be pumped from a lower pit/reservoir to an upper pit/reservoir during periods of low demand to generate peak energy during periods of high demand. To obtain the needed storage volume at the existing upper pit, two dams would be constructed along its perimeter. The lower pit has enough storage volume, so no dams would be needed. The project would consist of the following facilities: (1) two roller-compacted dams at the upper reservoir at heights of 60- and 120-feet; (2) an upper reservoir with capacity of 20,000 acre-feet; (3) a lower reservoir with capacity of 21,900 acre-feet; (4) inlet/outlet structures; (5) water conveyance tunnels consisting of 4,000-foot-long by 29-foot-diameter upper tunnel, 1,390-foot-long by 29-foot-diameter shaft, 1,560-foot-long by 29-foot-diameter lower tunnel, four 500-foot-long by 15-foot-diamter penstocks leading to the powerhouse, 6,835-foot-long by 33-foot-diameter tailrace tunnel to the lower reservoir; (6) surge control facilities; (7) a 72-foot-wide, 150-foot-high, and 360-foot-long underground powerhouse with 4 Francis-type turbine units; (8) a 50.5-miles, 500-kilovolt transmission line; (9) water supply facilities including a reverse osmosis system; (10) access roads; and (11) appurtenant facilities.

Eagle Crest is proposing to initially fill the reservoirs with either water from wells in the nearby Chuckwalla Basin or from surface water purchased from willing sellers elsewhere and transferred to the project through the Colorado River Aqueduct. Reservoir losses would be replaced by water from the nearby wells.

14.3.2 Proposed Project Operation

The project would use off-peak energy to pump water from the lower reservoir to the upper reservoir during periods of low electrical demand and generate valuable peak energy by passing the water from the upper to the lower reservoir through the generating units during periods of high electrical demand. The low demand periods are expected to be during weekday nights and throughout the weekend, and the high demand periods are expected to be in the daytime during week days, especially during the summer months. The project would provide an economical supply of peaking capacity, as well as load following, system regulation through spinning reserve[6], and immediately available standby generating capacity.

The proposed energy storage volume would allow for operation of the project at full capacity for 9 hours each weekday, with 8 hours of pumping each weekday night and additional pumping during the weekend to fully recharge the upper reservoir. The amount of active storage in the upper reservoir would be 17,700 acre-feet, providing 18.5 hours of energy storage at the maximum generating discharge. Water stored in the upper reservoir would provide approximately 22,200 megawatt-hours of on-peak generation.

14.3.3 Proposed Studies

Based on comments received on the DLA, Eagle Crest has identified the following additional information and studies that will be needed prior to license issuance:

Water Resources

- Location of wells for groundwater supply
- Best management practices for construction spoils
- Assessment of potential impacts to the Colorado River Aqueduct
- Assessment of potential seepage from the former mine pits and the brine pond
- Assessment of potential ground subsidence from groundwater pumping

Wildlife Resources

- Surveys of special status species along linear and non-linear features
- Construction and operation mitigation measures for wildlife and sensitive status species

Cultural Resources

- Cultural resource inventory of linear features and project area
- Consultation - Historic Properties Management Plan
- Identify locations requiring additional cultural resource surveys

[6] Spinning reserve are used to quickly replace lost electrical generation resulting from a forced outage, such as the sudden loss of a major transmission line or generating unit.

3.2 Alternatives to the Proposed Action

The Commission and the Water Board staff will consider and assess various alternatives, including environmental measures not proposed by Eagle Crest. We will consider and assess all alternative recommendations for operational or facility modifications, as well as protection, mitigation, and enhancement measures identified by the Commission staff, Water Board staff, the resource agencies, Indian tribes, NGOs, and the public. To the extent that modifications would reduce power production from the project, the Commission and the Water Board staffs will evaluate the costs of providing an equivalent amount of fossil-fueled power generation, and the contributions of such generation to airborne pollution. Water Board staff will also evaluate necessary changes to existing appropriated water rights if surface water must be used to augment groundwater stored in the reservoirs.

3.3 No Action Alternative

Under the no-action alternative, the effects of a non-construction scenario are analyzed.

3.4 Alternatives Considered but Eliminated from Detailed Study

At present, neither the Commission nor the Water Board staff proposes to eliminate any specific alternatives from detailed and comprehensive analyses in the EIS or EIR.

SCOPE OF CUMULATIVE EFFECTS AND RESOURCE ISSUES

14.4 Cumulative Effects

According to the Council on Environmental Quality's regulations for implementing NEPA (40 CFR section 1508.7), a cumulative effect is an impact on the environment resulting from the incremental impacts of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities.

Under CEQA, a cumulative impact refers to two or more individual effects, which, when considered together, are considerable or which compound or increase other environmental impacts (Cal. Code Regs., tit. 14, § 15355.).

14.4.1 Resources That Could Be Cumulatively Affected

We have reviewed the information provided in the DLA developed for the Eagle Mountain Pumped Storage Project. Based on our preliminary analysis of the DLA, we have identified water resources, desert big horn sheep and desert tortoise, land use, and air quality as resources that could be cumulatively affected by the proposed Eagle Mountain Pumped Storage Project in combination with other activities in the Colorado River Basin.

14.4.2 Geographic Scope

The geographic scope of the analysis defines the physical limits or boundaries of the proposed action's effect on the resources. Because the proposed action would affect the resources differently, the geographic scope for each resource may vary. For each resource that participants recommend we analyze for cumulative effects, we are also asking them to recommend an appropriate geographic scope.

At this time, we propose the geographic scope for water resources to be the Chuckwalla Valley Aquifer. This geographic scope was selected because the groundwater to be used for this project, as well as other reasonably foreseeable projects, would be withdrawn from this aquifer. The geographic scope for the cumulative effects analysis on the desert big horn sheep, desert tortoise, land use, and air quality would be the Chuckwalla Valley and I-10 corridor east to Blythe, California. This geographic scope was selected because construction traffic, noise, air emissions, and loss/alteration of desert habitats associated with the development of this project and the proposed Eagle Mountain landfill and area wind farms, would cumulatively affect these resources within the Chuckwalla Valley.

14.4.3 Temporal Scope

The temporal scope of our cumulative effects analysis in the EIS and EIR will include a discussion of past, present, and future actions and their respective effects on each resource. Based on the potential term of an original license, the temporal scope will look 30 to 50 years into the future, concentrating on the effect to the resources from reasonably foreseeable future actions. The historical discussion will be limited, by necessity, to the amount of available information for each resource.

14.5 Resource Issues

In this section, we present a preliminary list of environmental issues and concerns to be addressed in the EIS and EIR. This list is not intended to be exhaustive or final, but is an initial listing of issues we have identified to date associated with licensing the project. We may modify or add to the list of issues based on comments received during scoping. After scoping is completed, we will review this list and determine the appropriate level of analysis needed to address each issue in the EIS and EIR. For convenience, the issues have been listed by resource

area. Those issues identified by an asterisk (*) will be analyzed for both cumulative and site-specific effects.

14.5.1 Geology and Soils Resources

- Effects of project construction on geology and soils resources.
- Effects of project construction on soil erosion and sedimentation.

*14.5.2 Water Resources**

- Effect of reservoir seepage on groundwater levels.
- Effects of groundwater pumping on other water users in the Chuckwalla Valley, including agricultural water users.
- Effects of seepage from the reservoirs on groundwater quality.
- Effects of the brine ponds on groundwater quality.
- Effects on long term water quality in the reservoirs.
- Effects of construction activities on water quality in the project area.

14.5.3 Aquatic Resources

- No issues associated with aquatic resources have been identified.

14.5.4 Terrestrial Resources

- Effects of the reservoirs as a rare water source in the desert environment on the attraction of waterfowl and bats, attraction of predators (e.g., coyotes, badge, and ravens), and establishment and composition of riparian communities.
- Effects of project construction (i.e., disturbance and habitat fragmentation) and operation (i.e., lighting, physical and noise disturbance, and migration barriers) on desert bighorn sheep migration patterns, foraging habitat, and breeding and lambing behavior; what would be consequences to desert bighorn sheep populations in the area.*
- Potential effects of the project's reservoirs on deer, big horn sheep, and desert tortoise drowning in the reservoirs, and escaping from area fencing.
- Effects of the brine ponds on birds; what measures would be implemented to minimize adverse effects.
- Effects of project construction and operation, including, but not limited to, construction of the access roads, water pipeline, transmission line, powerhouse, brine ponds and reservoirs, staging areas, transmission line pulling areas, and waste spoil and salt disposal sites on vegetation.
- Effects of project construction and operation on the spread of invasive species including the consequences of the spread of noxious weeds on vegetation species composition and wildlife habitat values.

- Effects of project construction and operation on special status species, including BLM sensitive species and state threatened and endangered species.

14.5.5 Threatened and Endangered Species

- Effect of project construction and operation on federally threatened and endangered species: (1) desert tortoise and its critical habitat, (2) Coachella Valley milkveath.*

14.5.6 Recreation and Land Use

- Effects of project construction and operation on recreational use within the project area, including lands administered by the BLM for dispersed recreational use and, at the Joshua Tree National Park (Joshua Tree NP).
- Effects of project construction and operation on special designated areas, including BLM's Chuckwalla Valley Dune Thicket Area of Critical Environmental Concern, and Chuckwalla Critical Habitat Unit (an area designated by the U.S. Fish and Wildlife Service as desert tortoise habitat).*
- Effects of project construction and operation on other land uses, including future mineral development, and a 14,784-acre, 500-MW solar farm.*
- Effects of project construction and operation on the proposed Eagle Mountain Landfill and Recycling Center.[7]*
- Effects of project-related desalinization ponds (from the reverse osmosis system) and associated removal of an estimated 2,500 tons of salt from the upper reservoir on land use.

14.5.7 Cultural Resources

- Effects of construction and operation of the proposed project on historic, archeological, and traditional resources that may be eligible for inclusion in the National Register of Historic Places.
- Effects of project's construction and operation on the project's defined area of potential effects.

14.5.8 Aesthetic Resources

- Effects of proposed project facilities on visitors who view the landscape (i.e., Riverside County has designated the section of Interstate 10 from Desert Center to Blythe as a scenic corridor).
- Effects of project construction and associated noise on visitors to the area, including the Joshua Tree NP.

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[7] By letter filed September 12, 2008, Kaiser Eagle Mountain, LLC and Mine Reclamation, LLC state that the landfill facility would be designed to dispose up to 708 million tons of municipal solid waste materials.

14.5.9 Socioeconomics

- Effects of increased traffic and potential congestion on local roads due to existing mining-related traffic, and project construction and operation.
- Effects of the proposed project on local, tribal, and regional economies.

4.2.10 Air Quality

- Effects of construction and operation of the project on air quality in the region.
- Effects of the project on carbon production emissions.

4.2.11 Developmental Resources

- Effects of the proposed project and alternatives, including any protection, mitigation, and enhancement measures, on economics of the project.

REQUEST FOR INFORMATION

The Commission and Water Board staff are asking federal, state, and local resource agencies, Indian tribes, NGOs, and individuals to forward to the Commission and the Water Board any information that will assist us in conducting an accurate and thorough analysis of the project-specific and cumulative effects associated with the proposed Eagle Mountain Pumped Storage Project. The types of requested information include, but are not limited to:

- Information, quantitative data, or professional opinions that may help define the geographic and temporal scope of the analysis (both site-specific and cumulative effects), and that helps identify significant environmental issues.

- Identification of, and information from, any other EA, EIS, or similar environmental study (previous, ongoing, or planned) relevant to the proposed licensing of the project.

- Existing information and any data that would help to describe the past, present, and future actions and effects of the project and other developmental activities on environmental and socioeconomic resources.

- Information that would help characterize the existing environmental conditions and habitats.

- Identification of any federal, state, or local resource plans, and any future project proposals in the affected resource area (e.g., proposals to construct or operate water treatment facilities, recreation areas, water diversions, timber harvest activities, or fish management programs) along with any implementation schedules.

- Documentation that the proposed project would or would not contribute to cumulative adverse or beneficial effects on any resources. Documentation can include, but not need be limited to, how the project would interact with other projects in the area and other developmental activities; study results; resource management policies; and reports from federal, state, and local agencies.

- Documentation showing why any resources should be excluded from further consideration.

The requested information and comments on SD1 should be submitted in writing to the Commission and the Water Board no later than 60 days from receipt of this notice. All written filings pertaining to the proposed Eagle Mountain Pumped Storage Project must clearly identify the following on the first page: **Eagle Mountain Pumped Storage Project (P-13123-000)**. All information, comments, and study requests should be sent to:

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E., Room 1A
Washington, DC 20426
and

Camilla Williams
Division of Water Rights
State Water Resources Control Board
1001 I Street, 14th Floor
Sacramento, CA 95814

All filings sent to the Secretary of the Commission should contain an original and eight copies. Failure to file an original and eight copies may result in appropriate staff not receiving the benefit of your comments in a timely manner. Scoping comments may be filed electronically via the Internet in lieu of paper. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's website (http://www.ferc.gov) under the "efiling" link. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov or toll free at 1-866-208-3676, or for TTY (202) 502-8659. The Commission strongly encourages electronic filings.

Register online at http://www.ferc.gov/esubscribenow.htm to be notified via e-mail of new filings and issuances related to this or other pending projects. For assistance, please contact FERC Online Support.

Any questions concerning the scoping meetings, site visits, or how to file written comments with the Commission should be directed to Kim Nguyen at (202) 502-6105 or by email at kim.nguyen@ferc.gov. Any questions concerning CEQA, the water quality certification, and the California water rights process should be directed to Camilla Williams at

(916) 327-4807 or by email at CKWilliams@waterboards.ca.gov. Additional information about the Commission's licensing process and the proposed Eagle Mountain Pumped Storage Project may be obtained from the Commission's website at www.ferc.gov.

EIS PREPARATION SCHEDULE

At this time, the Commission staff anticipates the need to prepare a draft and final EIS. The draft EIS will be sent to all persons and entities on the Commission's service and mailing lists for the Eagle Mountain Pumped Storage Project. The draft EIS will include our recommendations for operating procedures, as well as environmental protection, mitigation and enhancement measures that should be part of any license issued by the Commission. All recipients will have 60 days to review the draft EIS and file written comments with the Commission. All comments on the draft EIS filed with the Commission will be considered in the preparation of the final EIS.

The major milestones, including those for preparing the EIS, are as follows:

Major Milestone	**Target Date**
Scoping Document 1 (SD1) and meetings	January 2009
Comments on SD1	February 2009
Scoping Document 2 (if necessary)	March 2009
APEA & License Application Filed	March 2009
Issue Ready for Environmental Analysis Notice	June 2009
Deadline for Filing Comments, Recommendations, and Agency Terms and Conditions/Prescriptions	August 2009
Reply Comments from Applicant	December 2009
Draft EIS Issued	July 2010
Comments on the draft EIS due	September 2010
Final EIS Issued	April 2010

If Commission staff determines that there is a need for additional information or additional studies, the issuance of the Ready for Environmental Analysis notice could be delayed. If this occurs, all subsequent milestones would be delayed by the time allowed for Eagle Crest to respond to the Commission's request.

EIR PREPARATION SCHEDULE

At this time, the Water Board anticipates the need to prepare a draft and final EIR. The draft EIR will be made publically available for review and comment. The draft EIR will define

the baseline environmental setting, will include findings for significant environmental impacts, and will provide an analysis of feasible mitigation or alternatives to avoid significant environmental impacts. Recipients will have 45 days to provide the Water Board with written comments on the draft EIR. All comments filed with the Water Board on the draft EIR will be considered, and as appropriate, incorporated into the analysis for the final EIR. The final EIR will be considered in any Water Board notice of determination and water quality certification.

The Water Board preliminary schedule for preparing the EIR and making a certification decision is as follows:

Action	**Target Date**
Request for water quality certification	September 2008
Water Board determination that application for water quality certification is complete	October 2008
Release Notice of Preparation	November 2008
Scoping Meetings	January 2008
Submit Applicant Prepared EIR	March 2009
Draft EIR and draft water quality certification issued	May 2009
Comments on draft EIR and draft water quality certification due	July 2009
Final EIR and final water quality certification	September 2009
Notice of Determination	September 2009

EIS OUTLINE

The preliminary outline for the Eagle Mountain Pumped Storage Project EIS is as follows. The EIR will follow a similar outline, but adapted to address specific requirements of CEQA.

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FOREWORD
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LIST OF TABLES
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- 1.2 Purpose of Action and Need for Power
- 1.3 Statutory and Regulatory Requirements
  - 1.3.1 Federal Power Act

LIST OF COMPREHENSIVE PLANS

Section 10(a)(2) of the FPA, 16 U.S.C. section 803(a)(2)(A), requires the Commission to consider the extent to which a proposed project is consistent with federal or state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. The Commission staff has preliminary identified and reviewed the plans listed below that may be relevant to the proposed Eagle Mountain Pumped Storage Project. The Commission asks agencies to review this list and inform the Commission staff of any changes. If there are other comprehensive plans that should be considered for this list that are not on file with the Commission or if there are more recent versions of the plans already listed, they can be filed for consideration with the Commission according to 18 CFR 2.19 of the Commission's regulations. Please follow the instructions for filing a plan at http://www.ferc.gov/industries/hydrpower/gen-info/complan.pdf.

The following is a list of comprehensive plans currently on file with the Commission that may be relevant to the proposed Eagle Mountain Pumped Storage Project:

California Department of Parks and Recreation. 1998. Public opinions and attitudes on outdoor recreation in California. Sacramento, California. March 1998.

California Department of Parks and Recreation. 1980. Recreation outlook in Planning District 2. Sacramento, California. April 1980. 88 pp.

California Department of Parks and Recreation. 1980. Recreation outlook in Planning District 3. Sacramento, California. June 1980. 82 pp.

California Department of Parks and Recreation. 1994. California outdoor recreation plan (SCORP) - 1993. Sacramento, California. April 1994. 154 pp. and appendices.

California Department of Water Resources. 1983. The California water plan: projected use and available water supplies to 2010. Bulletin 160-83. Sacramento, California. December 1983. 268 pp. and attachments.

California Department of Water Resources. 1994. California water plan update. Bulletin 160-93. Sacramento, California. October 1994. Two volumes and executive summary.

California State Water Resources Control Board. 1995. Water quality control plan report. Sacramento, California. Nine volumes.

California - The Resources Agency. Department of Parks and Recreation. 1983. Recreation needs in California. Sacramento, California. March 1983. 39 pp. and appendices.

National Park Service. 1982. The nationwide rivers inventory. Department of the Interior. Washington, D.C. January 1982.

State Water Resources Control Board. 1999. Water Quality Control Plans and Policies Adopted as Part of the State Comprehensive Plan. April 1999.

U.S. Fish and Wildlife Service. Undated. Fisheries USA: the recreational fisheries policy of the U.S. Fish and Wildlife Service. Washington, D.C.

U.S. Fish and Wildlife Service. Canadian Wildlife Service. 1986. North American waterfowl management plan. Department of the Interior. Environment Canada. May 1986.

U.S. Forest Service. 1986. Cleveland National Forest land and resources management plan. Department of Agriculture, Corona, California. February 1986.

MAILING LIST

The list below is the Commission's official mailing list for the Eagle Mountain Pumped Storage Project. If you want to receive future mailings for the Eagle Mountain Pumped Storage Project and are not included in the list below, please send your request by mail to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Room 1A, Washington, DC 20426. All written requests to be added to the mailing list must clearly identify the following on the first page: Eagle Mountain Pumped Storage Project No. 13123-000. You may use the same method if requesting removal from the mailing list shown below.

California Air Resources Board
PO Box 2815
Sacramento, CA 95812-2815

California Department of Fish and Game

COORDINATOR
1416 9th St
Sacramento, CA 94244

MaryLisa F. Lynch
California Department of Fish and Game
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670

California Department of Water Resources
Department of Safety of Dams
PO Box 942836
Sacramento, CA 94236-0001

California Dept. of Parks and Recreation
CHIEF
PO Box 942896
Sacramento, CA 94296-0001

CALIFORNIA FISH & GAME COMM
ATTN: ENVIRONMENTAL SERVICES DIVISION
1416 9th St
Sacramento, CA 95814-5511

California Office of Attorney General
ATTORNEY GENERAL
300 S Spring St Fl 2
Los Angeles, CA 90013-1230

Matthew R Campbell
California Office of Attorney General
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Sacramento, CA 95814-2919

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California Office of the Governor
Governor
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Sacramento, CA 95814

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Secretary
505 Van Ness Ave
San Francisco, CA 94102-3214

California State Lands Commission
SUITE 100-SOUTH
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Ontario, CA 91764-4922

Perry Rosen
Akin Gump Strauss Hauer & Feld LLP
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Gary W Johnson
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Palm Desert, CA 92261-0170

National Marine Fisheries Service
501 W Ocean Blvd Ste 4200
Long Beach, CA 90802-4221

Kathleen A Smith
Clerk of the Board
Placer County Water Agency
PO Box 6570
Auburn, CA

Office of Planning & Research
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FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426
June 5, 2009

OFFICE OF ENERGY PROJECTS

Project No. 13123-000 – California
Eagle Mountain Pumped Storage
Hydroelectric Project
Eagle Crest Energy Company

Reference: Scoping Document 2 for the Eagle Mountain Pumped Storage Hydroelectric Project

To the Parties Addressed:

On January 10, 2008, Eagle Crest Energy Company (Eagle Crest) filed with the Federal Energy Regulatory Commission (Commission) a Notice of Intent to file a license application, a request to use the Traditional Licensing Process, and a Pre-Application Document for the proposed 1,300- megawatt Eagle Mountain Pumped Project.[8]

The project would be located in two depleted mining pits in the Eagle Mountain Mine in Riverside County, California, near the town of Desert Center, California. The proposed project would occupy federal lands administered by the Bureau of Land Management (BLM) and private lands owned by Kaiser Eagle Mountain, LLC.

On June 16, 2008, Eagle Crest submitted a Draft License Application (DLA). The Commission has reviewed the DLA and provided comments along with many interested stakeholders. These comments can be viewed on the Commission's website at http://elibrary.FERC.gov/idmws/file_list.asp?accession_num=20081015-5009.

On October 17, 2008, Eagle Crest filed a request for approval of an early scoping process to coordinate both federal and California state environmental procedures. The Commission approved this request on October 29, 2008 and will hold early scoping to coordinate the Commission's National Environmental Policy Act (NEPA) with the State Water Resources Control Board's California Environmental Quality Act (CEQA).

[8] Previously, the project was given FERC Project No. 12509-001. Upon issuance of a new preliminary permit on August 13, 2008, the project was given FERC Project No. 13123-000. On March 4, 2008, the Commission approved Eagle Crest's request to use the TLP.

Based on the comments filed for the DLA and pursuant to NEPA, the Commission staff intends to prepare an Environmental Impact Statement for the project, which will be used by the Commission to determine whether, and under what conditions, to issue new hydropower licenses for the projects. To support and assist our environmental review, we are beginning the public scoping process to ensure that all pertinent issues are identified and analyzed, and that the environmental document is thorough and balanced.

On December 17, 2008, we issued Scoping Document (SD1) in which we disclosed our preliminary view of the scope of environmental issues associated with the Eagle Mountain Pumped Storage Hydroelectric Project. Based on the verbal comments that we received at the scoping meetings held on January 15 and 16, 2009, in Palm Desert, California, and written comments we received throughout the scoping process, we prepared the enclosed Scoping Document 2 (SD2). We appreciate the participation of governmental agencies, non-governmental organizations, and the general public in the scoping process. The enclosed SD2 for the project is intended to serve as a guide to the issues and alternatives to be addressed in the EIS. Key changes from SD1 to SD2 are identified in bold, italicized type.

SD2 is distributed to all entities listed on the Commission's official mailing list. SD2 is issued for informational use by all interested entities; no response is required. SD2 is also available from our Public Reference Room at (202) 502-8371. It also can be accessed online at http://www.ferc.gov/docs-filing/elibrary.

For any questions about the SD1, the scoping process, or how Commission staff will develop the EIS for this project, please contact Kim Nguyen at (202) 502-6105 or e-mail at kim.nguyen@ferc.gov. Any questions concerning CEQA, the water quality certification, and the California water rights process should be directed to Camilla Williams at (916) 327-4807 or email at CKWilliams@waterboards.ca.gov. Additional information about the Commission's licensing process and the Eagle Mountain Project may be obtained from our website, http://www.ferc.gov.

Enclosure: Scoping Document 2

cc: Mailing List
Public Files

Section 13.5 – Scoping Document 2

NEPA SCOPING DOCUMENT 2

and

CEQA NOTICE OF PREPARATION

EAGLE MOUNTAIN PUMPED STORAGE HYDROELECTRIC PROJECT

CALIFORNIA

FERC PROJECT NO. 13123-000

State of California
Environmental Protection Agency
State Water Resources Control Board

Federal Energy Regulatory Commission
Office of Energy Projects
Division of Hydropower Licensing
Washington, DC

June 2009

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ACRONYMS AND ABBREVIATIONS

Aqueduct	***Colorado River Aqueduct***
BLM	U.S. Bureau of Land Management
CCV	***Citizens for the Chuckwalla Valley***
CEQA	California Environmental Quality Act
Commission	Federal Energy Regulatory Commission
Districts	***County Sanitation Districts of Los Angeles County***
DLA	draft license application
Eagle Crest	Eagle Crest Energy Company
Eagle Mountain Project	***Eagle Mountain Pumped Storage Hydroelectric Project***
EIR	environmental impact report
EIS	environmental impact statement
FLA	***final license application***
FPA	Federal Power Act
Kaiser	***Kaiser Eagle Mountain LLC***
Metropolitan	***Metropolitan Water District of Southern California***
MW	megawatt
MWh	***megawatt-hour***
NEPA	National Environmental Policy Act
NGO	non-governmental organization
NPCA	***National Parks Conservation Association***
PAD	pre-application document
project	Eagle Mountain Pumped Storage Hydroelectric Project
REA notice	***Ready for Environmental Analysis notice***
Reclamation	***U.S. Bureau of Reclamation***
SD	***scoping document***
TLP	***Traditional Licensing Process***
Water Board	State Water Resources Control Board

INTRODUCTION

The Federal Energy Regulatory Commission (Commission), under the authority of the Federal Power Act (FPA),[9] may issue licenses for terms ranging from 30 to 50 years for the construction, operation, and maintenance of non-federal hydroelectric projects. On January 10, 2008, Eagle Crest Energy Company (Eagle Crest) filed a Notice of Intent to file a license application, a request to use the Traditional Licensing Process (TLP), and a Pre-Application Document (PAD) for the proposed 1,300-megawatt (MW) Eagle Mountain Pumped Project.[10]

The project would be located in two depleted mining pits in the Eagle Mountain Mine in Riverside County, California, near the town of Desert Center, California. See Figure 1. The proposed project would occupy federal lands administered by the U.S. Bureau of Land Management (BLM) and private lands owned by Kaiser Eagle Mountain, LLC.

Following the submission of the PAD, there was a 60-day comment period when interested stakeholders were invited to submit requests for additional studies. In addition, a joint meeting and site visit was held on April 9 and 10, 2008. Transcripts from the joint meeting are available on the Commission's website at www.ferc.gov.

On June 16, 2008, Eagle Crest submitted a draft license application (DLA) to the Commission. Comments on this DLA were filed by many interested stakeholders and can be viewed on the Commission's website at http://elibrary.FERC.gov/idmws/file_list.asp?accession_num=20081015-5009.

On September 26, 2008, Eagle Crest applied to the State Water Resources Control Board (Water Board) for water quality certification under section 401 of the Clean Water Act. For purposes of the California Environmental Quality Act (CEQA), the Water Board will be the California state lead agency for the preparation of an environmental impact report (EIR) for California public agency approvals relating to environmental impacts associated with the proposed licensing of the project. On October 15, 2008, the Water Board determined that the application met the requirements for a complete application and was acceptable for processing.

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[9] 16 U.S.C. §§ 791(a)-825(r) (2000).

[10] Previously, the project was given FERC Project No. 12509-001. Upon issuance of a new preliminary permit on August 13, 2008, the project was given FERC Project No. 13123-000. On March 4, 2008, the Commission approved Eagle Crest's request to use the TLP.

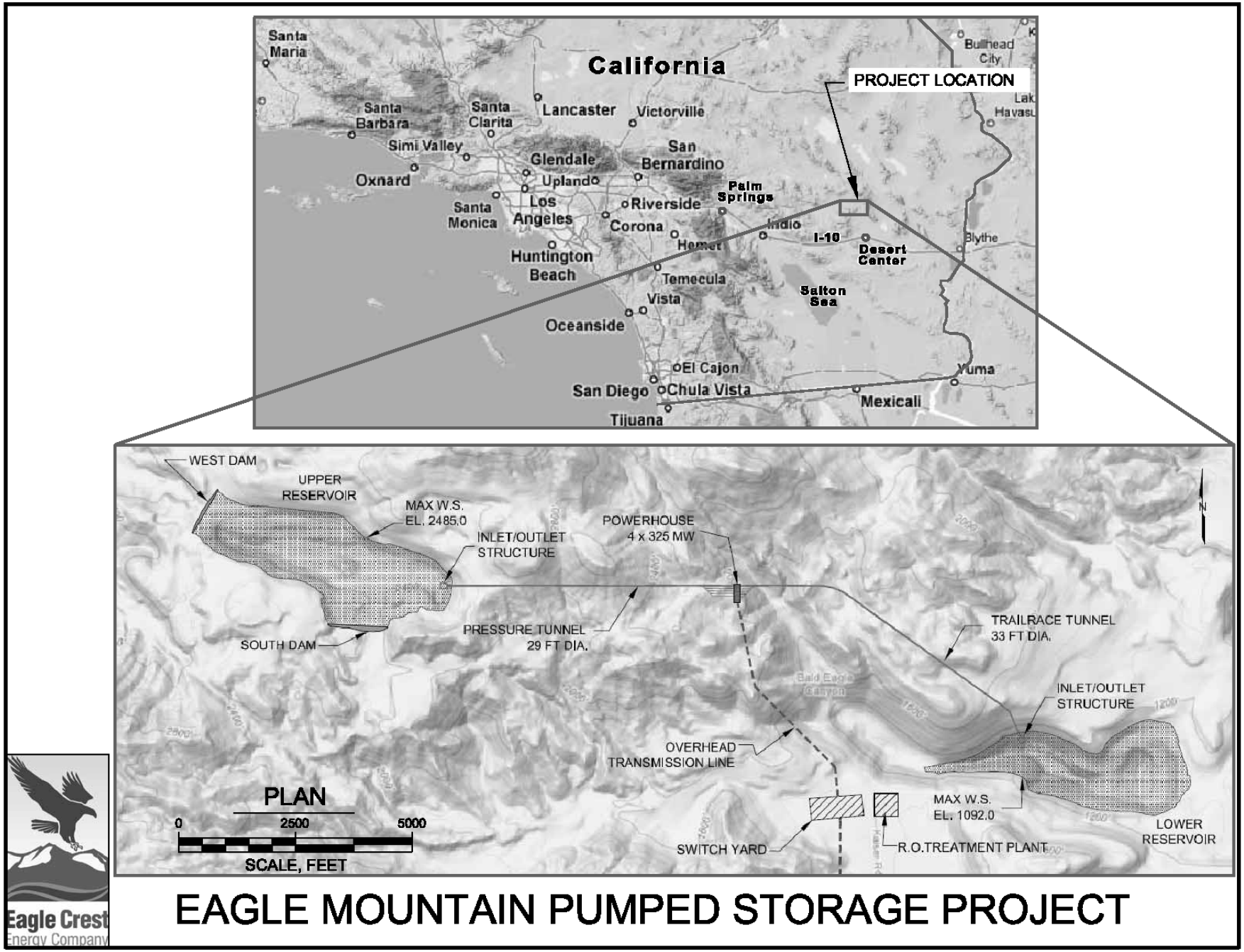

Figure 1. Location of the Eagle Mountain Pumped Storage Project (Source: Eagle Crest Energy Company, 2008).

The National Environmental Policy Act (NEPA) of 1969,[11] the Commission's regulations, and other applicable laws require that we independently evaluate the environmental effects of licensing the project as proposed, as well as consider reasonable alternatives to the proposed action. At this time, we intend to prepare a draft and final environmental impact statement (EIS) that describes and evaluates the probable impacts, including an assessment of the site-specific and cumulative effects, if any, of the proposed action and alternatives considered. This scoping process will help the Commission and Water Board staff to identify the pertinent issues for analysis in the EIS and EIR.

SCOPING

On October 29, 2008, the Commission approved Eagle Crest's October 17, 2008, request for an early scoping process to coordinate the federal and California state environmental review procedures.

2.1 Purpose of Scoping

Scoping is the process used to identify issues, concerns, and opportunities for enhancement or mitigation associated with a proposed action. The process should be conducted early in the planning stages of a project.

The purposes of the scoping process are to:

- invite participation of federal, state, and local resource agencies; Indian tribes; non-governmental organizations (NGOs); and other interested persons to help us identify significant environmental and socioeconomic issues related to the proposed action.
- determine the resource areas, depth of analysis, and significance of issues to be addressed in the EIS and EIR.
- identify how the project would or would not contribute to cumulative impacts in the project area.
- identify reasonable alternatives to the proposed action that should be evaluated in the EIS and EIR.
- solicit from participants available information on the resources at issue.

[11] National Environmental Policy Act of 1969, as amended (Pub. L. 91-190. 42 U.S.C. 4321-4347, January 1, 1970, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258, §4(b), Sept. 13, 1982).

- determine the resource areas and potential issues that do no require detailed analysis during review of the project.

We issued Scoping Document 1 (SD1) for the project on December 17, 2008, to enable appropriate resource agencies, Indian tribes, and other interested parties to more effectively participate in and contribute to the scoping process. In SD1, we requested clarification of preliminary issues concerning the Eagle Mountain Project and identification of any new issues that need to be addressed in the EIS and EIR. We revised SD1 following the scoping meetings and after reviewing comments filed during the scoping comment period. SD2 presents our current view of issues and alternatives to be considered in the EIS and EIR. Additions to SD1 are shown in bold and italic type in this SD2.

2.2 Comments and Scoping Meetings

In addition to written comments solicited by SD1, we held two scoping meetings to identify potential issues associated with the Eagle Mountain Project. The notice of the scoping meetings was published in local newspapers and in the Federal Register. An evening scoping meeting was held on January 15, 2009, and a morning scoping meeting was held on January 16, 2009. A court reporter recorded comments made during the scoping meetings.

In addition to the comments received at the scoping meetings, the following entities filed written comments on the SD1:

Entity	*Date Filed*
Metropolitan Water District of Southern California	*February 10, 2009*
Kaiser Eagle Mountain LLC	*February 13, 2009*
Citizens for the Chuckwalla Valley	*February 16, 2009*
National Parks Conservation Association	*February 17, 2009*
County Sanitation Districts of Los Angeles County	*February 20, 2009*
Riverside County Fire Department	*March 5, 2009*
U.S. Bureau of Reclamation	*March 26, 2009*

All comments received are part of the Commission's official record for the project. Information in the official file is available for inspection and reproduction at the Commission's Public Reference Room, located at 888 First Street, N.E., Room 2A, Washington, DC 20426, or by calling (202) 502-8371. Information also may be accessed through the Commission's eLibrary using the "Documents & Filings" link on the Commission's web page at http://www.ferc.gov. Call (202) 502-6652 for assistance.

2.3 Issues Raised During Scoping

The general concerns raised by participants in the scoping process are summarized below by subject area. Comments received at the scoping meetings are similar to those written comments submitted to the Commission during the comment period. The summary does not include every oral and written comment made during the scoping process. For instance, we do not address comments that are recommendations for schedule changes, or minor editorial corrections. We also have not included comments that are recommendations for license conditions. Such recommendations will be addressed when we request final terms, conditions, recommendations, and comments when we issue our Ready for Environmental Analysis (REA) notice.

Proposed Action and Alternatives

<u>Comment:</u> Kaiser Eagle Mountain LLC (Kaiser), the County Sanitation Districts of Los Angeles County (Districts), and Citizens for the Chuckwalla Valley (CCV) say that the applicant's description of the project is incomplete and lacking in specificity, such that adequate environmental review is not possible. Kaiser and the Districts, for instance, note lack of specificity on transmission line routes and on sources of water for filling and make-up, and the Districts cite lack of information about the project's seepage control, potable water, sewage, and storm water systems, including proposed best management practices during construction.

<u>Response:</u> We will review the project description contained in the final license application (FLA), when filed, and determine at that point whether additional project description information is required for our environmental analysis.

Information Adequacy

<u>Comment:</u> Kaiser and the Districts agree that all the studies listed in SD1 section 3.1.3 are necessary, but argue that a great deal of additional analysis is required to provide the quality and quantity of information necessary to support an adequate evaluation of the project and its effects. Kaiser and the Districts further argue that issues of compatibility with the planned Eagle Mountain Landfill cannot be postponed, but must be addressed in the environmental analysis based on detailed information provided by the applicant. Specifically, the Districts request detailed three-dimensional groundwater flow modeling to identify likely reservoir and tunnel seepage patterns and to identify likely groundwater impacts from groundwater pumping. The Districts also request stability calculations and modeling for reservoir slopes, project dams, and landfill slopes, and along with CCV, they ask for a seismic study using current data and California Department of Water Resources-approved methodology.

