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Right-of-Way: CACA-50523

Supplemental Environmental Assessment

Jimenez Mine

Imperial County, California

U.S. Department of the Interior
Bureau of Land Management
El Centro Field Office
1661 South 4th Street
El Centro, CA 92243

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Acronyms and Abbreviations

ASL	Above Sea Level
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
CO	Carbon Monoxide
EA	Environmental Assessment
FONSI	Finding of No Significant Impact
Ft	Feet or Foot
Gpm	Gallons Per Minute
HHS	US Department of Health & Human Services
ICAPCD	Imperial County Air Pollution Control District
ICPD	Imperial County Planning Department
NO _x	Nitrogen Oxides
OWEF	Ocotillo Wind Energy Facility
PBS	Peninsular Bighorn Sheep
PCC	Portland Cement Concrete
PM ₁₀	Particulate Matter – 10 microns or less
RAP	Recycled Asphalt Pavement
RMC	Ready-Mix Concrete
ROW	Right-of-Way
SBBM	San Bernardino Baseline and Meridian
SEA	Supplemental Environmental Assessment
SMARA	Surface Mining and Reclamation Act
SO _x	Sulfur Oxides
TPD	Ton per day
TPY	Ton per year
US	United States
USFWS	United States Fish and Wildlife Service
VOC	Volatile Organic Compound

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1.0 Purpose and Need

1.1 Overview

The Bureau of Land Management (BLM) prepared and made available for public review the Jimenez Pit Environmental Assessment (EA) in April 1996. The proposed action consisted of approving a Plan of Operations submitted by Granite Construction Company (Granite) to conduct aggregate (sand and gravel) mining and processing on 100 acres of land situated within the boundaries of two 160-acre unpatented claims (CK No. 1 and CK No. 3 / CAMC Nos. 38207 and 38209). The site is located in Imperial County, California on BLM-administered public land within portions of the east ½ of the southeast ¼ and northeast ¼ of Section 8, Township 16 South, Range 9 East of the San Bernardino Baseline and Meridian (SBBM). The BLM issued a letter on June 19, 1996 approving the Plan of Operations based on the BLM's finding that the action would not cause unnecessary or undue degradation to public lands, and that an environmental impact statement was not required. A copy of the 1996 EA and the decision are attached as Appendix A.

Granite's current operations include a number of material processing facilities including an asphalt plant and a ready-mix concrete plant. It was understood in 1996 that such plants would be present as ancillary facilities to mining, although the 1996 EA and Plan of Operations offered little detail regarding their operation, and they were not included in Granite's right-of-way (ROW) CACA-50523. The BLM has prepared this Supplemental Environmental Assessment (SEA) to ensure that the agency has sufficient information regarding the existing plant facilities. The SEA includes information on a number of water basins that Granite uses in its operations and analyzes proposed changes in Granite's operating hours at the site and the slope angles of the mining excavation along with providing clarifications to the reclamation phasing. The processing plants, water basins, and operational changes are described herein and in an amended Plan of Operations which has been submitted to the BLM and is attached as Appendix B. The SEA analyzes all of the above mentioned activities being permitted under mine plan of operation CACA-32144. Granite's ROW, CACA-50523, has been in-place over the processing area of the mine site since April 30, 2009 for the purpose of the conveyance of aggregates from Carroll Pit to Jimenez Pit. The non-mining activities, including the Asphalt Plant, Ready-Mix Concrete Plant, and Recycled Asphalt Process within the Jimenez mine site, would be permitted under an amendment to the 2009 non-energy facility Federal Land Policy and Management Act (FLPMA) ROW CACA-50523 held by Granite and the conveyance of aggregates would be removed. The original term of the ROW is 25 years and will expire December 31, 2033.

Except as indicated above, Granite is not proposing any changes in site operations or activities. All operations will remain within the same 100-acre project site described in the 1996 EA and Plan of Operations. The depth of mining would remain a maximum of 50 feet below the original ground surface. No changes in traffic or production levels are proposed or would occur as a result of the project.

1.2 Purpose and Need

The purpose and need described in the 1996 EA remains applicable. The EA states on page 1 that “[t]he Proposed Action is needed to provide a continuous source of aggregate to supply the maintenance and construction needs for the El Centro area.”

This SEA specifically responds to the request to the BLM from Granite for an extension in operating hours, the use of a number of water basins, changes to the final slope angles, and adjustments to reclamation phasing. The SEA also provides information on the asphalt and ready-mix concrete plant facilities which would continue to remain in operation. The need for these changes is to increase productivity of this mine and serve local construction needs.

2.0 Background

The Jimenez Mine site is an aggregate mine and ancillary processing facilities located approximately four miles northwest of Ocotillo within Imperial County. The 100-acre site is on public lands administered by the BLM's El Centro Field Office.

In June 1996, the BLM approved the Plan of Operations, following its preparation of the EA. The Plan of Operations allows sand and gravel mining and processing on 100 acres, representing portions of two unpatented mining claims. The Plan of Operations and EA described production averaging 250,000 tons per year, and reaching as high as 400,000 tons maximum annually; the total amount produced would depend on market demand. In August 1996, the County of Imperial approved a reclamation plan for the site under the Surface Mining and Reclamation Act (SMARA). (Cal. Pub. Resources Code, § 2710, *et seq.*)

The 1996 EA and Plan of Operations did not specifically discuss asphalt and ready-mix concrete plants. The BLM stated (in Exhibit B to the June 19, 1996 Decision Record) that such plants would undergo review and permitting by the Imperial County Air Pollution Control District (ICAPCD): “[t]he facilities proposed to be used on site, including the aggregate, concrete batch, and asphalt batch plant, are or will be permitted through the ICAPCD.”

Granite subsequently installed the asphalt plant in 2002, after obtaining all of the necessary ICAPCD permits, and the asphalt plant has operated periodically since, according to the needs of local paving projects. Granite's use of an asphalt plant also has been subsumed in other BLM reviews, studies and approvals:

- In 2005, the BLM approved a ROW that allowed Granite and others to construct a bypass road to redirect truck traffic around the Ocotillo community. All truck traffic related to the Jimenez site, including the asphalt plant, was considered in the BLM's EA for that project.
- In 2005, a consultant prepared a study of the effects of Jimenez operations on the Peninsular Bighorn Sheep (PBS). The study built upon a biological opinion which the U.S. Fish & Wildlife Service (USFWS) previously prepared and which found that Jimenez operations would not jeopardize PBS. The 2005 study similarly concluded that ongoing site operations, including the operation of the asphalt plant, would have no effect on PBS.
- In 2009, the BLM confirmed that the asphalt plant was an authorized facility at the Jimenez site. The occasion for BLM's review was its approval of a ROW linking the Jimenez site with Granite's nearby Carroll Mine site. The BLM's stated in a June 22, 2009 letter that: “the right of way gives Granite authorization to use public lands for commercial aggregate production from the Jimenez facilities, including use for an asphalt processing plant.”

