PROJECT DESCRIPTION
FOR THE
EL MONTE SAND MINING AND NATURE PRESERVE PROJECT
LAKESIDE, CA

PDS2015-P98-014W2
PDS2015-RP-15-001

Prepared For:

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Table of Contents

List of Figures

List of Tables

1.0 PROJECT INTRODUCTION

El Monte Nature Preserve, L.L.C. (Proponent) is proposing the El Monte Sand Mining and Nature Preserve Project (project). The proposed project would extract 12-million cubic yards (18-million tons) of mineral resource over a 15-year period in El Monte Valley on land that is zoned for extractive use. As mining is completed in phases, the disturbed areas previously mined will be progressively reclaimed starting in year 4 of the project. Reclaimed areas will be restored to an end use of open space with an open water pond and recreational trail easements. The combined mineral extraction and reclamation project will affect 189 acres of land located in El Monte Valley on approximately 530 acres currently owned by Helix Water District. The project will have a Reclamation Plan boundary of 233 acres which includes the disturbed areas, the golf course ponds, the 100 setback from El Monte Road and Willow Road and a 300 foot setback from the eastern parcel line of APN 391-061-01 near homes. A vicinity map of the El Monte Valley and overall project is attached as Figures 1.1-1 and Figure 1.1-2.

The mineral extraction project will include the modification of an existing Major Use Permit (MUP) (PDS2015-MUP-98-014W2) which allows development and operation of golf course complex. The MUP would be modified to eliminate the golf course use and allow extraction of construction aggregates. Attendant to this action, a Reclamation Plan (PDS2015-RP-15-001) for the mining operations will need to be approved in compliance with County ordinance and the California Surface Mining and Reclamation Act of 1975 (SMARA).

Approximately 189 acres will be affected by mining and reclamation activities, including backfilling and reclaiming three ponds built by the golf course for water hazards. Areas disturbed by the operation will be progressively reclaimed starting in year 4 as mining proceeds to the west. Reclamation is an ongoing process that commences when mining operations have ceased within a given area and continues until all mining related disturbance is reclaimed and all equipment involved in these operations have been removed.

The project is expected to be fully completed in 19 years, i.e., mining will be ongoing for 15 years. Reclamation will commence 4 years after the start of mining and will continue over a 15 year period. As such, reclamation is expected to be concluded 4 years after the completion of mining. Associated activities include an aggregate processing facility, all support structures and buildings in the form of scales, scale house module and storage containers. Setbacks of 100 feet in width will be established along El Monte and Willow Roads prior to commencing operations. The project footprint is illustrated in Figure 1.1-3

The requested MUP modification would eliminate the approved golf course use and authorize a maximum production limit of 1,000,000-cubic yards of Portland Cement Concrete grade aggregate (PCC) in any calendar year. Production from the site will average of 667,000-cubic yards on an annual basis. Total material production from the site is estimated to be 12-million cubic yards (18-million tons).

The project will be developed in four mining phases and will generally proceed in an east to west direction. The first phase will involve mining to create a sub-grade pad for

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El Monte Sand Mine and Nature Preserve
Regional Location