Response: ***After the FLA is filed, we will issue a Notice of Application Tendered for Filing with the Commission and Soliciting Additional Study Requests, in response to which participants can provide recommendations for additional studies. We will review any recommendations we receive and also conduct our own review of the FLA and other information in the record in light of the issues identified during scoping. If we determine that information is lacking, we will request the applicant to provide the additional information. Once we have determined that sufficient information is available to evaluate the effects of the proposed project and alternatives on developmental and non-developmental resources, we will issue the REA notice and request final terms, conditions, recommendations, and comments.***

Cumulative Effects

Comment: ***National Parks Conservation Association (NPCA) requests that the EIS and EIR address the potential cumulative impacts of the project in conjunction with the potential Eagle Mountain Landfill, including potential cumulative effects on the desert tortoise and biotic communities, wilderness values, and groundwater. Kaiser states that the effects of the project must be examined alongside its interaction with other effects in the region and in the upcoming years. The Districts insist that the environmental analysis clearly and completely describe the potential direct and cumulative effects to the design, construction, and operation of the landfill. The Districts point out that any simultaneity in the construction of the two projects would create potential additive traffic, air quality, noise, and biological impacts that would need to be described.***

Response: ***We identify water resources, terrestrial resources, land use, recreation, and air quality as resources that could be cumulatively affected by the proposed project, and we have modified section 4.1.1 to include the Eagle Mountain Landfill among the reasonably foreseeable future actions that we will consider in the cumulative effects analysis.***

Geology and Soils Resources

Comment: ***The Metropolitan Water District of Southern California (Metropolitan) recommends an assessment of the potential for Colorado River Aqueduct (Aqueduct) structural settlement due to hydrocompaction associated with potential rising groundwater levels from reservoir seepage. Also, Metropolitan recommends an assessment of the potential for Aqueduct settlement from subsidence due to groundwater pumping.***

Response: ***We modified section 4.2.1 to specifically identify these potential effects.***

Comment: ***NPCA requests that the EIS assess the potential for subsidence in the Pinto Basin of Joshua Tree National Park.***

<u>Response:</u> ***To the extent we determine that the project would affect groundwater levels in the Pinto Basin, we will assess the potential for subsidence in the basin.***

<u>Comment:</u> ***CCV requests comprehensive seismicity studies, including the effect on project facilities such as reservoir liners and brine ponds of potential ground movements. CCV also questions how the project's reservoir liners will perform over time in the face of eroding pit slopes. Kaiser recommends that design ground motions should be established that reflect the site's geologic conditions and seismic setting. Kaiser notes that these are essential input for design of the project facilities and for the evaluation of geologic hazards, such as soil liquefaction potential, seismically induced settlement, and slope stability. Kaiser is concerned that there will likely be seepage from the proposed reservoirs, which would raise groundwater levels and possibly increase the potential for soil liquefaction and induce seismicity.***

<u>Response:</u> ***Our assessment of project effects on geology and soil resources (section 4.2.1) will include analysis of potential geologic hazards, such as increased soil liquefaction, project-induced seismicity, and slope instability. California's Class II surface impoundment siting and construction requirements require that these issues be evaluated for waste discharges to land and are applicable to the project brine ponds.***

Water Resources

<u>Comment:</u> ***The U.S. Bureau of Reclamation (Reclamation) explains that the Secretary of the Interior is required to monitor consumptive use of water extracted from the main stream of the Lower Colorado River, including groundwater. The project's proposed groundwater wells are within the boundary of the Lower Colorado River aquifer. Reclamation requests that the environmental analysis include a prediction of potential groundwater drawdown in relation to the accounting surface elevation of the project area so that Reclamation can determine if groundwater pumped for the project would be considered Colorado River water.***

<u>Response:</u> ***We modified an existing Water Resources' issue to address this comment (see section 4.2.2).***

<u>Comment:</u> ***NPCA states that the Pinto Basin aquifer within Joshua Tree National Park is hydrologically connected with the Chuckwalla Basin. Any drawdown effects in the Chuckwalla Basin could potentially affect groundwater resources in Joshua Tree National Park, potentially including subsidence. NPCA also comments that there is the potential for contamination from the project's residual ore bodies reaching the Pinto Basin aquifer. NPCA and CCV request that the geographic scope of the water resources analysis be expanded to include the Pinto Basin.***

<u>Response:</u> ***We added an analysis of effects to the Pinto Basin under Geology and Soils Resources and Cumulative Effects.***

<u>Comment:</u> ***Metropolitan recommends assessment of groundwater-level effects in the vicinity of the Aqueduct.***

<u>Response:</u> ***We expanded a Water Resources' issue bullet to address this comment (section 4.2.2).***

<u>Comment:</u> ***Metropolitan recommends an assessment of the effects of groundwater pumping on aquifer water quality.***

<u>Response:</u> ***We added this issue to section 4.2.2, Water Resources.***

<u>Comment:</u> ***Metropolitan recommends that the water quality assessment include analysis of the effectiveness of the proposed reverse osmosis method.***

<u>Response:</u> ***We will evaluate the benefits and costs of the applicant's proposed reverse osmosis system, along with the benefits and costs of any reasonable alternatives .***

<u>Comment:</u> ***Kaiser believes that there is a high likelihood of seepage from the project that could affect surrounding land uses, water supply sources, and habitat areas, including potential brine pond leakage effects on groundwater quality. The Districts request reliable reservoir and tunnel seepage estimates, assessment of seepage control systems, and identification of pollutants that would be generated by the project. Metropolitan recommends that the water quality analysis include the potential for leaching of heavy metals from the site and any potential impacts on water supplies traveling through the Aqueduct. CCV asks how the integrity of the Chuckwalla Valley aquifer would be affected by leachate from the combination of the pumped storage project and the landfill. CCV comments that any leakage from the pumped storage project reservoirs could affect the performance of the landfill's leachate collection system.***

<u>Response:</u> ***We will evaluate the potential for seepage from the project and effects of such seepage on adjacent land uses, habitat, and water quality, including heavy metals. This will be done on both a site-specific and a cumulative basis. We clarified in section 4.1.1 that we will consider the potential Eagle Mountain Landfill as a reasonably foreseeable action in the cumulative effects analysis. California's requirements for waste discharges to land include corrective action for potential impacts to groundwater quality and are applicable to the brine ponds.***

<u>Comment:</u> ***CCV indicates that, in the event the project is supplied water from the Aqueduct, there is a relationship between that use and the potential development by Metropolitan of an Upper Chuckwalla Valley Water Storage Project. CCV states that development of the conjunctive use water storage project would potentially result in the deposition of pollutants.***

Response: ***Because we have no information in the record that indicates any direct relationship between the project water supply source and Metropolitan's potential water storage project, we will not assess this issue.***

Comment: ***CCV recommends that the EIS address the potential colonization of the project reservoirs by aquatic organisms.***

Response: ***We modified section 4.2.2 to include consideration of this potential effect.***

Terrestrial Resources

Comment: ***NPCA and the Districts request that the EIS and EIR address the potential for the project reservoirs to affect opportunistic predators, such as coyotes, and their resultant prey species.***

Response: ***We expanded the issue statement in section 4.2.4 to explicitly include effects on predator populations.***

Comment: ***CCV suggests that any aquifer drawdown due to groundwater pumping would affect springs and the wildlife that use them.***

Response: ***We modified section 4.2.2 to include groundwater pumping effects on springs, and we have added an issue statement in section 4.2.4 addressing the potential effects on wildlife.***

Comment: ***CCV states that introducing the project reservoirs in an area where water is currently scarce will have significant impacts on the resources of Joshua Tree National Park. Similarly, Kaiser and NPCA recommend evaluation of the potential effects associated with the introduction of new water bodies in a desert setting. CCV further states that the EIS should address the colonization of the project reservoirs by birds.***

Response: ***We identified the issue of introducing new surface water bodies in a desert environment (section 4.2.4), and we identified species potentially affected.***

Comment: ***CCV requests an assessment of project facilities and operations on raven numbers.***

Response: ***We added an issue statement in section 4.2.4 addressing this issue.***

Comment: ***CCV expresses concern regarding the introduction of non-native vegetation via erosion control activities.***

Response: ***We added an issue statement in section 4.2.4 addressing the potential spread of invasive species.***

Comment: ***CCV recommends that project reservoirs and brine pond(s) be covered to prevent evaporation and to exclude birds and other species. Kaiser requests ecosystem analyses to identify adequate protection, mitigation, and enhancement measures for wildlife and wildlife habitat.***

Response: ***We will evaluate, at a minimum, the measures proposed by the applicant and the recommended measures that are filed in response to our REA notice, as well as any additional measures identified by staff.***

Rare, Threatened, and Endangered Species

Comment: ***NPCA requests that the EIS include an assessment of the potential effects on the desert tortoise due to any subsidence occurring in the Pinto Basin within Joshua Tree National Park.***

Response: ***Our assessment of effects on the desert tortoise (section 4.2.5) will include the potential for effects in the Pinto Basin that may be associated with subsidence associated with groundwater pumping.***

Comment: ***NPCA and CCV recommend that the environmental analysis address the potential for the project reservoirs to subsidize desert ravens, which could have effects on their prey, including desert tortoise.***

Response: ***We revised section 4.2.4 to clarify that we will assess the project's effects on the raven population, and our assessment of potential effects on the desert tortoise will consider these and other predators (section 4.2.5).***

Comment: ***The Districts suggest that the EIS and EIR disclose how the open reservoirs would affect the landfill's ability to comply with the biological opinion for the landfill.***

Response: ***We revised section 4.2.5 to clarify that we will assess potential conflicts between the proposed project and the terms of Kaiser's incidental take statement for the Eagle Mountain Landfill Project.***

Recreation, Land Use, and Aesthetics

Comment: ***Kaiser argues that the environmental analysis must look at the project's effects on existing and reasonably foreseeable adjacent land uses. Kaiser specifically mentions the planned Eagle Mountain Landfill, existing and planned energy facilities in the area, planned uses reflected in Riverside County's General Plan—Desert Center Area Land Use component, and current and potential future mining and mine reclamation activities at Eagle Mountain. Kaiser and the Districts express strong concern that the project and the landfill may be incompatible. The Districts list***

potential areas of incompatibility, including potential regulatory, construction and operational conflicts.

With regard to the existing Aqueduct, Metropolitan recommends that the land use assessment include potential effects of project equipment crossing the Aqueduct conduit during construction and operation, potential effects of the project on Metropolitan's facilities, properties, and rights-of way, potential effects to accessibility and use of existing Metropolitan facilities, and potential effects to Metropolitan's operations, including access for repair and maintenance. Metropolitan requests that any design plans for project facilities in the area of Metropolitan's facilities be submitted to Metropolitan for review and approval. Metropolitan also recommends that certain restrictions be imposed to safeguard Aqueduct facilities and operations.

Response: ***We will address project-related effects on existing and reasonably foreseeable land uses in the project vicinity, on both a project-specific and cumulative basis, and will also evaluate growth-inducing impacts from the project. We expanded the issues list in section 4.2.6 accordingly, including areas of potential incompatibility between the proposed project and the landfill. If our analysis indicates that the project and landfill are not compatible, we will address the implications for solid waste disposal alternatives in other locations. In regard to Metropolitan's proposed restrictions for protection of the Aqueduct, we will evaluate, at a minimum, the measures proposed by the applicant and the recommendations that are filed in response to the REA notice, as well as any additional measures identified by staff based on the project record.***

Comment: ***NPCA requests that the EIS address the potential for the project to degrade the wilderness values of Joshua Tree National Park, including potential degradation of dark night skies, natural soundscapes, and the visitor experience.***

Response: ***We will assess the potential for project-related effects on the visitor experience and the park's wilderness values (sections 4.2.6 and 4.2.8).***

Socioeconomics

Comment: ***CCV states that there will be adverse effects from depleted groundwater and requests assurance that adverse effects on Chuckwalla Valley groundwater users and Joshua Tree National Park will be avoided.***

Response: ***We will address project-related effects on groundwater users (section 4.2.2), and we will assess any proposed and recommended measures to avoid or mitigate any adverse effects identified.***

Comment: ***Riverside County Fire Department (RCFD) commented that the proposed project will have a cumulative adverse impact on the RCFD's ability to provide an***

acceptable level of service. RCFD states that the impacts include an increased number of emergency and public service calls due to the increased presence of traffic, structures and population. RCFD recommends that Eagle Crest participate in the Development Impact Fee Program as adopted by the Riverside County Board of Supervisors to mitigate a portion of these impacts.

<u>Response:</u> We will evaluate mitigation measures, as defined by the County of Riverside, to determine if the impacts can be reduced to a level below significance.

Developmental Resources

<u>Comment:</u> NPCA states that the EIS and EIR should address the need for the project, specifically assessing whether there is potential for the project to operate in conjunction with wind energy sources. Kaiser argues that the environmental analysis must include critical examination of the need for the project and its impacts on existing energy infrastructure and energy resources.

<u>Response:</u> Our developmental analysis will evaluate the need for the power to be provided by the project and will include an analysis of the cost of producing power at the project in comparison to the costs of other potential sources. The project will also be evaluated for contributions to greenhouse gas emissions and how it will meet California's renewable portfolio standards for green energy. The costs of implementing the project, including design, permitting, construction, resource measures, and operation and maintenance, will be used to calculate a unit cost of power for comparison of alternatives.

PROPOSED ACTION AND ALTERNATIVES

In accordance with NEPA and CEQA, our environmental analysis will consider the following alternatives, at a minimum: (1) the applicant's proposed action; (2) alternatives to the proposed action; and (3) no-action. CEQA requires that the levels of significance due to the proposed action be identified.

3.1 Eagle Crest Energy Company's Proposed Action

Eagle Crest is seeking an original license to construct and operate the Eagle Mountain Project. The Commission will consider whether, and under what conditions, to issue an original license for the project. The Water Board will consider whether, and under what conditions, to issue water quality certification for the project.

3.1.1 Description of Proposed Project Facilities

The proposed project would be a pumped storage project using two existing mining pits near the town of Eagle Mountain, California. Water would be pumped from

a lower reservoir to an upper reservoir during periods of low demand to generate peak energy during periods of high demand. The project would consist of the following facilities: (1) an upper dam and reservoir, (2) a lower dam and reservoir, (3) inlet/outlet structures, (4) water conveyance tunnels, (5) a vertical shaft, (6) surge control facilities, (7) an underground powerhouse, (8) a transmission line, (9) water supply facilities, (10) access roads, and (11) appurtenant facilities.

3.1.2 Proposed Project Operation

The project will use off-peak energy to pump water from the lower reservoir to the upper reservoir during periods of low electrical demand and generate valuable peak energy by passing the water from the upper to the lower reservoir through the generating units during periods of high electrical demand. The low demand periods are expected to be during weekday nights and throughout the weekend, and the high demand periods are expected to be in the daytime during week days, especially during the summer months. The project will provide an economical supply of peaking capacity, as well as load following, system regulation through spinning reserve, and immediately available standby generating capacity.

The proposed energy storage volume will permit operation of the project at full capacity for 9 hours each weekday, with 8 hours of pumping each weekday night and additional pumping during the weekend to fully recharge the upper reservoir. The amount of active storage in the upper reservoir will be 17,700 acre-feet, providing 18.5 hours of energy storage at the maximum generating discharge. Water stored in the upper reservoir will provide approximately 22,200 megawatt-hours (MWh) of on-peak generation.

3.2 Staff's Modification of the Proposed Action

The Commission and the Water Board staffs will consider various alternatives, including environmental measures not proposed by Eagle Crest. We will consider and assess all alternative recommendations for operational or facility modifications, as well as protection, mitigation, and enhancement measures identified by the Commission staff, the Water Board staff, the agencies, Indian tribes, NGOs, and the general public. To the extent that modifications would reduce power production from the project, the Commission and the Water Board staffs will evaluate the costs of providing an equivalent amount of fossil-fueled power generation, and the contributions of such generation to airborne pollution and greenhouse gas emissions.

3.3 No-Action Alternative

Under no-action, the Eagle Mountain Project would not be constructed. We use this alternative to establish baseline environmental conditions for comparison with other alternatives.

3.4 Alternatives Considered but Eliminated from Detailed Study

At present, we do not propose to eliminate any specific alternatives from detailed and comprehensive analyses in the EIS or EIR.

SCOPE OF CUMULATIVE ANALYSIS AND RESOURCE ISSUES

4.1 Cumulative Effects

According to the Council on Environmental Quality's regulations for implementing NEPA (40 CFR Section 1508.7), a cumulative effect is an impact on the environment resulting from the incremental impacts of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities.

Under CEQA, a cumulative impact refers to two or more individual effects, which, when considered together, are considerable or which compound or increase other environmental impacts (Cal. Code Regs., tit. 14, § 15355).

4.1.1 Resources That Could Be Cumulatively Affected

After reviewing the ***DLA*** and written and oral comments on SD1, ***we identify water resources, terrestrial resources*** (including federally listed threatened and endangered species), ***land use, recreation, and*** air quality, as resources that could be cumulatively affected by the proposed project ***and other past, present, and reasonably foreseeable actions. The latter could include residential and agricultural groundwater users, the Aqueduct, the proposed Eagle Mountain Landfill, proposed solar energy installations, and other actions that we identify during our analysis.***

4.1.2 Geographic Scope

The geographic scope of the analysis defines the physical limits or boundaries of the proposed action's effect on the resources. Because the proposed action would affect the resources differently, the geographic scope for each resource may vary.

The geographic scope for water resources would be the Chuckwalla Valley Aquifer ***and potentially adjacent, hydrologically connected aquifers such as the Pinto Basin aquifer***. This geographic scope was selected because the groundwater to be used for this project, as well as other reasonably foreseeable projects, would be withdrawn from ***the Chuckwalla Valley aquifer, and we may determine that groundwater-level effects may extend to adjacent basins***. The geographic scope for other resources would

be ***that portion of*** the Chuckwalla Valley and I-10 corridor ***sufficient to encompass all project facilities, and construction and operation effects.***

4.1.3 Temporal Scope

The temporal scope of the cumulative effects analysis in the EIS and EIR will include a discussion of past, present, and future actions and their respective effects on each resource that could be cumulatively affected. Based on the potential term of an original license, the temporal scope will look 50 years into the future, concentrating on the effect on the resources from ***existing and*** reasonably foreseeable future actions. The historical discussion will be limited, by necessity, to the amount of available information for each resource.

4.2 Resource Issues

In this section, we present a list of environmental issues to be addressed in the EIS and EIR. ***We identified these issues, which are listed by resource area, by reviewing the PAD, along with verbal and written comments on scoping.*** For convenience, the issues have been listed by resource area. Those issues identified by an asterisk (*) will be analyzed for both cumulative and site-specific effects. We have concluded that a detailed analysis of fish and aquatic resources related to licensing the Eagle Mountain Project is not needed.

4.2.1 Geology and Soils Resources

- Effects of project construction, ***filling, and operation*** on geology and soil resources ***in the project boundary, including assessment of potential geologic hazards such as soil liquefaction, project-induced seismicity, and slope instability.***

- Effects of project construction, ***filling, and operation*** on soil erosion and sedimentation ***in the project area.***

- ***Effect of project construction, filling, and operation on the potential for subsidence and hydrocompaction in the project area and associated Chuckwalla Valley groundwater basin, including potential effects in adjacent river basins (e.g., the Pinto Basin) and on the Aqueduct.***

4.2.2 Water Resources

- Effects of construction activities on water quality in the project area.*

- Effects of reservoir ***and tunnel on*** seepage ***and*** on groundwater levels ***in the project area.****

- Effects of seepage from the reservoirs ***and brine pond(s)*** on groundwater quality ***in the project area.****

- Effects of groundwater pumping on ***groundwater levels, including assessment of groundwater level changes in relation to: other groundwater users; local springs; the Aqueduct; and Reclamation's accounting surface elevation for monitoring use of Colorado River water.****

- ***Effects of groundwater pumping on groundwater quantity and quality in the project area.****

- ***Effects on long-term water quantity and quality in the reservoirs and brine ponds, including the potential for colonization by avian organisms.***

4.2.3 Aquatic Resources

- No issues associated with aquatic resources have been identified.

4.2.4 Terrestrial Resources

- Effects of the reservoirs as a rare water source in the desert environment on the attraction of waterfowl and bats, attraction of predators (e.g., coyotes, badger, and ravens), and establishment and composition of riparian communities.

- Effects of project construction (i.e., disturbance and habitat fragmentation) and operation (i.e., lighting, physical and noise disturbance, and migration barriers) on desert bighorn sheep migration patterns, foraging habitat, and breeding and lambing behavior; ***including an assessment of*** consequences to desert bighorn sheep populations in the area.*

- Potential effects of the project's reservoirs on deer, big horn sheep, and desert tortoise drowning in the reservoirs, ***and effectiveness of fencing.***

- Effects of the brine ponds on birds, and measures to minimize adverse effects.

- Effects of project construction and operation, including, but not limited to, construction of the access roads, water pipeline, transmission line, powerhouse, brine ponds and reservoirs, staging areas, transmission line pulling areas, and waste spoil and disposal sites on vegetation.

- ***Effects of changes in local springs on wildlife, including desert bighorn sheep.****

- Effects of project construction and operation on the spread of invasive species including the consequences of the spread of noxious weeds on vegetation species composition and wildlife habitat values.

- Effects of project construction and operation on special status species, including BLM sensitive species and state threatened and endangered species.

- ***Effects of project facilities and operations on raven populations.****

4.2.5 Rare, Threatened, and Endangered Species

- Effect of project construction and operation on federally threatened and endangered species: (1) desert tortoise and its critical habitat, (2) Coachella Valley milkvetch.*

- ***Potential conflicts between the proposed project and the terms of Kaiser's incidental take statement for the Eagle Mountain Landfill Project.***

4.2.6 Recreation and Land Use

- Effects of project construction and operation on recreational use within the project area, including lands administered by the BLM for dispersed recreational use and, at the Joshua Tree National Park.

- Effects of project construction and operation on special designated areas, including BLM's Chuckwalla Valley Dune Thicket Area of Critical Environmental Concern, and Chuckwalla Critical Habitat Unit (an area designated by the U.S. Fish and Wildlife Service as desert tortoise habitat), ***and federally designated wilderness areas within the Joshua Tree National Park.****

- Effects of project construction and operation on ***Aqueduct other land uses, including future mineral development, and solar farms.****

- Effects of project construction and operation on the proposed Eagle Mountain Landfill and Recycling Center, ***including assessment of potential areas of incompatibility between the proposed project and the landfill.****

- Effects of project-related desalinization ponds (from the reverse osmosis system) and associated removal of an estimated 2,500 tons of salt from the upper reservoir on land use.

4.2.7 Cultural Resources

- Effects of construction and operation of the proposed project on historic, archeological, and traditional resources that may be eligible for inclusion in the National Register of Historic Places.

- Effects of project's construction and operation on the project's defined area of potential effects.

4.2.8 Aesthetic Resources

- Effects of proposed project facilities on visitors who view the landscape (i.e., Riverside County has designated the section of Interstate 10 from Desert Center to Blythe as a scenic corridor).

- Effects of project construction ***and operation*** on visitors to the area, including visitors ***to wilderness and non-wilderness areas within*** the Joshua Tree National Park, ***and effects on the park's wilderness values.***

4.2.9 Socioeconomics

- Effects of increased traffic and potential congestion on local roads due to ***the combination of existing mining-related and landfill traffic*** and project construction and operation.

- Effects of the proposed project on local, tribal, and regional economies.

- Effects of the proposed project on the Riverside County Fire Department's ability to provide an acceptable level of service.

4.2.10 Air Quality

- Effects of construction and operation of the project on air quality in the region.*

- Effects of the project on carbon production emissions**.***

4.2.11 Developmental Resources

- Effects of the proposed project and alternatives, including any protection, mitigation, and enhancement measures, on economics of the project.

EIS PREPARATION SCHEDULE

At this time the Commission anticipates the need to prepare a draft and final EIS. The draft EIS will be sent to all persons and entities on the Commission's service and mailing lists for the Eagle Mountain Project. The draft EIS will include our recommendations for operating procedures and environmental protection, mitigation, and enhancement measures that should be part of any license issued by the Commission. Recipients will have ***60*** days ***to review the draft EIS and file written comments with*** the Commission. All comments filed with the Commission on the draft EIS will be considered, and as appropriate, incorporated into the analysis for the final EIS.

The major milestones, including those for preparing the EIS, are as follows:

Major Milestone	**Target Date**
Scoping meetings	January 2009
Comments on SD1	February 2009
Scoping Document 2	***June 2009***
APEA & License Application Filed	***To be determined***
Issue REA notice	***4 months from filing of license application***
Deadline for Filing Comments, Recommendations, and Agency Terms and Conditions/prescriptions	***60 days from issuance of REA notice***
Reply Comments from Applicant	***45 days from comments date***
Draft EIS issued	***7 months from reply comments***
Comments on the draft EIS	***60 days from issuance of draft EIS***
Final EIS issued	***7 months from comments on draft EIS***

If Commission staff determines that there is a need for additional information or additional studies, the issuance of the Ready for Environmental Analysis notice could be delayed. If this occurs, all subsequent milestones would be delayed by the time allowed for Eagle Crest to respond to the Commission's request.

EIR PREPARATION SCHEDULE

At this time, the Water Board anticipates the need to prepare a draft and final EIR. The draft EIR will be made publically available for review and comment. The draft EIR will define the baseline environmental setting as the existing conditions, will include

findings for significant environmental impacts, and will provide an analysis of feasible mitigation or alternatives to avoid significant environmental impacts that should be part of the 401 water quality certification. Recipients will have 45 days to provide the Water Board with written comments on the draft EIR. All comments filed with the Water Board on the draft EIR will be considered, and as appropriate, incorporated into the analysis for the final EIR. The final EIR will be considered in any Water Board notice of determination and water quality certification.

The Water Board preliminary schedule for preparing the EIR and making a certification decision is as follows:

Action	**Target Date**
Request for water quality certification	September 2008
Water Board determination that application for water quality certification is complete	October 2008
Release Notice of Preparation	November 2008
Scoping Meetings	***January 2009***
Submit Applicant-Prepared EIR	***June 2009***
Draft EIR	***To be determined***
Comments on draft EIR	***45 days from issuance of draft EIR***
Final EIR	***2 months from comments on draft EIR***
Water Quality Certification	***January 2010***
Notice of Determination	***January 2010***

EIS OUTLINE

The preliminary outline for the Eagle Mountain Project EIS is as follows. The EIR will follow a similar outline, but with additional sections added to address specific requirements of CEQA, which will include identification of growth-inducing and climate change impacts, and levels of significant project impacts. The Water Board will adopt the mitigation measures or will adopt a statement of override.

COVER SHEET

FOREWORD

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LIST OF FIGURES

LIST OF COMPREHENSIVE PLANS

Section 10(a)(2) of the FPA requires us to consider whether or not, and under what conditions, licensing the project would be consistent with relevant comprehensive plans on the Commission's Comprehensive Plan List. Those plans currently listed on the Commission's Comprehensive Plan List which we consider to be relevant to this project are listed below. We ask agencies to review this list and to inform us of any changes (additions/subtractions) that are needed. If there are plans that should be added to the list, agencies should file the plans according to 18 CFR 2.19.

California

California Department of Parks and Recreation. 1998. Public opinions and attitudes on outdoor recreation in California. Sacramento, California. March 1998.

California Department of Parks and Recreation. 1980. Recreation outlook in Planning District 2. Sacramento, California. April 1980. 88 pp.

California Department of Parks and Recreation. 1980. Recreation outlook in Planning District 3. Sacramento, California. June 1980. 82 pp.

California Department of Parks and Recreation. 1994. California outdoor recreation plan (SCORP) - 1993. Sacramento, California. April 1994. 154 pp. and appendices.

California Department of Water Resources. 1983. The California water plan: projected use and available water supplies to 2010. Bulletin 160-83. Sacramento, California. December 1983. 268 pp. and attachments.

California Department of Water Resources. 1994. California water plan update. Bulletin 160-93. Sacramento, California. October 1994. Two volumes and executive summary.

California State Water Resources Control Board. 1995. Water quality control plan report. Sacramento, California. Nine volumes.

California - The Resources Agency. Department of Parks and Recreation. 1983. Recreation needs in California. Sacramento, California. March 1983. 39 pp. and appendices.

State Water Resources Control Board. 1999. Water Quality Control Plans and Policies Adopted as Part of the State Comprehensive Plan. April 1999.

United States

U.S. Fish and Wildlife Service. Undated. Fisheries USA: the recreational fisheries policy of the U.S. Fish and Wildlife Service. Washington, D.C.

U.S. Fish and Wildlife Service. Canadian Wildlife Service. 1986. North American waterfowl management plan. Department of the Interior. Environment Canada. May 1986.

National Park Service. 1982. The nationwide rivers inventory. Department of the Interior. Washington, D.C. January 1982.

U.S. Forest Service. 1986. Cleveland National Forest land and resources management plan. Department of Agriculture, Corona, California. February 1986.

LITERATURE CITED

Eagle Crest (Eagle Crest Energy Company). 2008. Eagle Mountain Pumped Storage Project draft license application. Eagle Crest Energy Company, Palm Desert, CA. June 16, 2008.

MAILING LIST

The list below is the Commission's official mailing list for the Eagle Mountain Project. If you want to receive future mailings for the Eagle Mountain Project and are not included in the list below, please send your request by email to efiling@ferc.gov or by mail to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Room 1A, Washington, DC 20426. All written and emailed requests to be added to the mailing list must clearly identify the following on the first page: Eagle Mountain Pumped Storage Hydroelectric Project No. 13123-000. You may use the same method if requesting removal from the mailing list shown below.

California Air Resources Board
PO Box 2815
Sacramento, CA 95812-2815

Anna Milloy
California Department of Fish and Game
Inland Deserts Region
3602 Inland Empire Blvd., Suite c-200
Sacramento, CA 94244

James Sheridan
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78-078 Country Club Drive, Suite 109
Bermuda Dunes, CA 92203

California Department of Water Resources
Department of Safety of Dams

PO Box 942836
Sacramento, CA 94236-0001

California Dept. of Parks and Recreation
Chief
PO Box 942896
Sacramento, CA 94296-0001

California Fish & Game Comm.
Attn: Environmental Services Division
1416 9th St
Sacramento, CA 95814-5511

California Office of Attorney General
Attorney General
300 S Spring St Fl 2
Los Angeles, CA 90013-1230

Matthew R Campbell
California Office of Attorney General
1300 I St # 125
Sacramento, CA 95814-2919

Cherilyn E Widell, Director
California Office Of Historic Preserv.
1416 9th St
Sacramento, CA 95814

California Office of the Governor
Governor
State Capitol Building
Sacramento, CA 95814

California Public Utilities Commission
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505 Van Ness Ave
San Francisco, CA 94102-3214

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Section 13.6 – Transcript of Scoping Meeting

UNITED STATES OF AMERICA

FEDERAL ENERGY REGULATORY COMMISSION

TRANSCRIPT OF SCOPING MEETING

EAGLE CREST ENERGY COMPANY

PROJECT NUMBERS 13123-000 AND 12509-001

7:00 P.M.

THURSDAY, JANUARY 15, 2009

UNIVERSITY OF CALIFORNIA, RIVERSIDE

PALM DESERT GRADUATE CENTER

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Public Commenters: Page

PALM DESERT, CA - THURSDAY, JANUARY 15, 2009 - 7:01 P.M.

--oOo--

MS. NGUYEN: Good evening. I'd like to welcome all of you to the Federal Energy Regulatory Commission, or "Commission" and the California State Water Resources Control Board, or "Water Board" Joint Public Scoping Meeting for the Eagle Mountain Pumped Storage Project.

My name is Kim Nguyen. I'm a civil engineer with the Commission and project coordinator for the relicensing -- for the licensing -- excuse me -- of this project.

I'd like to take care of some housekeeping items before we get started. This meeting, as you can see, is being transcribed or recorded by a court reporter, Mike here. So to assist him in his report and to make sure that we have a complete and detailed recording of this meeting, please state your name, spell your last name before speaking for the very first time so he can make sure he gets it into the record, or come up to the mike. That would be a preferred mode of communicating.

There are also registration forms on that side of the room that you should also fill out if you're planning to make comments today, and that will also be given to Mike with his -- to help him with his recordkeeping.

Most of our presentation today is from Scoping Document 1, which was issued last month, and I have extra

copies of that, too, so if you'd like to follow along.

Now, let's get started with our agenda. First, we'll have some introductions of my colleagues on the panel.

Then I'd like to give you a background of the filing for the project.

Next we'll discuss the purpose of scoping and our request for information.

Then we'll have a presentation by Mr. Jeff Harvey of Eagle Crest Energy Company. He's going to give us a brief description of their proposed project, including project features and operations, as well as their proposed environmental measures and studies.

After that, we'll discuss the scope of cumulative effects of the project, followed by our preliminary list of environmental issues and concerns.

Next, we'll go over the processing schedule for the Commission's environmental impact statement, or EIS, and the Water Board's environmental impact report, or EIR.

Last and most importantly, we will give all of you an opportunity to give your comments.

With that, I'd like to start with the introductions.

MS. WILLIAMS: I'm Camilla Williams. I work for the State Water Resources Control Board. I'm the unit chief for the Water Quality Certification Unit and the project

coordinator.

MR. MURPHEY: And I am Paul Murphey. I work in State Water Board's Division of Water Rights. I am an engineering geologist.

MR. IVY: My name is Mark Ivy. I'm an outdoor recreation planner for the Federal Energy Regulatory Commission.

MR. TURNER: And I'm David Turner. I'm a wildlife biologist for FERC.

MS. NGUYEN: Okay. Now some background.

On January 10th of last year, Eagle Crest filed a pre-application document, or what we call a PAD, with the Commission, and requested to use our traditional licensing process, or TLP. I'm sorry for all the acronyms, but we're from D.C.

On June the 16th of last year, they also filed a draft license application, or an LA, with the Commission, and the Commission and all the interested stakeholders filed comments on that draft and that was filed in September of 2008.

Also in September, they filed with the Water Board -- they applied with the Water Board for a water quality certification under Section 401 of the Clean Water Act.

On October 15th of last year, the Water Board

accepted their application for processing.

The purpose for scoping and why we're here. The National Environmental Policy Act, or NEPA, the Commission's regulations, and the California's Environmental Quality Act, or CEQA, and other applicable laws require evaluation of environmental effects of licensing hydropower projects.

At this time, we intend to prepare a draft and final EIS that describes and evaluates the probable impact, including an assessment of site-specific and cumulative effects, if any, of the proposed project and alternatives.

The scoping process is part of NEPA and CEQA and is used to help the Commission and Water Board to identify pertinent issues for analysis in their EIS and EIR.

In scoping, we invite participation of federal, state, local resource agencies, Indian tribes, non-governmental organizations or NGOs, and the public to help identify significant environmental and socioeconomic issues related to the proposed project.

Scoping helps us determine resource areas, depth of analysis, and significance of issues to be addressed in our EIS and EIR.

Scoping can also identify how the project would or would not contribute to cumulative effects in the project area. It can identify reasonable alternatives to the scoping action that should be evaluated. With scoping, we

solicit from participants available information on the resource and issues and determine the resource area and potential issues that do not require detailed analysis.

Through scoping, we are asking for information that will assist us in conducting an accurate and thorough analysis. The type of information we request include, but are certainly not limited to, information, qualitative data, or professional opinions that may help refine the geographic and scope of the analysis, identification of any information from any other EAs, EIS, similar environmental studies that are either previously, ongoing, or planned that are relevant to the proposed project, any existing information and any data that would help us describe past, present, and future actions and the effects of the project on other developmental activities in the area, information that would help characterize the existing environment and conditions and habitat, identification of any federal, state, local resource plans, and any future project proposals that are affected in the resource area; for example, the proposal for the construction of a landfill, along with any implementation schedules, documentation that proposed project would or would not contribute to cumulative adverse or beneficial effects of any of the resources, any documentation showing why any resource should be excluded from further consideration.

This information and documentation can be given orally or written today or they can also be mailed and filed electronically with the Commission and Water Board.

Now we'll have a brief presentation from Eagle Crest.

MR. HARVEY: Good evening. Thank you. I'm Jeff Harvey. I'm representing Eagle Crest Energy. And just a couple of slides here to go through the project description.

The project is a 1300 megawatt pumped storage hydroelectric project. That is large! Boulder Dam is about 800 megawatts just by comparison, so this is a large hydroelectric project. It is essential for integration of renewable energy resources in California because it has the ability to store particularly wind and also solar energy that is generated during off-peak periods when there is no demand and delivers that power back to the grid during periods when demand is high and those same wind generation sources are not available.

The reservoirs. The project consists of two reservoirs -- the interconnecting tunnel pipeline and the turbines. And the reservoirs are going to be developed in two existing depleted mining pits at the old Eagle Mountain Iron Mine site.

The only feature on the project will be those two reservoirs and switchyard and transmission line from the

site.

The other features of the project, the underground tunnel works, the turbines, and the underground power connection to the surface switchyard are all deep underground. And then the water supply system -- we'll be developing a series of wells in the middle of the Chuckwalla Valley. All of those wells will be on the surface but they're very small and most people wouldn't recognize them as a project feature. They will all be underground pipelines extending into the lower reservoir site for filling that low reservoir.

The entire project is off stream. It will be filled with groundwater as the initial fill and then we'll make up water. There's no stream; therefore, no aquatic habitat, no wetlands, no fisheries. All of those kinds of issues don't create recreational conflicts. Those are all very unique features of this project relative to traditional hydroelectric development.

And where is the pointer? This is a map view showing the two reservoirs, the lower reservoir to be developed in the eastern pit of the Eagle Mountain Mining site, the upper reservoir and then the underground tunnel works with the penstock dropping down to the powerhouse. Four 325-megawatt reversible turbines there to generate electricity, and then the water is stored in the low

reservoir during off-peak periods. Energy used to pump that water back up to fill the upper reservoir.