Granite's site operations would continue to include asphalt and ready-mix concrete plants as needed to supply local projects, in addition to Granite's current mining and aggregate processing facilities. The effects of these plants are discussed in this SEA. Additionally, the SEA describes the proposed change in operating hours, Granite's ongoing use of a number of water basins, and a modification to the final configuration of the finished slopes. The current Reclamation Plan has

been modified to reflect the updated information in this SEA, and is currently under review by the Imperial County Planning and Development Services (ICPDS) and the Office of Mine Reclamation (OMR). These changes are being approved by Imperial County and the proposed updated version is attached.

The SEA is not intended to address other site operations considered in 1996 for which no changes are proposed. In particular, mining and processing activities would remain within the 100 acre area described in the EA and Plan of Operations. The maximum depth of extraction would not change from 50 feet below the original ground surface. Also, site production and intensity would remain at levels described in 1996.

3.0 Activities Considered In This SEA

The SEA provides information on the asphalt and ready-mix concrete plant facilities, the proposed extension in operating hours, the use of a number of water basins, changes to the final slope angles, and adjustments to reclamation phasing. These activities are described in the amended Plan of Operations on file with the BLM and attached as Appendix B. The asphalt plant ready-mix plant, and other major site components are shown in the site map (see **Figure 1**). The asphalt plant, ready-mix concrete plant, recycle plant, and associated stockpiles would be within ROW CACA-50523, as amended. The SEA is not intended to provide information on other site operations that were previously described in the EA and Plan of Operations for which no changes are proposed.

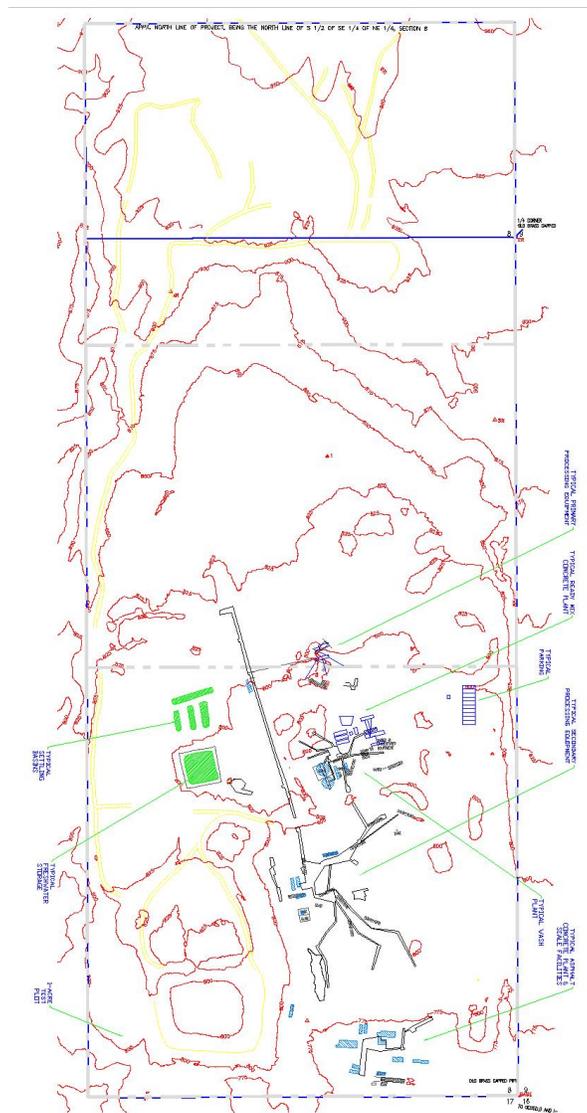


Figure 1. Site Map

3.1 Asphalt Plant

Asphalt is produced using an asphalt plant (see **Figure 2**). The plant includes a rotary dryer, baghouse, up to two 100-ton asphalt storage silos (approximately 30 feet in height), above-ground steel storage tanks and other ancillary equipment. The maximum production is currently 500 tons per hour (tph) or as specified by the ICAPCD Permit(s). The air quality report prepared by Alta Environmental analyzes annual production of 675,000 tons (See Appendix E). Actual use of the asphalt plant fluctuates according to market demand and local paving needs.

In the asphalt process, aggregate material mined from onsite is fed from finished aggregate stockpiles to a series of cold bin hoppers/feeders via a front-end loader. The plant also receives a percentage of recycled asphalt (described below in Section 3.3). The plant heats and dries materials in a rotary dryer where they are mixed with asphaltic oil. The asphalt plant burner is powered by propane or liquefied natural gas. The finished product is transported on an enclosed conveyor to insulated and sealed load-out silos. Asphalt is then loaded onto trucks and transported to various construction locations.

Trucks deliver burner fuel (propane or liquefied natural gas) and asphalt oil as required when the plant is operating. All tanks are above ground, of steel construction, and in accordance with the requirements of the Spill Prevention Control and Countermeasure requirements specified in 40 CFR 112. Propane or liquefied natural gas would be stored in a 10,000 gallon tank, maximum. Asphaltic oil would be stored in a 30,000 gallon tank, maximum. The plant also may have an emulsion tank. The plant is equipped with emission control devices as required by the ICAPCD. Emission Control devices include a bag house, and blue smoke system.