Figure 1.1-1

Cities
Highways
Counties

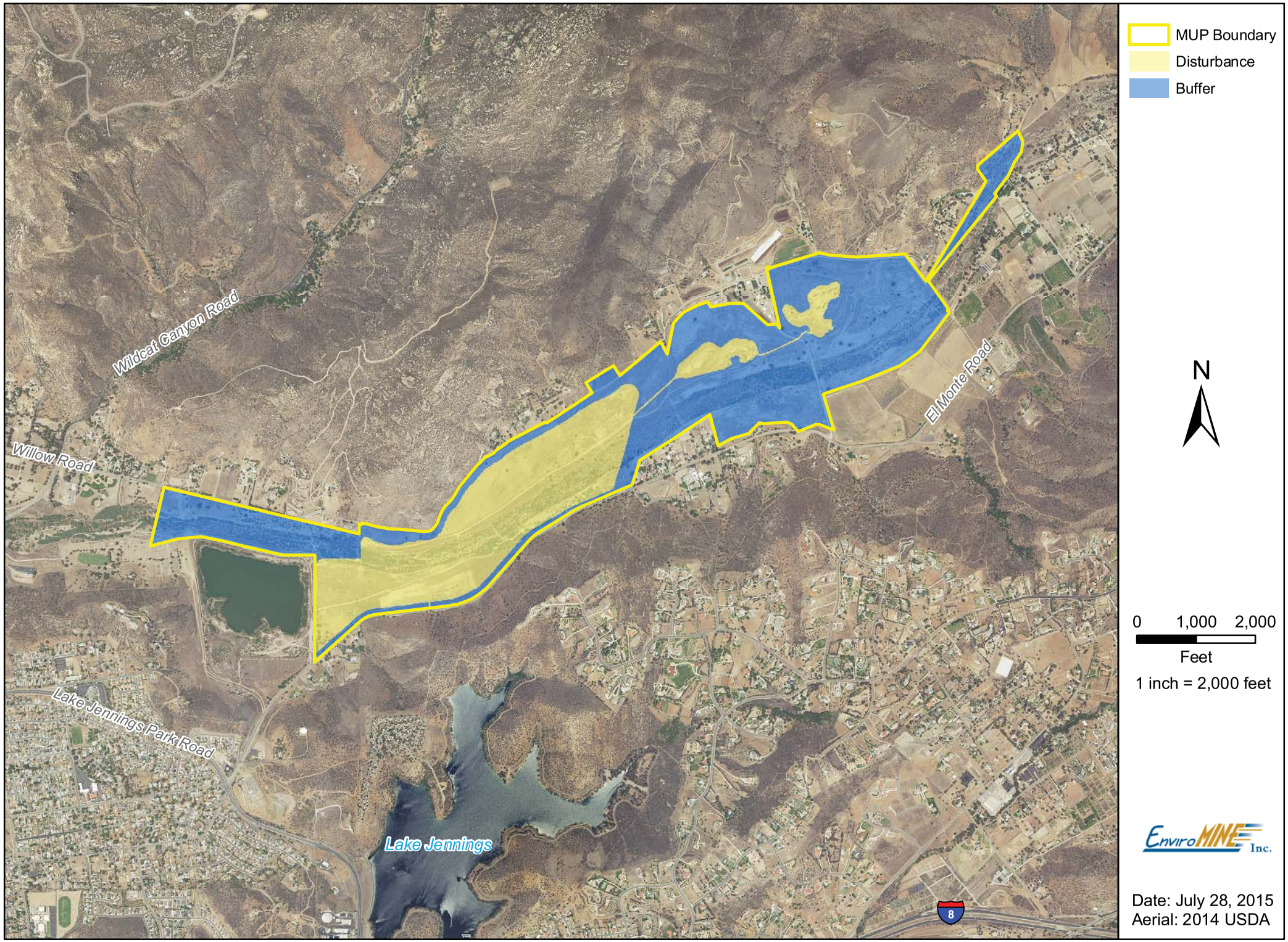
0 4 8
Miles
1 in = 8 miles

N

Date: April 2015
Source: ESRI

Figure 1.1-2 - El Monte Sand Mining & Nature Preserve Project Vicinity

Figure 1.1-3 - El Monte Sand Mining & Nature Preserve Area Affected by the Project



location of a portable processing plant, development of the initial extraction area and the installation of a channel erosion control structure (drop structure) on the eastern edge of the project site. This drop structure will be located approximately 300 feet west of the property line shared with residences located next to El Monte Road and will serve as an erosion control device to prevent head cutting of the San Diego River channel to the east.

Wheeled, front-end-loaders will mine the materials to approximately 5 feet above the water table at which time a dragline will be used to mine the remaining materials to full depth. The wheeled loaders will move the mined materials directly to the processing plant which will be located near the active cut. The processing plant will be re-located occasionally as the project proceeds west.

Reclamation will progress with mining and will consist of backfilling and grading the edges of the pit to develop a series of three, 36-foot wide benches progressing outward from the water edge. These benches are meant to support wetland and upland vegetative habitats that are present in the area. Benches will also allow the habitats to expand or contract as natural fluctuation in the water elevation occurs over time. Each bench will be approximately 36 feet wide, total, with 30 feet of a gently sloped to flat surface separated by a 3-foot high slope at a 2H:1V ratio. These benches will be constructed on a continuing basis from wash fines produced during the processing of the mined materials, and will follow the mining operation as it proceeds west. After final grading, a top dressing will be applied and each bench planted with a specific native seed mix identified in the Reclamation Plan.

Final grading will begin after mining is complete within a given area and extractive operations proceed to the west. Planting of graded areas will be conducted as final landforms are established and become available for revegetation. This process will continue throughout the duration of the project.

The operator will work with the local community to accommodate recreational trail users on the property while the project is active. Trail easements have been identified on the Plot Plan to provide opportunities for riding and hiking along the periphery of the project site. After all mining and final reclamation, the proposed end use for the property is open space with recreational trail easements.

1.1 Project Location

The site is situated within the San Diego River watershed and in the floodplain of the San Diego River which flows through the central part of the properties. It is located parallel to El Monte Road and Willow Road in Lakeside, CA; an unincorporated area of San Diego County (Figures 1.1-1 and 1.1-2) It is approximately 1.5 miles east of Highway 67, where the highway crosses the San Diego River and 4.8 miles west of the El Capitan Reservoir dam.

The entrance to the project site is 0.5 miles northeast of the intersection of El Monte Road and Lake Jennings Project Road. El Monte Road will serve as the route used by the project and also serves as the primary route to the Van Ommering Dairy Farm, El Monte County Park and El Capitan Reservoir. Residents use both El Monte and Willow Roads to access their properties.

1.2 Site History

Previous uses of the property and surrounding lands of the El Monte Valley were predominately agricultural. In years past, commercial farms leased much of the lands within the valley to produce specialty vegetables for oriental cooking. Other agricultural crops grown on the property included peas, grain crops, and tomatoes. Another important agricultural use to the northeast of the site is the existing Van Ommering's Dairy.

Nelson Sloan/Hanson Aggregates previously operated the El Monte sand pit immediately adjacent to the site on the west. Processing operations for that site occurred on the western side of the proposed project. Sand mining operations also occurred on-site approximately 35 years ago when a flood control project created a defined river channel. This channel is 10 to 20 feet lower than the elevations of the surrounding property and varies in width from 250 feet to nearly 400 feet.

Major Use Permit P98-014 was approved by the Planning Commission on February 16, 2000 for the El Capitan Golf Course on approximately 465 acres. El Capitan Golf Course is approved as a public course that consisted of two separate 18-hole golf courses, a 9-hole practice facility, driving range, club house and maintenance facility. Following approval of the golf course project, site grading commenced, but was discontinued over market concerns with the golf use. Initial site grading included establishment of the land form for the golf course, including a number of surface depressions that were intended for use as water hazards/storage ponds. Since that time, no further grading or coordinated land use activities have been conducted at the site, although the MUP continues to regulate use.