I've also shown here on the powerhouse the underground transmission line to the surface switchyard and, from that point, the surface -- there will be a 500-kilowatt transmission line taking power out 12 miles to a new switchyard on the north side of the I-10. I believe it shows up on one of the next maps.

Another feature to point out here is the reverse osmosis treatment system. Because of concerns that were expressed previously by the State Water Resources Control Board about salinity buildup in these reservoirs over time, as water evaporates and the water input is concentrated, the project added a reverse osmosis treatment system that is intended to and designed to maintain the salinity in the reservoirs at the same level as the input water is for all the time. That will produce then -- as we take salt out of the water to maintain salinity, that will produce a salt residual that will go through the brine ponds and that's where that will be collected.

The brine ponds also on this map -- this map is only a couple of weeks old, but it's only in recent days in our discussions with Metropolitan Water District they have raised an issue about the brine ponds being so close to their Colorado River Aqueduct and concerns that they might

leak or that salt would be blown out and affect water in their aqueduct.

In response to their concerns, we are relocating this brine pond closer up here to where the -- where the R.O. treatment plant is with one small change from what you see on this map.

Another thing I would point out on this map, we've got just for schematic purposes both the reservoirs shown as if they were full. In fact, because of the way the pumped storage works with the water being worked back and forth between the two reservoirs, both of the reservoirs will never be full at the same time. One will be full and the other one will be in the inlet pool and then they will alternate to where the other one is full and the remainder is at the inlet pool.

Here is another map showing the regional view. This is the I-10 corridor. This point right here is Eagle Mountain Road about 55 miles due east of where we are right now on the I-10 and to show the -- first of all, land ownership is shown on this map. The purple is Joshua Tree National Park. The beige tone is BLM land. The blue is state lands. And then the white are private lands. Project works are to be located here with the two reservoirs and that just shows you on the previous diagram in the Eagle Mountain Mine site transmission line coming out, down Eagle

Mountain Road. We tried to co-locate it as much as possible around the existing town site and along existing utility and roadway corridors down to a new switchyard here on the north side of the I-10.

Other features here are the water pipeline, the -- out in this area, we have negotiations underway with several property owners right now. In this general area, we have multiple properties that we are negotiating to acquire for development of project wells and those wells and a collector pipeline brought down co-located again with the State Route 177 to the existing Metropolitan Water District transmission line, a 230K transmission line, and then brought along that same corridor up to Kaiser Road and up to the lower reservoir for the initial fill. The pipeline only will go to the lower reservoir for input and then, from there, water is pumped up to the upper reservoir through the reversible turbines.

What else does this show on this map? I think that's it.

MS. NGUYEN: I'm sorry, Jeff.

MR. HARVEY: Yes.

MS. NGUYEN: Before you go on, I see that you have a transmission alternative, which is the dotted yellow, --

MR. HARVEY: Thank you for bringing that up, Kim.

MS. NGUYEN: -- and the preferred one, which is the red. So can you give us an idea of why those two are different?

MR. HARVEY: I appreciate that. In the draft license application which was released in June, at that time as we were working with transmission planning, the notion was to bring the transmission line out parallel to the existing MWD transmission line crossing the I-5 and picking up the existing 500KV Palo Verde to Devers corridor and out just about ten, 15 miles west of Blythe to a new substation that is approved but not yet built, the Colorado River Substation, part of the Southern California Edison system, and that was the most logical connection point.

As we now have worked over the summer with the California Independent System Operator, the agency responsible for development and management of the transmission grid in California, and with Southern California Edison, the utility that operates most of this transmission grid, they recommended that we locate the new switchyard in this location instead of coming over here and their reasoning was that there are a number of solar wind projects in this area and that it would take steps, therefore, to connect all of those to their own switchyard and there are a number of -- a large number of solar projects proposed in this area that will be all the capacity

that this would -- this switchyard substation should have.

So for that reason, we have eliminated this route in favor of the -- of the 12-mile route to the new substation south of our site.

Profile view showing you the upper reservoir, the upper reservoir tunnel to the vertical shaft and penstock down to the powerhouse where the turbines are located and then the tunnel out to the lower reservoir. This line is the surface -- excuse me -- the ground surface contour and the east pit or outer lower reservoir where water will be filled. Water will be pumped in and up into the upper reservoir where it will be stored and then during peak energy demand on a daily basis, that water will be released back down the reversible turbines generating electricity rather than pumping water and brought back to the lower reservoir.

General description of project operations is that we generate electricity during periods of high energy demand and pump water back during low energy demand.

The system is what we call a closed loop system, meaning once you get the initial fill of water, there is no new input of water. There's no diversion as, for example, on a stream project. This is just working water back and forth constantly between these two reservoirs. There is some loss from evaporation. There is some loss from

seepage. I'll talk in a minute about how we're addressing particular seepage and to minimize that, but there is some loss from seepage. Together, those losses will be accounted for with annual makeup water. So we have 25,000 acre feet for the initial fill that will happen over a period of two to three years and then with our 2500 acre feet of annual makeup water to account for those evaporation and seepage losses.

I've already shown you on the diagram the reversible turbines. They are deep underground. Nothing will be seen at the surface of those, and they're reversible to pump up during off-peak and to generate electricity during peak.

And one key about this project is that there's a lot of renewable energy the State of California has mandated, with what we call renewable portfolio standards, that we have 33 percent of our energy comes from renewable sources by 2020 -- that's only 11 years from now. Those are not reliable sources. Wind is great when the wind is blowing. And solar is great on sunny days, and it doesn't do much on the weekends. We can take that wind energy that's being generated at night when there's no demand for it and we can take that weekend solar power and use that power to pump water back up into the upper reservoir where that energy is then stored to produce hydroelectricity on

demand, whatever is needed. We'd open a gate and during peak energy periods produce electricity. So that is the role that this project plays in helping with the transmission grid operators and the utilities to help to integrate those renewables and maintain a reliable energy system in California.

Proposed environmental measures and studies. We have actually a great number of studies that we have undertaken and we have more that are underway right now and we have several others that we have a scope developed for but pending completion of this formal scoping process and our determination of the whole range and the extent of what those things should be that we are prepared to complete over the next several months.

There are a number of features of the project that we have built in in response to what we know are environmental concerns. This project was -- went through the FERC process in the '90s in an earlier iteration and a lot of the same issues that we face today emerged at that time, so that as we came back to this project after all the uncertainty in the California energy markets in the '90s, with electric restructuring and other things that happened, we are now an integral part of California in making its renewable standards -- we've been able to take the benefit of all of those years of studies and at this site in

particular we have the Eagle Mountain landfill, all of the environmental studies that were done for that that would help us understand environmental parameters. We also have a number of large transmission projects that have been proposed and several of which have been approved in the exact same corridors and area that we are looking at, so we're able to draw upon those to identify environmental issues and to identify the kinds of measures that are used to address those.

As a result, we have a wide range of features in our project that are intended to address environmental concerns.

First of all, on water quality, the big concerns were the salinity buildup and -- of the reservoirs and how that could contaminate the downstream aquifer. There were also MWD's concerns about possible contamination of that aquifer by, I mentioned a moment ago, the brine ponds possibly affecting seepage as a factor of saturating soil below the aqueduct and that saturation causing the soil to settle, called hydrocompaction, that would cause the flow of their aqueduct to be impaired. So those are the kinds of concerns that they had brought up. All of those we have addressed.

First of all, I already mentioned the reverse osmosis system, the most important feature, tremendously

expensive for most projects because you use a lot of energy to force water through the membrane to get the reverse osmosis treatment. In our case, we have 1500 feet of head between the upper reservoir and the lower reservoir. We can use that routing pressure to force water through those membranes. We can treat that water. We don't have the energy demand, therefore, so it makes it very feasible for us to have the reverse osmosis treatment system and maintain that water quality in order to prevent salinity buildup and degradation of the water.

We also have a whole program of seepage control both to address the State Water Resources Control Board's concerns for groundwater quality, we had to address Metropolitan Water District's concerns for an aqueduct, and those include grout curtains in the reservoirs themselves to minimize -- we use the fine materials that are in the mine tailings around the site to actually create a barrier to reduce the amount of seepage from the -- from the reservoirs themselves, from the mine pits. We will have -- in some places, we'll go in -- as we get to the final engineering design, we'll go in and evaluate those pits and find where there are cracks and fissures that we may need to fill first with concrete before we do the grout curtains.

And then after those seepage control measures within the reservoirs themselves, we also have a series of

wells or one well upstream of each one of the reservoirs and then a series of wells, maybe three, maybe five. That will be determined as part of the studies that we have ongoing and it will be determined in consultation with the State and with Metropolitan.

We will have a set of wells that basically line the front of the reservoir that we will use to detect seepage water and to recover that water, to pump it back and put it right back into the reservoirs. And, remember, it's in our interest, too. The more water we lose, the more water we have to pump back in and that's in the project expense so it's as much as in our interest as it is in environmental interests for us to control that seepage and to maintain the water in the reservoirs.

Other water quality measures -- construction management. We will have tunnel boring for the tunnels that I showed you in the system. We'll have other earth-moving that will create spoils piles that we'll have to manage during the construction period. The location of those will have to be decided so that we avoid desert washes and we also have to manage them in a way that indeed no runoff from those discharges sediments into jurisdictional waters of the State and of the U.S. We will have -- we have that list of best management practices that we will be presenting in the environmental document.

Last but not least -- I think last -- is on our transmission -- the water pipeline will be buried. That will be a simple trench and then the water pipeline buried. So the temporary impacts during construction will be managed again using best management practices. For the transmission line, the transmission line -- the towers are large. They're about 130 feet tall, but they're really only four big concrete footings. That's the total footprint on the ground. And we have the ability -- the spacing on those is usually around 5- to 800 feet. We have the ability to adjust that somewhat to make sure we're not putting footings right in desert washes and so we can avoid sensitive cultural resources and sensitive biological resources and the waterways by varying the spacing of our towers as we do the final layout of them.

Am I missing other water measures? I think that's most of them.

We also will have a monitoring program for groundwater in the -- in the Chuckwalla Valley and for all of those seepage waters, so we'll have regular data collection so we can confirm that we are managing the water quality at the level that the water quality is at in surrounding waters right now.

One other thing, in the selection of our well field, we have identified lands that we can locate wells

that will be spaced about a mile apart. When a well starts pulling groundwater, it makes a cone called a conar depression out some distance from the well. We want to make sure that those cones aren't overlapping with each other of our own wells. We also want to make sure that our wells are located distanced enough from other people's wells -- farmers and others that have wells out in the area -- so that we're not interfering with the operations of their wells with the going on of ours. So it's another one of the water features that we've built into the project.

Sensitive species and cultural resources. We are aware there are a number of state and federally listed and protected species. There are a number of sensitive habitats in our management plans and cultural resources are a very important part of all of the Chuckwalla Valley. The mine site itself is not sensitive, but obviously with the level of excavation and disturbance that has occurred there, but all of the lands around, that is an issue.

We have conducted surveys for both biology and cultural resources of almost all the project features. There are several more that we will be finishing this spring, particularly of the new transmission line corridor as we mentioned. We changed that alignment, so we need to conduct spring surveys -- biological surveys need to get a spring, cultural can be done without regard to season.

And we have that alignment now defined. We also will have in the coming weeks as we finish negotiations on our properties for wells, we'll be able to have surveys done from the well sites along the water pipeline corridor and into Eagle Mountain.

So those are the others. We understand that we will have to mitigate for desert tortoise habitats and that we may have to adjust footprints on some of our staging areas, some of our routing in response to cultural and biological resources. Those are very standard practices and -- as has been done for other projects and other transmission projects that I mentioned.

So those are the measures that we are proposing there.

One of the other analyses that we are undertaking, there is a landfill that has gone through a whole environmental permitting process. It is now, as we understand it, pending outcome of litigation as to whether or not that landfill project will go forward or not. The landfill owners have -- have raised questions about whether or not our project is compatible with theirs and believe that we may interfere with their landfill operations, so we have undertaken an analysis to show our project features and how we construct our project relative to how they would operate and utilize their landfill and the timing that we'll

need to construct versus the timing of when they would initiate their landfill. So all of that will be part of the analyses that goes into the EIR and EIS to demonstrate legally conclusively that our project is entirely compatible and is not mutually exclusive with the landfill project.

Other resource issues that we addressed in the EIS and EIR that we've either developed a scope on or undertaken some traffic during construction. It's a temporary impact. It's not a long-term impact of the project but it's still one of the things we looked at, air quality and air emissions during construction, noise of construction. Most of where we are is very remote. The roads into the site from I-10 don't go through urban areas. This should be a pretty straightforward analysis, but they'll be done.

State of California has also recently offered changes to its California Environmental Quality Act Guidelines that require now analyses of a project's contribution to greenhouse gases and global climate change, and that will be another one of the analyses that we develop. This project began as a hydroelectric project. Minimal issues for that. We will show a net benefit in terms of how we integrate renewable energy sources, but the analysis will be done and documentation needs to be included.

Ginger, help me out. Am I missing anything critical or is that the list?

Another one of the analyses that has to be done that we've undertaken already for some, obviously, as I pointed out, you're not going to see any of this project unless you're flying over. You'll see the reservoirs. You will see the transmission line and we do have an aesthetic analysis particularly focused on that transmission corridor.

Any others? I think that's it. So that's where we are in terms of studies and environmental features that we've built into the project.

And, Kim, is this back to you for scope of cumulative effects?

MS. NGUYEN: Yes.

MR. HARVEY: Very good. Thank you.

MS. NGUYEN: Next on the agenda, we would like to discuss the scope of the cumulative effects. Based on our preliminary analysis of the draft license application, we have identified water resources, desert big horn sheep, and desert tortoise, land use, and air quality as a resource that could be cumulatively affected by the proposed project, in combination with other activities in the Colorado River Basin.

At this time, we also propose that the geographic scope for water resources to be the Chuckwalla Valley

Aquifer, the geographic scope for the big -- desert big horn sheep and the desert tortoise and land use and air quality would be the Chuckwalla Valley and the I-10 corridor east to Blythe, California.

For temporal scope, the temporal scope of our cumulative effects will include a discussion of past, present, and future actions and their respective effects on each of these resources.

Based on the potential term of an original license, the temporal scope will look at a range from 30 to 50 years into the future.

At this time, we'd like to -- we have identified the following resources that may be affected by this project, and I'd like to go over the first four -- geology and soils, aquatics, cultural, and developmental -- and then my colleagues, too, on the panel will discuss the rest.

For geology and soils, we'd like to look at the effects of the project construction on geology and soil resources of the area, obviously, and the effects of the project construction on soil erosion and sedimentation.

For aquatics, as Jeff had said, there are no issues associated with aquatic resources at this time.

For cultural resources, any effects on construction and operation of the project on historic, archaeological, and traditional resources that may be

eligible for inclusion in the National Register of Historic Places.

The effects of the project construction and operation on the project's defined area of potential effects.

As far as developmental resources go, we always look at the effects of the proposed project and the alternatives, including any protection, mitigation, and enhancement measures on the economics of the project.

We'll turn it over to Paul.

MR. MURPHEY: Yes. For the water quality and water quantity effects, we will be looking at the effect of the reservoir seepage on groundwater levels. We also looked at the effects of groundwater pumping on the groundwater users in the Chuckwalla Valley Aquifer. That would include agriculture users in that aquifer.

We also will be looking at the effects of pumping on the regional groundwater levels not only in the Chuckwalla Valley Aquifer but also the joining of Pinto Basin Aquifer, which is in Joshua Tree National Park.

We also look at the seepage from the reservoirs on groundwater quality and the effects of the brine ponds on groundwater quality, potential seepage from the brine ponds.

We will also look at the long-term water quality in the reservoirs and the effects of the construction

activity on the water quality in the project area.

As for the air quality effects, we will be looking at construction and operation of the project on air quality in the region and also the effects of the project on carbon production emission as well.

And for the terrestrial, I believe Mark -- oh, no, not Mark.

MR. TURNER: We're going to be looking at a number of resources, and I don't know if you've got the scoping document in front of you but, rather than read it to you, I'm just going to kind of summarize it. But on page 13 and 14 are the issues that we've been talking about, as well as all these others that we've kind of reprinted for you or kind of regurgitated.

But as all of you recognize, and this is interjecting a new water system into basically a dry desert, so it carries with it certain effects, and we're going to be looking at how those new resources are affecting wildlife and the vegetation and the critters that are inhabiting that reach -- inhabiting that area of the desert.

We're going to be looking at how project construction effects, including -- in terms of disturbance, lighting, and all those other factors may be affecting desert big horn sheep and other critters like deer and the desert tortoise.

And there's some effects associated or been some concerns raised with drowning associated with the project reservoirs on desert big horn and deer and desert tortoise as well.

The brine ponds themselves, as they develop salinity, can represent some rather unique issues for migratory birds, their attraction associated with that and the salinity of those can actually be kind of harmful to birds, so we are looking at those effects.

We'll be looking at the effects of project construction and operation of all the other aspects of the construction, including access roads and water pipeline and the powerhouse and sewage disposal on vegetation and other wildlife, as I said.

Any time you introduce construction and human activity, you have the chance of spreading noxious weeds, so we're going to be looking at those potential effects and what measures might be used to minimize those effects.

And then we're going to be looking at -- and, in particular, we're going to be looking at any special status species associated with BLM or the State of California.

And we also have some obligations under the Endangered Species Act to ensure that our actions don't jeopardize the continued existence of federally-listed species. And, in this case, we've identified the desert

tortoise and the Coachella Valley milkvetch as two species that have been identified as potentially occurring in the area and need to be addressed.

And, with that, I'll turn recreation and land use over to Mark.

MR. IVY: Okay. Well, the recreation and land use issues, so we are going to be assessing, first, looking at how the project construction and operation are going to impact recreational use of both the Joshua Tree National Park or National Monument -- sorry --

MR. SABALA: National Park.

MR. IVY: It is National Park? Okay. Good. Get that straight. That's an important distinction. Okay. National Park, and the BLM.

And both of those have designated wilderness areas in them, so we want to look at the impact of people that are using those areas.

We also want to look at project construction operation on the Chuckwalla Valley June Thicket area, a critical environmental concern, as well as the Chuckwalla Critical Habitat Unit.

Additionally, we'll be looking at the effects of project construction and operation on other land uses, including future mineral developments and there's about a 15,000-acre solar farm that has been proposed in the area.

Additionally, there's an effect of project construction and operation on the proposed Eagle Mountain Landfill and Recycling Center, which was also discussed earlier, and the effects on the project related to desalinization ponds and associated removal of an estimated 2,500 tons of salt from the upper reservoir on land use in the area.

Additionally, I'm looking at aesthetic resources. We'll look at the effects of the project facilities on visitors who can view the landscape, like Riverside County has designated the section of Interstate 10 from Desert Center to Blythe as a scenic corridor, so how will this project affect that scenic corridor?

The effects of project construction and associated noise on visitors to the area.

And the final area we'll look at is socioeconomics. That's the effects of increased traffic and potential congestion on local roads due to existing mining-related traffic and project construction and operation, as well as the effects of the proposed project on local, tribal, and regional economies.

MS. NGUYEN: Okay. Next on our agenda is our tentative EIS preparation schedule and, as you can see, after the comments that we'll get from here and tomorrow's meeting, we probably most likely will issue a scoping

document, too, in March.

Also in March, the Applicant's going to be filing their license application and, with that, an APEA, which is an applicant-prepared EA, and then once they file that, we issue what's called a ready for EA notice if the application and the APEA has everything that we need to -- this is -- June 2009 is our way of saying, Okay, we have everything we need and we're ready to do our analysis.

And then in August of next year -- this year -- we'll get comments, recommendations, and terms and conditions from all the local agencies, local, state, and federal agencies.

And then the Applicant has a time period to reply to those comments.

And our draft EIS is tentatively scheduled to be issued in July 2010, followed by a comment period then, and then a final due out in April of 2010.

MR. TURNER: While we've kind of -- while Kim's talked about that in terms of receiving comments on the -- in response to the REA notice from agencies, that also includes the public and anybody else that wants to comment on the application, and we'll be considering those.

There's a couple different places here that you need to be aware in terms of commenting, and that is now in terms of letting us know what your issues are, what things

we need to be considering, have we missed anything in particular.

The REA notice, once the application comes in, is again saying, We think we have everything we need. Now, again -- once again, please tell us what you have based on your review of their application, what you think still needs to be addressed or your recommended measures for dealing with those issues.

We'll prepare a draft environmental impact statement. You get your chance then again to review our analysis and our recommendations that we provide to the Commission on how that we might license this project or not license this project.

And we'll produce a final EIS that basically takes all those comments into consideration and puts forth our recommendations to the Commission. The Commission ultimately makes that decision in terms of whether or not to license a project, and the Commission is, most of you guys probably do know, is a five-member board appointed by the President representing both parties and they are the ones that actually issue the license. Staff reviews this and produces an environmental assessment or impact statement that talks about -- under NEPA, it talks about the environmental effects and makes recommendations to the Commission. So, with that, they make their decision on the

license.

MS. WILLIAMS: With respect to the state schedule, we're hoping -- the request for water quality certification was made back in September and we evaluated the preliminary request and decided that we could proceed with processing.

We identified some preliminary areas of concern and that's -- that included construction management as well as water supply, water quality issues. A lot of those mitigation measures had already been put forward.

So as we are moving forward with the water quality certification process, we have -- it is -- the state law and regulations require that we meet all the requirements of the California Environmental Quality Act and, as state lead agency, we are going to not only be concerned with potential impacts to the groundwater, to any potential surface water impacts, but also biological, cultural, and related issues.

We are hoping -- we are working to -- on this project and we're hoping to focus on this this year and get out the -- the Applicant-prepared EIR will be submitted in March. And then what we are planning to do as a state agency, we are going to proceed forward, if everything stays on schedule, with the draft EIR and, at the same time, prepare a draft water quality certification and all of our

mitigation measures and conditions for protection will be in that draft EIR and what we're going to do is take the public review process that's required by CEQA and circulate the draft EIR at the same time -- or circulate the draft water quality certification along with the draft EIR so that any of the interested parties and any of the other agencies can look at it and provide us comment.

And as the Commission had stated, that that is going to be a key opportunity for the public to make their concerns known to us as well as agencies or NGOs, non-governmental organizations, on that draft EIR and draft water quality certification. And as lead agency, that's really, really critical for us to get your input on that, so we encourage you at that time to let us know what your concerns are.

And then once we get that process and evaluate, we have under the California Environmental Quality Act time limitations and we have to respond to comments in order to prepare the final EIR.

The regulations associated with the Water Quality Certification Program require that we have a final CEQA document before we issue a draft -- a final water quality certification. So that's why we want to have the final EIR go forward, at the same time the water quality certification. We can't -- we could do the water quality

certification later but, again, I'm stressing the fact that we want to take advantage of this public process under CEQA to fine tune our water quality certification and we're hoping that we can get all this done this September.

MS. NGUYEN: As Dave has already mentioned, this is a good opportunity for you to provide comments. And if you would like to do them in writing, they must be filed with us no later than February the 16th and this is the address and it's also in the Scoping Document 1. And just to make sure you have the project name and number on -- clearly identified on the first page of this filing.

So February the 16th is the next big due date for comments on the scoping document.

And now to the meat of the meeting, why we're here. We're here to get your comments. We're here to collect data to help us in our analysis. So I'd like to open it up to comments from all of you, please.

MR. SABALA: May I ask a question?

MR. TURNER: Can you come up to the microphone?

MS. NGUYEN: Is that okay or can I give you a cordless mike?

MS. CHIRIACO-RUSCHE: I can come right now.

MS. NGUYEN: Okay. Great. Thank you.

MR. TURNER: If you can come up to the microphone. It goes straight into the dictaphone there, so

it would be great. It's a pain, but it gets part of the record.

MS. CHIRIACO-RUSCHE: No. It's fine.

MS. NGUYEN: Thank you for accommodating.

MS. CHIRIACO-RUSCHE: Let's see. You want my name spelled. It's Margit Chiriaco-Rusche, M-a-r-g-i-t, C-h-i-r-i-a-c-o, R-u-s-c-h-e, and that's it.

Okay. And I'm from the Chiriaco Summit area. I serve on the Chiriaco Summit County Water Board. And I want to address this project as a concerned citizen for the area. It sounds to me like it is a good means for alternative energy, but is it really.

I haven't heard anything that this project, which is proposed for Kaiser Mine, are they working with Kaiser Mine? Is there an agreement? I haven't heard anything about that. If not, how can you just come in and use their property?

I know that for many years, there's been a landfill planned for the mine. How are these projects compatible? Trash and water don't seem to me like they really go together. And how much water will it really take? In California, water is gold. It's the liquid gold of California, and no one knows it better than we that live in the desert.

To me, it seems that the wells that they intend

to draw from will deplete the Chuckwalla Valley reservoirs of water. It doesn't seem to make a lot of sense to take water to make electricity in that way whereby they may be depleting the water and producing energy at this time that they could produce other -- in other ways in other areas. We have lots of sun, there's lots of sun for solar out there. It isn't just a weekend kind of thing. We have sun every day of the year in our desert.

And I'm curious about how much power it would take in fact if this were a viable project to pump the water and will the product, the end product, actually be more or less than what the cost is to pump. I feel like maybe -- maybe there is going to be -- that it won't be cost-effective to do that.

It seems to me like you'll be pumping for a long time just to fill the pits. How long would that be? Those are huge pits. Is it possible that you will -- that they will use more electricity than is created by the project? And that's a very big concern.

Has an environmental engineering study been done? What happens if one of the dams breaks in the area? Have the potential consequences really, really been studied?

And that's just my concerns as just a concerned citizen in the area. We've been watching some of this for a long time. We have a small well at Chiriaco, too, that's

impacted. We know, too, that there were a lot of wells drilled in the Valley between our place and Desert Center by MWD. We know that didn't turn out to be a very viable thing to do in terms of creating the underground aquifer or maybe, you know -- maybe it is. I don't really know a lot about that.

But there are I think serious concerns for the water in our area and it seems to me like it's a very, very big project if they're comparing it to Boulder Dam in terms of energy. And I just -- it just seems a little bit off the wall to me as -- I'm just an ordinary citizen, though, and I'm not an engineer, but I need to ask those questions and I hope that you will take those and study them and also the idea that is Kaiser involved in this. I haven't heard anything about that.

So I'd like that cleared up as well. Thank you.

MR. TURNER: Thank you.

MS. NGUYEN: Thank you very much.

MR. TURNER: You had a comment? You want to come up?

MR. SABALA: I actually had a question before I get up --

MR. TURNER: Can you come up to the microphone.

MR. SABALA: Pardon me?

MR. TURNER: Can you come up to the microphone.

MR. SABALA: Oh, sure. Might as well. It was mentioned that this was a 1300 megawatt production facility. After you subtract the energy it takes to pump the water up, what is the net production of electricity?

MR. HARVEY: The 1300 megawatt rating is the maximum amount of electricity to be generated at one time if all four --

THE REPORTER: Can I get your name?

MR. SABALA: I'm sorry. Luke Sabala, S-a-b-a-l-a.

THE REPORTER: Great. Thank you.

MR. SABALA: And I'm a physical scientist at Joshua Tree National Park.

MR. HARVEY: The 1300 megawatt rating for the project is the maximum amount of energy that can be generated when all four of the turbines are in full spinning mode 325 megawatts each. The comparison with Boulder Dam was only to give that total amount of power generation versus Boulder. In fact, Boulder might produce more energy. It's up and running more often than this project is going to be used. This project will be operating only about half the day and then pumping back the other half of the day.

The pumped backup energy does require more energy to pump water back than is produced. But the difference is that you're taking energy that's in the system as baseload

that isn't being used and as off-peak renewable energy that's wind turbines that are spinning or weekend solar power -- I know the sun shines all the time -- we would not be able to use any of the daytime weekday solar power generated -- excuse me -- to pump our water back because it wouldn't generate electricity at the same time. So I didn't mean to say that there wasn't solar power during the week. There is. It's just not that would be available to us. So it's the difference in being able to make that energy that otherwise is not useful to the system, make it useful to the system. And then we'll also explain that you are using more energy for the pump-back, but there is a price differential on the peak versus off-peak. More important than that, though -- that's not what is the role of this project -- there are four features of this project relative to operation of the grid and of the generation utility system that are essential to the performance of how we operate it and what the project is compensating for and those are called load following, spinning reserve, voltage regulation, and black start, and those are features in an operating system that as load demand goes up, utility systems has to dispatch more power to meet that load. And there has to be power plants that are online and ready to go or at least ready to go. They can immediately be dispatched to follow that load curve and can immediately be ramped down as that

load curve declines in off-peak periods. And many of those are passed off in what's called spinning reserves. They're up and ready to go so that when -- and get paid for that spinning reserve. So you've got wind being generated, so you have to have backup power. You have to have power that's -- that's the way it gets paid for.

And then particularly wind but other parts of the system, there's a flux in the air you can generate into the system and you have to -- that's not the way that we want our lights to be on. It's not the way we need our hospitals to operate. We want consistent, clean -- our industries are absolutely dependent upon that; for example, semiconductors have to have not just energy but a certain frequency. So there is voltage regulation that has to be done, and that's another feature of this project.

By the way, if the whole system goes dark and you lose -- power plants go offline, power plants need power to turn back on. This plant, with water stored in that reservoir, we open a gate and we're generating electricity and we can recharge that system and, from black conditions, help restart the system.

Those are all utility functions as well as ancillary services that ratepayers pay for for utilities in the California Independent System Operator to manage the energy generation and transmission system.

MR. SABALA: Okay. Thank you.

MR. HARVEY: Sorry. It was too long an answer, but it is a complicated question.

MR. SABALA: It's okay.

MS. NGUYEN: Before you go on, this is Kim Nguyen. Let me follow up on that. Maybe you can tell us how much energy is used to pump?

MR. HARVEY: About 1600 megawatts for pumping backup versus 1300 at full generation.

MR. SABALA: Thank you.

MR. HARVEY: So about an 82 percent deficiency.

MR. SABALA: Okay. Well, my purpose here today is to express the Park Service concern that should be addressed through the NEPA and CEQA process and should show up in the EIR and EIS reports.

One of our main concerns is with the hydraulic conductivity between the Pinto Basin and the Chuckwalla Aquifer from where you'll be drawing the groundwater. We'd like to see some real actual estimates as to how much groundwater you calculate to be in the Chuckwalla Valley. There is a USGS open file report that was produced I believe last year that was a gravity survey for which we, the Park Service, were part of, and that is a public file report now.

That report actually characterizes the basin geometry of Chuckwalla and the Pinto Basin. Using that with

potentiometric surface in the wells that you have already throughout Chuckwalla, we'd like to see some actual estimates as to what you anticipate to be the volume of groundwater that's down there in Chuckwalla.

From that, we believe you should be able to try and develop some kind of a water budget, recharge versus drawdown and not just drawdown from the pumped storage project but drawdown also from current use out there in the reservoir or from the homeowners that live out there.

Also understand that you've already mentioned that there's going to be some consumptive loss through evaporation and seepage. What we're concerned is, is that consumptive loss going to exceed the rate of recharge and, if it is, there's going to be a net loss. And if there's a net loss, you're going to deplete that source.

We're concerned about subsidence because we are in hydraulic communication. And whatever happens in the way of adverse impacts in Chuckwalla may be mirrored in the Pinto Basin within our border.

A lot of this stuff was already covered earlier and I know it's already going to be addressed.

We're also concerned with the leachate. Prior to tonight's meeting, I had an opportunity to look at a geology map from 1958, pre-excavation map of the area, and there are some minerals of concern that could produce acid mine

drainage. We're concerned about that. We know that's already going to be addressed.

Also understand that there's mitigations already in place that you're going to employ to prevent that seepage. My concern is what if those mitigations fail. You know, what would be the adverse impacts if they do fail and this is something that needs to be addressed and brought out in this document.

The last concern that we have also which is going to be addressed has to do with large body of water adjacent to our park. We're also concerned with desert tortoise. They are listed -- federally listed on a T&E. We're concerned with drawing migratory birds, gulls and ravens, and what that's going to do to our population. I know that's already going to be addressed, but we just want to officially state that.

Thank you.

MR. TURNER: Is that -- those reports and stuff publicly available that you talked about?

MR. SABALA: The open file report? Are you talking about USGS open file report?

MS. NGUYEN: Yes.

MR. SABALA: Yes, it is.

MR. TURNER: Okay.

MS. NGUYEN: Anyone else?

(No response.)

I have a couple questions. Going back to the -- our comments on the draft, I was wondering if Crest Energy -- did I say that right?

MR. HARVEY: Eagle Crest Energy.

MS. NGUYEN: Eagle Crest Energy -- excuse me -- could give us an update on a more definitive proposal or agreement on filling -- the initial filling of the water supply?

MR. HARVEY: In general, we have taken all of your comments and have inventoried those and we have assignments for each one of those to be addressed in detail. Your specific question is about water?

MS. NGUYEN: The initial fill and I would assume, from our site visit today, that you're definitely going with the wells; correct?

MR. HARVEY: Thank you for clarifying. Yes. In the -- at the time in June, we developed and issued the draft license application in an issue to development of water from groundwater and wells. We were in discussion with some parties and had discussions with Metropolitan Water District about the potential to develop a surface water purchase or exchange in which we would acquire water that could be delivered to Metropolitan and, in exchange, we would take delivery of the water from the Colorado River

Aqueduct surface water.

Those kind of exchanges have been done in California. There are very large water transfers, but they are very complicated transactions. And as we were talking to Metropolitan, particularly in this drought period and water shortage, it did not appear that there was any kind of a surface water deal that was feasible for us to put forward at this time. And, with that, we've withdrawn that -- that element from our present planning proposal so that all that we have before you in terms of our project description and proposal is the use of groundwater for Chuckwalla for the additional fill for the makeup part. We understand that if some surface water arrangement does become feasible, that we would need to come back and file an addendum or do some -- if it's after licensing, there would have to be an amendment to the license. We understand that if that happens, it's at some point in the future. Right now, there is nothing like that. We don't have any plans for that and so we've withdrawn that from our proposal for the time being.

MS. NGUYEN: And then my second question is following up, maybe you can give us also an update on what Margit touched about, is the agreement with Kaiser and the landfill project.

MR. HARVEY: There is no agreement with Kaiser. Under the Federal Power Act, Eagle Crest Energy has filed

for a preliminary permit, filed and received. That permit gives Eagle Crest Energy sole opportunity to study the site for its uses of power generation project. And if the Federal Energy Regulatory Commission grants a license for that project, the Applicant would be able to -- Eagle Crest Energy would be entitled to acquire that property. Our preference would be as a negotiated acquisition with the Federal Power Act and we also would have the ability to acquire the property through federal eminent domain proceedings as well.

So that is how the transaction goes there. We do want to work with the landfill. We are right now conducting analysis as part of our supporting analysis for your environmental process showing the compatibility between our project and the landfill and the areas where there are incompatibilities, how we can solve that. For example, if both projects are being constructed at the same time, what do we do for construction management and traffic management.

If there are areas where there is overlap, we actually have already relocated our surface switchyard where the power comes from the powerhouse out to the surface. We have moved that to avoid some conflicts with the potential landfill operation. And there are other features like that that we would look at as well.

So that's where we are right now with the

landfill. We had some very recent communication with the -- with Kaiser Ventures about how and whether we could access their property and they have specified with a payment of a daily fee of $5,000 and then some other provisions for security and for insurance that they would allow very specifically defined access to the site.

And that has just happened within the last week and we will continue that dialogue with them and determine at what point that we would like to negotiate further with them about that.

MS. NGUYEN: Can you give us a little bit of description of the project boundary and as far as land rights goes as far as the project features is concerned on whose land those project features -- your project features are located?

MR. HARVEY: The reservoirs are on the private property owned by Kaiser Ventures and as are the underground work -- the tunnel, the shafts, and penstock and the underground powerhouse and turbines and the underground works for transmitting the power from the turbines out to the surface switchyard. And any combination of private lands and primarily for the transmission corridor are lands that are owned by the Bureau of Land Management, which we understand we have to get a special use permit. We have met with and opened with a discussion -- I believe the Bureau of

Land Management will be here tomorrow and we have talked with them and we are going to go forward with a pre-application meeting for the special use permit and they have a fee process that we need to compensate them for their -- for their involvement. They understand that FERC is the lead agency. They are not the lead agency. And they -- in the last ten years, they have been working on transmission projects almost constantly. So they're very familiar with how they will handle that.

The water -- properties for water wells are all private properties. And I believe a combination of some private land but primarily Bureau of Land Management lands to bring the water pipeline parallel to roadway and then parallel with the Metropolitan Water District's transmission corridor to get into the site.

MS. NGUYEN: Thank you.

MR. HARVEY: May I just address one other question by the National Park Service?

MS. NGUYEN: Sure.

MR. HARVEY: The comment was about conducting a hydrogeologic investigation that included a transmissivity analysis, an understanding of the USGS open file report and a water budget and accounting for not only our project and the Chuckwalla Aquifer project but also as a cumulative effect of not only residential water use but farm water use,

the prisons, and at the eastern end of the Chuckwalla Basin the landfill would be a water use in the area, and that we are conducting that analysis. We have already undertaken considerable analysis in that direction and we are now completing that and we have taken into consideration all of those points. All of those will be part of what we do present in our final hydrogeologic investigation.

So just to note that for the record, that we do agree with them. We do understand those are the issues and that is what we're prepared to report.

MS. WILLIAMS: I'd also like to point out that any analysis of the Chuckwalla Aquifer, we have to look at the boundary conditions, so that would include the interface with an adjacent basin such as the Pinto Basin, so we are aware of that and so we would absolutely want to have that considered.