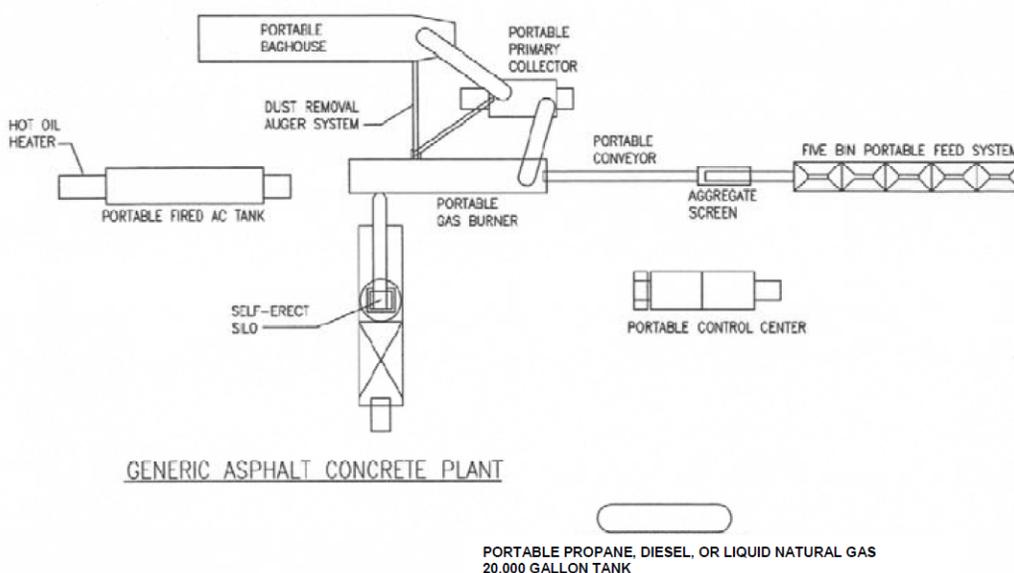


Figure 2. Typical Asphalt Plant

3.1.1 Crumb Rubber Plant

The crumb rubber blending asphalt plant produces rubberized asphalt from liquid asphalt oil and recycled crumb rubber (see **Figure 3**). The plant consists of a hopper, mixing chamber and reaction tanks. The recycled crumb rubber typically is received in 2,000 lb bulk bags (totes) and is loaded onto the weigh hopper, which then discharges to a screw conveyor for transfer to the mixing chamber. Asphalt oil at an elevated temperature is added to the mixing chamber via a feed pump. As the mixing chamber blends the rubber and hot liquid asphalt oil, the rubberized asphalt mixture is pumped to a heated reaction tank for additional blending. The reaction tank is equipped with a natural gas-fired hot oil heater and tank mixers. Once the materials are fully blended, the mixture is pumped into the hot mix asphalt plant (described in Section 3.1 above) for production of rubberized asphaltic concrete. Emissions from the Crumb Rubber Plant are emitted to the atmosphere through tube vent condensers, commonly known as blue smoke condensers. The operation of the Crumb Rubber Plant depends on use of the asphalt plant and fluctuates according to local paving needs. The Crumb Rubber Plant is permitted through ICAPCD.

A maximum of 40 bulk bags (80,000 lbs) would be stored on site. Stored crumb rubber would be stored separately from potential sources of ignition.

Crumb Rubber Plant #3 Process Flow Diagram

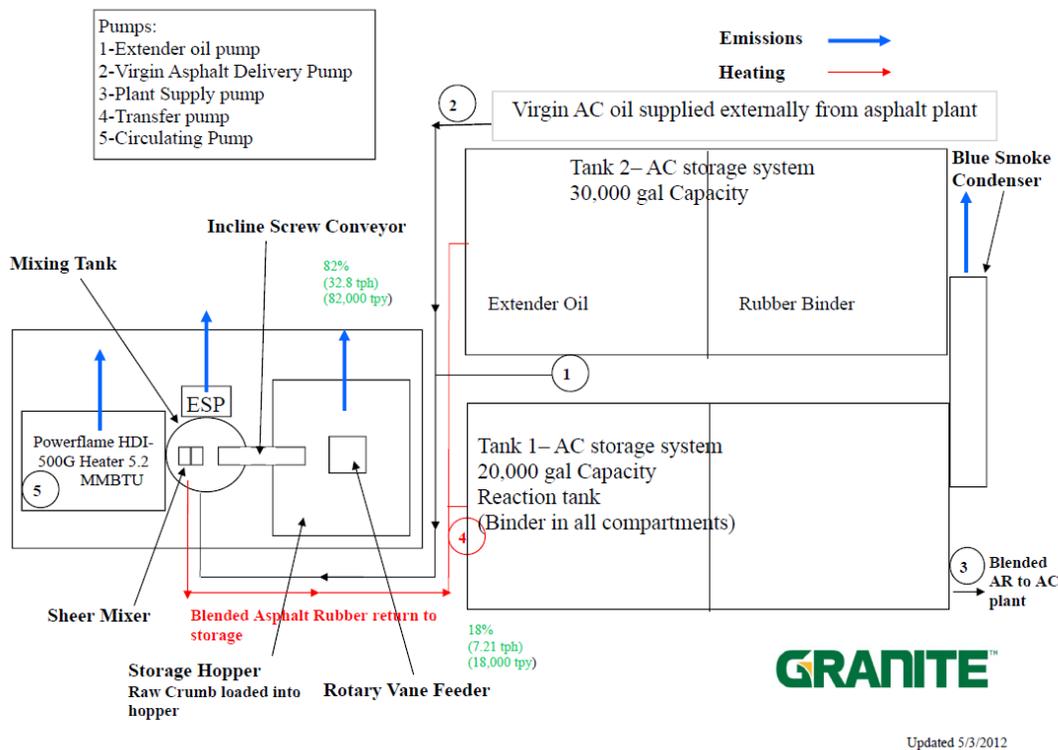


Figure 3. Crumb Rubber Plant - Process Flow Diagram

3.2 Ready-Mix Concrete Plant

The Ready-Mix Concrete (RMC) Plant produces a maximum of 350 cubic yards per hour, and 300,000 cubic yards per year. The plant consists of cement and fly ash storage silos or bins, mixing equipment, and a bag house. Finished aggregates mined from onsite are fed from stockpiles to the plant via a front-end loader, and blended with cement, water and additives (i.e., fly ash). Dust generated from bulk material handling is drawn through a bag-house system and returned to the plant. The finished product is deposited into mixer trucks for off-site transport. Operation of the RMC Plant depends on the market demand for these materials.

3.3 Recycle Process

Highway construction funded by federal, state, and local governmental agencies, and the private sector frequently specify the use of 18% to 50% recycled asphalt and 15% recycled concrete to conserve natural resources. The recycling process (see **Figure 4**) is capable of crushing asphaltic concrete and Portland cement concrete (inert materials). Up to 450 tph of recycled material may be processed for recycling back into the asphalt plant. Annual production is market-driven, and depends upon the available supply of material (inbound material) for recycling.

Certain projects, such as highway projects, require contractors to remove old asphalt and concrete before placement of the new asphalt or concrete. This old asphalt and concrete are hauled onto site to be recycled and reused in different products, usually as base material. The old asphalt and concrete is source separated. No trash or waste is allowed in the recycled product or accepted by the operator. The old asphalt and concrete is crushed and sized to be blended into the new products.

The recycle process uses the same type of equipment as the aggregate plant (i.e. crusher(s), screen(s), and conveyors) with the exception of an additional magnet that removes steel such as rebar from the recycle material before entering the processing equipment. Recycled materials generated from local construction projects are trucked in and stockpiled in an area designated for inert recycle materials. Material is loaded into a feeder by a front-end loader or excavator. Crushers and vibrating screens reduce and sort materials according to project specifications. Steel and rebar in broken concrete is collected by magnets within the recycle plant and delivered to an off-site licensed metal recycle facility.