Following cessation of the development activities for the golf courses, a subsequent project was proposed that would have imported treated waste water for percolation into the groundwater and subsequent withdrawal for domestic use. The project would have recovered PCC quality sand from the project site followed by restoration to native riparian and upland habitats. However, the cost for importing reclaimed water, coupled with a substantial reduction in the demand for PCC sand and the attendant value reduction, planning for this project was discontinued.

The current project proposal seeks to modify the MUP for the golf project to allow mineral extraction and revegetation to open space with recreational trail easements.

1.3 Existing Land Uses

The proposed project is set within the EI Monte Valley, approximately 2 miles east of Lakeside. Existing conditions find a variety of land uses in the project vicinity. Land uses include rural residential, dairy farming, extractive, field and orchard crops and open space. Existing land uses are of low intensity with the valley exhibiting a rural residential/agricultural setting. Land use is limited by physical constraints with the presence of the San Diego River floodway which passes through the site in an east to west direction and by steep terrain on the north and south.

1.4 Existing Land Entitlements

A Major Use Permit (MUP P98-014) was approved by the San Diego County Planning Commission on February 18, 2000 for two proposed 18-hole golf courses, a 9-hole practice facility, driving range, an 18,000 square foot club house, and maintenance facilities. This project proposed access roads, a bridge across the river channel, cart bridges/paths, parking areas and water features. The MUP granted for the golf course project would allow the following:

- Property Lease Term - 50 years.
- MUP Area – 481 acres.
- Water Use – 1,172 acre feet per year.
- Traffic – 1,500 Average Daily Trips (per traffic report)
- Hours of Operation – 30 minutes before sunrise and 30 minutes after sunset.

The golf course site is generally aligned along both sides of the San Diego River and extends for approximately two miles along El Monte Road. The golf course is approved to occupy low lands (i.e. floodplain) within the San Diego River floodplain.

1.5 Project Goals

The goals of this Project are to:

1. Maximize the recovery of a wide variety of construction aggregates in a safe and efficient manner.

2. Provide for return of extracted areas to open space with recreational trail easements.

3. Address the need for construction-grade aggregate resources, specifically sand products, in San Diego County, and help meet the current and projected demand for construction aggregates within this market area. Provide reliable, high-quality, aggregate product at a maximum permitted production level of 1.0 million cubic yards per year and a minimum of 10-million cubic yards of total shipped product.

4. Reduce the County's dependence on imported aggregates, thereby reducing product cost, vehicle miles traveled, highway maintenance requirements, and vehicle emissions.

5. Visually integrate the extraction area slopes with surrounding lands through the use of native species for revegetation, slope terracing, and other means.

6. Provide easements for recreational trails along the San Diego River Basin for local and regional use.

7. Minimize and mitigate potential environmental impacts that might otherwise be created by the Project, to the extent feasible, by design and methods of operation.

2.0 EL MONTE NATURE PRESERVE MINE

2.1 Project Scope

The Project proposes to mine sand suitable for Portland Cement Concrete (PCC) uses over an extended period within designated phases. Reclamation of the mined lands will follow as soon as mining operations are completed in a given area. Reclamation procedures will be phased with mining operations and will be completed immediately after the conclusion of resource extraction in an area of the project.

At this time, the maximum level of aggregate production is anticipated to be 1.5-million tons per year (MTPY). This level of production will be realized after 1- 2 years of site and market development. Actual production levels and project life will depend on market demand but will not exceed the maximum permitted production level. The project is expected to continue for 19 years. This will include 15 years of extraction and reclamation of previously disturbed areas beginning in year 4. Final reclamation of the Phase 4 area and vegetation monitoring will continue for 4 years after cessation of mining.

2.2 Project Reserves

The site is designed to yield approximately 18-million tons (12-million cubic yards) of PCC quality construction aggregate.

2.3 Project Property

Assessor Parcel Numbers, Ownership and Zoning
The Project is located on six separate Assessors Parcels (APNs). The property ownership is shown in the following table and on Figure 2.3-1.

Table 1. Assessor's Parcels

APN	TOTAL ACRES	ACRES DISTURBED by PROJECT	OWNER	ZONING[1]
390-040-51	127.5	11.6	Helix Water District	S-82, A-70
391-061-01	204.0	139.5	Helix Water District	S-82, A-70
391-071-04	78.4	8.7	Helix Water District	S-82
392-060-29	58.6	0	Helix Water District	S-82
392-150-17	30.3	28.8	Helix Water District	S-82
393-011-01	26.9	0	Helix Water District	S-82, A-70

[1]S-82, Extractive Use (489 acres), Minimum Lot Size: 8 acres, Special Area Regulation: F, S
A-70, Agricultural Use (76 acres), Minimum Lot Size: 4 acres/8 acres, Special Area Regulation: F, S/S

Legal Description
The project is located within portions of Sections 9, 10, and 16, Township 15 South, Range 1 East of the El Cajon Mountain, California, U.S. Geological Survey (USGS) 7.5-minute quadrangle, San Bernardino Base and Meridian, County of San Diego, California at approximately 32°52' 38.53" N latitude -116° 52' 50.00 W longitude.

Figure 2.3 -1 - El Monte Sand Mining & Nature Preserve Assessor Parcels

2.4 Project Operations and Facilities

The project will extract, process, and market aggregate using conventional earth moving and processing equipment. Extractive and reclamation operations for the project are expected to continue for approximately 19 years (15 years of mining and reclamation, with an additional 4 years of reclamation of the Phase 4 area following the completion of mining). The project will extract approximately 1.5-million tons of material per year. Extracted aggregate suitable for construction uses will be transported offsite to customers in San Diego County. No batch plants or rock crushing are proposed for the project.