MR. HARVEY: Metropolitan Water District raised the same concerns and our analysis does extend to the Pinto Basin and including their Hayfield Project Addition, and we also considered how our project is related to the Colorado River and the Bureau of Reclamation with its new accounting surface policy and where we are relative to that.

MS. WILLIAMS: Thank you.

MR. TURNER: I've got a question. In developing that analysis, have you involved the boards or any other

entity in how you've approached that analysis in terms of the methods?

MR. HARVEY: We have not yet fully. We have had additional discussion with Ms. Williams about what we were doing and about our discussions with the Metropolitan Water District relative to their concerns. We are also fully cognizant of the very similar concerns that were raised by the Board in the late 1990s. So we have that as guidance. And we've just talked with Ms. Williams today about having a follow-up meeting with the Board to make an initial presentation of where we are in that investigation and where we intend to go, why we're using certain methods and why Metropolitan has agreed with us about the use of certain methods. You mentioned modeling methods, for example, versus mathematically analytical methods and so we are eager to have that meeting and to either have your concurrence or have a discussion about what needs to be done to satisfy the State's concerns and issues.

MR. TURNER: Okay.

MS. NGUYEN: Any other comments, questions?

(No response.)

MR. TURNER: Don't be shy.

(No response.)

MS. NGUYEN: Hearing none, we're adjourned. Thank you very much again for coming and we appreciate the

opportunity to meet with you.

(Whereupon, at 8:12 p.m., the scoping meeting was adjourned.)

UNITED STATES OF AMERICA

FEDERAL ENERGY REGULATORY COMMISSION

TRANSCRIPT OF SCOPING MEETING

EAGLE CREST ENERGY COMPANY

PROJECT NUMBERS 13123-000 AND 12509-001

9:00 A.M.

FRIDAY, JANUARY 16, 2009

UNIVERSITY OF CALIFORNIA, RIVERSIDE

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PALM DESERT, CA - FRIDAY, JANUARY 16, 2009 - 9:05 A.M.

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MS. NGUYEN: Merrill, can you hear me?

MR. HATHAWAY: Yes, ma'am.

MS. NGUYEN: Okay. Great. Thanks. Let me know if you can't and we'll try to speak up.

And I was wondering if maybe since we have a smaller group than was anticipated, if you maybe, Jan, want to move up or you -- just to help Mike out a little bit.

UNIDENTIFIED SPEAKER: We both have vision problems, so --

UNIDENTIFIED SPEAKER: We can move on that side.

MS. NGUYEN: That would be great. Thank you so much.

Welcome to the Federal Energy Regulatory Commission and the California State Water Resources Control Board's Joint Public Scoping Meeting for the Eagle Mountain Pumped Storage Project.

My name is Kim Nguyen. I'm a civil engineer with the Commission and also the project coordinator for this project.

Before we get started, this meeting is being recorded, as you can tell by our court reporter. So to help him, Mike, make a complete record of the meeting today, if you could just speak up when you speak for the first time,

spell your name and your affiliation, and that would help him make a complete record to be part in part of the record for the project.

There's also registration forms and our scoping document on this side of the room, if you'd like to follow along. Most of our presentations will be coming from the scoping document. And the registration will also help Mike with his record.

First I'd like to go through the agenda a little bit. And since we have Merrill Hathaway, who's counsel from the Office of General Counsel on the phone with us, and he's going to be here just the first hour, we'd like to change the agenda around a little bit and maybe get some of the issues, the legal issues, the policy issues out of the way before we get into the meat of the meeting and discuss the detailed resource issue, if you don't mind.

So, with that, I'm going to start with introductions and then go through the background a little bit and then go into any legal and policy questions that you might have for Merrill before we let him go and then continue with the rest of our agenda, which is talking about the request for information, the description of the project, the scope of cumulative effects, and then our schedules.

So, with that, let me start with some introductions.

MS. WILLIAMS: Camilla Williams, Divisional Water Rights, State Water Resources Control Board, unit chief of the Water Quality Certification Unit and project coordinator.

MR. IVY: Mark Ivy. Outdoor recreation planner for FERC.

MR. TURNER: David Turner. Wildlife biologist for FERC.

MR. MURPHEY: Paul Murphey, State Water Resources Control Board, Division of Water Rights. I am an engineering geologist.

MS. NGUYEN: Okay. Now for some background information.

On January 10th of 2008, Eagle Crest filed a pre-application document, or a PAD, with the Commission, and requested to use our traditional licensing process.

On June 16th of 2008, they also filed a draft license application with the Commission, and the Commission and interested stakeholders filed comments on that draft and that was filed in September of 2008.

Also in September, Eagle Crest applied to the Water Board for a water quality certification under Section 401 of the Clean Water Act.

On October 15th of last year, the Water Board accepted their application and it's now processing it.

The purpose of scoping and why we're here. The National Environmental Policy Act, or NEPA, and the Commission's regulation, along with the California Environmental Quality Act, or CEQA, and other applicable laws require an evaluation of environmental effects of licensing hydropower projects.

So at this time, we intend to prepare a draft and final EIS, or environmental impact statement, that describes and evaluates the probable impacts, including an assessment of site-specific and cumulative effects, if any, of the proposed project.

The scoping process is part of NEPA and CEQA and is used to help the Commission and the Water Board identify pertinent issues for analysis in their EIS and EIR.

In scoping, we invite participation of federal, state, local resource agencies, Indian tribes, non-governmental organizations or NGOs, and the public to help identify significant environmental and socioeconomic issues related to the proposed action.

Scoping helps us determine the resource area, the depth of analysis, and significant issues to be addressed.

Scoping can also identify how the project would or would not contribute to cumulative effects of the impact in the area. It can identify reasonable alternatives to the proposed action that should be evaluated. With scoping, we

solicit from participants available information on resources at issue and determine the resource area and potential issues that do not require detailed analysis.

Through scoping, we are asking for information that will help us, like I said, conduct an accurate and thorough analysis. The type of information we're looking for include, but are certainly not limited to, information, quantitative data, professional opinions that may help define the scope, identification of any information from any other EAs, EIS, or similar environmental studies that are that are relevant to the proposed project, any existing information and data that would help us describe the past, present, and future actions and the effects of the project on those developments, information that would help us characterize the existing environment and habitat in the area, any federal, state, local resource plans, and any future project proposals that might be affected in the resource area; for example, the proposal of the landfill, documentation that the proposed project would or would not contribute to cumulative adverse effects on any of the resources, documentation showing why any resource should be excluded from further analysis.

This information can be given to us today orally or it can filed written or electronically with the Commission and the Water Board.

We'd like to have a brief discussion of the project area by Eagle Crest at this time.

MR. HARVEY: Good morning. I'm Jeff Harvey. I'm the owner's representative for Eagle Crest. Thanks for coming today.

Just a brief overview of what the project actually includes. The project is a 1300 megawatt pumped storage hydroelectric project. It is essential as part of of storing energy and integrating renewable resources into California's utility system, generation and transmission system.

It is unique in that it will be developed in completed mining pits, the two reservoirs. There are multiple features of the project -- two reservoirs, the generation of the turbines, and there are tunnels connecting those, transmission out from the site and into the site to power the pumpback systems and then a well field and water lines. Those are the basic features.

The reservoirs are to be developed in the mining pits that are located at the Historic Mine site at Eagle Mountain. And at the surface -- most of the features will be subsurface. The wells will be at the surface but not as prominent features. Subsurface will be the pipelines from the wells to the lower reservoir, the -- all of the tunnel works -- and I'll show you the diagram in a moment -- are

underground and the powerhouse and turbines are underground, and then the transmission line out to the surface.

So at the surface, what you will see will be the two reservoirs, the transmission line, which is about ten to 12 miles from the Eagle Mountain site south to just north of the I-10 corridor, and then the reverse osmosis water treatment system that I'll talk about and the brine ponds that are associated that will also be at the surface. Even those will only be seen as a flyover feature. The transmission line will be the only thing you can see as you were driving around out at the property.

Very unique to this project for hydroelectric development, no streams; therefore, no fisheries, no fish bypass flows, no aquatic habitat, no wetlands. So we really have a unique environment for development of a hydroelectric project here.

This shows the map view of the mountain itself and of the two reservoirs. The upper reservoir, which is to be developed at the central pit of the mine site, will include two dams to augment that pit to be able to take the full capacity and 25,000 acre feet of water.

The lower pit, in the east pit as the mine refers to it, the lower reservoir, is of adequate capacity right now, does not need any supplemental dams. That will be connected by underground tunnel works, the powerhouse, and

then up the shaft and tunnel works to the upper reservoir. And what happens here is we'll have an initial fill from the well field. That water, 25,000 acre feet, over about two, three years to fill will fill the lower reservoir. Then that will be pumped up to the upper reservoir during off-peak energy periods. That energy stored for peak energy demand periods is dropped back down through four reversible turbines, 325 megawatts each, for a total of 1300 megawatts to produce electricity and water, then return to a reservoir. So you really have an operation here where once you get the working fluid, water in is working fluid, the reservoirs will operate back and forth as you're in either pumpback mode or in generation mode.

From the powerhouse here, the electrical transmission equipment also underground to a surface switchyard and that switchyard then, the 500KV transmission line, which will also be a surface feature, extending, as I'll show you on a map here to the I-10 corridor. The other feature here, in response to concerns that were expressed by the State Water Resources Control Board about water quality over the long term of the reservoirs, we do have evaporative losses from the reservoirs that would concentrate salts ultimately, that we have added a reverse osmosis treatment system to the -- to the project that will maintain the reservoirs at the same salinity as the input groundwater and

that will produce a brine salt residual and that will go to brine ponds as shown here.

Since -- this is only in the last couple of weeks, but we have made an adjustment in very recent discussions with Metropolitan Water District. They have expressed concerns about the location of the brine ponds relative to their Colorado River Aqueduct that delivers water from the Colorado River into the Los Angeles Basin, and so we are relocating the brine ponds from adjacent to their aqueduct over to a location probably here. It's going to be relocated. And they have multiple concerns -- seepage and what that might do to their aqueduct and wind-blown salt affecting quality of water in their aqueduct. We will be maintaining the brine ponds in a wet condition so it won't have a wind-blown problem. But to ensure them that we wouldn't have any issues with their aqueduct, we are going to relocate that.

Any features to point out there?

(Pause.)

On the map view here again, here's the Eagle Mountain site. The lower reservoir and the upper reservoir, transmission line out. Here's the 500KV line that comes out around the present town of -- town site of Eagle Mountain across the Metropolitan Water District's Pumping Plant, and then down along the Eagle Mountain co-located with the Eagle

Mountain Roadway to a new switchyard at the I-10 corridor.

In the draft license application that was circulated in June of 2008, we did show a different transmission corridor. Based upon our initial transmission planning, the original project showed transmission coming out and going 90 miles to the Devers Substation. That was years ago. The transmission has changed in this region and we originally thought that we were going to take our transmission out parallel with the Metropolitan Water District's 230KV line, cross the I-10 corridor, pick up the Devers Palo Verde corridor, 500KV corridor, and then come down to a new substation approved but not yet built for Southern California Edison, the Colorado River Substation. That alternative or that corridor has now been abandoned in favor of this route to the I-10 based upon our discussions with the California Independent System Operator, the Cal ISO, which is the operator of the transmission grid in California, and Southern California Edison, the primary utility that actually owns this portion of the transmission grid. And they recommended based on the number -- there's tens of thousands of acres of solar projects proposed in this region. There's also the Blythe Energy Project, the 1,000 megawatts total once the second phase gets built, and they recommended they had enough power at this switchyard already, they -- based on the number of solar projects in

this location and our project, they wanted to build a new switchyard here for our interconnection to the regional transmission grid.

So that is a change from what was shown in the draft license application and it will be shown going forward in our environmental documents.

We also input to the project -- we have a well field that will be developed out in the Chuckwalla Basin here along the 177 corridor. I don't have specific properties. We have numerous properties that we are in negotiations with right now. We're very close to finalizing those arrangements. But because we don't have them finalized, I'm not going to point to specific parcels. I can tell you that in this area, there are -- we will develop numerous parcels for wells. Those wells will be connected by pipelines that will be brought -- co-located again with the roadway corridor, brought down to the existing Metropolitan Water District's 230KV transmission line, so along that same utility corridor bring our water pipeline up to Kaiser Road and where it will also be co-located then with the road and then into the lower pit. The water lines only need to go to the lower pit. Once you get water into the lower pit, the pumpback is through the reversible turbines up to the upper reservoir.

Anything else here?

Oh, one other thing to show you here is the land ownership in the area. The purple is the Joshua Tree National Park. The yellow is Bureau of Land Management. Blue are state lands. White are private lands. So we do have a combination of private lands that we will acquire, BLM lands that we will need to obtain a special use permit for use of, private lands that we're acquiring here, Metropolitan -- well, I don't think we're actually going to be in their right-of-way, so perhaps not Metropolitan but private lands and Bureau of Land Management lands to acquire rights-of-way for the water pipeline in.

In a profile view, this line representing the ground surface, this is the lower reservoir, the upper reservoir, and the pressure tunnels that connect those two reservoirs with the powerhouse in between, the powerhouse containing four 325 megawatt turbines, reversible turbines, so we have the initial fill of water, 25,000 acre feet, as I said. That water then pumped up for storage into the upper reservoir during off-peak periods. During peak energy demand periods, that water dropped back down to generate electricity and then water returned and stored in the lower reservoir. Just back and forth on a daily basis with pumpback in evenings and weekend periods. Generation primarily daytime weekdays.

As I've said, the primary operations are peak

power generation on demand and off-peak power pumpback. Our role here in California's energy picture is to be able to capture renewable energy that is produced, for example, solar over the weekends during off-peak periods and wind which is prominent at night and weekends but is not reliable for generation during peak periods. We're able to capture that power and other residual power in the transmission grid and pumpback water, store it for use during peak demand periods, and make that renewable energy reliable and dispatchable source of power. And this is -- the California Independent System Operator has identified storage projects like this as essential to their ability to integrate renewables in the system and particularly at the level that California has called for, renewable portfolio standards of 33 percent by 2020, 11 years from now. Our present renewable portfolio is about nine percent, so we're talking about nearly quadrupling the amount of renewable energy that we put into our generation mix in the next 11 years and renewable sources that are not reliable, that cannot be depended on for reliable dispatch. They have to be backed up with other fossil fuel or nuclear power or with storage in hydro of this type.

It is a closed loop system, meaning that once we have the initial fill of water, we simply work that water back and forth. We do have seepage and evaporation,

particularly evaporation losses, and those we will have annual makeup water for, about 2500 acre feet of annual makeup water.

Our proposed environmental measures and studies. We have a number of environmental features that we have built into the project. This project was originally proposed in the early '90s, went through various permitting stages. And because of market conditions, electric -- restructuring of the electric utility industry, various reasons in California's energy markets, the project did not go forward at that time and is now an essential part of California's renewable portfolio standards.

The most important thing to understand in that context, though, is that because we have been through multiple permitting stages, we have been through a lot of studies. We understand what all of the issues are, environmental issues. We've also been apprised, through other environmental documents that have been prepared for Eagle Mountain, for the landfill project, for other transmission projects in the region, so we have a wealth of information that we've been able to draw upon and that -- we've also had extended conversations and consultations with State Water Resources Control Board, with FERC, with U.S. Fish and Wildlife Service, with the tribes, and the State Historic Preservation Office, with Bureau of Land

Management, so that we have now incorporated into our project numerous environmental features intended to address those environmental issues as we've understood them, and we understood that -- we understand that out of this process, we may have other issues to address as well.

But those features that are built in right now -- first of all, is location of this project in this depleted mine site. This is not a pristine environment. It is a site that has been subject to very extensive mining and the reservoir locations themselves are in disturbed habitat areas and disturbed environmental areas.

We also have co-located all of our linear features -- our transmission line, our well field and water lines -- with existing roadway and utility corridors, trying to minimize the impacts. We're not just going cross-country or through native habitat areas that don't already have some level of human modification and disturbance.

We've also tried to minimize the linears and, fortunately in our work with the ISO and Southern California Edison, we've been able to reduce our transmission, for example, from originally 90 miles and then 50 miles down to 12 miles now. So we've reduced our footprint on the land for those linears.

Relative to water, we have a number of features for water supply. We have developed our well field and the

properties that we're talking about have spacing of wells that are about a mile apart. That's our goal, is to be about a mile. It doesn't have to be exactly a mile, but in that area, so that our cone of depression, our drawdown of the local water table from individual wells does not overlap with -- our own wells -- doesn't overlap with anybody else's wells either so we prevent interference with anybody else's water supply.

We also have water quality monitoring at all of our wells and of course we'll be doing that at the reservoirs and at the monitoring wells around the reservoirs, and a number of measures to control seepage from our reservoirs. A concern that was raised by the State Water Resources Control Board with regard to potential water quality degradation in the down gradient aquifer and also raised by Metropolitan Water District as a concern for potential contamination of water in their aqueduct.

One other feature for Metropolitan Water District was not just water quality degradation but that seepage from the reservoirs could cause saturation of ground near their aqueduct that would result in sediments settling out, a process called hydrocompaction, that could interfere with the proper function of the aqueduct and its flow pad.

So in response to all those things, we have built in seepage control measures that start with the reservoirs

themselves, with -- once we get to final engineering design, we will investigate for where there are fissures and cracks that we can fill with concrete or grout and then grout curtains for the reservoirs using the fine sediments from tailings that are on the mine site and perhaps even using concrete face, particularly on the lower reservoir where there is contact between the bedrock and the valley alluvium. On the upper reservoir, we have -- we're really in solid bedrock. But at that point, we may, based on final engineering design, put a concrete face to prevent seepage into that alluvium layer.

We also have a series of wells, wells that will be upstream of each one of the reservoirs -- one well upstream of each reservoir for baseline control and then a picket fence, if you will, of wells below each reservoir to monitor for seepage losses and to recover those seepage losses, to pumpback and recover those -- that seepage water into our reservoirs. It's in our interest, beyond the concerns of the agencies, to not have seepage losses. It costs a lot of money to pump that water into the -- into the lower reservoir to start with. As much of that water as we can keep and maintain as a working fluid, we will have to do that. So -- so we have those seepage control for water and for water quality.

We also have, in response to concerns -- I

mentioned earlier about the RO systems -- concerns that have been brought up by the State Board. We have a reverse osmosis water treatment system to maintain the reservoirs and the salinity in those reservoirs. That would normally be an enormously expensive proposition because of the energy required to push water through the membranes in an RO system. We have 1500 feet of elevation difference between the upper reservoir and lower reservoir. We're going to use gravity as our source of energy to push that water through. So we can do this in a very feasible way and treat that water.

The brine pond that will be associated with that RO system is a double-lined brine pond to prevent leakage. It also has a leak detection drain system and a recovery pumpback. We'll have monitoring wells downstream of the brine pond as well to ensure that we don't have leakage and, to the extent that anything ever does leak, that we capture it and pump it back.

Other environmental features of the project, we have conducted extensive biological surveys and surveys for cultural resources. We have done records search and worked from existing documentation on the mine site itself. We have conducted ground surveys of all of the linear features. This spring, we have additional surveys to conduct for the changes that I indicated. We originally surveyed for the

transmission line from Eagle Mountain to the area near Blythe. We will now conduct surveys of this new alignment from Eagle Mountain down the 12-mile corridor down to the I-10. And we will have -- once we finalize our selection of properties for the well field, we will have both biological and cultural surveys done for the well field locations and the corridors bringing water from the well field into Eagle Mountain.

We understand that we will have mitigation for desert tortoise. We also understand that there are concerns about big horn sheep at the reservoirs, possible animals being attracted to the water source of the reservoirs, and that we will have wildlife fencing to prevent access to the reservoirs. And, finally, we do have a cultural resources consultant that's been engaged in the project and has been conducting these surveys for us. They also have been in contact with the tribes and with the State Historic Preservation officer and have initiated the tribal consultation and historic consultation processes that we need to engage in.

Am I missing anything? Those are the primary features.

Oh, other studies that we are conducting, a part of what's been asked. So in addition to those ongoing investigations, we have an investigation of hydrogeology

that is ongoing and nearly completed that includes the effects of our wells on other local wells, that includes the effects of our wells on the regional aquifer, and that includes the effects of our wells and our water use in relation to all other water users in the region, including the Chuckwalla prisons, all of the agricultural users, the landfill project, and all the residential users out there. So a comprehensive hydrogeologic investigation that has been developed in consultation with Metropolitan Water District and now will be completed in consultation with the State Water Resources Control Board as well.

We are also conducting an analysis. There is a landfill project that has undergone extensive environmental permitting on the Eagle Mountain site. The owners of that project have raised concerns about the compatibility of our project with their project and, in response, we have conducted an investigation and will be reporting as part of this environmental review process on how our projects can be compatible and that we do not believe that the projects are mutually exclusive in any way, that they are compatible projects, and we will document how we believe that that fits together.

Other resource issues that will be addressed in the EIS and EIR, air quality, noise, traffic. For the California Environmental Quality Act, a requirement starting

in 2008 that all projects consider their relation to air emissions and greenhouse gases relative to global climate change. That analysis will also be presented.

An analysis of -- well, those are the main ones -- air, noise, traffic, greenhouse gases. Those are the primary issues that we are -- that we have studies underway right now and are going to be presenting for use in the EIS and EIR.

Anything else that I should add? Very good. I'll turn it back to you.

Thank you very much.

MS. NGUYEN: Thank you, Jeff. The next item on our agenda is a discussion on the scope of the cumulative effects of the project.

Based on our preliminary analysis of the draft license application, we have identified water resources, the desert big horn sheep and desert tortoise, land use, and air quality as resources that could be cumulatively affected by the proposed project.

At this time, the proposed geographic scope for water resources is the Chuckwalla Valley Aquifer. The geographic scope cumulative effects on the big sheep horn -- desert big horn sheep and desert tortoise and land use and air quality would be the Chuckwalla Valley and the I-10 corridor to Blythe, California.

For temporal scope, we will look at a 30 to 50 year into the future, concentrating on the effects of -- to the resources from reasonable and foreseeable future actions.

And in the interest of time, we would like to -- before we get into the resource -- the detailed resource issue discussion, we'd like to see if there are any comments or questions from Merrill about Office of General Counsel in D.C. So I'd like to open it up at this time for those policy and procedural questions and comments.

(No response.)

Merrill, do you have any questions for us?

MR. HATHAWAY: No. I don't think so. I mean, the only thing I would say, just to respond to everybody, that we're still in the pre-filing stage. Under the Commission's rules, since this is now a traditional licensing process, there is no proceeding. There are no parties yet. We know that we anticipate that there will be -- there may very well be a contested proceeding, but we would have to cross that bridge when it arrives.

And so, basically, I would just urge everybody -- and I think there's a legal concern -- that if the Applicant finally decides, and it's its choice, to file a license application, a condition at that time would initiate the proceeding, would invite interventions and participation by

everybody and that any licensing decision, particularly to go forward with the project, to approve it, could only be based on substantial evidence.

So if there isn't substantial evidence in the record of the proceeding, then the project cannot be licensed. Otherwise, it would have to fulfill the standards of the Federal Power Act.

So hopefully, even though this is not an alternative licensing process, really this pre-filing scoping is in a spirit of trying to get more collaboration and cooperation. So I think I would urge everybody to just be aware they can have a consensus on the issue so that we wouldn't have a proceeding where people are fighting over every job submittal because I don't think that's in everybody's interest. So to try to help us anticipate, to produce an adequate record for decision, I think it would be in everybody's best interests. So that's all I have to say.

MS. NGUYEN: Anything else?

(No response.)

Okay. Then let's go into the resource discussion. From our agenda, you can see that I'm going to talk about geology and soils, aquatics, cultural, and the developmental resources, and then my colleagues will take over the rest of the other resource area.

At this time, for geology and soils, we'd like to

look at the effects of the project construction and operation on geology and soil resources, obviously, and then soil erosion and sedimentation.

As Jeff had said, for aquatic resources, we see no issues at this time since it is a closed system.

For cultural resources, the effects of the project, construction and operation, on any historical, archaeological, and traditional resources that may be eligible for inclusion in the National Register of Historic Places.

The effects of the project on the area -- the defined area of potential effects.

For developmental resources, we look at the effects of the proposed project and any of its alternatives, including protection, mitigation, and enhancement measures on the economics of the project.

Now we get into water quality and quantity and air quality from Paul.

MR. MURPHEY: Yes. For resources issues concerning water quality and water quantity, we will look at potential seepage from both of the mine pits, the former mine pits, and how that affects the groundwater, and as well as potential seepage from the brine ponds.

We will also look at the effects of the Chuckwalla Valley Aquifer from the pumping of the

groundwater, not only the local effects on other groundwater users but also the regional effects on water levels not only in the Chuckwalla Valley Aquifer but nearby aquifers, mostly the Pinto Basin Aquifer, which is up in Joshua Tree National Park.

And also with that evaluation, we will look at the potential subsidence and how that may effect Met's water conveyance system.

We will also look at the long-term effect of the water quality, but that will pretty much be addressed with the reverse osmosis.

And also during construction activities, any potential effects that construction activities will have on the water quality of the project.

And that's pretty much it for the water quality.

For the air quality, mostly that will be -- we will look at the effects during construction on the air quality in the area. The long-term air quality effects will be evaluated -- mostly there's a concern with the brine ponds if they go dry, there might be some air quality concerns there, so we will look at that.

With that, Dave.

MR. TURNER: We put together -- just kind of the background, we put together these issues based on the consultation record that was in the draft application and

what we gleaned from consultation record that's been on file with the Commission.

So we're really looking for your input on whether we've missed issues or not. Some of these issues we've identified are -- as Kim had said earlier -- are not issues. So please feel free to interject in this conversation. We'd like to make this more free-flow. So please feel free to interject these comments and let us know if we're missing something.

From the terrestrial resources perspective, we're going to be looking at how these reservoirs, which are basically an uncommon type of resource now, basically having a huge lake out in the middle of the desert, is going to be affecting the attraction and other -- attraction and other means -- the wildlife in the area, water fowl, bats, some of the predators that are particularly -- may target some of the more sensitive resources like desert tortoise.

We're going to be looking at the effects of construction such as disturbance and habitat fragmentation and lighting and those kinds of things on desert big horn sheep, their foraging habitat and patterns.

We're going to be looking at the -- how -- whether or not the project is going to represent an attraction to deer, big horn sheep, and desert tortoise, and whether those reservoirs may represent a drowning hazard or

something in terms of getting trapped in there.

The brine ponds could also represent another attraction and we're going to be looking at the measures that could be done to reduce that attraction.

We're going to look into how the project might be affecting surrounding vegetation as well as wildlife and how that might result in the spread of noxious weeds and what measures could be done to minimize that spread.

And we're also going to be looking at some very sensitive species for the purposes of BLM, their sensitive species and the State's threatened endangered species.

The Commission also has an obligation under the Endangered Species Act to ensure that its actions don't jeopardize the continued existence of federally-recognized and federally-listed species, and the two that have been identified here are the desert tortoise and the Coachella Valley milkvetch, so we're going to be looking at how construction and operation may be affected in these species.

Any comments, questions?

MR. COOK: So you get a Section 7 consultation?

THE REPORTER: Can you state your name, please?

MR. COOK: Terry Cook with Kaiser.

MR. TURNER: Say that again.

MR. COOK: You will be getting a consultation with the U.S. Fish and Wildlife?

MR. TURNER: We will -- once the application is filed with the Commission and we've undergone our analysis and review of that, we'll complete an environmental impact statement, a draft of that. We'll use that to initiate any formal consultations with the Fish and Wildlife Service as may be necessary to deal with these two species.

MR. COOK: So you're not doing it up front? You're just doing it in connection after the initial studies?

MR. TURNER: The action that we take is going to be defined on staff's recommendations. So if we -- while we are in coordination with the Fish and Wildlife Service early on to make sure we're gathering the information they need to try and undertake that consultation and identify any measures that might minimize that effect to get maybe a Board consultation, but I kind of doubt that, given some of the habitat, based on that, we'll define what we're proposing to be included in the license. That would be the action that we consult on. So, by necessity, it actually occurs after the application is filed. But we're still consulting with the Fish and Wildlife Service, early consultation on these other impacts.

I guess I just kind of want to let one thing -- oh, I'm sorry.

MR. DYOK: Wayne Dyok, a consultant for Buchhurst

(ph) Energy. Maybe we could, you know, mention FERC's process for the non-federal designee for purposes of consultation and status of that.

MR. TURNER: Good point, Wayne. We have designated Eagle Crest as our non-federal rep for that informal part of that consultation to talk with the Fish and Wildlife Service to find the measures that will help minimize the effects and include that in the application. So they have been designated.

With regard to the cumulative effects on the desert tortoise, we defined a area that included the I-10 corridor down to Blythe. That was in large part based on the earlier transmission corridor. I suspect unless we get comments to the contrary, we're going to be refining that analysis to withdraw that down now that we have a much different and shorter corridor, transmission line corridor.

And if nobody has anything else, we'll turn it over to Mark for recreation.

MR. IVY: Okay. First off, I was going to say there's a couple of you that came in late and we do have copies of the scoping document up here in front if you want to grab one. You can go through with us. We have the detailed comments in there.

So first I was going to cover the recreation and land use potential impacts. We're studying the effects of

project construction and operation on several issues, first being recreational use within the project area, including lands administered by BLM for disbursed recreation use and the Joshua Tree National Park.

Also looking at the effects on special designated areas, including BLM Chuckwalla Valley Dune Thicket area, a critical environmental concern, and the Chuckwalla Critical Habitat Unit, and I'm on page 14 if you're trying to follow along.

Additionally, we're looking at the effects of project construction operation on other land uses, including future mineral developments and a potential solar farm in the area.

And the effects of project construction and operation on the proposed Eagle Mountain Landfill and Recycling Center.

And then the last point in the recreation land use is the effects of the desalinization ponds that will be developed and the removal of 2,500 tons of salt from the upper reservoir on land use.

Any questions or comments on the recreation land use item?

(No response.)

Okay. Next we'll move on to aesthetics. And under aesthetic resources -- now on page 15 -- the effects

of proposed project facilities on visitors who view the landscape. Dave was just talking about Riverside County has designated Interstate 10 from Desert Center to Blythe as a scenic corridor and so, again, that may be narrowed in scope if we're only looking at that 12-mile transmission line.

The effects of project construction and associated noise on visitors to the area, including Joshua Tree National Park. And there are designated wilderness areas nearby and so we'll be looking at the potential impact on those visitors.

Any questions or comments on the aesthetics that we've identified? And also please let us know if we're missing anything.

(No response.)

Okay. The next piece is socioeconomics. We're looking at the effects of increased traffic and potential congestion on local roads due to existing mining-related traffic and project construction and operation, and the effects of the proposed project on local, tribal, and regional economies.

Any questions or comments on those?

(No response.)

Okay. Thank you.

MS. NGUYEN: Okay. Next thing we have on our agenda is a discussion of our tentative EIS preparation

schedule and, as you can see, we'll probably issue a scoping document, too, sometime in February, next month -- well, two months -- March, sorry -- March -- and then the next big filing we expect from the Applicant is their APEA, or applicant-prepared EA, and the license application, obviously, also to be filed in March.

And as you can see also by the schedule, we plan to issue two EISs, a draft and a final, with a comment period in between there for all of you and -- as well as any resource agency.

And there's also a detailed EIS schedule, an SD-1, if you're interested in getting the month-to-month schedule, but this is our tentative scheduled at this time.

MR. BENNETT: Excuse me. I notice the draft EIS is going to be issued in July 2010 but you're issuing new findings before that, in April 2010 according to your schedule.

MS. NGUYEN: That should be 2009. Thank you very much.

THE REPORTER: Can you state your name?

MR. BENNETT: My name is Mike Bennett. I'm with the Bureau of Land Management.

THE REPORTER: Thank you.

MR. TURNER: For the record, it's July 2009 for a draft EIS.

MS. GILLIN: I'm Ginger Gillin with GEI Consultants. The discussion about the schedule, could we just clarify exactly what the dates are because I'm not sure I'm quite following what has been said.

MS. NGUYEN: Yeah. It should be April 2011. Okay. We'll go through it.

Scoping Document 2, March of 2009.

The APEA and the license application filed March 2009.

Issue ready for environmental analysis notice June 2009.

The deadline for filing comments, recommendations, and agency terms and conditions, August 2009. And this is also just comments from interested stakeholders. It's definitely not limited to just the agencies, so please be aware of that.

The reply comments to the terms and conditions from the Applicant due December 2009.

A draft EIS issued July 2010.

The comments on the draft, September 2010.

And the final EIS issued April 2011.

MS. WILLIAMS: Okay. I'd like to -- this is Cam Williams, State Water Resources Control Board. I'd like to briefly go over the tentative schedule on the State side.

And the application for water quality

certification came in in September of this past year, and the following month we accepted it for processing.

The other key dates coming up is that the -- we're going to go forward with an Applicant-prepared EIR next month, in March of 2009, and then the most important date that the public and non-governmental agencies and other agencies should be aware of is May of 2009 we're tentatively proposing to release the draft EIR and the draft water quality certification.

And the State Water Resources Control Board has decided to use the CEQA public process to release the draft water quality certification to provide the opportunity to the public, to agencies, to non-governmental agencies -- organizations to see if there's anything that we may have missed in our conditions, in our certification to make sure that it is adequately protective of water quality. And that will be the key opportunity for these other entities to provide the comments.

So I would strongly encourage that you stay wired into our schedule, you know. We're going to try to be aggressive and stick with that, but please provide us comment because we have the opportunity to put in conditions that will be incorporated into the FERC license that are protective of different aspects of the environment.

Once we receive comments, under CEQA we've got to

provide comments, and so we'll be pretty busy responding to comments for the record and then the final, which will be incorporated into the final EIR, and any changes that we think we need for conditioning in the water quality certification and that would follow in September of 2009.

And that's our schedule, tentatively.

MR. TURNER: This is David Turner again. I was going to say this is really your opportunity to tell us if we've missed any issues. It's important to understand so that we understand what kind of record we need to develop to make an adequate licensing decision, so it's critical for you guys to review the information, let us know if there's things we still need to be considering that we've missed, things we've been characterizing that really aren't issues so that we don't waste folks' time and money and energy to develop information to deal with those.

And there's a number of opportunities to tell us and you'd be providing the opportunities to tell us. As Kim went through, there's -- right now, it's the scoping, which is the main point. Once we get the application in and we're ready to proceed with our analysis, we'll issue an REA notice. That's another point in time you need to be watching. Give us your comments and recommendations on how you think the project should be licensed or not. We'll issue an EIS that does our analysis and makes

recommendations to the Commission about how it should be licensed. You get a chance to review that, tell us where we missed the boat again. And we'll consider those comments in our final recommendations to the Commission on its licensing decision.

So there's a number of opportunities to provide us input, but we're starting early here to try to make sure we have the issues and the information we need to identify and to process this application.

MR. BENNETT: This is Mike Bennett with Bureau of Land Management. One of the key issues is the -- is the right-of-way grant. And actually I just talked to Jeff just a little bit this morning. Jeff will be meeting with the BLM Palm Springs, the old office, to basically discuss the grant and also the EIS requirements right there with our staff and that -- including a DWMA, the grant, and various other issues related to the tortoise.

So we have not had that meeting as of yet. We just anticipate in having that within the next few weeks. They're moving offices, so it's one of those type of situations, but I think that once we have a chance to sit down with Jeff and his staff, we would like to get back to you and, if we need any other refinements, any other issues, that we would like to bring forth in the EIS.

Thank you.

MR. HARVEY: And if I might just clarify. The DWMA that was referred to is an acronym, D-W-M-A, Desert Wildlife Management Area, and pertains particularly to desert tortoise, does it not, in our area?

MR. BENNETT: Yeah.

MR. HARVEY: And I believe -- right, the area that our transmission line corridor goes across is -- does cross through the Desert Wildlife Management Area that he's described.

MR. TURNER: Under the current alignment, it still does?

MR. HARVEY: That's correct.

MR. TURNER: Okay. When --

MR. HARVEY: To a much lesser extent than it did, but it does.

MR. TURNER: It does. When are you planning to talk?

MR. HARVEY: We've actually been trying to set a meeting with BLM for two months. They have been very busy with South Coast Air Quality Management District issues and now, with their move -- I've talked to John Kalish, the director of the local office, and of course to Mike as well, so it will be within the next few weeks we would hope to have that meeting.

When is your move complete, Mike?

MR. BENNETT: We're supposedly hopefully out of that office by the end of -- end of this month, so it will probably be the first week of February we should be -- we should be over. Well, I'll get together with you when I get back and talk to the -- talk to staff because I need my biologist and everything, culture folks and all that, too.

MR. HARVEY: Excellent. As we've indicated, we're eager to have that pre-application meeting with the Bureau.

MR. TURNER: As Kim will probably point out in the next slide, the comment date for scoping input is really February 16th for us, so we can incorporate those issues to the extent you can. This thing's moving along pretty quickly, but that doesn't mean that it's completely set in granite. As things crop up and information is developed between you guys, please just put it in on the record and we can continue to develop it as the application goes along. But we'd like to get at least the issues defined at this point, so if you get a chance to file by that February 16th date, it would be great, in terms of filing your comments and your concerns about the BLM process.

MS. NGUYEN: And if you need -- this is Kim Nguyen. If you need an extension, just file a letter with us saying that you need one and we'll probably give it to you, so --

MR. HATHAWAY: Kim, this is Merrill. I've got to bow out, okay? Goodbye to everybody.

MS. NGUYEN: Thank you, Merrill.

MR. HATHAWAY: Okay.

MS. NGUYEN: Anything else?

MR. COOK: Taking comments now?

MS. NGUYEN: Yes, please.