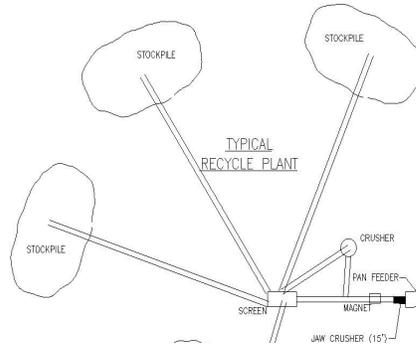


Figure 4. Typical Recycle Process

3.4 Equipment List

Table 1 lists the major components for all plants. The listed equipment and facilities are typical plants and the actual plant equipment, manufacturers, and configurations may vary. All of these plants would continue to be permitted through the ICAPCD. All site operations shall comply with all ICAPCD rules and regulations including control of fugitive dust.

Table 1. Typical Process Plant Equipment

Plant Equipment	Number	Purpose
<i>Asphalt Plant</i>		
Dryer Burner/Mixer/Baghouse	1	Dries aggregate, heats asphalt oil, and mixes aggregate and oil
Feeder Bin System	1	Aggregate feeder to plant
Conveyors	4	Transports material within plant
Asphalt Oil Storage Tanks	2	Holds asphalt oil transported to Site by tanker truck
Product Silos	2	Stores mixed asphalt
Emulsion Storage Tank	1	Stores emulsion
Crumb Rubber System	1	Adds crumb rubber to asphalt mix
<i>Ready Mix Concrete Plant</i>		
Concrete plant with mixers	1	Mixes aggregate, cement, and water to produce concrete for distribution
Cement storage silos/bins with baghouse	1	Storage of cement and admixtures delivered to Site by truck
Fly ash silos	1	
<i>Recycle Process</i>		
Feeder	1	Feeds material into the recycle plant
Crushers	1	Reduces (crushes) rock to product specification size
Screen	1	Sizes material
Hopper	1	Collects and distributes material
Conveyors	6	Transports material throughout plant
Stackers	2	Stacks finished material into product stockpiles

Table 2. Typical Quarry Equipment

Equipment	Typical Number	Purpose
Dozers	1	Construction and maintenance of unpaved on-site roads
Motor Grader	1	Maintain roads on-site.
Water Trucks	1 or 2	Water haul roads, stockpiles, and general dust suppression at Site
Front-End Loaders	2 or 3	Loading of materials onto conveyors, outbound delivery trucks, and into the process equipment.

3.5 Basins

Water is required for dust control, aggregate washing and mixing concrete. Water use is estimated to average between 10,000 and 30,000 gallons per day. Trucks deliver water from the West Side Main Canal, the City of Imperial or other source outside the sole source aquifer underlying the Site. This water source would be acknowledged by the ICPD. The West Side Main Canal is located 1.5 miles east of Dunaway Road approximately 18 miles east of the project site. Drinking water is provided by a commercial drinking water supplier.

Granite uses a series of four (4) to six (6) fenced concrete/gunnite-lined settling basins to collect and capture fines generated by the crushing, screening and washing process. There are currently four (4) settling basins within Jimenez mine as indicated in the site map (Figure 1). The fines are stockpiled for later use in reclamation. Wash water containing fines is delivered by pump, gravity, or mobile equipment to the settling basins, where fines are periodically removed with an excavator or front-end loader, then stockpiled and allowed to dry prior to later use. In addition to settling basins, Granite also stores non-potable water for process make-up and dust control in a lined and fenced fresh water retention basin (lined basin) equipped with evaporation control.

Wildlife is protected from the settling basins and the fresh water retention basin. Bird balls, netting and/or other means are used to prevent birds from landing in the basins. Fences are eight-foot in height and tacked in around the basins to exclude bighorn sheep and other wildlife. Around each basins is also a lower fence of a tight-weave that is designed to keep out the Flat-tailed horned lizard and other small animals; it extends 12” above grade and is buried 6” below ground. Granite would continue to maintain these fences for wildlife protection.

3.6 Operating Hours

Operations would generally be limited to between 6:00 AM-7:00 PM, Monday through Saturday, and crushing/screening operations would not be started before 7:00 AM. Typically, operations would run eight hours per day from approximately 7:00 AM-3:00 PM, five days per week, and up to 52 weeks per year. These hours of operation are considered approximate due to weather conditions and market demands. During the summer months temperatures are too high to

perform construction activities in late morning and afternoons, so often this work is done in the cool of the evening and even very early mornings. Thus, between the dates of May 31st through October 31st, aggregate shipping, concrete batching and shipping, and asphalt batching and shipping, would be allowed during nighttime hours, past 7:00 PM. Granite must notify both the BLM and the ICPDS at least 72 hours prior to commencing night time operations. The notification must be in writing and have information regarding specific start date, time and duration of the proposed night time operation. No mining or aggregate processing would be done outside the typical operating hours of 6:00 AM to 7:00 PM.

Any and all lighting to accommodate operations of the RMC plant after sunset and before sunrise, or any other aspect of any mining or processing including maintenance, that happen to occur in hours with diminished sunlight will be as low to the ground as practical with a maximum height of 20 feet, shielded and directed away from both the mountains and the community of Ocotillo.

The hours of operation are also limited through process equipment and generator operating permits issued by the ICAPCD. Prior to commencing operations ICAPCD permits will be obtained as required by ICAPCD requirements. Granite will adhere to ICAPCD permits which have specific operational, recordkeeping, and reporting requirements. Granite will notify ICAPCD 72 hours prior to commencement of any night time operation.

3.7 Slope Configuration

The modified Plan of Operation and reclamation plan indicates that the finish slopes will range from 4.0H (horizontal):1.0V (vertical) to a maximum of 2.0H:1.0V throughout, to a nominal vertical depth of 50 feet. The previously approved 1996 reclamation plan and Plan of Operation only authorized final slope of 4:1.

4.0 Environmental Effects and Mitigation

The information in this SEA is intended to supplement the 1996 EA to the extent that existing processing facilities were not described in detail in the EA and 1996 Plan of Operations, and to consider the proposed change in operating hours. With the exception of the updated information presented below, site activities are not expected to affect environmental resources beyond what was analyzed and disclosed in the 1996 EA. Operations, activities and facilities already analyzed in the EA are not analyzed in further detail (see Section 4.5).