Facilities will include a portable processing wash plant, a storage container, weigh scales and modular scale house. This equipment will be initially located near the eastern end of the extraction area. Initial site development activity will involve the establishment of a sub-grade processing plant area. The plant will be recessed approximately 10 feet below the existing ground surface, in order to reduce visual exposure and potential noise impacts to surrounding lands. Earthen berms will be placed on the upper edges of the process area to screen the equipment and loading area from public view. The plant will be moved westward as mining progress.

Over-the-road trucks will access the plant area via a sub-grade, two-lane access road. Site preparation activities will also include excavation of a sub-grade access corridor that will extend the length of the project area from west to east. The sub-grade position of the haul road is designed to reduce the visual exposure of the trucks to surrounding area and reduce potential noise impacts.

The Site Plan and Mine Phasing are presented as Figure 2.4-1.

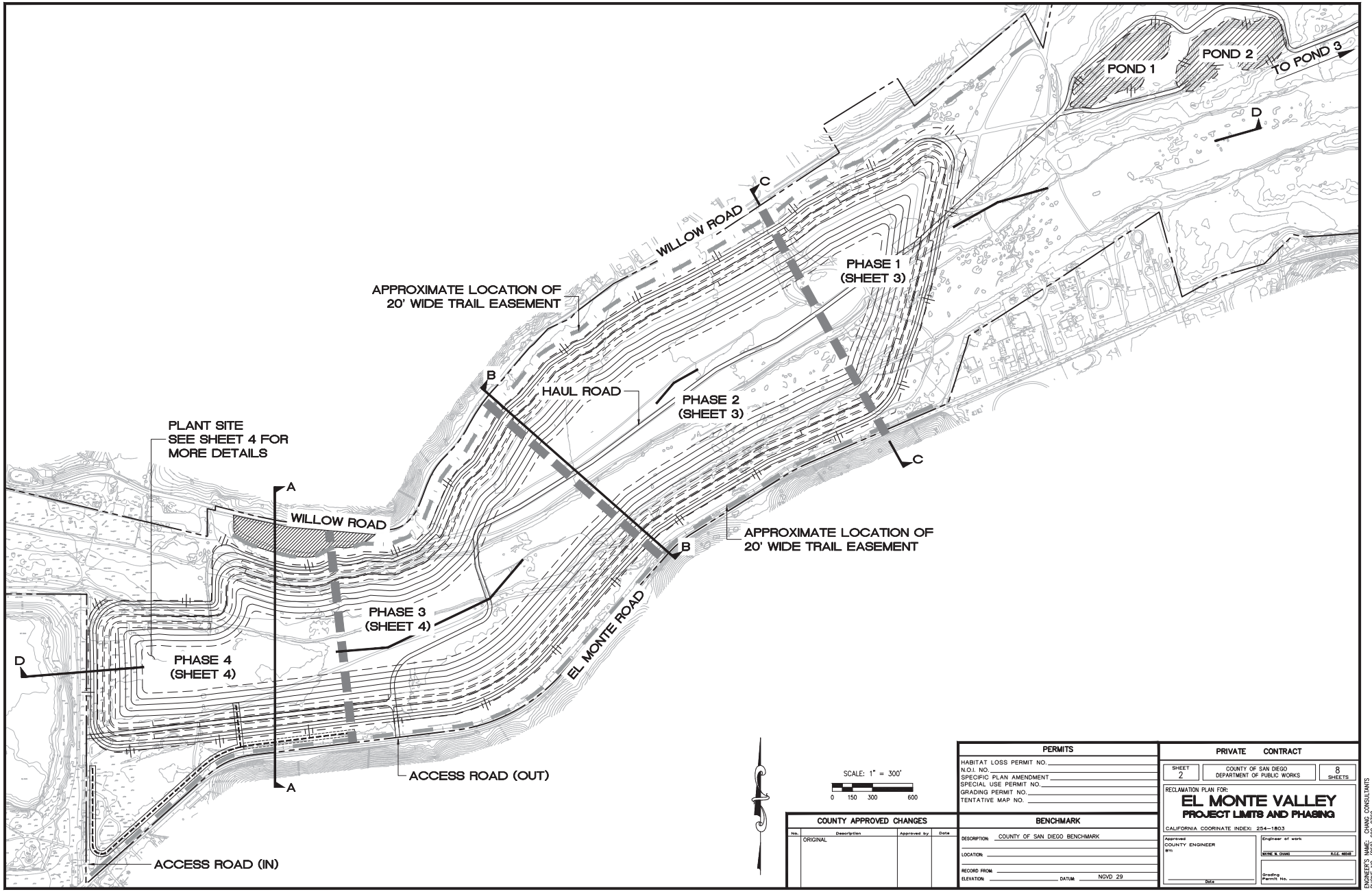
Operational Setbacks
All extractive operations will be setback from the project limits by a minimum of 100 feet.

Topsoil and Overburden Removal
The end use in the El Monte is proposed to be open space with recreational trail easements. As a result, topsoil is not needed for revegetation for the majority of the disturbed area. Topsoil on the edges of the proposed pit will be salvaged and placed on benches for revegetation of slopes above the water surface. The majority of materials will be utilized as fill or sold.

Blasting
Blasting of hard rock is not necessary and will not be conducted on this project.