MR. COOK: All right. I'm Terry Cook. I'm the vice president of Kaiser Eagle Mountain, LLC and of Mine Reclamation, LLC, so I'm speaking on behalf of both companies, just so you're aware. And I'm sure you're aware of Kaiser and our Mine Reclamation at this point, given the history of the project.

As you know, Kaiser owns or controls the Eagle Mountain site. We own or control approximately 10,000 acres out there. And Mine Reclamation is the developer of the landfill project out at that site. Those lands are essential to the Eagle Crest Proposed Pumped Storage Project. But those lands aren't for sale and Eagle Crest currently does not have access to the site. And, obviously, the grant of a preliminary permit by FERC does not grant them access to the site.

And as I'm sure you're aware by now, the Eagle Mountain Landfill Project consists of about 6400 acres of that site and it is under contract to be sold to the Los

Angeles County Sanitation District.

Obviously, there's been a lot of time and money invested on that project. Approximately $80 million has been invested in that project and I've been in Kaiser for 15 years and it's been longer than my lifetime at Kaiser in that particular project.

The Bureau of Land Management and the Riverside County produced a joint EIS/EIR and that administrative record is over 50,000 pages. It includes a 900-page draft EIR/EIS and a 1600-page final EIR/EIS. And as I'll discuss in more detail below, we believe that the project is completely incompatible with the landfill project.

I want to commend the Commission and State Water Board because you've addressed a lot of the items we think are going to need to be addressed. So my comments are really going to be more general in nature. Obviously, I'm going to put a detailed comment letter by the deadline or, if we need an extension, we'll request an extension.

But I think it's valuable to put in context this particular project. As you've heard, ECEC, which is the acronym for Eagle Crest Energy Company, first became interested in the pumped storage project probably around 1989, 1990. They filed a first preliminary permit with FERC in 1991. FERC -- or ECEC is now in its fourth or fifth preliminary permit -- I've lost track -- so this project's

been kicking around for nearly 20 years. So I -- I myself need to step back and we think everyone needs to step back and say, Is this project really a viable project or has this preliminary process been used and perhaps, frankly, abused, as a placeholder for something in the future?

Kaiser's intervened in the FERC process and has made past filings in expressing its questions and concerns regarding the past proposed pumped storage project and will continue to do so. There are a lot of questions and concerns, many of which you've already identified, concerning the environmental matters, resource matters, economic matters, engineering matters, compatibility of the project to the landfill that remain unanswered and have remained unanswered for years.

You know, it's been -- it's also interesting to note to me that I don't believe a pumped storage project has been built in the United States in over 25 years. The reason is the economics just simply don't work. And I don't think they'll work again here in California.

In addition, I want to point out that ECEC really hasn't sought to forward off its proposal through a collaborative process, at least with Kaiser and the Los Angeles County Sanitation District to date. There may be historical reasons for that and we respect Mr. Lowe, but has not been an effort on that. For example, FERC's visit,

we weren't even asked about a possible site visit and so we had to say no to that on short notice.

So I want this opportunity to at least make a few general comments and correct a few things that perhaps have been said and -- just a few things.

First of all, who's from Washington, D.C.? If I postpone this meeting now till Monday, you'd be stuck here over the weekend. That would be a shame but, you know, that's just one comment I would make.

Just so you know, we do have a number of concerns and there are really five general categories: Incompatibility with the landfill, huge, huge item; development resource impacts; water resource impacts; wildlife impacts; cumulative impacts, and we have a number of miscellaneous other concerns, and of course we'll detail those in our comment letter.

First, incompatibility with the landfill. As has been discussed in previous comments, the design, construction, and operation of ECEC's proposed project is incompatible or incompatible with the landfill's approved design operation. It was interesting to note in the meeting last night, Mr. Harvey acknowledged that already some of the facilities are being -- at least some of the ancillary are being changed because of conflicts in the landfill project. Just today, he mentioned that the possibility of using the

fine tailings for possible grouting, if I understood him correctly, for the -- for the reservoirs, but those fine tailings are already dedicated for landfill liner, which is what? -- ten feet thick, at least?

MS. COOK: Twelve.

MR. COOK: Ten to 12 feet thick. So resources they plan on using already conflict with the landfill, even a minor issue such as that, which really isn't minor because of the problems involved.

So we believe it is incompatible. As Mr. Harvey said, we believe it's compatible. We've been waiting for the studies that have been promised to show that it is compatible, so those have to wait and see. But based on the information provided to date, it is not currently compatible.

Additionally, one just has to step back and say, Does this make common sense? One must ask -- why would you put all this water next to all this municipal solid waste. Generally, solid waste and water do not mix. With seepage and other concerns, it just doesn't make sense. But those are issues which will be prudently analyzed, I'm sure, and I'm sure we'll have extensive comments on the analyses that are performed.

Also, adverse impacts on the development process is another key concern. It must be recognized that while

ECEC's trying to fly under the banner that this is a green project, it really is not a green project. I don't think it -- I don't think it meets the current standards for renewable projects in the State of California. And so they're obviously going to have to study very closely the need for the project and how it fits into the power grid and how it is related to other projects, solar projects, the LEAPS Project, which is the Lake Elsinore Advanced Pumping Storage Project, which is very far along in the process, which is another pumped storage project. But the fact is that ECEC acknowledges that this project will use more energy. It tries to explain itself that this is off-peak power, but yet there has to be studies to see if that really is available, sources of that off-peak power.

Again, they try to fly the banner that it's a green project but it might use wind power, which is generally available at night. And yet they failed to identify the sources of that wind power and other green power sources that would be used to power that project. More likely than not, off-peak power will be generated often by fossil fueling, fossil burning emission plants. So the sources of off-peak power and the project's impact on greenhouse gases must be reviewed, which is one of the items that's already been mentioned in the scoping sessions.

So the impact on capacity and liability to the

local and regional transmission systems is required.

In addition, the financial analysis will be necessary to look at the project economics relative to the other alternative sources, the need for such projects. And I think you can find abundance of information already in proposed pumped storage projects that they don't pinch a lot unless there's subsidized rate-making involved.

Obviously, the next major impact is water resources impacts, which has been talked about a lot but -- and I don't need to belabor the point -- and it's difficult to analyze these impacts with the lack of information and the failure to have an adequate project description. We keep getting promises they may be here, they may be there. One of the critical things that is lacking here is an adequate and complete project description because comments are required on what a complete project description is. So they really haven't identified the exact location of sources, where they hope things -- and things, frankly, keep changing, such as the transmission line. That's to be expected, but we have to have a set project that we can focus upon.

So groundwater. In their draft application, they acknowledge that groundwater supply hasn't really been identified. They hope to be able to acquire suitable lands for purchase and so forth.

In addition, I want to highlight -- which was mentioned last night -- the proposed rule of the Bureau of Reclamation. This in itself may be a fatal flaw to the project, the Bureau of Reclamation rule and the impact of water in the Chuckwalla Basin on some of these wells. So that will have to be something that's certainly analyzed and I would suggest it be done quickly because that could be ultimately a very fatal flaw.

So the questions are: Is there sufficient water? It's clear there will be necessary water fill to continually refill the reservoirs and obviously that's going to be -- the impacts to local supplies will have to be studied, assuming that can be done.

The project also has risk of seepage, subsidence, in other related water land use projects in the area, particularly impacts to Metropolitan's Colorado River Aqueduct is primary concern, as well as the greener Chuckwalla Valley and Groundwater Basin.

There's obviously the wildlife and habitat concerns. It struck me with interest the proposed schedule for the EIS/EIR. They are very aggressive and I think, frankly, are unduly optimistic. And just from practical experience in dealing with the landfill project, for instance, we were required to do two years of biological monitoring before we could release the EIR/EIS for the

desert big horn sheep. So just as a practical point, you might want to get those things locked up first because there could be some very long lead time if the agencies make you do required monitoring so you can have accurate description of the impacts and possible mitigation.

So ours was what? -- two years? -- two years required lead time on some of these issues. So that's not being critical. It's just being realistic on what may be required.

Obviously, the biological studies will have to study the habitat, the entire project, including the areas surrounding the water wells, the route of the transmission lines, such as the BLM has discussed, the route of the water line and it also has to look at migration corridors as well as habitat which would be very critical, particularly for the desert tortoise.

Obviously, it's already been mentioned that the introduction of a large body of water in the desert produces some unique study challenges and some unique questions and impacts. You also need to address the areas of potential attraction of predators, putrification, putrification of the introduction of nutrients in an otherwise rendered environment which the water was produced, the new artificial wetland habitats, impacts to migratory water fowl, which has already been mentioned, the cumulative and -- and the

cumulative biodiversity impacts.

The brine ponds have been mentioned. Those could truly be an attractive and deadly nuisance to migratory water fowl.

So, obviously, all these mitigation measures will need to be discussed in detail, and we understand that situation.

Overall cumulative impacts. Obviously, the conflict with the landfill would be a cumulative impact. If for some reason FERC should decide there's a preference of this project over the landfill project, obviously a cumulative impact analysis would need to examine where municipal waste would go if not to Eagle Mountain, which is a cumulative impact which has not been mentioned today.

Beyond a study, the cumulative impacts associated with the landfill, ECEC should study the cumulative impacts associated with the other planned projects, including a substantial number of solar projects in the area which I think was mentioned today.

There are, as the BLM knows, thousands and thousands of acres proposed for solar projects.

There are some other matters that should be considered. Obviously, there will be significant acquisition of service damages associated with the acquisition of the Eagle Mountain property and business

interests, whether owned by Kaiser and/or the Los Angeles County Sanitation District. I'm not even sure how ECEC can prepare an adequate application without access to the site.

And then excessive alternatives, they also must scrutinize the project's economics and have real costs associated with the project, the acquisition of the fee ownership as opposed to the very inadequate assumed amounts currently in the financial projections.

There's a few other things that came up in the course of what I've heard. Again, I want to point out we need an accurate and complete project description. Things keep changing, and I understand they do change. But we can't be too heavy on this. And so we need to have a complete and accurate --

It was mentioned that the mines were depleted. That is incorrect. There's plenty of iron ore there. The steel mill went out of business for lots of reasons but it wasn't for the lack of iron ore. So one of the resource impacts you need to look at is the impact on the mineral resources. The State has a Section 36 mineral interest up there. That all has to be looked at.

In addition, Kaiser on just a portion of the property has 158 million tons of rock that's basically sort of been stockpiled and you need to determine what access will be limited to that resource. Kaiser does have mining

operations out there in shipping the rock and reclamation activities. So all those impacts will need to be analyzed.

It's going to be a very long road for the project. Again, I question whether it's currently really a viable project. We believe it truly is incompatible with the landfill, so we'll anxiously await the studies that we've been waiting for for 20 years to see that it is compatible, supposedly.

But we believe that there are inconsistencies with the project and some fatal flaws in the project.

Let's see. What else? That's it for the moment. As you would expect, we'll have an extensive comment letter which we'll file.

MR. TURNER: I've got a couple follow-up questions.

MR. COOK: Okay.

MR. TURNER: You've raised a number of real legitimate concerns that I think we've captured in our scoping document.

MR. COOK: I think many you have. Yes.

MR. TURNER: Please let us know what we didn't. One, you make a good point about adding information based on site access. The Commission will be making decisions based on what we have before us. We obviously don't have the authority under the preliminary permit to require or give

the rights to an applicant to go out and gather data where they don't have access to those lands.

So that's just kind of a head's up. If they can't do it, we'll do -- we'll have to base our analysis and our decisions based on the information before us.

MR. COOK: Well, I understand that.

MR. TURNER: And so if they don't have access, the -- part of your questions may be simply that it's based on less than perfect information.

MR. COOK: Well, it may be based on inaccurate information; for instance, some of the (indiscernible) back here don't accurately reflect the situation. They're more than 20 years old, 30 years old.

MR. TURNER: I would encourage you if that's the case and there's more information on which you want us to base that decision, put that in the record for the Commission to consider.

MR. COOK: We'll supply it.

MR. TURNER: The other question I have is you suggested that you still have mining operations ongoing there or in the sense of the stockpile; did I understand that?

MR. COOK: Yeah. We ship rock from there. It's not huge quantities, given the market and the collapse of the building market, given the distance from the market but,

yes, shipment of rock occurs.

Now, when I say "mining," there's no active iron ore mining where there's blasting and stuff. No. But the shipment of rock is considered mining and we have reclamation activities.

MR. TURNER: And those stockpiles are relative to this project and to the landfill are where?

MR. COOK: They're all throughout -- they're all throughout the site.

MR. IVY: Is that the tailings?

MR. COOK: Well, a lot of it is the overburden that was excavated. So, for instance -- for instance, I know we had an independent evaluation and stuff that's not part of the landfill project. There was 158 million tons above surface that's just sitting there. And there's potentially huge rock activity. For instance, if there's ever a Salton Sea restoration project, you know, we already asked if they had potentially 20 million tons of rock.

So the potential there and how it may impact other projects is huge, potentially. I don't know the answer to that.

MR. TURNER: I guess I'm trying to envision where is that information source that the Commission would be able to --

MR. COOK: We'll provide it.

MR. TURNER: You'll provide it in the sense of how that fits into the schedule for the landfill and your operations there and --

MR. COOK: We'll do the best we can. The problem is, again, we need a specific project description on what's going to impact and how the operations may impact on access.

MR. TURNER: But can you not provide us the information on where your plans are going for that area?

MR. COOK: For which area?

MR. TURNER: For the landfill, for the --

MR. COOK: Oh, yeah. I mean, like I said, there's already a 50,000-page administrative record on the landfill.

MR. TURNER: I guess -- I understand what you're saying. You needed to understand how to comment. But if you don't get it in a timely fashion -- the information I'm encouraging you provide the Commission is to say, Here is where we have all of the stockpiles. Here's where we envision extracting that if and when we need to use those stockpiles. So we can see it out --

MR. COOK: It often depends on the market, the type of rock desired, if it's rip-rap, what size, where, cost of transportation. It's kind of up in the air. So it would be really helpful to have a project description, their activity, to kind of know where we're going to be precluded

from.

I guess on the site visit, they mentioned the railroad was abandoned yesterday. That's not correct. The railroad's not fully usable because of a flood. But the railroad is still used. In fact, we have a locomotive up there that we do a lot of repairs and things like that, so -- yes?

MS. WILLIAMS: We'd like to ask you a question about your concerns about the addition of water in the surrounding two reservoirs with the landfill cells being in the center and what exactly would be your concern with the seepage? My position, looking at this as a hydrogeologist, and being familiar with Title 27 requirements and having worked at landfills, is I understand what the state requires for protection of groundwater seepage losses. And that's a concern if we're going to be putting water in abandoned mine pits. But one of the mitigation measures that we're insisting on is an extraction well gallery on the down gradient side that would collect any potential seepage. And if that being the case, with the landfill cells being in the center, any -- if the double liner leachate collection system that's required for the landfill fails, and I'm not exactly familiar with whether there's an extraction well field required for the landfill, but certainly there's an opportunity for a marriage there if you put two extraction

well fields.

So, you know, I really don't understand from a technical perspective what would be the concern there if you've got an extraction well field down gradient.

MR. COOK: Well, I'm not an engineer. I'm not an engineer. We have to get the engineers out there.

MS. WILLIAMS: Okay. But I'm just -- I just wanted to point this out to you, sir, as, you know, it's an issue for you.

MR. COOK: Yeah.

MS. WILLIAMS: And I'm just saying at first glance I don't understand it.

MR. COOK: Well, part of the concern was the seepage from the side slopes and the stability of the slide slopes on the line, not necessarily -- that's one of the big concerns.

MS. WILLIAMS: You're talking the fractured --

MR. COOK: Right.

MS. WILLIAMS: -- fractured bedrock more so than seepage from the lower reservoir which we're, you know, very concerned about into the alluvium where the groundwater supply is.

MR. COOK: Correct. Correct.

MS. WILLIAMS: Okay.

MR. COOK: If it's in the lower reservoir, it's

generally past. But in the upper reservoir, it's not. It's right in between there.

MS. WILLIAMS: Right. Okay.

MR. COOK: So -- but I -- trust me, we have lots of people we pay thousands of dollars to that will look at it.

MS. WILLIAMS: Oh, I understand. But that would help, you know, in your comments just to be really explicit about the -- that incompatibility of the water with the landfill going in and potential seepage losses because I wasn't quite understanding.

MR. COOK: Let me ask you: Will this transcript be available?

MS. NGUYEN: Yes.

MR. TURNER: It will.

MR. COOK: How soon?

MS. NGUYEN: Well, if you'd like to purchase it from them, as soon as Mike gets done transcribing or recording. But for our purposes, I mean, once they're done with that, we at FERC have -- get a copy, a first look at it, go over it, see if we have any corrections to be made, and then it gets filed.

MR. TURNER: It's usually in about --

MS. NGUYEN: Two weeks I would say.

MR. TURNER: Yeah, two weeks, ten days, two

weeks.

MS. NGUYEN: Right. But if you want it before then, --

MR. COOK: Two weeks? So before the comment period is over, obviously.

MS. NGUYEN: Yes.

MR. COOK: Okay. That's probably good enough. One other thing I want to mention, that all the addresses you're using for us, you have an incorrect suite number. It should be Suite 480 and not 850. Unfortunately, our mail does not often get there with an incorrect suite number because there's no such suite number anymore, so if you could just make a note of that and make that correction to all the mailings.

MS. NGUYEN: Address from within the scoping document is from our official service list. So if that's incorrect, then I -- I mean, I suggest --

MR. COOK: It is.

MS. NGUYEN: I suggest you e-mail our FERC Subscription people, and I can get you the e-mail address for that, and just tell them to make that correction. Because that has to officially be done by you.

MR. COOK: Okay. We haven't been there for like six or seven years.

MR. HARVEY: May I address two comments?

MS. NGUYEN: Yes.

MR. HARVEY: One, the adequacy of -- or our access to the site that was discussed. It is true we do not presently have access to the portion of the project that includes the reservoirs and of course the underground works we would have never had access to anyway. So we're really talking about the reservoirs.

We have had access to those sites in the early '90s and there were investigations that were done that we were still able to draw upon that were utilized here.

We also have a wealth of information, environmental information, based on the environmental investigations that were done for the landfill and all of that documentation we've been able to draw upon, and of course we're able to use current aerial photography to augment and verify our understanding about that site. Those sites are also not sensitive for wildlife or for cultural resources. So in terms of getting people out on the ground to look at those reservoirs sites, specifically we understand about big horn sheep and we understand about ravens and other things being attracted to the water bodies, but those aren't things that you need to go out and scour the existing mining pits to make analysis of.

So while we don't have access to those sites, we certainly have a complete ability to do the environmental

assessment of the issues that will pertain to cultural and biological resources for those sites and we have a very reasonable understanding of geology and the structures that we're dealing with out there to get us through the license process and then at final engineering, of course, we'll have to go out and determine where we have fissures and cracks and what we need to do for grouting and seepage control. But those analyses can be done right now without having access to the site with the wealth of information that is already available.

And the second thing I'd like to ask if -- Mr. Cook mentioned that 20 years ago and the landfill has been in process for 20 years as well, it would help us very much in our finalizing our analysis of compatibility between our project and their project to understand what is the status of the landfill and what is the -- and whatever bonding activities, as you requested, and, for example, what is the timing that they would expect to start development of the landfill and to actually be placing solid waste there, what kind of phases and maybe what are the initial preparation actions that go along with that timing so that -- what we want to understand if the landfill is going to begin development concurrent with our timing or that we're envisioning for construction of our project, then that's part of what we need to figure out for compatibility. If

they're five years or two years or however many years after or before, then that affects our analysis of compatibility as well. So it would help us very much to understand the current status of the landfill and what kind of timing for development of that.

MR. COOK: I can answer part of that question. The other part of the question needs to be responded to by the Los Angeles County Sanitation District because they will be the owner and the operator of the landfill so it will be up to them on timing as to construction.

The only thing I can relate to you is the Mesquite Landfill Project, which they also purchased, and they, once they purchase it, begin immediate construction to do that. It was like two or three years of construction. I think it's now open, not for rail haul, but I believe it's open for trash. So that's something you'll have to direct to them since we're not going to be the builder of the landfill project. Los Angeles County Sanitation District is.

And as far as the status, we're in litigation before the Ninth Circuit Court of Appeals. The landfill project has received all of its permits, received all of its federal approvals, received all of its state and local approvals. It was challenged at the state level under the CEQA. That went to the California Court of Appeals, which

we were successful in overturning the lower court. The lower district court, federal district court, found against us on the BLM portion of the land exchange. We had our hearing on December 6th of 2007, so we're awaiting a decision at any time. Frankly, we're very optimistic about it, if you were at the court hearing, from what the judges said about the -- about the case.

So that's where it's at. It's been in litigation for 15 years, longer, and this will probably be about the final case, but we're confident that it will be resolved in our favor.

And once that proceeds, there will be a closing with the Los Angeles County Sanitation District and then they will own the property and -- and the experience with Mesquite was they began construction immediately once they closed on it.

MS. NGUYEN: I'm sorry. What was that?

MR. COOK: They -- it's my understanding they immediately began construction on the project, which I've heard they spent over a hundred million dollars in preparing the site. You probably know more than I do about that, so --

MS. WILLIAMS: Only via the Regional Board.

MR. COOK: Okay.

MS. WILLIAMS: It was a big price tag. And I

just want to confirm my experience that it does take a couple years to build the cells to the line or leachate collection system. But once that's in place, then they can immediately start receiving the --

MR. HARVEY: May me ask one final point of clarification? Mr. Cook, you indicated that the landfill project is fully permitted. It's my understanding, and perhaps my confusion, that all of those permits are contingent upon the landfill so that none of those permits are actually final and that some of those permits had dates on them that have now passed. Is that correct or is that confusion with what I'm reading in the record?

MR. COOK: A little bit of confusion. All the permits were granted. All those are being renewed. The only one that I know of that may have lapsed that ther's a question where you need one now is a 404 permit. All the air permits and everything else is renewed. But, because of the current status of the landfill litigation, they're not invalid but they're in effect held in abeyance because you don't have a project until the litigation's resolved.

MR. HARVEY: Thank you.

MS. NGUYEN: Anything else?

MR. DYOK: I'm wondering if we can ask the BLM representative where they are on the programmatic EIS for the solar projects as we're going to be looking at the

cumulative impacts. If we could get a sense on the status of that?

MR. BENNETT: The programmatic is being -- it's been scoped and it's with the state and with the electric consultant. California, for the sake of basically all the solar projects we've got, we're still figuring out what to do because right now, as has been mentioned, I've got 127,000 acres under applications from Desert Center to Blythe and all the other field offices we have in Southern California -- I guess it's pretty close to half a million -- so we have a lot of work to do yet to get these things going.

MS. NGUYEN: Is there anything else? I have one comment I'd like to put on the record, and this is from the representative from the Fish and Wildlife Service on our site visit yesterday. And I'm helping out here, Jeff, because I know we discussed this at our site visit that I think we were possibly going to look into tapping into the existing transmission line possibly for the new transmission line corridor because there's an existing transmission line there, but there might be an engineering issue associated with that; is that correct?

MR. HARVEY: It's correct that the question was raised by the representative -- I don't remember Tanika's last name -- but the representative from U.S. Fish and

Wildlife Service whether or not we could tie our transmission lines to the existing Metropolitan Water District 230KV towers and simply run our transmission out that way. I explained to her that just by engineering design, those 230 kilovolt towers are holding all of the wires that they can hold and that we have a much larger transmission, 500 kilovolt transmission system, that actually takes us another route in addition. So there would be no way to simply tie our wires onto their towers structurally. It would be wonderful if it could happen but that's not the way it works, unfortunately. We have to have our own towers for -- and we also need to have the full amount of power. Our transmission lines are going to be fully committed for our project's needs for generation out and for pumpback power in.

So, unfortunately, there is not an opportunity for us to share those towers in engineering design. Thank you.

MR. IVY: I'd like to add to that. There's a further question she asked about if you could build a new tower in the same spot since you have to build new towers anyway. That might be able to accommodate both.

MR. HARVEY: Good point. That was her follow-up question, was could we simply replace Metropolitan Water District's towers with our towers and put their wires on our

towers and that we would still only have one line. Again, not really feasible from an engineering standpoint. For one reason, again, the route that their line takes is to go into the Julian Hine Substation, their Hayfield Pumping Station, and then on to the Devers Substation here in the north end of the wind farm. Our transmission route is very different to interconnect to the regional grid as the system has to function.

And the other factor is that those lines are in use -- the Metropolitan Water District's lines are in use and the only way you'd be able to construct our towers and put their lines there would be to put their towers -- their lines, excuse me -- for some period of time out of use and interrupt their service and they rely upon that as a constant need, not something that's interruptable power, so, again, from an engineering standpoint, just not a feasible solution.

But we wish it was. It would make our lives easier to have -- to be able to double up on someone else's system like that.

MR. IVY: Thank you.

MS. NGUYEN: So I guess the only parallel is that it's existing line for a while and not the entire 12-mile corridor?

MR. HARVEY: A very short section. In fact, then

we cross them and we follow the roadway corridor rather than their transmission corridor. That's correct.

MS. NGUYEN: Thank you.

MR. HARVEY: Thank you.

MS. NGUYEN: Anything else from BLM?

(No response.)

Hearing nothing else, I guess that's it for us. We'll adjourn the meeting and I'd like to thank you again for coming and for participating and we look forward to getting your comments and going forward. Thank you again.

MR. HARVEY: Thank you.

(Whereupon, at 10:36 a.m., the scoping meeting was adjourned.)

Section 13.7 – Comments Received During Comment Period

ORIGINAL

United States Department of the Interior

BUREAU OF RECLAMATION
Southern California Area Office
27708 Jefferson Ave., Suite 202
Temecula, CA 92590-2628

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SCAO-1500
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MAR 17 2009

2009 MAR 24 A 8:53

Honorable Kimberley D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Ms. Camilla Williams
Division of Water Rights
State Water Resources Control Board
1001 I Street, 14th Floor
Sacramento, CA 95814

Subject: Eagle Mountain Pumped Storage Project (P-13123-000), Riverside County, CA Comments on Scoping Document 1 (ER 09/06)

Dear Honorable Bose and Ms. Williams:

Bureau of Reclamation (Reclamation) staff have reviewed the subject scoping document. The following comments are provided for the purpose of providing informal technical assistance to the Federal Energy Regulatory Commission, and do not represent the views and comments of the Department of the Interior.

a. Control Number: ER 09/06, FERC No. 13123-000

b. Introduction: The applicant proposes to create a 1,300 MW pumped-storage hydro-electric generating facility using a former hard rock quarry site at Eagle Mountain, Riverside County, California. Water for the project would be supplied by groundwater wells in the Chuckwalla basin. The initial fill may require 25,000 acre-feet over a 2-year period, with 2,500 acre-feet per year thereafter to offset evaporation and percolation losses.

c. General comments: The proposed groundwater wells are within the boundary of the Colorado River aquifer as defined by U.S. Geological Survey Water Resources Investigations Report Number 94-4005. Reclamation may have jurisdiction over the groundwater pursuant to a proposed rule published July 16, 2008 (73 Federal Register 40915-40932).

d. Detailed Comments: The Secretary of the Interior, acting through Reclamation, is responsible for managing beneficial use of Colorado River water under a legal framework known collectively as "the Law of the River" and, in effect, is the Water Master for the Colorado River.

The Consolidated Decree of the United States Supreme Court in *Arizona* v. *California*, 547 U.S. 150 (2006) requires the Secretary to provide complete, detailed, and accurate records of consumptive use of water extracted from the mainstream of the Lower Colorado River, including groundwater.

The Chuckwalla basin is within the accounting surface portion of the Lower Colorado River aquifer. The accounting surface elevation in the area of the project is currently defined at 238 to 240 feet above mean sea level, vertical datum of 1929, and represents the water table of the river aquifer that would exist if the only source of water to the aquifer were the river. The elevation values of the accounting surface were recently updated in U.S Geological Survey Scientific Investigations Report 2008-5113 available at http://pubs.usgs.gov/sir/2008/5113/.

The following criteria will be applied to determine whether wells within the accounting surface portion of the river aquifer will be considered to consume Colorado River water:

- Water pumped from wells within the flood plain is presumed to be river water.
- Wells in the aquifer outside the flood plain boundary with a static (non-pumping) water level less than or indistinguishable from the accounting surface are presumed to yield water that will be replaced by water from the river.
- Wells with a static level above the accounting surface are presumed to yield water that will be replaced by precipitation and inflow from tributary valleys.

e. Summary comments: The scoping document indicates that project effects to groundwater resources will be evaluated in an Environmental Impact Statement/Report. It would be helpful if this evaluation includes a prediction of potential groundwater draw-down in relation to the revised accounting surface elevation.

FERC and the applicant should coordinate with Reclamation to ensure that wells used to fill the reservoir and make up for losses are included in Reclamation's inventory of wells, including the location and static water elevation for each well. This information is necessary for Reclamation to determine if groundwater pumped for the project should be counted against California's State apportionment of Colorado River water at any point during the lifetime of the project.

Reclamation staff are prepared to provide consultative advice regarding our programs, facilities and mission relevant to the proposed hydro-electric preliminary permit. For additional information in the following areas, please contact:

- Environmental: Doug McPherson (Southern California Area Office), (951) 695-5310,
- Water accounting requirements or accounting surface information: Ruth Thayer (Boulder Canyon Operations Office, Water Conservation and Accounting), (702) 293-8426
- FERC Coordinator: Donald Bryce (Boulder Canyon Operations Office), (702) 293-8102.

Thank you for the opportunity to review this project

Sincerely,

Douglas S. McPherson
Environmental Protection Specialist

cc: LC-1000, 84-50000

Mr. Shawn Alam
Office of Environmental Policy and Compliance
1849 C Street, NW – MS 2462 – MIB
Washington, D.C. 20240

ORIGINAL

MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Executive Office

January 15, 2009 **Via E-mail & Regular Mail**

Ms. Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E., Room 1A
Washington, D.C. 20426

Dear Ms. Bose:

Eagle Mountain Pumped Storage Hydroelectric Project,
Project No. 13123-000 – California, Comments on Scoping Document 1

The Metropolitan Water District of Southern California (Metropolitan) received a copy of the Scoping Document 1 and Notice of Preparation for a Draft Environmental Impact Report (Draft EIR/EIS) for the Eagle Mountain Pumped Storage Hydroelectric project, Project No. 13123-000 (Project). The California State Water Resources Control Board is acting as the Lead Agency under the California Environmental Quality Act and the Federal Energy Regulatory Commission (FERC) is acting as the Lead Agency under the National Environmental Policy Act for this Project, collectively "Agencies." The Agencies prepared the Draft EIR/EIS to utilize two existing mining pits to pump and store water to generate power during periods of high demand on federal land near the town of Desert Center, within San Bernardino County. This letter contains Metropolitan's response to the public notice as a potentially affected public agency.

Metropolitan is a cooperative of 26 cities and water agencies charged with providing a reliable supply of high quality drinking water to 18 million people in six counties in Southern California. One of Metropolitan's major water supplies is the Colorado River that is delivered through the Colorado River Aqueduct (CRA). The CRA consists of tunnels, open canals, and buried pipelines. CRA-related facilities also include pumping plants, above and below ground reservoirs and aquifers, access and patrol roads, communication facilities, and residential housing sites. The CRA, which can deliver up to 1.2 million acre-feet of water annually, extends 242 miles from the Colorado River, through the Mojave Desert and into the Los Angeles basin. The CRA commenced delivery of Colorado River water in 1941.

Eagle Crest Energy Company (ECEC) has contacted Metropolitan regarding this proposed Project, and we appreciate these efforts and look forward to continued coordination on this Project. Metropolitan previously provided comments to the FERC for ECEC's Licensing Process, Project No. 12509 and No. P-13123, in comment letters dated February 11 and

700 N. Alameda Street, Los Angeles, California 90012 • Mailing Address: P.O. Box 54153, Los Angeles, California, 90054-0153 • Telephone: (213) 217-6000

September 15, 2008, respectively, copies of which are enclosed for reference. Our letters identified Metropolitan's concerns regarding the project's potential impact upon the CRA including water quality, groundwater level, hydrocompaction, and structural impacts. We request that the Agencies evaluate impacts of the proposed Project to Metropolitan's existing facilities that occur within the project's boundaries and propose mitigation measures where appropriate.

Specific comments on potential environmental issues for consideration and incorporation into the Draft EIR/EIS are listed below.

Water Supply Alternative Issue

1. The public notice states that water used to fill the reservoirs may be supplied from and would be transferred through the CRA. As stated in prior comment letters, Metropolitan has reached no agreement whatsoever to enable the project to use CRA facilities for water conveyance.

Water Quality Issues

Due to the Project's close proximity to the CRA, Metropolitan has concerns regarding some of the proposed facilities regards to water quality protection. These facilities include the location(s) of wells for groundwater supply, location of brine pond, and other unlisted appurtenant facilities. Project facilities described in the public notice which may potentially have an adverse impact on the water quality of the CRA (or affect other source water management efforts) include the following:

1. The public notice does not specify the locations of the proposed groundwater supply wells. The Draft EIR/EIS should identify and discuss in further details about the proposed wells and their impacts on groundwater quality. In addition, detailed analyses should be conducted on the impacts of pumping and aquifer water quality.

2. Existing groundwater in the vicinity of the Eagle Mountain Project contains several constituents of concern, including total dissolved solids, nitrates, arsenic, and hexavalent chromium. The Draft EIR/EIS should assess the viability of the reverse osmosis method selected and potential treatment alternatives. Additional analysis also should take place to assess potential leaching of heavy metals from the site and any potential impacts on water supplies traveling through the CRA.

Groundwater Levels, Hydrocompaction, and Structural Impacts to the CRA

1. The Draft EIR/EIS should provide sufficient data to indicate how much groundwater levels may rise from reservoir seepage to evaluate potential structural CRA settlement due to hydrocompaction. This analysis should take into account the extremely low tolerance of the

CRA for elevation changes. In addition, the Draft EIR/EIS should also identify potential mitigation measures and evaluate the effectiveness of these measures to the CRA.

2. The Draft EIR/EIS should identify the location of the proposed groundwater supply wells and provide sufficient information to assess the likely potential for subsidence and CRA settlement based on groundwater pumping. A detailed analysis regarding the potential for subsidence should be performed.

3. The Draft EIR/EIS should provide a comprehensive water level analysis. This analysis should include a detailed impacts analysis and hydrographs of projected groundwater levels in the vicinity of the CRA. Metropolitan believes that the water level impacts are greater than indicated and are concerned with potential for land subsidence as a result of groundwater withdrawal.

Land Use Issues

Metropolitan is concerned that locating the reservoirs and related storage/pumping facilities near or across the CRA could have a negative impact on Metropolitan's operations, facilities, and right-of-ways. Metropolitan owns extensive property in fee and easement along the CRA and its related facilities. Metropolitan provides the following specific comments on its concerns regarding potential impacts on its facilities and rights-of-way for the Agencies' consideration and incorporation into the Draft EIR/EIS:

1. Metropolitan's CRA conduit was not designed for AASHTO H-20 loading in this area, and any vehicle crossings should be restricted to the existing paved roadways which have protective slabs in place to distribute this loading away from the pipeline. Any vehicle or equipment which would likely cross the conduit as part of the construction operation of the proposed project will need to be reviewed and approved by Metropolitan prior to traversing the CRA.

2. Metropolitan requests that the Draft EIR/EIS acknowledge that neither private nor public entities currently have any entitlements to build over Metropolitan's fee-owned rights-of-way or properties.

3. Metropolitan's facilities and fee-owned or permanent easement rights-of-way should be considered in planning and in the Draft EIR/EIS, and the Project should avoid potential impacts that may occur due to implementation of the Project.

4. Any new facilities arising out of the Project should not impact accessibility to existing facilities or impede the use of existing facilities, including the CRA system, as shown on the map.

5. Development associated with the proposed Project must not restrict any of Metropolitan's day-to-day operations and/or access to its facilities.

6. Metropolitan must be allowed to maintain its rights-of-way and requires unobstructed access to our facilities and properties at all times in order to repair and maintain our system.

7. In order to avoid potential conflicts with Metropolitan's rights-of-way, Metropolitan requires that any design plans for any activity in the area of Metropolitan's pipelines or facilities be submitted for our review and written approval. Approval of the Project where it could impact Metropolitan's property should be contingent on Metropolitan's approval of design plans for the Project.

8. Detailed prints of drawings of Metropolitan's pipelines and rights-of-way may be obtained by calling Metropolitan's Substructures Information Line at (213) 217-6564.

9. To assist in preparing plans that are compatible with Metropolitan's facilities, easements, and properties, we have enclosed a copy of the "Guidelines for Developments in the Area of Facilities, Fee Properties, and/or Easements of The Metropolitan Water District of Southern California."

10. All submitted designs or plans must clearly identify Metropolitan's facilities and rights-of-way.

Other Issues

1. The Draft EIR/EIS need to identify Metropolitan as an agency whose approval is required.

We recommend the Agencies coordinate with Real Property Development and Management Team, Substructures Team, and others, to facilitate your planning process. Other proposed and future facilities and groundwater supply wells identified should involve all Teams to provide the maximum assistance.

We appreciate the opportunity to provide input to your planning process and we look forward to receiving the Draft EIR and EIS on this Project. If we can be of further assistance, please contact Mr. Mathew Hacker at (213) 217-6756.