4.1 Biological Resources

In connection with the BLM's approval of the Plan of Operations in 1996, biological surveys were performed for wildlife and plant species within the 100-acre project area, which determined that there would be no significant direct, indirect or cumulative impacts as a result of mining and material processing activities. Specifically, the Jimenez mine site is located outside of the area designated as critical habitat for PBS.

The asphalt and RMC processing facilities considered in this SEA presently exist within the same 100-acre footprint, and are similar in character to the mining, crushing and processing activities that were specifically addressed in the EA. They use the same mobile equipment, the same or similar stationary equipment, such as conveyors and hoppers, and make similar sounds and discharges. To the extent that, and subject to BLM approval, operations at the RMC plant may occur after 7:00 PM and before 6:00 AM (between May 31 and October 31), the plant will use lighting that is as low to the ground as practical, shielded and directed away from both the mountains and the community of Ocotillo. On that basis, additional impacts to biological resources from the activities considered in this EA are not expected. Nonetheless, since 1996, there have been additional studies of biological resources at the Jimenez site and with respect to other BLM-authorized activities in the vicinity. These studies are referenced and discussed below to ensure that a complete record exists.

In May 1999, the USFWS prepared a memorandum labeled "Biological Opinion on the Proposed Jimenez Sand and Gravel Mining Project, Imperial County, California (Reference 1-6-98-F-97)." The memorandum re-analyzed the effect of the Jimenez site operations, and nearby Minoca Pit operations, on PBS. The USFWS opined that the Jimenez operations would not jeopardize the continued existence of PBS:

After reviewing the current status of PBS, the environmental baseline for the action area, the effects of the proposed mining operation, and the cumulative effects, it is the USFWS's biological opinion that the Jimenez Pit project, as proposed, is not likely to jeopardize the continued existence of PBS. No critical habitat has not [*sic*] been designated for this species, therefore, none will be affected.

The USFWS reached this conclusion for the following reasons:

1. The direct, temporary loss of 100 acres of canyon bottom habitat along with concurrent restoration of 73 acres off-site [located at the non-active Minoca Pit] and

- the future restoration of 100 acres on-site would not permanently alter areas critical to maintaining a stable sheep population.
2. The indirect, temporary impact to 90 acres of rocky, mountain slope and 60 acres of canyon bottom habitat would be offset and reduced by access control, restrictions, and other impact minimization measures.
 3. Implementation of project-related mitigation measures will reduce the likelihood of harm and harassment to PBS within the action area.

From the Biological Opinion above, Granite and the USFWS agreed that Granite would reclaim the non-active Minoca Mining Pit, as well as reclaim the Jimenez Mine at the conclusion of mining, to mitigate for the temporary loss of the 100 acres of canyon habitat for the PBS. It should be noted that the Jimenez mine site is not located in PBS critical habitat. Granite has reclaimed the non-active Minoca Mining Pit, located in portions of the SW ¼ of Section 9, T16S, R9E, SBBM and shown in the Carrizo Mountain USGS 7.5' Quadrangle.

In October 2004, the Ocotillo Bypass Road Environmental Assessment was prepared for Granite and other mining operations within the Ocotillo area. The Ocotillo Bypass Road was constructed for two purposes: first, to allow truck traffic to bypass the residential areas located in the town of Ocotillo; and second, to relocate the access road to the mining operations within the Ocotillo area from PBS Critical Habitat to an area outside of PBS Critical Habitat. The Ocotillo Bypass Road has been constructed and is currently used by the several mining operations within the Ocotillo area. The Ocotillo Bypass Road Environmental Assessment states:

The analysis of the effects of the proposed actions [(i.e. the Ocotillo Bypass Road)] on... all biological resources... indicated that the effects on these elements would not cause adverse consequences for the following reasons:

- These areas are not heavily used as recreational areas because of limitation of access
- The minor cultural resources found can be mitigated easily
- The habitat types found are abundant in the area
- The Visual Resource is Class IV and is not unique
- This is not Flat Tailed Horned Lizard Range Management Area and it cannot be determined if the horned lizard is desert or flat tail

In May 2005, biologist Dan Hengel prepared a report titled “*Jimenez Sand & Gravel Quarry: Bighorn Sheep Analysis*” to analyze how changing the operating hours of the Jimenez Mine site could potentially impact the PBS. He stated:

The purpose of this analysis is to assess the level of impact, if any, on Peninsular Bighorn Sheep ([PBS]; *Ovis canadensis nelsoni* [formerly *O. c. cremnobates*]) as a result of the refined Schedule of Operations ... Essential to this analysis is a determination of behavioral impacts on [PBS], particularly during the lambing season. The existing approved Plan of Operation for the Jimenez pit allows for operational flexibility for Granite to deal with changing market demands and weather conditions...

In essence, the noise produced from the operations of the mine sites was a broad-band white noise that was not discernable [*sic*] from background noise levels except at very close distances...

Therefore, the refined hours of operation for the Jimenez mine site, will have no effect on [PBS] that may seasonally inhabit the higher elevations of the Coyote Mountain north of the mine site. The refinements to the Jimenez site plan of operation will not add to the existing impacts on designated [PBS] critical habitat and therefore will not affect the continued existence of the Peninsular bighorn sheep subgroup that seasonally inhabits the Coyote Mountains to the north of the project site.

In October 2008, biologist Dan Hengel prepared “*Technical Comments on Proposed Critical Habitat for the Peninsular Bighorn Sheep in the Vicinity of Granite Construction Company's Mining Sites Near Ocotillo, California*” regarding the potential for the Jimenez Mine site to serve as habitat for the PBS. He stated:

In general, the terrain and alluvial fans immediately adjacent to the north of Granite's existing sand and gravel mine site (located in a portion of Section 8 and referenced as the "Jimenez Pit") do not contain the requisite [Primary Constituent Elements] to warrant designation as critical habitat on these lands. Chiefly, the alluvial fan lacks productive soils, available water sources and forage, and thermal protective areas during hot, dry summer months. Indeed, to my knowledge, there have been no sightings of [PBS] on these alluvial fans on or near Granite's property interests. In fact, the USFWS itself states, "For example, we have occupancy data dating back to 1940, yet extensive areas along the western and southern boundary of the 2001 designation contain little to no documented sheep use." (72 FR at 57740) (Granite's lands lie in what was the southern boundary of the 2001 designation as a component of the BLM referenced area - the Ocotillo Mineral Materials Sites [OMMS]).

Subsequent to Mr. Hengel's report, the USFWS modified the PBS critical habitat line to be north of the Jimenez site.