Mining Operations
Phased mineral extraction would occur over an approximate 167-acre area within a Reclamation Plan Boundary of 233 acres and a maximum excavation depth of 90 feet. At maximum production, approximately 231 truck loads per day would exit the site with a similar number entering the site each day. Sand excavation and trucking operations would occur on weekdays between the hours of 7:00 a.m. and 5:00 p.m.

Figure 2.4 -1 - El Monte Sand Mining & Nature Preserve Site Plan and Phasing



Mining operations consist of excavating materials with wheeled front-end-loaders; moving the material directly into the processing plant. One off-road haul truck will be used to transport wash fines from the plant for use as fill for the pits (intended to be ponds), originally constructed for the golf course. The off road haul truck will also be used to transport wash fines to use as backfill for construction of the final topography.

Operations will commence at the eastern limits of the excavation area where a channel erosion barrier, or drop structure, will be constructed across the river channel to prevent head cutting of the channel to the east during periods of water flow in the river channel. Cut slopes above the water table will be mined at a constant 2H:1V slope. Below the water surface, material will be mined to a 3.0:1 to 3.5:1 slope.

Three, 40-foot wide fill benches will be constructed around the entire pit, excluding the drop structure, using wash fines from the processing plant. These three benches will be located between the water's edge and the top edge of the excavation. Each bench will have approximately 30 feet of flat to gently sloped surface with a 2H:1V slope between benches. There will be approximately 5 feet of elevation difference between the top of each adjacent bench. Final slopes from the top of the cut to the upper bench will be at a 2H:1V ratio. Slopes at or below the water table will be at a 3.0 to 3.5:1 slope ratio (See Figure 2.4-2).

Extractive operations will continuously progress towards the west with benches developed along the edges of the pit as mining in an area is completed. These benches will serve as the foundation for a variety of vegetative habitats and are designed to accommodate the survival of these habitats during potential water level changes over time.

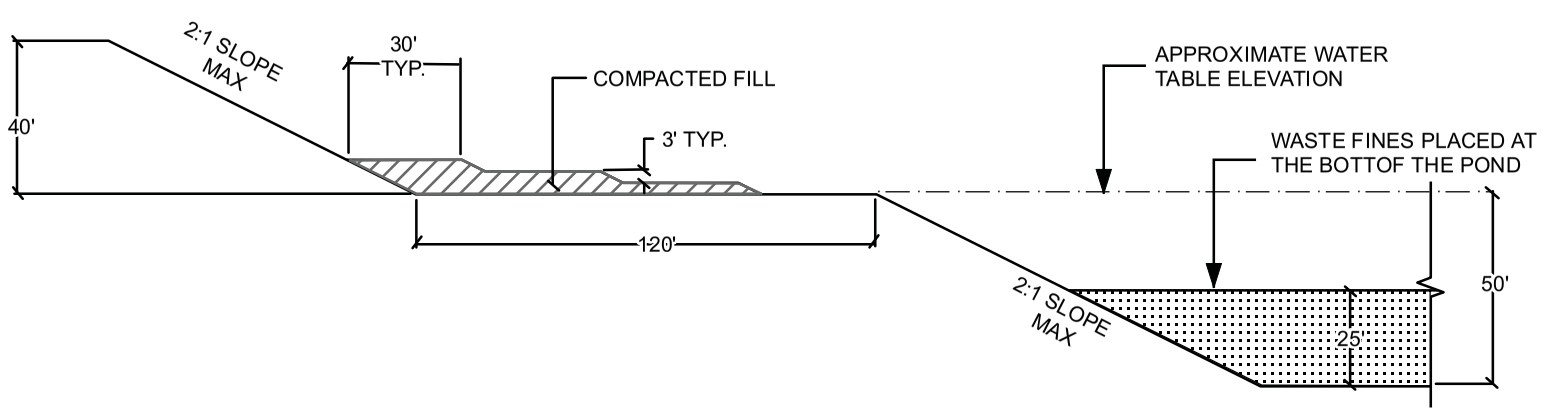
It is anticipated that extractive operations will continue for 15 years with reclamation of previously disturbed areas starting in year 4 and progressing to the west as mining advances. Following the completion of mining in Phase 4, reclamation will commence in this area and continue for another 4 years. As a result, mining and reclamation are expected to continue for 19 years.

Mine Phases

The Project will be developed in four, continuous phases and begin with the excavation of the first processing area (see Figure 2.4-1). Excavation will establish a pad approximately 10 feet below the existing ground surface (bgs) located in the north eastern segment of the project excavation area. Earthen berms will be constructed around the top sides of the plant area to screen the equipment and operation from public view. Temporary power lines and the processing plant equipment will also be installed.

A two lane, on-site access road from El Monte Road to the plant will be excavated to approximately 10 feet bgs to accommodate over-the-road truck access to the plant/loading area. Earthen berms will also be placed on both sides and parallel to the road to screen traffic from public view. Initially, the processing pad will be located north of the river channel near the eastern excavation boundary and will be moved westward as the mining phases advance.

Figure 2.4 -2 - El Monte Sand Mining & Nature Preserve Typical Slope Grading Detail



N

Not to Scale

EnviroMINE Inc.

Date: April 2015

Prior to commencing mining operations, a grade control or drop structure will be constructed across the existing floodway at the east end of the extractive area to prevent headward channel erosion during periods of water flow. Mining will follow and progress in a series of westerly advancing phases (1-4), with reclamation completed as final reclaimed surfaces are established. In the final phase, the western portion of the project (Phase 4) will be extracted, all equipment removed from the property and the final area (20 acres) of mining related disturbance reclaimed.