Very truly yours,

For Martin Meuler

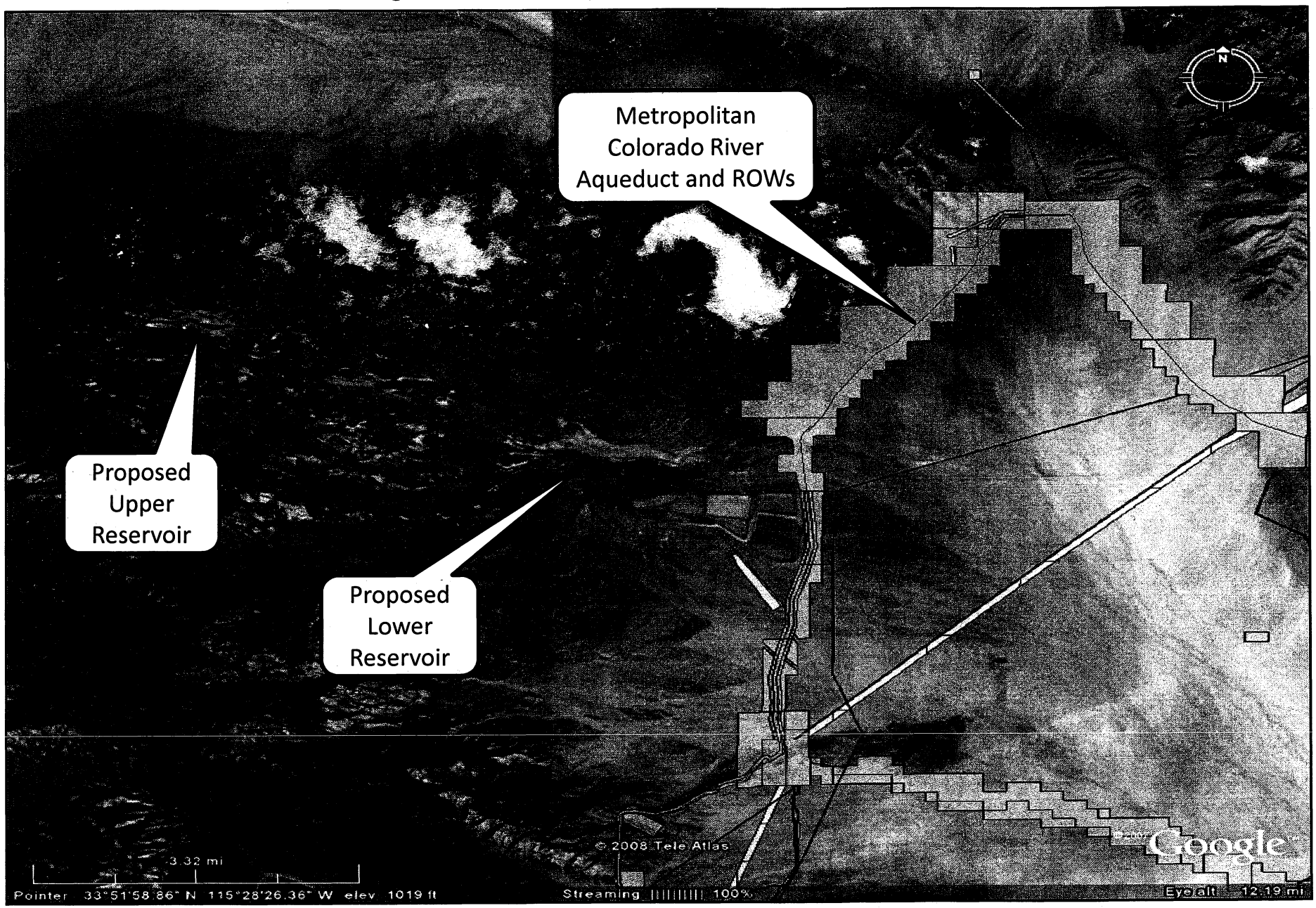
Delaine W. Shane
Manager, Environmental Planning Team

BSM/bsm
(Public Folders/EPU/Letters/12-JAN-09A.doc – Kimberly Bose, FERC, Eagle Mountain Pumped Storage Hydroelectric)

Enclosure: February 11, 2008 Letter
September 15, 2008 Letter

cc: Mr. Art Lowe
Eagle Crest Energy Company
P.O. Box 2155
Palm Desert, CA 92261

The Metropolitan Water District of Southern California
and Eagle Mountain Pumped Storage Project, Eagle Mountain, CA



UNITED STATES OF AMERICA

FEDERAL ENERGY REGULATORY COMMISSION

EAGLE CREST ENERGY COMPANY	)	PROJECT NO. 12509-000

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA'S COMMENTS REGARDING REQUEST FOR USE OF TRADITIONAL LICENSING PROCESS

The Metropolitan Water District of Southern California ("Metropolitan") respectfully submits the following comments regarding Eagle Crest Energy Company's Request for Use of Traditional Licensing Process for the proposed Eagle Mountain Pumped Hydroelectric Storage Project, FERC Project No. 12509 ("Eagle Mountain Project"). These comments are tendered pursuant to 18 C.F.R. § 5.5.

1. Metropolitan is a public agency created in 1928 by vote of the electorates of several southern California cities. Metropolitan is one of the country's largest wholesale water suppliers, delivering supplemental water for domestic and municipal use to more than 18 million people through its 26 member agencies. Metropolitan's service area encompasses the six county region of southern California (Los Angeles, Orange, Riverside, Ventura, San Diego, and San Bernardino), an area covering nearly 5,200 square miles. Metropolitan supplies an average of 1.7 billion gallons of water per day and more than 2 billion gallons on

a hot day. Over the course of the year, Metropolitan imports on average from 1.5 to 2.1 million acre-feet of water.

2. Metropolitan's imported water is derived from two primary sources: the Colorado River Aqueduct ("CRA") and the California State Water Project ("SWP"). Metropolitan constructed, owns, and operates the CRA, which brings water from the Colorado River into southern California. The second major water supply for Metropolitan is the SWP, which captures and stores runoff from the Sacramento/San Joaquin Delta watershed in northern California and delivers the water to areas of need in northern, central, and southern California. Metropolitan is the largest of the 29 contractors that purchase water through the SWP.

3. Eagle Crest Energy Company ("Eagle Crest") proposes to develop the Eagle Mountain Project as a 1,300 MW pumped storage hydroelectric project consisting of an upper and lower reservoir, intake and outlet structures, a powerhouse, a 500 kV transmission line, and other appurtenant features. Eagle Crest intends to site the development of the Eagle Mountain Project in the Chuckwalla Valley region of Riverside County, California, on land controlled by the Bureau of Land Management and on private property owned by Kaiser Eagle Mountain, LLC. Eagle Crest proposes to fill and replenish the reservoirs with water obtained from dedicated groundwater wells.

4. The CRA lies immediately east of the proposed location for the Eagle Mountain Project. In the past, Eagle Crest sought to obtain Metropolitan's agreement to use CRA water to fill its reservoirs. Metropolitan opposed that request, as such water is required to meet the water supply demands of its member agencies. Moreover, Section 131 of the Metropolitan Water District Act (Cal. Stat. 1969, Chapter 209) precludes Metropolitan from

selling water outside of its service area, unless such sale is made to the federal government or for the purpose of generating electric power which is used directly or indirectly, through exchange, for pumping, producing, treating or reclaiming water for use within the district. The Eagle Mountain Project is located outside Metropolitan's service area, and Metropolitan has entered into long-term power contracts that provide ample electric power for operation of the CRA.

5. Eagle Crest previously obtained preliminary permits for its Eagle Mountain Project, later applying for a hydroelectric license. The Commission, however, denied the earlier application. In June 2004, Eagle Crest again applied to the Commission for a preliminary permit for the Eagle Mountain Project, FERC Project No. 12509. The Commission granted the preliminary permit in March 2005.

6. On January 10, 2008, Eagle Crest filed the following items with the Commission in pursuit of a hydroelectric license for the Eagle Mountain Project: (1) Notice of Intent to File Application for Original License, (2) Pre-Application Document ("PAD"), and (3) Request for Use of Traditional Licensing Process ("TLP Request"). Notice of these filings was published in the January 9, 2008, issue of the *Riverside Press Enterprise*. The publication invited comments on Eagle Crest's request to use the Traditional Licensing Process ("TLP").

7. Because the Eagle Mountain Project involves complex technical issues involving multiple parties, Metropolitan believes the Integrated Licensing Project is more appropriate than the less rigorous TLP pursuant to the factors set forth in18 C.F.R. § 5.3(c)(1)(ii).

8. *Seepage*: Eagle Crest proposes to use three feet of fine tailings in the reservoirs to reduce seepage, resulting in an estimated total seepage rate of 600 acre-feet per year. Fine tailings are expected to range from silty sand to clayey silt. Given that the permeability of the tailings proposed may be relatively high even for the proposed sealing material, actual seepage rates likely will require further study. Additionally, analysis of the project will need to address the structural effects of increased seepage on Metropolitan's Colorado River Aqueduct. Increased hydrostatic pressure against the lining of the CRA itself could adversely affect its stability, resulting in potential risks of seepage into the CRA's conveyed water supplies. Hydrostatic pressure is a complex matter that needs further study before approval of the Eagle Mountain Project.

9. *Water Quality*: Existing groundwater in the vicinity of the Eagle Mountain Project contains several constituents of concern, including total dissolved solids, nitrates, arsenic, and hexavalent chromium. Although reverse osmosis may be appropriate to treat total dissolved solids and nitrates, it may be ineffective for other constituents. Further study is warranted to assess the viability of Eagle Crest's reverse osmosis method and potential treatment alternatives. Additional analysis also should take place to assess potential leaching of heavy metals from the site and any potential impacts on water supplies traveling through the CRA.

10. *Groundwater Impacts*: Potential groundwater impacts of the project are complex. Data from monitoring wells adjacent to the CRA suggests that the aquifer underlying the Chuckwalla Valley is more confined than previously understood. Therefore, the projected drawdowns and water level impacts could be more than anticipated in the PAD. Additional evaluations should be performed to address these issues.

11. *Brine Disposal*: Brine disposal ponds associated with the project could have material impacts on water supplies conveyed through the CRA. Metropolitan is actively involved with efforts throughout the Colorado River Basin to control salinity of Colorado River water supplies. Additional analysis will be necessary to adequately assess the potential seepage impacts of these ponds in light of Metropolitan's operational salinity criteria and other factors.

12. *Hydrocompaction*: Hydrocompaction occurs when water is added to the land surface, causing subsidence of lands. Desert soils are particularly susceptible to this phenomenon. Acute land subsidence in the vicinity of the CRA would create significant operational problems for Metropolitan. In order to assess the potential impacts of the project, a detailed technical study of hydrocompaction associated with the Eagle Mountain Project will be necessary.

13. For the reasons discussed above, Metropolitan believes that the Eagle Mountain Project should proceed with the more rigorous and comprehensive technical review provided by the Integrated Licensing Project.

Dated: February 11, 2008

Respectfully submitted,

Peter E. von Haam, Senior Deputy
General Counsel

The Metropolitan Water District of
Southern California
P.O. Box 54153
Los Angeles, CA 90054-0153

Tel: 213-217-6726
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CERTIFICATE OF SERVICE

I hereby certify that I have, this 11th day of February 2008, served a copy of the foregoing document by first class mail, postage prepaid and/or by electronic mail, on each person designated on the service list compiled by the Secretary in this proceeding.

Teresa J. Maropoulos
Metropolitan Water District of Southern California
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UNITED STATES OF AMERICA

FEDERAL ENERGY REGULATORY COMMISSION

EAGLE CREST ENERGY COMPANY	)	PROJECT NO. P-13123

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA'S COMMENTS REGARDING DRAFT LICENSE APPLICATION

The Metropolitan Water District of Southern California ("Metropolitan") submits the following comments regarding Eagle Crest Energy Company's Draft License Application (DLA) for the proposed Eagle Mountain Pumped Hydroelectric Storage Project, FERC Project No. P-13123 ("Eagle Mountain Project").

1. Metropolitan is a public agency created in 1928 by vote of the electorates of several southern California cities. Metropolitan is one of the country's largest wholesale water suppliers, delivering supplemental water for domestic and municipal use to more than 18 million people through its 26 member agencies. Metropolitan's service area encompasses the six-county region of southern California (Los Angeles, Orange, Riverside, Ventura, San Diego, and San Bernardino), an area covering nearly 5,200 square miles. Metropolitan supplies an average of 1.7 billion gallons of water per day and more than 2 billion gallons on a hot day. Over the course of the year, Metropolitan imports on average from 1.5 to 2.1 million acre-feet of water.

2. Metropolitan's imported water is derived from two primary sources: the Colorado River Aqueduct ("CRA") and the California State Water Project ("SWP"). Metropolitan constructed, owns, and operates the CRA, which brings water from the Colorado River into southern California. The second major water supply for Metropolitan is the SWP, which captures and stores runoff from the Sacramento/San Joaquin Delta watershed in northern California and delivers the water to areas of need in northern, central, and southern California. Metropolitan is the largest of the 29 contractors that purchase water through the SWP.

3. Eagle Crest Energy Company ("ECEC") proposes to develop the Eagle Mountain Project as a 1,300 MW pumped storage hydroelectric project consisting of an upper and lower reservoir, intake and outlet structures, a powerhouse, a 500 kV transmission line, and other appurtenant features. ECEC intends to site the development of the Eagle Mountain Project in the Chuckwalla Valley region of Riverside County, California, on land controlled by the Bureau of Land Management and on private property owned by Kaiser Eagle Mountain, LLC. ECEC proposes to fill and replenish the reservoirs with water obtained from dedicated groundwater wells.

4. The CRA lies immediately east of the proposed location for the Eagle Mountain Project. In the past, ECEC sought Metropolitan's consent to use CRA water to fill its reservoirs. Metropolitan declined the request, as such water has been required to meet the water supply demands of its member agencies. Moreover, Section 131 of the Metropolitan Water District Act (Cal. Stat. 1969, Chapter 209) precludes Metropolitan from selling water outside of its service area, unless such sale is made to the federal government or for the purpose of generating electric power which is used directly or indirectly, through exchange,

for pumping, producing, treating or reclaiming water for use within the district. The Eagle Mountain Project is located outside Metropolitan's service area, and Metropolitan has entered into long-term power contracts that provide ample electric power for operation of the CRA.

5. ECEC previously obtained preliminary permits for its Eagle Mountain Project, later applying for a hydroelectric license. The Commission, however, denied the earlier application. In June 2004, ECEC again applied to the Commission for a preliminary permit for the Eagle Mountain Project, FERC Project No. 12509. The Commission granted the preliminary permit in March 2005 and granted the request to use the traditional licensing process March 4, 2008.

6. Pending now before FERC is ECEC's Draft License Application (DLA). Metropolitan submits the following comments regarding the DLA.

Water Supply Alternatives

7. The DLA makes reference to discussions between ECEC representatives and Metropolitan staff regarding potential water exchanges to provide water from the CRA for initial fill of the project reservoirs. (Ex. E, section 10.2.2., p. 10-3.) Metropolitan has made no commitment whatsoever to supply water for the proposed project.

General Comments

8. In general, the DLA recognizes the potential impacts to the CRA and the local groundwater basin and indicates possible mitigation measures. However, this information is presented too generally, and no information is provided that evaluates either the likely occurrence of these impacts or the effectiveness of the mitigation measures presented.

9. ECEC should dedicate a separate specific analysis for the CRA with a complete description of all the potential water quality and structural impacts and proven mitigation measures to be employed. Metropolitan staff will provide any appropriate information to facilitate such necessary technical analyses.

10. ECEC should conduct risk analyses of worst case scenarios. For example, how will a reservoir or lagoon/pond breach be prevented or mitigated? What are the impacts of over-pumping on groundwater levels and subsidence? A much more detailed plan needs to be developed to address these scenarios.

11. The DLA indicates that monitoring will be conducted to determine seepage amounts, water quality impacts, etc. However, once an impact is detected through monitoring, it could be too late to prevent or effectively mitigate those effects. ECEC should propose a detailed plan of how such impacts will be detected, prevented, and mitigated.

Water Quality

12. The DLA does not specify the likely location of proposed project supply wells. Also, limited groundwater quality data and analyses are presented. Identification and further details about the proposed wells will be necessary to conduct a thorough assessment of the project's impacts on groundwater quality. Detailed analyses should be conducted on the impacts of pumping and aquifer water quality.

13. ECEC should investigate in detail the full range of constituents that are contained in the ore bodies. It is not clear that all possible sources of contaminants have been identified. For example, if magnetite-rich sands exist in the east wall of the lower reservoir, would pyrite and possibly gypsum (other constituents of the ore body along with the

magnetite) be proportionally also "rich" in these sands? Would their presence in these more permeable deposits along the east wall of the lower reservoir lead to more acidic leachate and potentially a greater risk of groundwater contamination?

14. The DLA states the potential for acidic leachate seepage water is low due to the low percentage of pyrite in the ore bodies. However, the USGS report that is referenced in ECEC's application (Force, 2001) also notes that 10-50% pyrite occurs locally in the lower ore in the upper reservoir. What bearing would these higher percentages have on the potential for leachate acidity and the groundwater contamination assumptions presented in the ECEC application?

15. The DLA does not adequately analyze the potential for cumulative water quality impacts of the project in conjunction with the future Eagle Mountain Landfill Project. The potential for reservoir seepage next to a municipal landfill exacerbates water quality concerns for local groundwater. Comprehensive geotechnical and hydrogeologic studies are necessary to address this issue, with close coordination with the landfill project to ensure that cumulative impacts are avoided.

Groundwater Levels, Hydrocompaction, and Structural Impacts to CRA

16. The DLA does not provide sufficient data to indicate how much groundwater levels may rise from reservoir seepage to evaluate potential structural CRA settlement due to hydrocompaction. Even if sufficient data is available to predict the rise in groundwater levels, ECEC should analyze these potential hydrocompaction questions. Also, while the DLA identifies potential mitigation measures, it does not provide adequate information to evaluate the effectiveness of these measures.

17. For example, the DLA suggests the use of extensometers to monitor settlement. More information should be provided to address the effectiveness of this instrument at this particular site and how extensometers would be used as part of an overall comprehensive deformation program, considering the depth to bedrock. Also, if settlement is detected, what (if any) mitigation measures would ECEC employ? Other tools should also be identified that will measure subsidence and hydrocompaction for the specific site conditions. The effectiveness of these tools should be clearly identified and analyzed.

18. The DLA indicates that a detailed seepage control investigation will be conducted as well as a mitigation program established. More details and data regarding the hydrogeology in the immediate area of the project will be needed. A geotechnical investigation of the soils underlying and in proximity to the CRA should be conducted, likely including groundwater simulations, soil testing, seepage flow models, etc. This is of particular concern because the east end of the lower reservoir, also closer to the CRA, is in alluvial material with seepage control measures proposed at that location.

19. Much of the discussion is based on the performance of groundwater supply wells not in the vicinity of the Eagle Mountain Mine. Without identification of the location of the proposed supply wells, there would be insufficient information to assess the likely potential for subsidence and CRA settlement based on groundwater pumping. Even if the location of the wells were identified, detailed analysis regarding the potential for subsidence should be performed.

20. Water level and modeling information adjacent to the CRA has not been provided in the DLA. To enable comprehensive impacts analysis, ECEC should provide hydrographs of projected groundwater levels for key wells in the basin, particularly those

adjacent to proposed well sites and adjacent to the CRA, and a contour map projecting water level impacts. As discussed below, Metropolitan believes that the water level impacts are greater than indicated by the project proponents. Metropolitan is particularly concerned with the potential for land subsidence as a result of the groundwater withdrawal. Metropolitan's CRA is an unreinforced cut and cover conduit in this area and its tolerance for lateral or horizontal displacement is on the order of 0.25 inches per 200 feet. Any activity which lowers the groundwater table in this area may cause subsidence depending on the soil characteristics. Subsidence modeling should be performed to address Metropolitan's concerns and verify that the proposed operation would not cause excessive displacement of the CRA. These reports will need to be reviewed by Metropolitan to ensure compliance with Metropolitan's hydrogeologic criteria.

21. Metropolitan disagrees with the statement on page 2-33 (Section 2.6.3) that "[i]nelastic subsidence may occur when groundwater levels are lowered below historic levels." This statement is not correct. Subsidence can occur whenever groundwater levels decline, regardless the relation to historic levels. Further evaluation is needed to address this critical issue to Metropolitan's infrastructure.

22. The DLA does not address the potential for groundwater reaching the surface (i.e., "day-lighting") above the CRA rather than infiltrating into the ground as a result of seepage. It would be helpful to understand if additional seepage would impact the CRA.

23. Metropolitan disagrees with the groundwater characteristics assumptions made by ECE in the DLA. Groundwater impacts of the proposed project are substantially more complex than the DLA suggests. Data from monitoring wells constructed by Metropolitan adjacent to the CRA suggest that the Chuckwalla Valley is more confined and

is less transmissive than previously understood. The transmissivity of 147,000 gpd/ft (hydraulic conductivity of 110 ft/day) assumed by ECEC in the DLA is optimistic for this area. Metropolitan is concerned that the assumptions in Table 2-1 on page 2-5 to Exhibit E are not conservative enough given the uncertainty in the hydrogeology of the area. Previous modeling by Metropolitan suggests that the average hydraulic conductivity in Chuckwalla Valley is approximately 25 ft/day, significantly less than the estimates provided in the DLA.

24. Therefore, Metropolitan believes that the projected drawdowns and water level impacts could be substantially more than assumed in the DLA. Using a hydraulic conductivity of 25 ft/day, estimated drawdowns during the 2-year fill period could exceed 150 feet at the wellhead, assuming a 70 percent efficiency factor. Regional impacts could be as much as 30 feet. In the long-term, regional impacts could be more than 50 feet, which could result in a substantial subsidence risk. It is also important to note that the well capacities proposed would be insufficient to produce the makeup water requirements during the 8-hour off-peak periods even if operating continuously during these periods (after allowing for downtime and maintenance requirements). Additional wells will likely be needed. Additional evaluations should be performed to assess these issues.

25. The DLA proposes to use three feet of fine tailings in the reservoirs to reduce seepage and estimates a total seepage rate of 600 acre-feet per year. Fine tailings are expected to range from silty sand to clayey silt. Given that the permeability of the tailings proposed is relatively high even for the proposed sealing material, seepage rates could be substantially higher than estimated. As such, potential adverse impacts from the seepage are not adequately addressed. These seepage could have impacts upon water quality and structural integrity of the CRA.

26. The DLA refers to reverse osmosis (RO) treatment of the higher-TDS water that would be generated through evaporative losses within the reservoirs. A brine line would be constructed with the brine stored in lagoons or ponds in close proximity to the CRA. Very few details are provided on the use of these lagoons or ponds for brine storage. What is the potential of failure from these lagoons or ponds? How will failure be prevented and what specific mitigation measures would protect the adjacent CRA?

Construction Impacts

27. Metropolitan's CRA conduit was not designed for AASHTO H-20 loading in this area, and any vehicle crossings should be restricted to the existing paved roadways which have protective slabs in place to distribute this loading away from the pipeline. Any vehicles or equipment which would likely cross the conduit as part of the construction and operation of the proposed project will need to be reviewed and approved by Metropolitan prior to traversing the CRA.

28. ECEC should identify the specific mitigation measures that will be in place during construction. How could the specific construction operational activities potentially impact the CRA, groundwater quality (i.e., mobility of metals), etc.? Greater detail should be provided regarding these activities along with a detailed mitigation plan.

Respectfully submitted

Peter E. vonHaam
Senior Deputy General Counsel
The Metropolitan Water District of
Southern California
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CERTIFICATE OF SERVICE

I hereby certify that I have, this 15th day of September 2008, served a copy of the foregoing document by first class mail, postage prepaid and/or by electronic mail, on each person designated on the service list compiled by the Secretary in this proceeding.

Teresa J. Maropoulos
Metropolitan Water District of
Southern California
P.O. Box 54153
Los Angeles, CA 90054-0153

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RIVERSIDE COUNTY
FIRE DEPARTMENT
In cooperation with the
California Department of Forestry and Fire Protection

2300 Market Street, 1st FL Suite 150 • Riverside, California 92501 • (951) 955-4777 • Fax (909) 955-4886

John R. Hawkins
Fire Chief

Proudly serving the unincorporated areas of Riverside County and the Cities of:

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Indio
Lake Elsinore
La Quinta
Moreno Valley
Palm Desert
Perris
Rancho Mirage
San Jacinto
Temecula

March 5, 2009

State Water Resources Control Board
Division of Water Rights
1001 I street, 14th Floor
Camilla Williams
Sacramento, CA 95814

Re: Notice of preparation for the Eagle Mountain Pump Storage Project Draft Environmental Impact Report, SCH # 2009011010

With respect to the referenced project (EIR), the Riverside County Fire Department has the following comments:

The proposed project will have a cumulative adverse impact on the Fire Department's ability to provide an acceptable level of service. These impacts include an increased number of emergency and public service calls due to the increased presence of traffic, structures and population. The proponents/developers shall participate in the Development Impact Fee Program as adopted by the Riverside County Board of Supervisors to mitigate a portion of these impacts. This will provide funding for capital improvements such as land, equipment purchases and fire station construction. The Fire Department reserves the right to negotiate developer agreements associated with the development of land and/or construction of fire facilities to meet service demands through the regional integrated fire protection response system.

Mitigation measures, as defined by the County of Riverside, should be considered in order to help reduce these impacts to a level below significance. Examples of mitigation measures might include:

- Developer participation in land acquisition and fire facility construction;
- Equipment upgrade and/or purchase;
- Participation in a fire mitigation fee program which would allow one-time capitol improvements such as land and equipment purchases, and construction development.
- Participation in the cost of adding additional personnel.

Costs necessary to maintain the increased level of service may be at least partially offset by taxes acquired by the new construction; however additional funding sources may have to be identified to cover any shortfalls

The 3 nearest Fire Stations that would respond to an incident are:

RCO Station # 49, Lake Tamarisk, 4380 lake Tamarisk, Desert Center, CA

RCO Station # 45, Blythe Air Base, 17280 West Hobson Way, Blythe, CA

RCO Station # 43, Blythe, 140 West Barnard Street, Blythe, CA

All the above mentioned RCO Fire Stations are staffed full-time, 24 hours/7 days a week, with a minimum 3 person crew, including Paramedics, operating "Type-1" structural fire fighting apparatus.

From the above listed fire stations, the first unit should arrive within 21 minutes after dispatch, the second within 58 minutes and the third within 66 minutes. These times are approximate and do not meet the response protection goals.

As with any additional construction within a response area, a "cumulative" increase in requests for service will add to the Fire Department's ability to provide adequate service.

In the interest of Public Safety, the project shall provide an Alternate or Secondary Access(s) as stated in the Transportation Department Conditions. Said Alternate or Secondary Access(s) shall have concurrence and approval of both the Transportation and the Fire Department, and shall be maintained through out any phasing. The Fire Department will need to review any proposed access/road circulation plan. Secondary access was not indicated in the Notice of Preparation

The California Fire Code outlines fire protection standards for the safety, health, and welfare of the public. These standards will be enforced by the Fire Chief.

If you have additional questions feel free to contact me.

Sincerely,

Jason Neuman

Jason Neuman, Captain

Strategic Planning Division

Riverside County Fire Department

(951) 940-6394

ORIGINAL

National Parks Conservation Association®

Protecting Our National Parks for Future Generations®

Pacific Regional Office

150 Post Street
Suite 310
San Francisco, CA 94108
415.989.9921 (phone)
415.989.9926 (fax)

California Desert Field Office

61325 29 Palms Highway
Suite B
Joshua Tree, CA 92252
760.366.7785 (phone)
760.366.3035 (fax)

Central Valley Field Office

1550 East Shaw Avenue
Suite 114
Fresno, CA 93710
559.229.9343 (phone)
559.229.9349 (fax)

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E., Room 1A
Washington, DC 20426

January 28, 2009

RE: Eagle Mountain Pumped Storage Project, No. P-13123-000

Dear Ms. Bose:

On behalf of the National Parks Conservation Association and our 340,000 members, I would like to be added to the Federal Energy Regulatory Commission's official mailing list for the Eagle Mountain Pumped Storage Project, No. P-13123-000.

Please send all information and correspondence to:
Mike Cipra
NPCA California Desert Field Office
61325 Twentynine Palms Highway
Suite B
Joshua Tree, CA 92252

Thank you very much for your help. If you have any questions, please do not hesitate to contact me at mcipra@npca.org or (760) 366-7785.

Sincerely,

Mike Cipra
California Desert Program Manager

NPCA Headquarters
1300 19th Street NW • Suite 300 • Washington, DC 20036
202.223.NPCA(6722) • Fax 202.659.0650 • npca@npca.org • www.npca.org

NATIONAL PARKS CONSERVATION ASSOCIATION

Protecting Parks for Future Generations

February 13, 2009

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E., Room 1A
Washington, DC 20426

Camilla Williams
Division of Water Rights
State Water Resources Control Board
1001 I Street, 14th Floor
Sacramento, CA 95814

Re: Scoping of environmental issues for the licensing of the Eagle Mountain Pumped Storage Project (P-13123-000)

Dear Ms. Bose and Ms. Williams:

On behalf of our more than 340,000 members, the National Parks Conservation Association (NPCA) would like to thank you for the opportunity to provide recommendations to be included in the Environmental Impact Statement (EIS) for the proposed Eagle Mountain Pumped Storage Project (P-13123-000). Our members care deeply for America's shared natural and cultural heritage that is preserved by units of the National Park System.

Eagle Crest Energy Company (ECEC) has proposed their 1,300-megawatt (MW) Eagle Mountain Pumped Storage Project for an area immediately adjacent to Joshua Tree National Park. Joshua Tree National Park was established by Act of Congress in 1994 to preserve and protect the natural and cultural resources of the California Desert. With over 1.3 million visitors each year, two intact desert ecosystems meeting in a distinct transition zone, the resultant richness in biodiversity, thousands of years of cultural history, and vast areas of federally designated wilderness—including wilderness areas to the immediate north and south of the proposed project area—Joshua Tree National Park is one of the iconic parks in the National Park Service system.

The Eagle Mountain Pumped Storage Project proposes to mine 25,000 acre-feet of groundwater from the Chuckwalla Basin aquifer, and deposit this water in two depleted mining pits in the former Eagle Mountain Mine in Riverside County, California, immediately adjacent to Joshua Tree National Park. The water would flow downhill to the lower pit at times of peak energy demand, generating energy for sale and consumption. At times of non-peak demand, the water

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would be pumped uphill, back to the depleted mine pit that is higher in elevation. This project is proposed to occupy federal lands currently administered by the Bureau of Land Management (BLM) and private lands currently owned by Kaiser Eagle Mountain, LLC—assuming such lands would be available for the Eagle Mountain Pumped Storage Project.

Considering the proximity of this proposed project to Joshua Tree National Park, NPCA has serious concerns that must be addressed in an EIS for the proposed project:

- Purpose and Need. The project as described during scoping meetings on January 15 and 16, 2009 is both a net energy loss, and a net water loss. The project has also been characterized by proponents ECEC as a renewable energy project, as it has the potential to store energy from wind-based sources, which are typically off-peak sources of power. An EIS for the Eagle Mountain Pumped Storage Project must first demonstrate that there is a significant need for the storage of wind energy resources. This is particularly relevant in light of adjacent applications for solar energy projects, which can provide needed peak energy sources. Is there enough excess wind energy to justify a pumped storage project of this scale? If existing wind energy is already being consumed by ratepayers, is it responsible and prudent to develop a project that requires 25,000 acre-feet of groundwater before it even begins to generate power? If there is not an immediate need for the project, is it responsible to risk negative impacts to the resources of Joshua Tree National Park?

- Groundwater and subsidence impacts. The Metropolitan Water District of Southern California (Metropolitan), in its comments on the Draft Licensing Agreement (DLA) made on behalf of ECEC to FERC, stated "In the past, ECEC sought Metropolitan's consent to use CRA [Colorado River Aqueduct] water to fill its reservoirs. Metropolitan declined the request, as such water has been required to meet the water supply demands of its member agencies. Moreover, Section 131 of the Metropolitan Water District Act (Cal. Stat. 1969, Chapter 209) precludes Metropolitan from selling water outside of its service area… Metropolitan has made no commitment whatsoever to supply water for the proposed project." This statement indicates that the only water alternative under consideration for the proposed project is to pump 25,000 acre-feet of groundwater from the Chuckwalla Basin aquifer. Based on the technical feasibility report prepared by Metropolitan in May 1998, the Pinto Basin aquifer within Joshua Tree National Park and the Chuckwalla Basin aquifer are in hydrologic communication with each other. Any anticipated impacts associated with a drawdown of water in the Chuckwalla Basin will likely have an impact on groundwater within Joshua Tree National Park's boundary. What are the potential impacts to the Pinto Basin aquifer? The water for ECEC's project is proposed for storage in an industrial mine pit, which lies upon a fault. The risk for contamination must be analyzed. What are the constituents contained in the residual ore bodies? For example, would pyrite and gypsum in magnetite-rich ore bodies lead to acidic leachate and a significant risk of groundwater contamination? Would reservoirs of the proposed size create pressure on the crystalline basement and transmit contaminants

to the Pinto Basin aquifer? Would this pressure potentially produce polluted seeps or springs within the Pinto Basin of Joshua Tree National Park, threatening the park's wildlife or world-class paleontological resources in this area? Or would subsidence occur in the Pinto Basin simultaneous with drawdown in the Chuckwalla Basin? If subsidence occurred in the Pinto Basin, what would be the impact to biotic systems and individual species? Joshua Tree National Park is critical habitat for the desert tortoise (Gopherus agassizi), federally listed as a threatened species under the Endangered Species Act. Would subsidence in areas of the Pinto Basin create low points that would be subject to flooding during periods of precipitation? Would tortoise burrows and habitat be negatively impacted by subsidence and flooding?

- Ecological considerations of vast reservoirs in the desert. Many resource managing federal agencies in the greater California desert, concentrated under the Desert Manager's Group, and following the lead of the U.S. Fish and Wildlife Service, are currently working in cooperation to address the issue of subsidization of desert ravens. Desert ravens are of particular concern because of their propensity to prey on juvenile desert tortoises, previously identified in this letter as a threatened species. Ravens are intelligent and opportunistic scavengers, and there is a reasonable expectation that subsidizing their water supply could have a negative impact on desert tortoises both within Joshua Tree National Park and on adjacent land. What are the potential impacts from the proposed project on the subsidization of ravens? What are the resultant impacts on desert tortoises and other native prey species such as the endangered Coachella Valley fringe-toed lizard? What are the impacts of vast, previously non-existent reservoirs on other opportunistic predators such as coyotes and their resultant prey species?

- Wilderness impacts. As the development proposed by this project is adjacent to Joshua Tree National Park's federally designated wilderness, we recommend that those preparing the EIS conduct a thorough review of The Wilderness Act of 1964 before preparing this environmental document, as mandated by the National Environmental Policy Act:

  <u>Public Law 88-577, 88th Congress, S. 4</u>

  Sec. 2. (a) In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness…

DEFINITION OF WILDERNESS

(c) A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this chapter an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

The fundamental question with regard to the Wilderness Act of 1964 is: What is the potential of this project to degrade the wilderness values of Joshua Tree National Park? Some questions to help steer this analysis include: What is the potential to of the proposed project to degrade dark night sky values? What are the impacts to natural soundscapes? What are the associated impacts to park visitors seeking a wilderness experience?

- Cumulative Impacts. The National Environmental Policy Act requires a thorough analysis of cumulative impacts in an EIS. The proposed project is in the same immediate area as the proposed Eagle Mountain landfill. NPCA has consistently and successfully opposed the ill-conceived Eagle Mountain landfill project as illegal and environmentally inappropriate for this area adjacent to Joshua Tree National Park. In September 2005, U.S. District Judge Robert J. Timlin issued a much-anticipated ruling in NPCA's and other plaintiff's favor by overturning a federal land exchange needed for the development of the Eagle Mountain landfill. Landfill proponents and the Bureau of Land Management have appealed the decision in the U.S. Court of Appeals for the Ninth Circuit. NPCA remains committed to its position that the proposed Eagle Mountain landfill is illegal. As long as the case remains in appeal, however, FERC is required by law to consider the cumulative impacts of a landfill and a massive pumped storage project in the same immediate area. The cumulative impacts of the potential subsidization of ravens, the cumulative impacts on the threatened desert tortoise and biotic communities, the cumulative impacts on wilderness values, and the cumulative impacts on groundwater must all be considered and analyzed.

Thank you for the opportunity to contribute to this process. The National Parks Conservation Association is concerned about the proposed Eagle Crest Pumped Storage Project, and looks forward to continued involvement in the environmental process. Please feel free to contact me directly at (760) 366-7785, or at mcipra@npca.org, in order to continue this dialogue to ensure that this proposed project does not degrade the federally mandated protection of Joshua Tree National Park.

Sincerely,

Mike Cipra
California Desert Program Manager
National Parks Conservation Association

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ORIGINAL

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STEPHEN R. MAGUIN
Chief Engineer and General Manager

February 13, 2009

File No. 31R-110.10

Kimberly D. Bose, Secretary
Nathaniel J. Davis, Sr., Deputy Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Dear Secretary Bose and Deputy Secretary Davis:

Comments on Scoping Document 1 for
Eagle Mountain Pumped Storage Project
(FERC Project No. P-13123-000)

Thank you for this opportunity to provide comments on Scoping Document 1 ("SD1") issued by the Federal Energy Regulatory Commission ("Commission" or "FERC") and the State of California State Water Resources Control Board ("Water Board" or "SWRCB") on December 17, 2008 for Eagle Crest Energy Company's ("ECEC's") Eagle Mountain Pumped Storage Project, FERC No. 13123 (the "Project").[1] The County Sanitation Districts of Los Angeles County (the "Districts") provide these comments to highlight some subjects for additional environmental studies and analysis which must be conducted as a part of the environmental review of the Project in accordance with the requirements of the National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.* ("NEPA") and the California Environmental Quality Act, California Public Resources Code §§21000-21177 ("CEQA").