In November 2010, the BLM prepared EA CA-670-2010-02 for the Shell Canyon Mineral Material Sale Area, which is located approximately 2 miles to the east of the Jimenez Mine project. Recon, a consultant involved in assisting prepare this EA, found desert horned lizard, desert iguana, great basin whiptails, turkey vultures, mourning doves, white-throated swift, ravens, tree swallows, rabbit scat, and coyote scat in an undeveloped area contiguous with immediately east of the Shell Canyon Vulcan mine. Recon concluded that the habitat was consistent for the western burrowing owl; but did not observe the owl in the study. It also concluded the habitat was suitable for the golden eagle; but was not suitable for nesting and concluded there were no known locations of this species within a 5-mile buffer of the study area (which includes the Jimenez site). The Flat-tailed horned lizard was detected 2 ½ miles to the east of the Shell Canyon study area (approximately 5 miles to the east of the Jimenez site). The Shell Canyon Mineral Material Sale Area EA stated:

Based on review of the activities proposed and the biological resources known or suspected to occur in the area, none of the alternatives would cause significant impact to biological resources or result in: 1) loss of habitat that is regionally unique, declining, or designated sensitive by resource agencies; 2) substantial loss of species diversity in natural vegetation and wildlife habitat; 3) loss of critical resources used by a listed threatened and endangered species; 4) disturbance to populations or breeding areas of listed threatened or endangered species, reductions in important foraging habitat for threatened or endangered species, or loss of individuals or populations of a) a federal or

state listed threatened or endangered species or their habitat, b) a species proposed for listing, federal candidates for listing, or species that are regionally rare or otherwise sensitive species, or c) endangered, rare, endemic, or otherwise sensitive species.

In June 2011, Helix Environmental Planning, Inc., a consultant, prepared a biological report for the Ocotillo Wind Energy Facility (OWEF). The OWEF is located south of the Jimenez Mine (see **Figure 5**). The report described the potential direct and indirect impacts from the construction, operations, and maintenance of the OWEF to the Flat-tailed horned lizard, the barefoot banded gecko, the rosy boa, the burrowing owl, the golden eagle, other nesting birds, bats, PBS, other avian species, and the American badger.

As to PBS, the report stated that PBS were sighted in the OWEF site located within the I-8 island, which is undeveloped rocky and hilly terrain between the eastbound and westbound lanes of I-8. The location of the PBS sighting is approximately 4 miles to the south of the Jimenez Mine. A valley with several residents and roadways, the town of Ocotillo, the I-8 freeway, and wind energy facilities, lie within the 4 miles between the PBS sighting and the Jimenez Mine. The May 1999 Biological Opinion, from the USFWS, discusses that the typical habitats for PBS are mountain slopes and canyon bottoms. The valley, between the Jimenez Mine and the PBS sighting, is considered uninhabitable for the PBS, consisting of generally flat terrain. None of the biological studies prepared in this area have ever found PBS on the Jimenez Mine site.

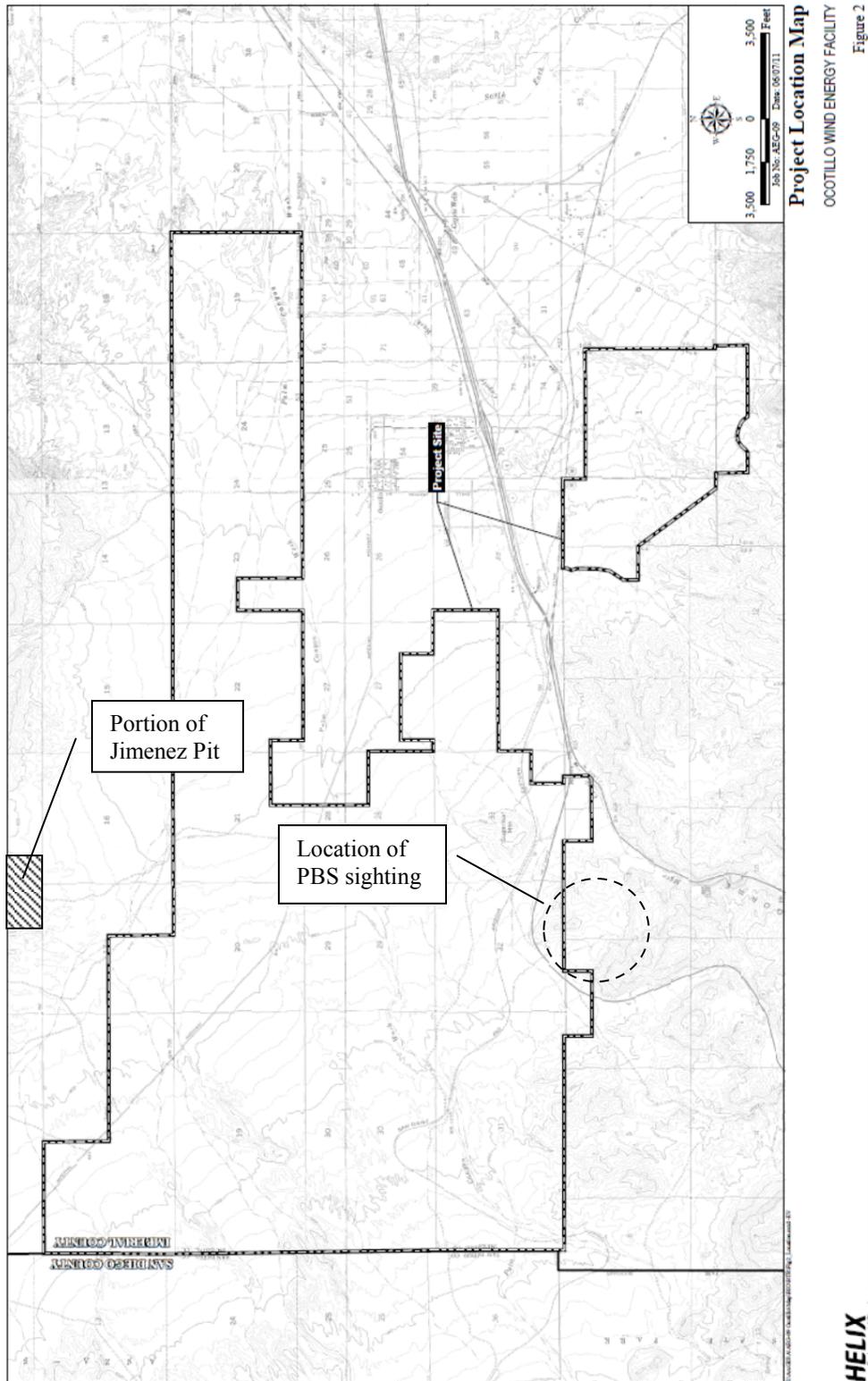


Figure 5. Ocotillo Wind Energy Facility

Additionally with respect to the OWEF, in April 2012, the USFWS prepared a Memorandum labeled “Formal Section 7 Opinion on the Proposed Ocotillo Express Wind Project Imperial County, California (3031-P) CAD000.06.” The USFWS rendered a “no jeopardy” opinion as to both PBS and certain avian species:

After reviewing the current status of the species, environmental baseline for the action area, effects of the proposed action, and cumulative effects on Peninsular bighorn sheep and least Bell’s vireo, it is the USFWS’s biological opinion that the proposed action is not likely to jeopardize the continued existence of either species for the reasons discussed below:

Peninsular Bighorn Sheep

1. While the proposed project is adjacent to habitat with high value resources and heavy sheep use on three sides, sheep sign and sightings indicate that sheep use the project site irregularly.
2. Sheep continue to use habitat on and around the action area despite relatively high levels of human and vehicular use of the area (e.g., Border Patrol, OHVs, and I-8). Because this population of bighorn sheep likely has become accustomed to some degree to human presence and noise in their environment, we expect that neither human use nor the prevalence of noise is expected to increase substantially during O&M over baseline levels.
3. The effects of construction, O&M, and decommissioning would be minimized by implementation of conservation measures described above in the Description of the Proposed Action section.
4. The relatively pristine rugged mountain habitat on three sides of the project, which includes critical habitat, will continue to provide necessary resources for sheep.
5. The range expansion of Peninsular bighorn sheep into an area that reportedly was no longer occupied by 1996 demonstrates the ability of this population to regain former movement patterns and recolonize their historic range.
6. The potential functional loss of up to 5,156 ac of habitat, if avoided by sheep, represents a small fraction of comparable habitat otherwise available to the population and this potential loss would not disrupt population connectivity or cause other significant impacts.
7. The potential for reproductive loss due to avoidance of lambing grounds in the action area would not be significantly impact the survival or recovery of the DPS as a whole.
8. The proposed project is not likely to impede connectivity between the I-8 Island and suitable habitat to the south, as primary movement corridors are outside the action area.
9. The proposed removal of tamarisk from Carrizo Marsh would represent a significant contribution in support of the range-wide recovery of the species.

Least Bell’s Vireo

1. No suitable vireo habitat occurs in the proposed wind farm portion of the action area.
2. The proposed removal of tamarisk from Carrizo Marsh furthers the recovery of vireo, consistent its draft recovery plan.
3. Potential adverse impacts to vireos would be limited to the time required for native vegetation to reestablish and grow to suitable height and structural complexity for vireo breeding. During this time, habitat will continue to be available in the project vicinity, within and immediately adjacent to the project site.

4. Proposed conservation measures would minimize or avoid impacts to nesting vireos during the proposed removal of tamarisk.

In summary, since 1996, a series of studies have been performed which evaluated sensitive species extensively in the immediate area to the south, east, and west of the Jimenez Mine site. These studies generally confirm that, Jimenez site operations pose no significant direct, indirect or cumulative impacts upon these species, including PBS.

Notwithstanding this information, the BLM recommends that cautionary measures be taken in the event that PBS unexpectedly enter the site, and also to prevent potential impacts to the barefoot gecko, a species which also has not been documented at the site but is known to be in proximity. The currently existing fresh water basin and settling basins are fenced in accordance with 2013 USFWS specifications to prevent potential wildlife entrapment. In the future, should additional basins be required or these basins be relocated to better support Granite's operations, the 2013 USFWS specifications for fencing would be implemented. In summary, wildlife exclusion fencing is placed around all basins to prevent PBS and lizard species from becoming trapped in basins, and a biological monitor clears the fenced areas following fencing installation. These features are described in Appendix B and would be implemented and maintained during the ongoing site operations.

In addition to the fencing, bird balls float on the fresh water basin. These balls are inert floating spheres about six to eight inches in diameter. The floating balls cover the entire surface of the fresh water basin and serve two purposes. They cover the basin surface to deter birds from recognizing the basin as a water source so they will not be induced to land on it. Secondly, the bird balls minimize evaporation of the fresh water to the atmosphere, thus conserving a natural resource.

4.2 Air Quality

The 1996 EA discussed the potential impacts that the mining and processing of the Jimenez site would have on the air quality. A dust or PM₁₀ (particulate matter less than 10 microns in diameter) emissions inventory for the mining and processing operations is listed in the 1996 EA for average production rates of 250,000 ton per year (TPY) or 1,000 ton per day (TPD) and for maximum rates of 400,000 TPY or approximately 1,600 TPD.

Although the asphalt and RMC plants are already in operation, further air quality analysis has been performed to confirm whether the emissions from these facilities would exceed any local emissions thresholds of significance. On March 12, 2014, Alta Environmental issued an Air Quality analysis of such emissions for CO, VOC, NO_x, PM₁₀ and SO_x. The analysis conservatively considered an operating scenario in which all plant activities were operating simultaneously, although the more likely operating scenario is that a portion of the various equipment would be operating at any one time. The analysis also incorporated certain control measures already used by the equipment, and described below. The analysis concluded that plant emissions are below local ICAPCD thresholds of significance for CO, VOC, NO_x, PM₁₀ and SO_x. The Operational Emissions are listed in Table 3 below and the complete report is included in Appendix E.

Table 3. Operational Emissions

Emission Source	CO	VOC	NO _x	SO _x	PM ₁₀
	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)
Operation of Jimenez Facility					
Asphalt Plant	131.07	37.09	45.06	15.32	92.39
Ready-Mix Concrete Plant	--	--	--	--	3.71
Crumb Rubber Plant	11.59	0.21	1.43	0.02	0.28
Operation of Jimenez Facility TOTALS	142.66	37.30	46.49	15.34	96.38
Power Generation	88.36	8.15	7.54	0.26	1.09
Total Emissions	231.02	45.45	54.03	15.6	97.47
ICAPCD Significance Threshold Level	550	55	55	150	150
Significant?	No	No	No	No	No

The Operational Emissions were determined under the following control measures, which would be maintained during all periods of operation:

1. Construction, Mining and Reclamation

There would be no site preparation and grading for the construction of the operation portion of the facility due to the preexisting site conditions. All grading, land leveling and mining activities will control fugitive dust by the application of water.

2. Asphaltic Concrete Production

The feed materials for the asphalt plant would be produced on site or transported to the site (asphalt oil, recycled asphalt pavement [RAP], rubber binder, emulsions). The aggregate and RAP will have been processed through various screening devices which will assure that the material entering the asphalt plant would not produce visible emissions.