Phase 1

The first phase (Phase 1) will include site development for the construction of the drop structure, access road, processing area pad and screening berms. Following these initial site development activities, extractive operations will commence at the far eastern portion of the mining area and will include an area of approximately 26 acres and backfilling of 18 acres of golf course ponds.

Initial extractive operations will involve removal of all materials from the surface to approximately 5 to 8 feet above the water table (approximately 35 ft below ground surface) with wheeled front-end-loaders. Upon reaching the target elevation, a dragline will be utilized to extract the remaining materials below the water table to a maximum depth of 90 feet.

To correct grading violations from the previous project, a portion of the wash fines will be used to refill 3 surface depressions created as water storage ponds during the discontinued golf course construction operations east of the extraction area. Once filled these pond areas will be revegetated. These ponds were previously constructed as water hazards for the permitted golf courses and will be backfilled with about 500,000 cubic yards of wash fines as part of the project. Fill will be transported by truck or pumped using a slurry pipe. Once the golf course pond areas are filled, wash fines will be returned directly through a settling basin connected to the pit. This settling pond will be used until enough fine material is available to construct the reclamation benches exposed in that area, then wash slurry will be directed into the extraction pond. A slurry pipeline will be used to transport wash fines further east if needed. This slurry pipeline will be moved westward to reduce the overall depth of the extraction pond over the course of the project.

Phase 2

Phase 2 will continue the identical extraction process in an east to west direction on the adjacent area of approximately 56 acres. The processing plant area and access road will be moved westward. This phase is anticipated to last approximately 5 years. Excavation of the materials will continue in the east and proceed westward in the same fashion as utilized in Phase 1. The maximum depth of the excavation is expected to be approximately 90 feet. Excavated materials will be loaded directly into the processing plant by a wheeled front-end-loader. Reclamation of the Phase 1 area will begin as the final land forms are established. Reclamation will include establishment of all final slopes, placement of fill to create a series of benches adjacent to the extraction pond, revegetation using native species, weed control, and monitoring.

Phase 3

The excavation process in Phase 3 is a repeat of Phase 2 on approximately 48 acres of the valley, west of the Phase 2 area. Phase 3 is anticipated to last about 4 years and will employ the same procedure as the two previous phases. During Phase 3, the

plant will be moved south of the channel. Reclamation of the Phase 2 disturbance will begin and monitoring of the Phase 1 reclamation continued.

Phase 4

The final phase of the project will be to complete excavation of 36 acres on the western end of the project site. Following the cessation of extractive operations, all equipment and temporary structures will be removed from the project site. Remaining access road segments and operational related disturbance will be scarified and graded to the final reclamation contours and then revegetated.

Reclamation

Reclamation will be completed for each specific phase after completion of mining in that area. For example, as mining progresses into the Phase 2 area, final reclamation will begin in the Phase 1 area. Final landforms will be established and the area planted with the native species identified in the reclamation plan. This procedure will result in approximately 90 percent of the disturbed lands being reclaimed by the time extractive operations are complete. Mine Phase acreages and the estimated duration of each phase are summarized in Table 2.0.

Table 2. Mine Phase Acreages

Mining Phase	Area Affected by Mining Operations (acres)*	Mining Duration (years)	Mining Initiation Date (est.)	Mining Completion Date (est.)	Reclamation Completion Date (est.)
1	48	3	2016	2019	2023
2	56	5	2019	2025	2029
3	48	4	2025	2028	2032
4	36	3	2028	2031	2035
Total	188.6	15	-	-	-

*rounded to nearest acre

Mobile Equipment

The following table presents the mobile equipment to be employed for Project:

Table 3. Project Mobile Equipment

Onsite Mobile Equipment - Project				
No.	**Make**	**Type/Model**	**Purpose**	**Usage**
1	CAT	Loader - 988	Mineral Excavation above water table.	100%
2	CAT	Loader - 980	Mineral excavation above water table, plant and truck loading	100%
1	Northwest	Dragline – 190D	Mineral excavation below water table	100%
1	Peterbilt	Water Truck	General dust suppression	100%
1	CAT	Grader - 12	On-site road maintenance, finish grading	50%
1	CAT	Dozer – D9	Reclamation – rough grading	50%
1	CAT	Haul Truck 769	Onsite transportation of fill	75%
1	Doosan	420 Excavator	Mineral extraction	50%
1	Trailer	Fuel tank	3500 gallon mobile fuel trailer	100%
1	Ford	Pick Up	Transportation for site supervisors, QC	10 miles/day

Plant Operations

The El Monte plant site will contain movable, aggregate processing and washing facilities, a portable water tank, and all support structures and buildings (e.g., scale, office kiosk and office trailer). No blasting or rock crushing will occur on site. A small portable processing plant will be utilized during the initial development stage of the project and will be replaced by a larger, screen deck once the pad area, road and the main pit are developed.

Aggregate Processing Plant

Alluvial material will be loaded directly into the washing and screening plant using wheeled, front-end-loaders. The plant will wash and screen the raw material into marketable PCC grade construction aggregate material; primarily sands and some gravel. No crushing is required to process the materials extracted from the site. Initial water production and make-up water sources would be provided by groundwater pumped from an on-site well. As the excavation reaches water table, the well will be abandoned and water will be sourced directly from the pit. Processed aggregates would be separated into different sizes and stored in large stockpiles (up to 30 feet in height) near the plant. Customer trucks would be loaded with finished products from stockpiles by front-end-loaders and transported off-site.

The plant will be capable of processing approximately 577 tons per hour, and will operate up to 10 hours a day, 5 days a week. The proposed mining will not produce waste material. All materials produced will be sold, used for construction of the benches or as on-site fill material.