The Districts provide environmentally sound, cost-effective wastewater and solid waste management facilities that convert waste into resources like reclaimed water, energy, and recycled materials. The Districts are a confederation of 24 independent special districts, governed by Boards of Directors consisting of the presiding officer of the governing body of each city within the Districts and the presiding officer of the Los Angeles County Board of Supervisors for unincorporated territories, serving approximately 5.2 million people in Los Angeles County.

Due to a projected future shortfall in local solid waste disposal capacity, the Districts have been working with other public agencies to study means by which solid waste can be disposed of at sites

[1] The District reserves the right to make additional comments and study requests during the course of the traditional licensing process. As reflected in these comments, ECEC's lack of specificity and incomplete analysis of impacts in Project materials issued to date makes it difficult to provide a full response. Accordingly, this letter is not intended to provide a full and complete list of all the studies necessary for ECEC to comply with applicable law, rules, and regulations with respect to this Project.

outside of the Los Angeles metropolitan area. Although nearly all of Los Angeles County's refuse is currently disposed of locally by truck, the Districts have taken a lead role in implementing a Waste-by-Rail System to provide long term disposal capacity to replace local landfills as they reach capacity and close. The Waste-by-Rail system will use an integrated local and remote infrastructure to transport refuse to remote disposal sites.

One of the remote landfill sites available to the Districts in connection with the Waste-by-Rail system is the Eagle Mountain Landfill located in Riverside County. It is fully permitted to receive residual solid waste by rail from Southern California. The Districts have entered into an agreement to purchase Eagle Mountain Landfill for use as part of their Waste-by-Rail program. The Districts have entered into this agreement with the current owners of the Eagle Mountain Landfill, Kaiser Eagle Mountain, LLC and Mine Reclamation, LLC (collectively, "Kaiser"). ECEC's Project proposes to use the Eagle Mountain Landfill site to generate and store electricity by filling the lower reservoir with water and using turbines to pump water from the lower to upper reservoir and generate electricity by a closed loop system.

The environmental review for the proposed ECEC project needs to clearly and completely describe the potential direct and cumulative environmental impacts to the design, construction and operation of the Eagle Mountain Landfill project (Landfill)—a pre-existing proposed project that will largely take place within and adjacent to the footprint proposed for the ECEC Project. The prospect of interference between ECEC's Project and the Landfill is obvious. These potential conflicts must be seriously studied and analyzed by ECEC before its own Project may proceed. However, no serious study or analysis of these interferences has been forthcoming from ECEC.

Implicit in these comments, as well as our previous comments on ECEC's Draft License Application (the "DLA") dated September 12, 2008 ("DLA Comments"), is the fact that no full assessment of the proposed Project by the Districts is possible because of ECEC's failure to provide a complete and accurate description of its proposal. The previous comments are attached hereto as Exhibit "B" and incorporated herein. ECEC does not, as an example, identify with any specificity the location of available or alternate transmission routes or the specific sources of groundwater for the initial fill and annual make-up water necessary to construct and operate this Project. ECEC must provide the Commission, the Water Board and the public more complete and accurate information regarding its proposed project to allow for adequate environmental review.

Long before the Landfill can be operated, the Districts will need to construct the landfill and its supporting infrastructure. This will include excavation, road construction, and the installation of piping, electrical work and landfill liners. Any simultaneity in the construction of the two projects will create potential traffic, air quality, noise, and biological impacts that also need to be considered. Because the Eagle Mountain Landfill has completed the permitting process, it should be considered an existing project and described completely and consistently with previously approved environmental documents and entitlements. The environmental analysis needs to include a significant number of studies and analyses and answer important questions concerning the incompatibility of the two land uses. A partial list of significant questions, studies and impact analyses required, including questions regarding the operation of the Visitor Center, tunnels under an active landfill, groundwater monitoring, seepage, desalinization operations, and the use of minerals and soil at the site, is included in Exhibit A which is attached to this comment letter.

As requested in September 12, 2008 letter, the Districts request that the scoping process be continued until ECEC provides an accurate project description clearly defining the analyses that needs to be undertaken such that the environmental impacts can reasonably be considered. If, however, ECEC

proceeds with a deficient draft application, the additional areas of analysis referenced herein must be included within the scope of the EIS/EIR review. Also, all studies currently reflected in the SD1 must be pursued sufficiently to thoroughly discuss the significant aspects of probable environmental consequences of the Project on the permitted landfill construction and operation. Significant additional analysis is necessary for the Commission and the Water Board to possess sufficient information to fully consider the Project and its impacts.

Very truly yours,

Stephen R. Maguin

Stephen R. Maguin

SRM:JLC:slf
Attachment

cc: Camilla Williams, Division of Water Rights, State Water Resources Control Board
FERC Service List for P-13123-000
Kim Nguyen, FERC
Terry L. Cook, Kaiser Eagle Mountain
Matthew D. Hacker, Metropolitan Water District of Southern California

EXHIBIT A

A. Characterize and mitigate any overlap between proposed project Phases I through IV and operation of Landfill.

B. Potential Areas of Incompatibility

1. Substantiate that the proposed project will not compromise the design, construction and operation of the Landfill.

(a) Need to study whether regulators would approve operation of the Landfill over the proposed power generation project.

(b) ECEC must substantiate that the Landfill will still comply with siting, design and operational requirements pursuant to 40 CFR 258 and Titles 23 and 27 of the California Code of Regulations regarding municipal solid waste landfills.

2. Operational Issues

(a) Visitor's Center

(i) How will its operation impact the Landfill's operations?

(ii) Will the public have access to all Landfill property?

(b) Tunnels Under Active Landfill

(i) What type of methane barrier will be installed for subsurface facilities?

(ii) How will ECEC prevent the tunnels from becoming potential conduits for groundwater or landfill gas?

(iii) If the tunnels become flooded, how will any potential impacts to groundwater be remediated?

(iv) What potential pollutants could potentially alter groundwater chemistry from tunnel infrastructure and maintenance?

(v) Where will the estimated 2,500 tons per year of desalinization salt ultimately be disposed?

(e) Other Potential Incompatibilities

(i) How will the proposed transmission lines impact the operation of the Landfill's railyard and the Landfill as a whole?

(ii) How will the project's use of the switchyard impact the operation of the Landfill?

(iii) Could access to fine or coarse tailings or overburden piles for landfill purposes be blocked by this project's infrastructure or operation?

(iv) How will your project's traffic from the staging, storage, administration or areas affect the Landfill's operation?

(v) Where will earthen materials be obtained to build the dam and prepare both reservoirs and how much will be necessary? How will the use of these materials affect the Landfill's construction or operations?

(vi) Where will the significant quantity of tailings present in the East Pit be relocated for use for the Landfill?

(vii) How can the transfer station potentially impact landfill construction and operations?

(viii) How will security and maintenance be performed within the Landfill area, and how will these activities affect the operation of the Landfill?

(ix) How much fine and coarse tailing materials are needed for construction of the project, and how will use of these materials impact the Landfill project?

(x) Figure E.1-8 does not accurately depict the location of Landfill infrastructure. Please update this figure using information

contained in the Report of Waste Discharge for the Eagle Mountain Landfill.

C. Completely describe, with project specific studies:

1. What pollutants may be generated by the project?

2. Determine specific seepage controls based upon detailed geologic mapping including but not limited to:

(a) Detailed calculations for leakage losses from both reservoirs

(b) Detailed calculations for pre-and post-seepage treatment

(c) A detailed description of proposed seepage control, including all supporting calculations

(d) A detailed three-dimensional groundwater flow model, such as Visual MODFLOW using particle tracking, for the proposed site should be used to illustrate the impact of seepage from treated and untreated reservoirs, including potential impacts from tunnels in the event they become flooded. Visual MODFLOW should be utilized to predict potential impacts to the Landfill. The groundwater model should be calibrated using historic water levels and pumping data, contained in the Report of Waste Discharge, before making predictions needed to assess potential impacts to the Landfill.

(e) A detailed description, including a three-dimensional groundwater flow model described above, for the proposed site to illustrate the impact of proposed seepage recovery wells (modeling should be used to determine the estimated spacing of recovery wells needed to ensure the landfill groundwater monitoring network is not impacted by seepage).

3. Geology and Geotechnics

(a) Provide stability modeling for reservoir slopes and adjacent areas potentially impacted by the filling of mining pits with water. Modeling of critical existing and final landfill liner slopes should be performed to assess potential impacts to the Landfill in conformance with requirements of the State Department of Water Resources ("DWR"), addressing both impacts from the Maximum Credible Earthquake and Maximum Probable Earthquake events.

(b) Provide detailed stability calculations for the upper dam in conformance with requirements of the State Department of Water Resources ("DWR"), addressing both impacts from the Maximum Credible Earthquake and Maximum Probable Earthquake events.

(c) Provide an up to date seismicity study using current data and methodology approved by DWR.

4. Groundwater, Potable Water and Sewerage

(a) Describe the long-term potential influences of pumping within the basin, provide a detailed three-dimensional groundwater flow model, such as Visual MODFLOW, for the Chuckawalla Valley that will provide basin-wide impacts from pumping along with maximum drawdown predicted for other potential water producers in the basin. The groundwater model should be calibrated using historic pumping data before making predictions needed to assess potential impacts to the basin. The calibrated model should consider groundwater pumping needed for the Landfill, assuming both projects are operational at the same time.

(b) The groundwater model should address potential impacts of both initial filling and any make-up water needed for the duration of the project.

(c) Visual MODEFLOW modeling for both the existing production well and proposed production well scenarios to assess potential impact to the basin.

(d) Based upon modeling results, how will pumping activities impact the landfill or other parties pumping water from the Chuckawalla Valley?

(e) If water used to initially fill the reservoir is obtained from the Chuckawalla Valley, will existing production wells be utilized?

(i) Does ECEC have the authority to utilize these wells?

(ii) What is the capacity of each well to be used?

(f) What potable water system will serve the proposed project, and what is the potable water demand of that project?

(g) Which existing sewage facility will be used for the project, and what is the estimated quantity of sanitary sewage that will be generated?

(h) Will wastes other than sewage wastes be discharged into the existing sewage system? What are the composition and the quantity of these wastes?

5. Storm Water

(a) Provide a detailed hydrology study for the project, including:

(i) Design calculations for drainage structures necessary to accommodate applicable storm intensities specified by the Regional Water Quality Control Board for the Landfill project, assuming both projects will operate simultaneously, and

(ii) A study of where surface water will be directed due to the loss of East Pit storage capacity.

(b) What materials will be stored within the proposed project's site?

(c) How will ECEC monitor storm water from industrial activities pursuant to the General Industrial NPDES permit?

(d) What best management practices will be used to prevent storm water pollution during construction activities?

6. Address and mitigate the potential impact of the open reservoirs attracting wildlife

(a) Among the species to be addressed are ravens, coyotes and other predators of the desert tortoise.

(b) How will the reservoirs affect the Landfill's ability to comply with the Biological Opinion?

7. Perform a complete biological assessment for the proposed project, including a full evaluation of potential impacts to the Landfill project.

8. Perform a detailed visual assessment for the proposed project itself.

Exhibit B

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OF LOS ANGELES COUNTY

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STEPHEN R. MAGUIN
Chief Engineer and General Manager

September 12, 2008

File No. 31R-110.10

Secretary Kimberly D. Bose
Deputy Secretary Nathaniel J. Davis, Sr.
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Dear Secretary Bose and Deputy Secretary Davis:

Comments Regarding Eagle Crest Energy Company's
Draft License Application for FERC Hydroelectric Project No. 12509

Enclosed for the Federal Energy Regulatory Commission's ("Commission's") consideration in review of the above-referenced application, the County Sanitation Districts of Los Angeles County (the "Districts") submit this copy of their further comments regarding the Draft License Application ("DLA") for Eagle Crest Energy Company's ("ECEC's") Eagle Mountain Pumped Storage Project, FERC No. 12509 (the "Project"), proposing construction of hydroelectric facilities on Eagle Mountain, near Desert Center, California. ECEC filed its first preliminary permit application for this Project in 1987, and is now on its fourth preliminary permit.

The Eagle Mountain Landfill (the "Landfill") is currently under contract to be sold to the Districts by Kaiser Eagle Mountain, LLC and Mine Reclamation, LLC (collectively, "Kaiser") The Landfill is permitted for development on a substantial portion of the property that ECEC proposes to use for its Project. The Project as proposed will have a direct impact on the Districts and the Landfill.

As reflected in the District's previous comments responding to ECEC's Preapplication Document, the Districts' and other parties' assessment of studies and impact analyses has been obstructed by ECEC's failure to provide a complete and accurate description of its proposal. The enclosed letter contains the Districts' further analysis of deficiencies and inaccuracies in the DLA and identifies additional studies that must be conducted to provide the Commission with adequate evidence for its consideration in issuing an original license for the Project. Should ECEC fail to correct these material and serious deficiencies in its license application, the Commission should reject the submittal as patently deficient pursuant to 18 C.F.R. § 4.32.

Very truly yours,

Stephen R. Maguin

Stephen R. Maguin

SM:slf
Enclosure

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STEPHEN R. MAGUIN
Chief Engineer and General Manager

September 12, 2008

File No. 31R-110.10

Ms. Ginger Gillin
GEI Consultants, Inc.
10860 Gold Center Drive, Suite 350
Rancho Cordova, CA 95670

Dear Ms. Gillin:

Comments Regarding Eagle Crest Energy Company's
Draft License Application for Proposed FERC Hydroelectric Project No. 12509

Pursuant to 18 CFR §§ 385.210, .211, .214, the County Sanitation Districts of Los Angeles County (the "Districts") submit this comment letter in response to Applicant Eagle Crest Energy Company's ("ECEC") Draft License Application ("DLA") for its proposed Project No. 12509 ("Project.")

The Districts provide environmentally sound, cost-effective wastewater and solid waste management facilities that convert waste into resources like reclaimed water, energy, and recycled materials. The Districts are a confederation of 24 independent special districts, governed by Boards of Directors consisting of the presiding officer of the governing body of each city within the Districts and the presiding officer of the Los Angeles County Board of Supervisors for unincorporated territories, serving approximately 5.2 million people in Los Angeles County.

Due to a projected future shortfall in local solid waste disposal capacity, the Districts have been working with other public agencies to study means by which solid waste can be disposed of at sites outside of the Los Angeles metropolitan area. Although nearly all of Los Angeles County's refuse is currently disposed of locally by truck, the Districts have taken a lead role in implementing a Waste-by-Rail System to provide long term disposal capacity to replace local landfills as they reach capacity and close. The Waste-by-Rail system will use an integrated local and remote infrastructure to transport refuse to remote disposal sites.

One such remote landfill site is the Eagle Mountain Landfill located in Riverside County. It is fully permitted to receive residual solid waste by rail from Southern California. The Districts have entered into an agreement to purchase Eagle Mountain Landfill for use as part of their Waste-by-Rail program. The Districts have entered into this agreement with the current owners of the Eagle Mountain Landfill, Kaiser Eagle Mountain, LLC and Mine Reclamation, LLC (collectively, "Kaiser"). ECEC's Project would use the Eagle Mountain Landfill site to generate and store electricity by filling the lower reservoir with water and using turbines to pump water from the lower to upper reservoir and generate electricity by a closed loop system.

I.

SUMMARY

The DLA is an insufficient document that fails to satisfy the requirements for a license application or to provide even a cursory basis for FERC to start environmental review as required by the National Environmental Policy Act, 42 USC §4321, *et. seq.* ("NEPA") The DLA: (1) relies upon illusory or non-existent infrastructure, facilities and approvals; (2) either ignores or glosses over real and substantial impacts to the design, construction and operation of the Eagle Mountain Landfill project ("Landfill")—a pre-existing proposed project that will largely take place within and adjacent to the footprint proposed for the ECEC Project; and (3) cites as bases for the application studies and information generated for other projects rather than that proposed by ECEC. Significant improvements are necessary for the DLA to properly describe the proposed project and its potential direct and cumulative environmental impacts.

II.

THE DLA RELIES UPON NON-EXISTENT OR *UNSTUDIED FACILITIES AND ASSUMPTIONS*

The DLA contains a number of crucial but unsupported assumptions that go to the heart of the feasibility of the Project and its ability to satisfy its objectives. These include: (1) the assumption that infrastructure will exist to convey power generated by the Project to customers of Southern California Edison ("SCE"); (2) assumptions about the availability and cost of the land to be used for the Project, (3) the assumption that sufficient sources of water will exist for the Project at a reasonable cost; and (4) assumptions that financing for the Project will exist on terms set forth by ECEC. Each of these assumptions is unsupported by existing studies or existing facts.

ECEC's application assumes that the power generated by the Project will be conveyed through a 500kV line extending 50.5 miles to a proposed Colorado River Substation to be built by SCE adjacent to an existing SCE Palo Verde-Devers 500 kV line. (DLA, Ex. "A," p. 4-1.) The existing line conveys power from Arizona's Palo Verde nuclear power plant to California. ECEC provided no studies to show that even the proposed line would possess enough capacity to convey all of the power generated by the Project. The DLA alludes to other transmission connection upgrades that may be necessary to service nearby markets, but it does not identify what these upgrades would be, what they may cost, where they may be located, or what impacts they will have on the local environment or the Landfill. (DLA, Ex. "A," ES-1.)

Regardless of any other "upgrades" that may be necessary, it is now unclear that the second 500 kV line will ever be built. The Arizona Corporations Commission ("ACC"), which possesses state regulatory jurisdiction over the portion of the line to be built in Arizona, rejected the application to construct the line on the grounds that it would impair Arizona's ability to provide power for its own citizens and that California did not have need for the power to be transmitted. SCE has appealed the ACC's decision to FERC, where it appears that both ACC and the Sierra Club will oppose SCE. In any event, it will likely not be known for years whether the line will be approved and whether, if it is approved, economic and other circumstances will permit construction and operation of the second line. The DLA contains no factual basis for any assumption that FERC (or the Federal Courts) will approve construction of the second line. Without the 500kV line, ECEC's ability to carry on its own Project will remain speculative.

The DLA lists the cost for "land and water rights" for the Project as $24.2 million (DLA, Ex. "D", p. 1-1.), but this figure relies upon a number of unsupported assumptions regarding the availability of the land and water necessary for the Project. ECEC assumes that it will not purchase the necessary land from Kaiser, the Districts, or others, but that it will instead lease all of that land from the present owners for $2 million. (DLA, Ex. "D", pp. 1-1, 1-2; § 4.3.) The rental figure was not supported by any market or other analysis, and there is no basis for ECEC to assume that the present owners would lease the necessary land and/or water to ECEC at any price. Since it is unclear from ECEC's description the extent to which its operations would impact Landfill operations, the District may potentially lose a site for disposal with a capacity of 708 million tons, which would include 100 years of operation at 20,000 tons per day. The value of the property as a constructed landfill would therefore run into the billions of dollars, but no consideration of this possibility was included in ECEC's calculations. The DLA's assumptions are unrealistic and again suggest the speculative nature of the Project.

ECEC also assumes that enough water will be available for its Project at a reasonable cost, but it doesn't provide the basis for these assumptions. Although the DLA states that the water for the Project will come from unidentified "wells" or, if necessary, from the Metropolitan Water District, its assumptions are not accompanied by an analysis identifying the specific source of the water, the impact of the Project on the availability of water for other uses, including the Landfill, the impact of drawing the water on the environment, or any facts or studies to support the per acre foot cost assumed by ECEC ($1,000 per acre foot). (DLA, Ex. "D", p. 1-2; Ex. "E", p. 2-9.) ECEC's assumption that it will have sufficient water to run its Project is based upon a further assumption—that it can purchase or lease suitable land and wells to generate the necessary water. (Ex. "E", p. 2-10.) This assumption is also presented without support. In view of the scarcity of water at the Project site and the growing statewide scarcity of water resources, ECEC's broad assumption that it will have enough water to operate the power part of its Project, not to mention its future needs for potable water and water for ancillary aspects of its Project, is speculative.

The DLA further assumes that financing will exist to build and operate the Project at a six-percent interest rate for 70% debt ratio for a 20-year term on a Project-financed basis. (DLA, Ex. "D", p. 5-3.) This assumption appears to be wildly optimistic, and it was not accompanied in the DLA by any analysis of existing or future financial market conditions or other factual support.

Despite all of these uncertainties and unsupported assumptions, ECEC's "schedule" for obtaining all of its entitlements, all of the land and water necessary for the Project, constructing and beginning operation of the Project is overly aggressive. The DLA assumes that the FERC license will be granted less than two years from now despite the previously-identified uncertainties and the likelihood of, at best, a lengthy regulatory delay regarding the construction of the Palo Verde #2 line. ECEC then assumes that sufficient land and water will be secured and power purchase agreements and financing agreements will be reached within one month after the license is granted, with construction to start only two years thereafter. This timetable likely assumes that there will be no opposition to the Project—a prospect which appears unrealistic in light of the intervenors and protestors who already exist. This schedule certainly does not provide for any potential interference with the Districts' Landfill. Once again, the bases for ECEC's aggressive schedule are not sufficiently identified, and the aggressiveness of the schedule makes the Project appear even more speculative.

III.

THE DLA DOES NOT ADEQUATELY CONSIDER THE PROJECT'S POTENTIAL INTERFERENCE WITH THE LANDFILL

The prospect of interference between ECEC's Project and the Landfill is obvious. However, ECEC spends only approximately 5 pages of its lengthy submittal discussing potential interferences, and it summarily rejects the possibility of any significant interference problems. This is largely because ECEC's assumes, based upon "our understanding of the landfill needs in Southern California and the current landfill implementation schedule," neither of which is specifically stated, that "the pumped storage project will be constructed before the landfill project." In view of the apparently unsupported assumptions that form the basis of ECEC's "schedule" for implementation of its Project, its cursory dismissal of the possibility of any significant conflicts is not credible. These potential conflicts must be seriously studied and analyzed by ECEC before its own Project may proceed.

Long before the Landfill can be used, the District will need to construct the landfill and its supporting infrastructure. This will include excavation, road construction, and the installation of piping, electrical work and landfill liners. Any simultaneity in the construction of the two projects will create potential traffic, air quality, noise, and biological impacts that ECEC does not consider in its DLA. Its primary assumption is that the only potential problem is if waste is being placed in the East Pit at the same time that water is present in the reservoirs. This underestimates the nature and scope of potential problems. To the extent that ECEC simply assumes that the projects can be modified to accommodate minimal conflicts, this assumption does not consider that previously approved environmental documents and entitlements may need to be reopened, which may obstruct and delay both projects. The very assumption that regulators would approve a landfill operating above a power project circulating water to generate power is itself highly speculative. ECEC needs to undertake a significant number of studies and analyses and answer important questions concerning the incompatibility of the two land uses in order for FERC to even minimally assess the consequences of granting a license for the Project. A partial list of significant questions, studies and analyses required of ECEC, including questions regarding the operation of the Visitor Center, tunnels under an active landfill, groundwater monitoring, seepage, desalinization operations, and the use of minerals and soil at the site, is included in Exhibit "A", Item I, which is attached to this comment letter.

IV.

THE DLA CONTAINS INSUFFICIENT INFORMATION ABOUT THE PROJECT IT PROPOSES

Although the DLA contains a new biological study relating to certain species, most of the studies and reports it cites were prepared for other projects, not ECEC's Project. Studies relating to the impacts of a landfill or other project on the Project's site do not consider the specific features of ECEC's Project or sufficiently consider its impact upon nearby projects and activities and upon the environment itself. The potential environmental impacts of the actual facilities to be constructed are rarely, if at all, considered. For example, the DLA assumes that additional transmission towers and infrastructure will be necessary somewhere at the Project site, but it doesn't describe the location of those towers or consider the possible impacts of different alternative locations. The DLA proposes desalinization ponds that will generate an estimated 2,500 tons of salt but doesn't indicate where this salt will be ultimately be disposed of or any impacts accompanying the construction and operation of this facility. (DLA, Ex. "A", p. 1-9.)

ECEC must also consider the impact that its proposed project will have on the land uses in the area near the project. For example, there is a large-scale solar farm covering approximately 15,000 acres being developed by Opti-Solar, Inc. next to Eagle Mountain. These impacts include air quality, traffic, noise and light pollution, aesthetics, and other impacts on natural resources and sensitive species, including the desert tortoise. A partial list of necessary information required regarding potential impacts of the Project is included in Exhibit "A", Item II.

V.

THE DLA IS INSUFFICIENT

ECEC's submission raises significantly more questions than it answers. The Project and its impacts are not adequately considered, and even the basic assumptions underlying the DLA are highly speculative. The Districts request, at the very least, that ECEC engage in further review of the matters identified herein to correct deficiencies and provide a basis for comprehensive review of the application and its impacts. FERC and all parties affected by the Project are entitled to adequate information to permit a meaningful assessment of the Project.

The Districts reserve the right to submit further comments based upon inadequacies in this and future applications and upon modifications to this application in the future.

Very truly yours,

Stephen R. Maguin

Stephen R. Maguin

SM:slf
Attachment – Exhibit "A"

EXHIBIT "A"

I. INCOMPATIBILITY

A. Claim that no overlap between Phases I through IV and operation of Landfill *requires additional study and proof.*

B. Potential Areas of Incompatibility

1. ECEC has not substantiated that its project will not compromise the design, construction and operation of the Landfill.

   (a) Need to study whether regulators would approve operation of the Landfill over the proposed power generation project.

   (b) ECEC must substantiate that the Landfill will still comply with siting, design and operational requirements pursuant to 40 CFR 258 and Titles 23 and 27 of the California Code of Regulations regarding municipal solid waste landfills.

2. Operational Issues

   (a) *Visitor's Center*

      (i) How will its operation impact the Landfill's operations?

      (ii) Will the public have access to all Landfill property?

   (b) Tunnels Under Active Landfill

      (i) What type of methane barrier will be installed for subsurface facilities?

      (ii) How will ECEC prevent the tunnels from becoming potential conduits for groundwater or landfill gas?

      (iii) If the tunnels become flooded, how will any potential impacts to groundwater be remediated?

(iv) What potential pollutants could potentially alter groundwater chemistry from tunnel infrastructure and maintenance?

(v) What type of groundwater monitoring facilities will be installed for the subsurface facilities, and how will the collected groundwater be managed?

(vi) Why does the drainage system described in Exhibit "A", Section 5 include oil-separating facilities? Where will such waste be generated? How much oily waste is anticipated? Where will this wastewater be disposed?

(vii) Please provide a detailed description and diagrams of the powerhouse drainage sump pit described in Exhibit "A", Section 1.5.

(c) Groundwater monitoring

(i) How will the loss of existing landfill groundwater monitoring wells impact the landfill?

(ii) Will replacement groundwater monitoring wells be equivalent to those that are removed?

(iii) Will the replacement wells have the same capture zone and equivalent water chemistry (undiluted by seepage from the reservoirs)?

(d) Desalinization Ponds

(i) What type of liner and monitoring facilities are proposed?

(ii) Provide specific drawings, locations and specifications.

(iii) How will the ponds impact the railyard operations for the Landfill?

(iv) Provide a detailed layout of any overlap between your project and the Landfill project.

(v) *Where will the estimated 2,500 tons per year* of desalinization salt ultimately be disposed?

(e) Other Potential Incompatibilities

(i) *How will the proposed transmission lines* impact the operation of the Landfill's railyard and the Landfill as a whole?

(ii) How will the project's use of the switchyard impact the operation of the Landfill?

(iii) Could access to fine or coarse tailings or overburden piles for landfill purposes be blocked by this project's infrastructure or operation?

(iv) How will your project's traffic from the staging, storage, administration or areas affect the Landfill's operation?

(v) Where will earthen materials be obtained to build the dam and prepare both reservoirs and how much will be necessary? How will the use of these materials affect the Landfill's construction or operations?

(vi) *Where will the significant quantity of* tailings present in the East Pit be relocated for use for the Landfill?

(vii) How can the transfer station potentially impact landfill construction and operations?

(viii) How will security and maintenance be performed within the Landfill area, and how will these activities affect the operation of the Landfill?

(ix) *How much fine and coarse tailing materials* are needed for construction of the project, and how will use of these materials impact the Landfill project?

(x) *Figure E.1-8 does not accurately depict the* location of Landfill infrastructure. Please update this figure using information

contained in the Report of Waste Discharge for the Eagle Mountain Landfill.

II. INSUFFICIENT INFORMATION IN APPLICATION

A. With the exception of a recent wildlife study, the other information cited in the application and compiled by ECEC appears to be generated in connection with the landfill project, and it does not address the impacts of ECEC's project. Significant additional efforts are needed in the following areas:

1. What pollutants may be generated by the project?

2. As described in Exhibit "A", Sections 1.1 and 1.2, ECEC will determine specific seepage controls after geologic mapping is performed. Geologic mapping has been performed for the Eagle Mountain Landfill. These geologic maps and detailed hydrogeologic data are included in the Report of Waste Discharge previously remitted to the Regional Water Quality Control Board. Accordingly, please provide the following information regarding seepage:

   (a) Detailed calculations for leakage losses from both reservoirs

   (b) Detailed calculations for pre-and post-seepage treatment

   (c) A detailed description of proposed seepage control, including all supporting calculations

   (d) How was a seepage loss of 600 acre-feet per year determined as noted in Exhibit "A", Section 1.9 and Exhibit "B", Section 5.1?

   (e) A detailed three-dimensional groundwater flow model, such as Visual MODFLOW using particle tracking, for the proposed site should be used to illustrate the impact of seepage from treated and untreated reservoirs, including potential impacts from tunnels in the event they become flooded. Visual MODFLOW should be utilized to predict potential impacts to the Landfill. The groundwater model should be calibrated using historic water levels and pumping data, contained in the Report of Waste Discharge, before making predictions needed to assess potential impacts to the Landfill.

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(f) A detailed description, including a three-dimensional groundwater flow model described above, for the proposed site to illustrate the impact of proposed seepage recovery wells (modeling should be used to determine the estimated spacing of recovery wells needed to ensure the landfill groundwater monitoring network is not impacted by seepage).

(g) How could reservoir seepage "reach...the nearby Colorado River Aqueduct" as described in Exhibit "A"?

3. Geology and Geotechnics

(a) The License Application does not contain the EMEC 1994 study discussed in Exhibit "E", Section 6.5.7. This study, performed by Kaiser and MRC, did not consider the impact of filled reservoirs on lined landfill slopes. ECBC should provide stability modeling for reservoir slopes and adjacent areas potentially impacted by the filling of mining pits with water. Modeling of critical existing and final landfill liner slopes should be performed to assess potential impacts to the Landfill in conformance with requirements of the State Department of Water Resources ("DWR"), addressing both impacts from the Maximum Credible Earthquake and Maximum Probable Earthquake events.

(b) Provide detailed stability calculations for the upper dam in conformance with requirements of the State Department of Water Resources ("DWR"), addressing both impacts from the Maximum Credible Earthquake and Maximum Probable Earthquake events.

(c) Update the seismicity study contained in Exhibit E using current data and methodology approved by DWR.

4. Groundwater, Potable Water and Sewerage

(a) What model was used to assess groundwater pumping impacts to the Chuckawalla Valley (eg. Figures E2-16 through E2-18)? (Use of the Theis equation to predict water levels is not an appropriate methodology to assess long-term impacts to the basin.)

(b) As data presented in Figures E2-19 and E2-20 do not reflect long-term potential influences of pumping within the basin, provide a detailed three-dimensional groundwater flow model, such as Visual MODFLOW, for the Chuckawalla Valley that will provide basin-wide impacts from pumping along with maximum drawdown predicted for other potential water producers in the basin. The groundwater model should be calibrated using historic pumping data before making predictions needed to assess potential impacts to the basin. The calibrated model should consider groundwater pumping needed for the Landfill, assuming both projects are operational at the same time.

(c) The groundwater model should address potential impacts of both initial filling and any make-up water needed for the duration of the project.

(d) Please revise Figure E.1-3 to show specific locations of existing production wells discussed in Exhibit "E", Section 1.1. In addition, Figure 1.E-3 should also be revised to illustrate potential locations of new production wells. Visual MODEFLOW modeling should be performed for both scenarios (i.e., existing vs. new production wells) to assess potential impact to the basin.

(e) Based upon modeling results, how will pumping activities impact the landfill or other parties pumping water from the Chuckawalla Valley?

(f) If water used to initially fill the reservoir is obtained from the Chuckawalla Valley, will existing production wells be utilized?

(i) Does ECEC have the authority to utilize these wells?

(ii) What is the capacity of each well to be used?

(g) What potable water system will serve the proposed project, and what is the potable water demand of that project?

(h) Which existing sewage facility will be used for the project, and what is the estimated quantity of sanitary sewage that will be generated?

(i) Will wastes other than sewage wastes be discharged into the existing sewage system? What are the composition and the quantity of these wastes?

5. Storm Water

(a) Provide a detailed hydrology study for the project, including:

(i) Design calculations for drainage structures necessary to accommodate applicable storm intensities specified by the Regional Water Quality Control Board for the Landfill project, assuming both projects will operate simultaneously, and

(ii) A study of where surface water will be directed due to the loss of East Pit storage capacity.

(b) What materials will be stored within the proposed project's site?

(c) How will ECEC monitor storm water from industrial activities pursuant to the General Industrial NPDES permit?

(d) What best management practices will be used to prevent storm water pollution during construction activities?

6. Address and mitigate the potential impact of the open reservoirs attracting wildlife

(a) Among the species to be addressed are ravens, coyotes and other predators of the desert tortoise.

(b) How will the reservoirs affect the Landfill's ability to comply with the Biological Opinion?

7. Perform a complete biological assessment for the proposed project, including a full evaluation of potential impacts to the Landfill project.

8. Perform a detailed visual assessment for the proposed project itself—use of the Landfill project's visual assessment is insufficient.

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February 13, 2009

VIA ELECTRONIC FILING

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Re: COMMENTS ON SCOPING DOCUMENT 1 FOR EAGLE MOUNTAIN PUMPED STORAGE PROJECT (FERC PROJECT NO. P-13123-000)

Dear Secretary Bose and Deputy Secretary Davis:

Thank you for this opportunity to provide comments on Scoping Document 1 (**"SD1"**) issued by the Federal Energy Regulatory Commission (**"Commission" or "FERC"**) and the State of California State Water Resources Control Board (**"Water Board" or "SWRCB"**) on December 17, 2008 for Eagle Crest Energy Company's (**"ECEC's"**) Eagle Mountain Pumped Storage Project, FERC No. 13123 (the **"Project"**).[1] Kaiser Eagle Mountain, LLC and Mine Reclamation, LLC (collectively **"Kaiser"**) submit these comments to identify some of the areas of additional environmental studies and analysis which must be conducted as a part of the environmental review of the Project in accordance with the requirements of the National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.* (**"NEPA"**) and the California Environmental Quality Act, California Public Resources Code §§21000-21177 (**"CEQA"**).

Kaiser owns or controls much of the real property on which ECEC proposes to build the Project. Kaiser also owns and holds permits for construction of the Eagle Mountain Landfill and Recycling Center (the **"Landfill"**), a major landfill facility designed to dispose of up to 708 million tons of municipal solid waste materials.[2] The

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[1] Kaiser reserves the right to make additional comments and study requests during the course of the traditional licensing process. As reflected in these comments, ECEC's lack of specificity and incomplete analysis of impacts in Project materials issued to date makes it difficult to provide a full response. Accordingly, this letter is not intended to provide a full and complete list of all the studies necessary for ECEC to comply with applicable law, rules, and regulations with respect to this Project.

[2] The Landfill will have the capacity to handle and dispose of 470 million tons in Phases 1-4 and 238 million tons in Phase 5.

Landfill is currently under contract to be sold to Los Angeles County Sanitation District No. 2 (**"LACSD"**). The Landfill is permitted for development on property that ECEC proposes to use for its Project. The Project as proposed directly conflicts with and is inconsistent with the Landfill, and therefore will have a direct significant adverse impact on Kaiser, the Landfill and the public interest to be served by the development of the municipal solid waste facility.

As reflected in Kaiser's previous comments on ECEC's Draft License Application (the **"DLA"**) dated September 12, 2008 (**"DLA Comments"**) and its Comments and Study Requests dated June 9, 2008 and responding to ECEC's Preapplication Document (the **"Preapplication Comments"**), Kaiser's assessment of the informational needs and environmental consequences of the proposed Project is hampered by ECEC's failure to provide a complete and accurate description of its proposal. For example, ECEC does not identify with any specificity the location of available or alternate transmission routes or the specific sources of groundwater for the initial fill and annual make-up water necessary to construct and operate this Project. This is illustrated by ECEC's announcement in the scoping sessions held on January 15, 2009 and on January 16, 2009, that the route of its proposed transmission line was changing from the general route previously discussed in its DLA. "[O]nly through an accurate view of the project may the public and interested parties and public agencies balance the proposed project's benefits against its environmental cost, consider appropriate mitigation measures, assess the advantages of terminating the proposal, and properly weigh other alternatives."[3] ECEC must provide the Commission, the Water Board and the public more complete and accurate information regarding its proposed project to allow for adequate environmental review.

It is ECEC's burden and responsibility, not Kaiser's or the public's burden and responsibility, to describe a project with sufficient information to initiate meaningful environmental review. Having failed to do so, the effort to scope an environmental analysis at this juncture is fatally flawed. However, Kaiser does offer the following comments concerning some of the additional analysis that is necessary to begin to understand the proposed Project and the scope of its environmental consequences.