A baghouse type dust collector will be installed on the drum to meet the Best Available Control Technology (BACT) standard, as required by the California State Air Resources Board, and will collect emissions from the dryer burner and various locations throughout the facility.

The dryer in the plant will be fired by natural gas. Hot asphalt storage silos and load-outs will be vented into a blue smoke system. The blue smoke control system captures fugitive emissions which occur as the hot asphalt is transferred from the silos to the trucks. These emissions contain primarily oil droplets which are trapped in the filter media. Residual oil collects in the bottom of the unit and can be recycled back into the process.

3. Ready-Mix Concrete

The moisture from the aggregate processing activities will assure that the material

entering the ready mix operation will show no visible emissions. The storage piles will be adequately watered as to prevent visible emissions.

The truck loading station will be served by flexible shrouding, water sprinkler system, and baghouse to prevent visible emissions.

4. Crumb Rubber Material Blending System

The crumb rubber plant is equipped with the state-of-the art control equipment to minimize emission from the process. The process uses condensers on the tanks. Although the emissions are negligible, potential emission are controlled by the condensers. Additionally, the burner used for the heat exchanger is a low-NO_x burner and will utilize natural gas.

5. Aggregate Haul Trucks

The material transported off-site in trucks would comply with the applicable freeboard requirements.

6. Electric Power

The portable generators utilized on-site would meet the emission control requirements for a Tier IV engine. The largest generator for the hot mix asphalt plant is estimated to be 2,000 HP. This unit would be equipped with an emission control device, for example an SER, to limit emissions.

The project would be subject to additional review by ICAPCD staff to verify the emissions analysis through a separate submittal and the implementation of the appropriate fugitive dust control plan. That evaluation would require compliance with applicable ICAPCD rules. This would include, but is not limited to, compliance with New and Modified Stationary Source Review (Rule 207), the limitation of NO_x emissions (Rule 400), the limitation of fugitive dust (Rule 800-806), and the implementation of the Operational Dust Control Plan (ODCP). Once ICAPCD has determined that the project has successfully met the requirements and Granite pays the applicable fees, the operation will be eligible to receive an Authority to Construct and subsequently a Permit to Operate (Rule 201) which includes conditions that would ensure continued compliance with the applicable rules and emission limits.

The BLM will require the facility to continue to comply with all applicable ICAPCD rules that this facility is subject to. Granite successfully operates similar ICAPCD permitted equipment which has met and complies with these requirements.

4.3 Traffic

The 1996 EA evaluated production levels up to 400,000 TPY, and truck traffic up to 134 one-way daily trips. This equates to approximately 16,750 round-trip truck trips per annum. Truck traffic for the Jimenez site has remained below these maximum anticipated levels since

operations commenced and Granite is not seeking to increase truck traffic at this time. Whether the product leaves the site as raw sand or rock product or in the form of asphalt or ready-mix concrete, the truck traffic would remain essentially the same.

Additionally, in the time since the 1996 EA was prepared, Granite and other operators obtained the BLM's approval and constructed the Ocotillo Bypass Road to relieve the residential roads of Ocotillo from the direct effects of those trucks. Truck traffic from the Jimenez site was considered in the BLM's review of the bypass road project. This bypass road is in active use today and is performing the function it was designed for.

4.4 Environmental Justice

Although the population of the town of Ocotillo was not identified as a substantial minority population, it is a relatively low-income population as defined by the U.S. Department of Health and Human Services (HHS). The median household size for Ocotillo was about 2 people and the poverty guideline from HHS was \$14,570 in 2009 (\$11,060 for HHS in 1999; the 2000 U.S. Census income reporting year). About 16 percent of households in Ocotillo are below the poverty level. About 19 percent of families in Imperial County are below the poverty level. Approximately 26 percent of the residents of Ocotillo who are in the labor force are employed in mining and construction activities. The cessation of mining activities may disproportionately impact the low-income community of Ocotillo through loss of revenue generated by employee purchases made at local establishments. Additionally, loss of local, state, and federal tax revenues generated by taxes on the facility and the employees would be lost should the operation close. To avoid this potential adverse impact it is recommended that the mining activities continue within the Jimenez Mine. No mitigation for potential Environmental Justice impact would be required for the Proposed Action.

4.5 Resources Not Affected by the Action

The following list of resources, which were analyzed in the original 1996 EA, are not reviewed in this SEA, because these resources are not further affected by the proposed action.

- Soil/Geology
- Water Resources
- Cultural and Paleontological Resources
- Visual Resources
- Noise
- Recreation
- Public Health and Safety

5.0 Consultation, Coordination, and List of Preparers

5.1 Agencies Consulted

Please refer to the 1996 EA in addition to the list below.

Bureau of Land Management

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Christine McCollum, Archaeologist
Veronica Vogan, Realty Specialist
Carrie Simmons, Assistant Field Manager for Resources
Thomas Zale, Field Manager

Imperial County APCD

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5.2 List of Preparers

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Kit Kjelstrom, P.E.President

Shaun Kjelstrom, P.E.Vice President

5.3 Public Participation

In connection with the relationship we have with the Imperial County Planning Department, all documents have been made available to the public in accordance with the California Environmental Quality Act and National Environmental Policy Act guidelines. A public Environmental Evaluation Committee hearing was held on July 10, 2014 and a public County Planning Commission hearing is scheduled to hold on August 27, 2013.

The EA was made available by the BLM for a 15-day public comment period which commenced on April 29, 2010 and ended on May 29, 2010. One comment was received by BLM on July 15, 2014 from the Imperial County Planning & Development Services Division. The July 15 comment letter is attached to the EA and the expressed concern regarding Granite's hours of operation has been addressed section 3.6 of the EA.

6.0 References

Bureau of Land Management, Environmental Assessment Shell Canyon Mineral Material Sale Area Imperial County, California (CA-670-2010-02), March 2010

Dan Hengel, Technical Comments on Proposed Critical Habitat for the Peninsular Bighorn Sheep in the Vicinity of Granite Construction Company's Mining Sites Near Ocotillo, California, October 2008

Dan Hengel, Jimenez Sand & Gravel Quarry: Bighorn Sheep Analysis, May 2005

Helix Environmental Planning, Inc., Ocotillo Wind Energy Facility Biological Technical Report, June 2011

Ocotillo Bypass Road Environmental Assessment, October 2004

United States Fish and Wildlife Service, Biological Opinion on the Proposed Jimenez Sand and Gravel Mining Project, Imperial County, California (Reference: 1-6-98-F-97), 1999

United States Fish and Wildlife Service, Formal Section 7 Opinion on the Proposed Ocotillo Express Wind Project Imperial County, California (3031-P) CAD000.06, 2012