The processing plant equipment is presented in Table 4. The processing plant layout is shown on Figure 2.4-3

Table 4. Processing Plant Equipment

Fixed Equipment				
Wash Plant				
No.	**Make**	**Type/Model**	**Purpose**	**Usage**
1	TBD	Double Deck Dry Screen	Aggregate sizing	Daily
1	TBD	Triple Deck Wet Screen	Sand washing	Daily
4	TBD	Conveyor Stackers	Aggregate movement	Daily
1	TBD	Radial Stacker	Aggregate stacking into stockpiles	Daily
3	TBD	Water Pumps	Aggregate washing & dust control	Daily
1	TBD	Feeder	Aggregate feeder	Daily
1	TBD	Twin Screw	Sand washer	Daily
1	TBD	Scales	Truck weighing	Daily
Ancillary Structures				
1	TBD	70-ft Truck Scale	Truck weighing	Daily
1	TBD	30 ft Mobile Modular	Scale office	100%
2	TBD	30 ft. Storage Container	Small equipment storage	Daily

Temporary pole line-power to the plant will be installed in one of the first steps of the project startup and connected to existing power lines on, or adjacent to, the project

Figure 2.4-3 Processing Plant Detail

site. After the processing pad and the access road are completed and the main pit started, larger screen decks plant will be installed. All equipment will be properly permitted in accordance with San Diego County APCD requirements.

Office and Equipment Maintenance
The mobile modular unit used for the scale booth will be combined to serve the site's administrative needs. Required on-site documents will be housed in this unit.

Equipment maintenance will be conducted in the plant area and will follow all environmental regulations. Storage of tools or small equipment will be in metal cargo containers also located at the plant site.

Personnel
It is estimated that there will be approximately 8 full-time positions necessary to operate the mobile equipment and the plant. These positions would be responsible for tasks associated with mining and processing activities; environmental compliance, safety, management and administrative tasks. In addition, the project would indirectly support the workforce for related industries such as construction and trucking.

Extraction Waste
All material extracted from the site, which is not designated as saleable product, will be utilized to construct the final land form. No tailings or waste piles will remain following conclusion of extractive operations. Domestic refuse shall be collected in trash bins and removed by a refuse disposal company. Equipment will be maintained on-site and all used oils, fuels and solvents collected in accordance with the Department of Toxic Substances Control regulations and picked up by an approved hauler for materials recycling.

Operational Water
A water truck will be used for dust suppression on all operating areas. This includes material stockpiles and unpaved areas within the mining area, the processing plant, and access road. Other water requirements include surface watering of outgoing loads and water for the processing equipment. Water needs at the site will be provided from on-site water wells and switched to pit water once the water table is exposed. A third water well will be drilled on the western end of the project area and will be utilized for landscaping irrigation of the earthen berm in that area. Occasionally, water from this western most well may be used for dust control purposes. Process water will be recycled through a settling pond connected to the extraction pond.

Water usage depends on production volume. Production volume will vary year-to-year with market demand; however, the project's estimated water usage assumes the maximum annual production of 1.5-million tons. Water usage is estimated at 97 acre-feet annually for this production rate. A single water truck will be required to control dust at the El Monte Sand Extraction and Nature Preserve site. Water required to suppress dust from the mining operations is estimated to require 20 acre-feet of water per year. Irrigation of the landscaped earthen berm near the entrance and as supplemental water on revegetated areas is also estimated to utilize approximately 15 acre-feet per year. Total water consumption on the project is estimated at 132 acre-feet per year.

Initially, water for processing and dust control will be supplied by two groundwater wells located in the eastern end of the project site and then switched to pit water once groundwater is exposed by the excavation. A third groundwater well will be drilled on the western end of the project site and used for landscape irrigation and occasional dust control. Excess wash fines and process water will be returned to a settling pond which will overflow into the pit.

Storm Water and Erosion Control
The site will contain a number of desiltation basins that prevent sediment from leaving the site while allowing water to pass through to pre-existing drainage features. Mining and reclamation grading will direct the majority of the runoff from the disturbed area towards these basins.

Erosion control measures will be implemented in accordance with the following criteria:

Class 1: No soil loss or erosion; topsoil layer intact; well-dispersed accumulation of litter from past year's growth plus smaller amounts of older litter.

NO ACTION NECESSARY

Class 2: Soil movement slight and difficult to recognize; small deposits of soil in form of fans or cones at end of small gullies or fills, or as accumulations back of plant crowns or behind litter; litter not well dispersed or no accumulation from past year's growth.

ACTION: Monitor to see if any further deterioration and action is required.

Class 3: Soil movement or loss more noticeable; topsoil loss evident, with some plants on pedestals or in hummocks; rill marks evident, poorly dispersed litter and bare spots not protected by litter.

ACTION: Any rills or gullies in excess of 8 square inches in cross sectional area and more than 10 linear feet located on finished slopes shall be arrested using straw mulch and hay bales

Class 4: Soil movement and loss readily recognizable; topsoil remnants with vertical sides and exposed plant roots; roots frequently exposed; litter in relatively small amounts and washed into erosion protected patches.

ACTION: Replant via hydroseeding or spread seed and cover with straw mulch. Re-grade, compact with equipment and install silt fences if necessary

Additional Facilities
The project will include the following facilities:

1. Portable restroom

2. Two metal cargo containers for storage.

3. One 70-foot truck scale and modular mobile for scale booth and administrative functions

Site Security and Safety
Public health and safety will be protected in accordance with local, state and federal standards. During the project lifetime, public access will be controlled by gates on the access roads within the Project boundaries. These gates will be locked during non-operating hours. In addition, appropriate signage will be posted around the perimeter of the pit and project boundary adjacent to undeveloped lands. MHSA and Cal-OSHA rules, regulations, and standards will be employed to protect both the public and on-site employees.