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[3] *San Joaquin Raptor Rescue Ctr. v. County of Merced*, 149 Cal. App. 4th 645, 655, 57 Cal. Rptr. 3d 663 (2007) (citing *City of Santee v. County of San Diego*, 214 Cal. App. 3d 1438, 1454, 263 Cal. Rptr. 340 (1989)) (internal quotation marks and citations omitted).

I. SUMMARY

Kaiser's concerns with the scoping of environmental review for the Project generally fall into the following categories:

- **Incompatibility with the Landfill and other land uses:** The Commission and Board's environmental review must look at the Project's impacts on existing and reasonably foreseeable adjacent land uses and its cumulative impacts in relationship to other past, present, and reasonably foreseeable conditions. There is no doubt that the Project is incompatible with the Landfill.[4] Based upon the sketchy information that has been provided so far, additional analyses required to examine impacts on the Landfill and other land uses include, but are not limited to: reservoir seepage risks, seismic hazards, conflicts with ancillary facilities, design, construction and operation assumptions, effects of other energy projects in the vicinity, and conflicts with planned land uses reflected in Riverside County's General Plan – Desert Center Area Land Use component. Additionally, the environmental review must consider an analyze impacts on current and future mining and reclamation activities at Eagle Mountain. These impacts range from possible use of rock resources in the construction and maintenance of the Project to loss of access to rock sources that could be sold or would otherwise utilized by the Landfill. For example, on the property that is Section 36, T 14E, R3N SBBM, which property would be impacted by the Project, there is an estimated 64,589,399 tons of waste rock stock piled and an estimated 204,158,000 tons of in place rock. Furthermore, the Landfill is a part of the approved surface mine reclamation plan for the Eagle Mountain mine. In addition to being compatible with the Landfill, the impacts to the reclamation of the mine must be analyzed.

- **Developmental resource impacts:** The environmental impact statement (**"EIS"**)[5] and environmental impact report (**"EIR"**) must include critical examination of the need for the Project and its impacts on existing energy infrastructure and resources. These issues must be evaluated with respect to the action and no action alternatives.

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[4] For example, the Project utilizes the east pit of the Eagle Mountain site as its lower reservoir but such pit will hold municipal solid waste in Phase 5 of the Landfill. Indeed, the environmental impact statement prepared by the Bureau of Land Management notes that the proposed "hydroelectric project would conflict with the … Eagle Mountain Project, because ECEC's proposed reservoirs would encroach slightly into the Phase 1 and substantially into the Phase 5 areas of the landfill." Eagle Mountain Landfill and Recycling Center Project DEIS at 5-19.

[5] Kaiser affirms the intention of the Commission and Water Board to prepare an EIS and EIR. Given the scope of probable significant adverse environmental impacts that would be generated by the Project, this level of environmental review is imperative to meet the requirements of NEPA and CEQA.

- **Impacts on water resources:** The Project's impacts on water quantity and water quality could threaten surrounding land uses, water supply sources, and habitat areas. The high likelihood of seepage affecting other resources requires particular scrutiny; placing large reservoirs in close proximity to a municipal landfill appears to be an unwise and unprecedented proposal. Potential impacts on groundwater supply, water quality, and hydrocompaction must be examined with far greater rigor than shown in ECEC's DLA.

- **Disturbance of wildlife and wildlife habitat:** Additional ecosystem analyses are required to identify adequate protection, mitigation, and enhancement measures necessary for wildlife and wildlife habitat. As a starting point, additional studies are required to evaluate impacts of: the addition of a new water body within desert habitat, direct conflicts with the desert tortoise and its critical habitat areas, bighorn sheep interference, and long-term operation and maintenance of the Project.

- **Cumulative impacts:** The effects of this Project must be examined alongside its interaction with other effects in the region and in the upcoming years.[6] The combination of these effects, and any resulting environmental degradation, should be the focus of cumulative impact analysis in the EIS/EIR. This analysis must take into account the compounding of the effects of the Project and planned or foreseeable actions over time. The total effects on resources, the ecosystem, or human community need to be reviewed to comply with NEPA and CEQA.

Our comments with respect to these issues are set forth in greater detail below. Kaiser also incorporates by reference, and hereby submits as part of its comments on SD1, Kaiser's DLA Comments and Preapplication Comments. (*See* FERC Accession Nos. 20080917-0165, 20080917-0166, 20081016-0115, 20081016-0116 (DLA Comments); 20080619-0045 (Preapplication Comments)). The DLA Comments, in particular, provide recommendations from subject-area experts—professional hydrologists, civil engineers, biologists, and energy consultants—regarding missing pieces of the DLA's environmental analyses. Kaiser asks that the discussion of potential Project impacts and recommendations for additional analyses presented in the DLA Comments and Preapplication Comments be reviewed by the Commission and Water Board for the purpose of defining the scope of the EIR/EIS analysis.

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[6] NEPA defines a "cumulative impact" as: "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency . . . or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7.

II. DETAILED COMMENTS

A. Data Regarding the Project Must Be Sufficient for a Hard Look at Assessment and Mitigation of Project's Environmental Impacts.

The NEPA studies must allow the Commission and Water Board to engage in the "hard look" at environmental impacts of the Project. CEQA similarly requires that an EIR "be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences." Cal. Code Regs. Tit. 14, § 15151. The DLA falls well short of the informational requirements needed before sufficient NEPA and CEQA analyses can be initiated. In determining whether a proposed action will significantly impact the environment, for purposes of NEPA an agency must consider, "direct," "indirect," and "cumulative" environmental impacts of an application. 40 C.F.R. § 1508.25.[7] CEQA likewise requires that an EIR "[i]nform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities" and "consider the whole of an action" through adequate and complete information. Cal. Code Regs. Tit. 14, §§ 15002(a)(1), 15003(h)-(i). The DLA inappropriately suggested that study of many Project elements, including reservoir design features and operational controls to address conflicts with the Landfill, could be studied at a later date or that the approved Landfill could be altered to accommodate the Project.

Environmental studies must be performed as soon as it is reasonably possible to complete them. *Kern v. U.S. Bureau of Land Mgmt.*, 284 F.3d 1062, 1072, 1074 (9th Cir. 2002) ("NEPA is not designed to postpone analysis of an environmental consequence to the last possible moment. Rather, it is designed to require such analysis as soon as it can reasonably be done. If it is reasonably possible to analyze the environmental consequences in an EIS . . . the agency is required to perform that analysis."). "[C]umulative impact analysis must be timely. It is not appropriate to defer consideration of cumulative impacts to a future date when meaningful consideration can be given now.") *Id.* at 1075; *see also* Cal. Code Regs. Tit. 14, §§ 15003(j), 15004 (providing that CEQA decisions "be informed and balanced" and occur "[b]efore granting any approval of a project subject to CEQA."). Moreover, "[a] proper consideration of the cumulative impacts of a project requires some quantified or

[7] While NEPA does not mandate particular results, it sets forth procedural requirements to ensure that federal agencies take a hard look at the all foreseeable direct and indirect consequences of their actions. *N. Alaska Envtl. Ctr. v. Kempthorne*, 457 F.3d 969, 975 (9th Cir. 2006). Under the "rule of reason" or "hard look" standard applied in NEPA review, the courts assess whether an agency has engaged in a "reasonably thorough discussion of the significant aspects of probable environmental consequences." *American Rivers v. FERC*, 201 F.3d 1186, 1195 (9th Cir. 1999) (quotation marks and citation omitted). Thus, an agency decision will not withstand review when the decision-maker fails to make a rational connection between the facts and the decision, *Bangor Hydro-Elec. Co. v. FERC*, 78 F.3d 659, 663 n.3 (D.C. Cir. 1996), or ignores or minimizes relevant evidence. *Morall v. Drug Enforcement Admin.*, 412 F.3d 165, 178 (D.C. Cir. 2005).

detailed information." *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 993 (9th Cir. 2004) (internal quotation marks and citations omitted).

NEPA also requires that an EIS analyze and include appropriate mitigation measures or alternatives in its review. 40 C.F.R. § 1502.14(f) (directing inclusion of "appropriate mitigation measures not in the proposed action"); 40 C.F.R. § 1508.25(b)(3) (requiring agencies to consider "mitigation measures (not already included in the proposed action)").[8] Because rigorous and objective consideration of alternatives provides the "clear basis for choice," factors producing an attenuated alternatives analysis are danger signals suggesting a possible failure of the reasoned decision-making process. *See* 40 C.F.R. § 1502.14. NEPA's regulations require agencies to "[r]igorously explore and objectively evaluate all reasonable alternatives." *Id.*

ECEC may not circumvent the opportunity for meaningful environmental analysis by offering up a patently deficient draft application; before the FERC and SWRCB can take a "hard look" at the environmental impacts of a project, ECEC must describe its project. For the reasons set forth below, additional information and environmental studies are required to describe and examine the Project, alternatives to the Project, impacts of the Project on various resources, and protection, mitigation, and enhancement measures (**"PM&Es"**) necessary to address such environmental impacts.

B. All of the Studies Listed in SD1 Section 3.1.3 Are Necessary.

Kaiser agrees that **all** of the studies listed in Section 3.1.3 of SD1 need to be conducted to prepare an adequate EIS/EIR. These include important additional analyses regarding water resources and wildlife resources such as:

1. Location of wells

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[8] "Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant." *Sierra Club v. Marsh*, 714 F.Supp. 539, 573-74 (D. Me. 1989) (emphasis omitted) (quoting Council on Environmental Quality, *Guidance Regarding NEPA Regulations*, 48 Fed. Reg. 34263, 34267 (July 28, 1983) and 46 Fed. Reg. at 18027).

> To be sure, one important ingredient of an EIS is the discussion of steps that can be taken to mitigate adverse environmental consequences. [40 C.F.R. § 1508.20 (2007)] The requirement that an EIS contain a detailed discussion of possible mitigation measures flows both from the language of the Act and, more expressly, from CEQ's implementing regulations. Implicit in NEPA's demand that an agency prepare a detailed statement on "any adverse environmental effects which cannot be avoided should the proposal be implemented," 42 U.S.C. § 4332(C)(ii), is an understanding that the EIS will discuss the extent to which adverse effects can be avoided. *See* D. Mandelker, *NEPA Law and Litigation* § 10:38 (1984).

Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 351-52 (1989).

2. Seepage risks

3. Water withdrawal impacts to water resources in the vicinity (including hydrocompaction impacts)

4. Best management practices to protect water quality

5. Field surveys of special status species

6. Mitigation of construction, operation and maintenance impacts on wildlife and sensitive status species

Kaiser's DLA Comments and Preapplication Comments identify some of the potential impacts of the Project in these areas and recommend studies that should be conducted with respect to the above issues. Kaiser renews those comments here and emphasizes that Project must be further described in order for meaningful assessment of these issues. Kaiser also notes that the additional study of water withdrawal impacts to water resources in the vicinity must factor in potential Bureau of Reclamation regulations that would affect the availability of water withdrawals from the Chuckwalla Valley due to broader impacts on Colorado River water resources. *See* Regulating the Use of Lower Colorado River Water Without an Entitlement, 73 Fed. Reg. 40,916 (July 16, 2008) (to be codified at 43 CFR Part 415).

C. Additional Studies Are Required to Address Resource Issues Posed by the Project.

In addition to those studies identified in Section 3.1.3 of SD1, in order to describe the Project and initiate environmental review under NEPA and CEQA additional studies must also be conducted to evaluate the following resource issues:[9]

1. Land use impacts.

The EIS/EIR must address the following issues regarding the Project's impacts on the Landfill, including but not limited to:

[9] Some of these resource issues are identified in Section 4.2 of SD1, but none are reflected in the list of additional studies presented in Section 3.1.3.

a. What impact will Project design, construction, operation and maintenance have on the surrounding Landfill's construction, operation and maintenance? ECEC has never offered any explanation of how it will avoid, minimize or mitigate direct and irreconcilable impacts with the Landfill; these impacts cannot be assumed away by vague project "descriptions" or speculation about Landfill construction phasing. The Landfill is a permitted project and will provide an essential public service.

b. Where will LACSD dispose of the tons of solid waste expected to be discharged at the Landfill if the Project's conflicts with the Landfill make it infeasible or impracticable to implement the Landfill along with the Project use? What is the environmental cost of such relocation of solid waste?

c. What are the acquisition and severance impacts to people and property associated with acquisition of the Kaiser properties and displacing the Landfill and rock resources?

ECEC's suggestion in the DLA that these issues can be addressed during the Project design and implementation stage is inconsistent with NEPA and CEQA. The Landfill's design has already undergone substantial and comprehensive environmental analysis. The Bureau of Land Management (**"BLM"**) and Riverside County, California (the **"County"**) each undertook review of applications to facilitate the Landfill. BLM and the County prepared and issued a joint federal EIS/EIR (collectively, the **"Landfill EIS"**) analyzing the environmental effects of the Landfill. The Landfill EIS and associated studies reflect many years of environmental review and are documented in over 50,000 pages of written analyses, including a 900-page Draft EIS and a 1600-page Final EIS. Numerous federal, state, and local agencies and non-governmental organizations participated in this extensive environmental review process. In reviewing the BLM land exchange pursuant to Section 7 of the ESA, U.S. Fish and Wildlife Service (**"USFWS"**) also evaluated the potential impacts of the Landfill and issued a biological opinion finding it would not jeopardize any threatened or endangered species. Upon review of this voluminous record, the County issued the permits and approvals for the Landfill in 1997. The BLM also approved a land exchange with Kaiser in 1997 and completed the land exchange in 1999.[10]

In issuing these permits, BLM and the County determined that the Landfill would fulfill public need for waste disposal—processing up to 20,000 tons of waste per day—while providing protection, mitigation, and enhancement measures that would

[10] An appeal of BLM's land exchange decision is pending before the Ninth Circuit Court of Appeals. All briefing and oral argument in the case has concluded and the matter is before the court for decision. Prior state suits regarding the Landfill environmental review were settled in July 1999, when the California Supreme Court declined review of the appellate court's determination that the environmental review complied with CEQA.

balance harm to various environmental interests. It was determined that "the public interest will be well served by making this [land] exchange," the Landfill "undeniably meets the needs of the State and local residents and their economies," and "disposal of [BLM] lands in exchange for wildlife habitat [from Kaiser] plainly entails a net gain for the public."[11] The Landfill is part of the County's zoning and land use plans for development and use of natural resources, as reflected in the Eagle Mountain Policy Area of the County's General Plan (Desert Center Area Land Use Plan) and approved in the County's Ordinance 555, Reclamation Plan No. 107 (as amended).[12] *See* DLA Comments at pp. 9-18.

The Commission and the Water Board must conduct analysis of the Project's direct impacts upon and conflicts with the Landfill. Such interference with another public interest also demands analysis of the cumulative impact of the Project on solid waste disposal alternatives to meet the demands of southern California residents as the Project's incompatibility will jeopardize the Landfill construction and operations. This assessment must be completed as part of the EIS/EIR.

2. Geologic and hydro-geologic impacts

The Project's proposed water uses may elevate seismic risks within the Project vicinity. Given the risks, additional studies should be performed to provide the input necessary to assure proper design of the Project. To properly evaluate the Project's seismic impacts, ECEC must provide designs for major systems and for new structures to be used by the Project (water pipeline, transmission line, access roads, etc.) and additional studies, including but not limited to the following:

- **Design Acceleration Time Histories.** Design ground motions should be established in the form of a suite of spectrum-compatible acceleration time histories that reflect site geologic conditions and seismic setting. These acceleration time histories are an essential input for design of engineering components of the Project and for evaluation of other hazards at the site such as soil liquefaction potential, seismically-induced settlement, and slope stability. The EIS/EIR must be based upon ground motion evaluation that is consistent with the particular industry standards. *See* DLA Comments at p. 14.

- **Modeling of Local Groundwater Elevations.** The proposed construction will change the groundwater regime and elevations in the area. At locations near the proposed reservoir pits, groundwater elevations will likely increase. Local increase in groundwater elevations may result in local increase in soil liquefaction potential. More modeling must be performed to analyze this environmental impact. *See id.*

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[11] Interior Board of Land Appeals, *Donna and Larry Charpied and National Parks and Conservation Association*, 150 IBLA 314, 332-33 (September 30, 1999).

[12] *See* DLA at Exhibit E, p. 9-7.

- **Hydro-Geologic Studies.** As set forth in Kaiser's DLA Comments, the high seepage potential for this Project may lead to seismic hazards. Just as the increase in groundwater levels may alter the soil liquefaction risks, seepage may also heighten soil liquefaction risk factors. Water may seep into underlying fault(s), which, in turn, may induce seismicity. There are several well known cases of seepage-induced seismicity, including one at the Department of Energy's Rocky Mountain Arsenal site in Colorado. Additional hydro-geologic studies are required to examine these potential Project impacts. *See id* at pp. 14-15.

3. Water quality impacts

In addition to analysis of the water resource impacts areas identified in Section 3.1.3 of SD1, including the critical analysis of "potential seepage from the former mine pits and the brine pond" and "potential impacts to the Colorado River Aqueduct," additional study is necessary to examine: (1) brine pond impacts on groundwater quality; (2) long-term reservoir water quality within the reservoir itself; (3) construction effects on water quality; (4) import and mixing of the potentially dissimilar chemical composition of the Colorado River water in the basin. *See* DLA Comments at pp. 22-24.

4. Developmental resource impacts

The EIS/EIR must also consider the developmental resource impacts of the Project, including but not limited to: (a) impacts on the capacity and reliability of the local and regional transmission system; (b) impacts on the need for and availability of generation in off-peak periods; (c) impacts on greenhouse gases (**"GHG"**) because the Project will consume more energy than it generates, likely relying upon power generated by GHG emitting power sources to meet Project pumping demand; (d) fiscal analysis of Project economics relative to alternative resources and the need for the Project; and, (e) market effects and benefits of the Project as compared to No Action Alternative. *See* DLA Comments at pp. 32-39.

5. Wildlife impacts

The field surveys listed in Section 3.1.3 with respect to special status species are important. However, the EIS/EIR should not be limited solely to special status species impacts. The EIS/EIR is to examine the probable significant environmental impacts of the Project on wildlife resources in general as well. The environmental review must include analysis of the impact of introducing a new water body in the desert. This requires modeling and/or analysis of similar facilities and not just the proposed field studies in existing environment. *See* DLA Comments at pp. 25-32.

III. CONCLUSIONS

For the foregoing reasons, Kaiser hereby recommends that scoping be continued until such time as ECEC has provided an accurate project description for which an informed scope of environmental analysis can reasonably be determined. If,

however, FERC and SWRCB are going to attempt to determine the scope of an environmental analysis on the basis of a patently deficient draft application, these additional areas of analysis referenced above must be included within the scope of the EIS/EIR review. Kaiser also emphasizes the importance of conducting all of the studies currently reflected in Section 3.1.3 of SD1 with the rigor necessary to provide a thorough discussion of the significant aspects of probable environmental consequences. A great deal of additional analysis is required to provide the Commission and the Water Board with the quality and quantity of information necessary to take a hard look at this Project and its impacts. For an applicant that has "pursued" this Project for a period of now close to 20 years, we are puzzled with the dearth of information that has been provided to date, and are very concerned that this information will not be readily offered or forthcoming from an applicant that seems more concerned about holding a place in line than it does to invest the time, effort and resources to advance this Project.

Very truly yours,

KAISER EAGLE MOUNTAIN, LLC
MINE RECLAMATION, LLC

Terry L. Cook
Vice President

Enclosures
cc: FERC Service List for P-13123-000
Kim Nguyen, FERC (via electronic mail)
Alexander Shipman, Esq., Los Angeles County Sanitation District
Matthew D. Hacker, Metropolitan Water District of Southern California

TLC:jpk
terry09\final written comments on FERC's scoping 2-13-09

CERTIFICATE OF SERVICE

I hereby certify that I have, this day, served the foregoing documents upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Bellevue, Washington, this 13th day of February, 2009.

K J Campbell

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February 16, 2009

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RE: COMMENTS ON SCOPING DOCUMENT 1 FOR THE EAGLE MOUNTAIN PUMPED STORAGE PROJECT FREC PROJECT NO. P-13123-000

Dear Secretary Bose and Deputy Secretary Davis,

The Citizens for the Chuckwalla Valley ("CCV") thank you for this opportunity to provide comments on the Scoping Document 1 ("SD1") issued by the Federal Energy Regulatory Commission ("FERC") and the State of California State Water Resources Control Board "SWRCB") for the Eagle Mountain Pumped Storage Project, FERC No. 13123 ("Project"). **We request at this time to be added to your mailing list for the Project.**

CCV has been involved in this project since 1990 when it was included in the initial Environmental Impact Report/Environmental Impact Statement ("EIR/EIS") conducted from 1990 – 1997 for the Eagle Mountain garbage dump proposed by Kaiser Ventures and Mine Reclamation Corporation ("Kaiser/MRC"). CCV is a grassroots group formed to prevent the development of the proposed Eagle Mountain dump and to be involved in participating in policies that enhance natural, cultural, scientific, and human environment. (From the beginning CCV felt water and the world's largest garbage dump simply do not mix). CCV understands and recognizes the need for economic development in desert communities, but do not believe that project which will result in an irretrievable commitment to our community's and Joshua Tree National Park's ("JoTr") natural resources are appropriate. For information on how the environmental community want to see this area grow, see http://www.ccaej.org/rockinforjoshuatree/theNEST/narrative/index.html , that contains the "Vision for Eagle Mountain" designed to promote tourism, protect desert communities and JoTr's resources. Members of CCV and other environmental groups have successfully challenged the Eagle Mountain dump which resulted in setting aside the exchange of land Kaiser/MRC needs for it's dump. The Polluters appealed the lower court's ruling and once the 9th Circuit Court of Appeals rules favorably, the lands in question will revert back to the Bureau of

Land Management ("BLM") then ultimately the National Park Service ("NPS").

We submit these comments to identify some of the areas that we believe warrant environmental studies and analysis as part of the environmental review of the Project in accordance with the requirements of National Environmental Policy Act, 42 U.S.C. § 4321 *et seq* ("NEPA"), and the California Environmental Quality Act, California Public Resources Code §§21000-21177 ("CEQA").

Seismicity: CCV would like comprehensive studies regarding seismicity. The construction of liners, dams, and ponds have the potential to breech resulting in groundwater and surface contamination from the Project as well as the dump. Please include a detailed cumulative analysis.

What is the potential ground shaking at Eagle Mountain? Please explore random, non-fault specific events inside the site and estimate the PGA. What affect will a 6.75 event have on the liners of the pits involved, as well as brine ponds with the epicenter at the site?

How will horizontal deformation be mitigated? All liners, pipes, dams, ponds will be sheared fully or partially. Leakage and flooding will occur. What analytical method will be used to determine the extent of damage?

What physical barriers, berms, techniques, and engineering methods will you use to stabilize the liner to the slopes? Where will these measures be employed in the design and construction of the liner?

Bulletin of the Seismological Society of America Vol. 85 No. 2, pages 379 and 405, April 1995. clearly define the Eagle Mountain site as containing diverse or hidden faults. Each zone is assumed to have randomly distributed earthquakes.

Utilizing conservative G Force estimates is inappropriate, when the State and Federal laws require a design that would resist relatively high intensity forces? Maximum horizontal acceleration needs to be the criteria. Maximum possibilities should be the criteria. PGA should be .63. Why use a PGA which is smaller than what potentially is possible? How can you predict where ground slippage will occur? Will slippage vary with source, direction, and intensity of ground movement? Why not?

The project is surrounded by active faults, and also show many unnamed little or subsurface faults. These unnamed, subsurface faults need inclusion as to their potential for seismic impact? The Seismology Bulletin we discussed above states that clearly northwest trending, strike-slip faults are important sources of large - magnitude earthquakes.

Because of the web-like nature of faulting and activity along the San Andreas & the Eastern Mojave segment Southeast Transverse Ranges, Pinto Mountains, and Blue Cut Fault, it is commonly accepted that earthquakes generated on a specific fault can generate earthquakes on other separate known and unknown faults. A predictable maximum earthquake generated elsewhere and causing the Blue Cut to slip, would be larger than the 7.5. Please analyze the potential of a large Blue Cut event and the potential from an unknown site specific earthquake.

Blind thrust faults are present and difficult to predict. Please address the potential impacts of a blind

thrust fault. A 7.3 is possible. You need to analyze all of the modeling with this potential in mind. Blind thrust faults demonstrate importance as hazards. There is much uncertainty of the extent, geometry, depth, and origin. Show how you will resolved these issues.

Previous modeling shows the Palos Verdes fault inaccurately in origin, direction, and connections to other faults. Also Whittier was classified as inactive and now is classified as a major active strike-slip fault. How can you guarantee that the same flaws won't reoccur in your modeling?

Again, we see Northridge, with a displacement of 1.5m to 3.5m, that the causative fault was not previously mapped. Landers, which unlike Northridge, ruptured the surface, contain many previously unmapped faults. No evidence before showed this group would produce such large earthquakes. An integrated Approach for Assessing Potential Earthquakes must be used.

Implementing satellite technology, the rate of slip for the Blue Cut could be easily and cost effectively determined. This ought to be done.

Little is known about accumulation at lesser faults. What have you done to increase this knowledge relative to Eagle Mountain?

Models show strain release to the biggest faults is not consistent with recent geodetic data ! How will this affect small faults in the site area?

Cal Tech and the USGS put out a week earthquake report for the week of August 8 - 14, 1996. It states, "...Landers triggered activity as far away as Yellowstone...". Larger earthquakes will trigger activity on known as well as unknown faults. What cumulative affect will occur at the site?

After the Landers quake, a section of sidewalk at Eagle Mountain rose 12 inches. The sidewalks, door & window jams are constantly shifting and in need of repairs. This is because of the unstable ground. How will you stabilize a sheet of plastic, when concrete and steel are easily shifted by the constant ground movement?

Please include field studies to show activity rates.

There needs to be trenching or bore holes performed on faults and old geomorphic features (7) at the site? Also, potential under ground sources must be evaluated with data to substantiate any conclusions.

Not all faults recognized as active have been zoned. Include all known active faults, even if not zoned yet. USGS has a bunch you need to include.

Ground water: It has been determined that the action leakage rate for plastic liners is 21 gallons per acre per day with one foot of head pressure. This has been concluded by Dr. Bonaparte who was commissioned by the EPA to study action leakage rates when promulgating Subtitle D regulations for dumps. There will be hundreds if not thousands of feet of head pressure from the Project and the dump. How will the integrity of the Chuckwalla aquifer be affected by leachate from the Project and the dump?

Further, if the dump happens to come to fruition, how will the Project affect their leachate collection system? According to Drexel Institute, all leachate collection filtration systems will fail. Flow rates are reduced over time because of organism, mineralization, and fine particle clogging of the filter. All forms of remediation - back-flushing with water, gas, and leachate are temporary and never return to flow rates of original design. Sumps will not be able to remove the leachate at potential generation rate, much less the inclusion of direct infiltration due to the Project. The removal system will fail. What is the plan is to remediate the problem? Massive releases of water from the Project and garbage juice from the dump will occur under the Project and through side wall liners and our water will be poisoned forever.

How will side slopes of the pits hold up over time? The author of this has lived in Eagle Mountain going on 28 years. The mining pits once had defined 40 ft slopes, but now are a victim of erosion and the slopes are beginning to regain their natural repose. Explain how the liners will hold up to sheer tension.

The Project may use Chuckwalla Valley groundwater or water from the MWD canal has been talked about in several letters to FERC. It has been established that the dump will exacerbate over draught in the Valley to complete depletion of the groundwater. If ground water is used, clearly the projects together will make this happen at an accelerated rate. All Chuckwalla Valley residents (except those who live at MWD's pumping plant at Eagle Mountain) depend on ground water to live. How will residents and JoTr be assured there will be no impacts from water depletion?

If water from MWD via the Colorado River Aqueduct is used, we have a problem with water quality. A cumulative impact study of this must be conducted. Metropolitan Water District of Southern California (MWD), proposes the Upper Chuckwalla Valley Water Storage Project. MWD is a quasi-governmental agency whose mandate is to supply drinking water for more than 16 million Southern Californians. In the 1930's, an aqueduct was built from the Colorado River that conveys water to various pumping stations through the desert, to its ultimate destination, Lake Matthews. The open aqueduct flows next to Joshua Tree National Park, to its pumping plant located in the Eagle Mountains. The plan is to pump water from the Pinto Basin into the aqueduct and pump Colorado River water from the aqueduct onto the desert floor and allow it to percolate into the underground water basin. During times of drought, extraction wells will pump the water back into the aqueduct. One of the stated reasons for the project is to dilute the polluted river water which contains perchlorate, an oxidizer used in developing rocket fuel that disrupts the thyroid, creating problems with metabolism, reproduction, development and cancer in children, with our clean water. CCV is concerned about perchlorate precipitating on the surface, then becoming airborne from winds, and being taken up by plants and eaten by animals. CCV also anticipates a PM10 problem at the mouth of the Pinto Basin (Upper Chuckwalla Valley) as a result of this plan that currently is non-existent. Residents are also concerned about exposing arsenic, that naturally occurs in desert soils, by denuding the desert. CCV is extremely concerned with the potential impacts to Desert Center/Eagle Mountain and Joshua Tree National Park's ground water quality and quantity, potential significant impacts to air quality, as well as other environmental impacts to desert natural resources. Water transfers between the Project and MWD will have significant impacts to the area.

Our concerns for Joshua Tree National Park: Introducing a large source of water where it currently is scarce will have significant impacts on the resources of Joshua Tree National Park. The application for license attempts to portray the proposal to build two giant lakes less than a mile from

pristine desert national park-land as environmentally sound and without significant impacts on fish, botanical, and wildlife resources. The document reaches this conclusion by focusing attention on the immediate project area (the abandoned pit mine) and by specifically addressing threatened and endangered species of state and federal concern. By taking this narrow approach the project proponents are able to ignore the much larger ecological questions raised by their project. They also ignore the significance of lands immediately outside their project boundary and the mandate of the National Park Service to preserve and protect these resources for future generations.

The Project plans on utilizing existing wells or other sources from the Chuckwalla Basin aquifer but does not identify actual locations or the owners of the water rights. Any water source utilized from within the Chuckwalla Basin will require an analysis of potential impacts to the Pinto Basin aquifer and JoTr's water rights. If the Chuckwalla is so located that withdrawals and a corresponding decline in the water table will induce flow from the three basins feeding the Chuckwalla. The three basins referred to are the Pinto, Hayfield, and Cadiz. Flow from the Pinto Basin could result in a decline in the water table with resulting impacts on the flora and fauna of the area.

Drawdown of the aquifers is not expected to affect local springs. We seriously question this conclusion and would require additional studies to analyze the potential impacts to local springs. The springs in the area surrounding the project are important water sources for local wildlife including Desert Bighorn Sheep. There is a deficiency in reliable data and observations on the existing springs in the area. Since the Desert Protection Act was enacted, Buzzard Springs is within the new boundaries of Joshua Tree National Park.

Colonization of the reservoirs by fish and the dreaded mussel should CRS water be used, is likely. We maintain that establishment of entire biological systems in these reservoirs is a real possibility. Typically one would expect growth of "weedy" species that might include alien or exotic species. If this project were somewhere in a city, perhaps these biotic components would be insignificant, but coming as they do to a pristine desert ecosystem, all of these organisms constitute an uncontrolled, probably uncontrollable eutrophication experiment. By adding large amounts of biological material to what should be a pristine, arid, part of the world, far-reaching biological effects are likely which cannot be foreseen and which need to be addressed.

While it is true that existing fish resources are not likely to be affected, that is not the point. The issue is that fish and their associated algal and invertebrate food bases will be added to an area where they do not naturally belong, only a 1/2 from national park land, designated wilderness, and an international biosphere reserve. All of these designations intended to preserve and protect the unique and highly desirable natural resources of the Mojave and Colorado Deserts.

If this were a city area where plants and animals are already largely absent, such species lists might be of less concern. But here in southern California's most pristine desert, such presence or absences are extremely important as are the ecological forces regulating these populations. Specifically, it is these natural resources that were set aside by the Congress in their creation of Joshua Tree National Monument.

Although the reservoirs will fluctuate in depth on some days, there are numerous organisms that can and will quickly colonize such a water body. "Weedy" algal and planktonic communities can be

established very quickly and are extremely resistant to disturbance. Aquatic invertebrates are aerially dispersed and rapidly colonize any body of water. Fish may or may not become established, but certainly there are species that can survive the rigors these impoundments will impose. It is clear that other cascading effects up the food chain will occur because of the sudden establishment of a large food and water source in what should be a pristine arid desert. Home ranges of small animals will be altered by the sudden availability of this water, predators will increase or move home ranges to reap the windfall in prey. The result will be a large scale biological manipulation with unpredictable results. The situation might be described as a biological experiment without controls.

Bird species will definitely colonize the reservoir. Every birder knows that birds use available water sources. Migrant species may stop for a short time and continue their trip when watered and rested. Other less long-range travelers may stay and colonize areas when water is made available. "Weedy" species, such as gulls may be particularly troublesome. Bird species already using the nearby Salton Sea could very easily colonize the project site. Raven populations are already known to pose a problem to tortoises.

New studies would be required before any of the proponents' assertions can be accepted. Such study, occupying several years, would test the null hypothesis that adding a huge lake to a desert has no effect on nearby plants and animals. The applicant might have indicated studies they proposed to conduct rather than concluding in advance that no effect would result.

National Park Service radio tagging studies have shown that tortoises are active throughout the summer months although they are very hard to find then. JoTr represents the most pristine, most protected, and for that reason, most important population of tortoises in the area. Desert tortoise densities in the Pinto Basin have been documented at 200-250 per square mile. Clearly JoTr is an important reservoir for tortoises and this project will have far-reaching effects on the national park lands immediately adjacent.

"Impacts on the desert tortoise would be limited to disturbance during construction and some loss of habitat due to permanent, above ground project facilities," is both untrue and misleading. The applicant has neither studied nor cited other studies supporting this claim. The widespread ecological effects of operational impacts will affect the desert tortoise. Most critically, the project will have impact on predator populations in the area and on raven numbers. The applicant once again conceals ecological problems by addressing close-by direct effects whereas long-term indirect effects are the actual concern.

The applicant describes using fencing around the reservoirs and other project areas. Fencing will be necessary to prevent entry of large mammals and people. But such fencing will have minimal effect on the many small mammals, birds, and reptiles that live in this area. Most of them are small enough or sufficiently mobile to get over, under, or through the fence.

The applicant discusses conducting raven monitoring studies. Raven numbers will undoubtedly increase with the combined water, food, power lines, towers, and roads resulting from this project.

Each of these is a direct aid to raven increase, together they could produce a significant synergistic increase. Work by Camp, Knight and Freilich 1993 (Common raven populations in Joshua Tree National Monument, California. Western Birds 24: 198-199) showed the project area to have

extremely low raven numbers leading the authors to conclude the area to be among the most pristine in southern California.

Besides monitoring their numbers, the applicants have no plan for how to deal with this threat to tortoises. Although they suggest using non-lethal methods and don't even mention direct reduction of ravens, such aggressive techniques will undoubtedly be required. The applicants do not show commitment to such aggressive reduction nor do they explain how they will handle the problem ecologically, financially, or logistically.

The project proponents plan to build two large lakes in the midst of a pristine desert ecosystem only a 1/2 mile from a national park, designated wilderness, and International Biosphere Reserve. Each of these designations; national park status, wilderness, and Biosphere establishment was bestowed on Joshua Tree National Monument in consideration of world class, precious resources deemed valuable to the people of the United States and to the people of the World. The botanical and wildlife studies mentioned in the application give attention to the barest minimum of environmental concerns for those species of special status. The few threatened or endangered species addressed are already in serious trouble. Although parks and biosphere reserves may be natural refugia for these species, the National Park Service is charged with the long-term maintenance of **all** species and intact, functioning ecosystems.

To be a viable project and neighbor to a national park site, the proponents would have to conduct studies addressing the null hypothesis: "Construction of two large lakes in pristine desert does not cause effects on the plants and animals of the land about 2 km away." Only with these results in hand could the applicant then go further and propose suitable mitigations or modifications based on data. The selection of bats and ravens for attention in the section on monitoring studies is arbitrary. It is true that bats include a number of Category II species and that ravens pose special concern to tortoises. But this project threatens widespread ecological impacts that would affect many more species than these few.

The application states that all disturbed areas would be seeded to reduce erosion potential. There is no discussion on whether native or non-native vegetation would be used. To reduce any potential impacts to JoTr, we strongly suggest that only native vegetation be allowed for erosion control.

Reservoirs and brine pond(s): We request these be covered to prevent evaporation and to exclude birds and other species from drinking the water or the brine. The Glamis gold mine had arsenic ponds for their heap-leach gold mine in the Imperial Valley, CA. Birds, attracted to this source of what they thought was water, were attracted and met with death upon consuming the liquid. The mining company placed a cover over the ponds to eliminate the problem. They were pleasantly surprised to learn that not only were bird species now protected, the liner paid for itself over several years in saved water. The reservoirs and the brine pond(s) for the Project must be covered to protect animal species and prevent loss of precious water.

Pipelines & transmission lines: A complete analysis of the pipelines to be constructed if Chuckwalla water wells are used must be conducted. Also, will transmission lines be constructed or will the Project tie into existing MWD transmission line? A complete cumulative analysis of impacts from all proposed transmission lines in the Chuckwalla Valley must be conducted.

Lastly, how can pumping billions of gallons of ground water be labeled "renewable energy"? Simply put, "There is no life without water". Chuckwalla Valley residents depend on a clean supply of groundwater and this project alone, or with the dump will deplete our precious water resources.

Respectfully Submitted

Donna Charpied
Executive Director
Citizens for the Chuckwalla Valley

Cc: Interested Parties