Operating Hours
The hours of operation for extraction and processing shall be between 7:00 a.m. and 5:00 p.m., Monday through Friday. Sales of aggregate will be conducted from 7:00 am to 5:00 pm, Monday through Friday, and from 7:00 am to 1:00 pm on Saturdays. The site will be closed on Sundays and holidays.

Shielded night lighting may be installed around the processing plant for security purposes. Lighting will be designed to minimize glare and reflection onto neighboring areas. Generally, pole-mounted sodium, metal halide, or fluorescent lighting will be employed. Such lighting minimizes energy use, and in combination with cut-offs, reduces light pollution.

Operations shall comply with the San Diego County Noise Ordinance 9962.

2.5 Utilities

Production Water
Water required by the project for dust control and processing will be provided by privately owned water wells located on-site.

Sewage Disposal
The Project will utilize a portable restroom(s). The portable restroom(s) will be serviced at appropriate intervals by contract vendors.

Drinking Water
Drinking water will be provided by a private vendor.

Power
The Project requires electrical power, which will be provided by San Diego Gas & Electric through an overhead transmission line that enters the site from the south and connects to temporary power poles to the plant location.

2.6 Site Access

Public Roads
Public roads to be utilized for the site include El Monte Road, Lake Jennings Park Road, Maple View Road, State Route 67 and I-8.

El Monte Nature Preserve Mine Access Road
Access for the site will consist of separate ingress and egress locations for on-highway haul trucks to reduce noise impacts to residents located on El Monte Road. Ingress to the site from El Monte Road will use an existing entrance located on the western edge of the project site. A left turn lane for eastbound traffic is present at this location. Egress from the property will be located approximately 0.4 miles east of the entrance. El Monte Road has a designated speed limit of 45 miles per hour and the required site distances exceed the minimum of 450 feet in either direction for both access points.

2.7 Traffic

Project traffic is separated into two categories: heavy vehicle traffic and light vehicle traffic. On site heavy vehicle traffic would include off-road haul trucks, front-end-loaders, dozers and other earth-moving equipment and supply trucks, service trucks and on-highway trucks carrying loads of construction aggregate, fuel, parts, etc. on public roads. Heavy vehicle traffic also refers to over-the-road vehicles as listed below:

- Incoming empty trucks and outgoing loads of construction aggregate
- Supply and service trucks (fuel, parts, etc.)

Light vehicle traffic includes light vehicles used by employees and visitors such as cars, trucks and small service vehicles. Access to the site will be restricted 24 hours per day through a controlled entrance. Gates will be installed and will be closed and locked during non-operational hours.

The project will gradually increase production from approximately 500,000 tons in the first year to 1,500,000 tons in the third year. At full production, the project is expected to have an average annual output of 1.0 million tons. At maximum production levels, the project will not exceed 1.5-million tons per year.

Access will be provided for all vehicle traffic through the on-site access road connecting with El Monte Road. The two-lane, access road will be a minimum 40 feet in width. In the final mining phase of the project, the majority of the road will have been mined through and only a short segment will exist between the ingress and egress points. The remainder of the road will be removed and reclaimed during the final reclamation phase.

Estimated traffic counts for the project are based on production of 1.5-million tons per year as it is divided into various trip generation classes:

Truck Trips

Table 5. Daily Truck Trips

End Product	% of Total	Quantity	t/load	Loads/day	Round Trips
Aggregate	100	1,500,000 tons	25	231	462
Total		1,500,000 tons		231	462

* A cubic yard of concrete contains 1.5 tons of aggregate.

Table 6. Other Traffic Trips

Trip Type	One way trips/day	Round Trips/day
Light Vehicle Trips	12	24
Vendor Trips[1]	2	4

[1]Vendor trips include fuel, supplies, service companies, etc.

3.0 EL MONTE NATURE PRESERVE MINE RECLAMATION PLAN

The Applicant is seeking approval of a Major Use Permit and Reclamation Plan to authorize mining and to specify reclamation measures for the mined lands. The Surface Mining and Reclamation Act of 1975 (SMARA) and San Diego County Code require approval of reclamation plan for all surface mining operations. Reclamation plans are developed to identify reclamation measures and establish performance standards for reclamation adequacy. These measures include protection of wildlife habitat, revegetation, re-contouring and erosion control, elimination or reduction of residual public health and safety hazards and minimization of environmental impacts. A reclamation plan also addresses subsequent uses of the property and identifies schedules for reclamation activities.

The reclamation plan for this project features conditions which will make the land suitable for two post mining uses: conserved open space and recreational trail easements.

3.1 Reclamation Phasing

Although the project is short term, reclamation will occur concurrently with the extraction activities. As the project progresses, cut slopes will be brought to final grade and revegetated beginning at the eastern boundary and moving westward throughout the site. Following completion of mining activity in any given area, reclamation will commence as described in the following discussion.

Overburden and wash fines will be used to establish a series of 36-foot wide benches on cut slopes above the water table. These benches will be continuously developed as the pit progresses to the west using wash fines from the plant as fill. Benching will begin at the approximate shoreline. Each bench will increase approximately 3 feet in elevation and progress outward from the pit in 36-foot segments. Each bench surface will slope gently towards the water. The benches will extend to approximately 150 feet from the project limits on the north and south. This will result in a 2:1 final cut slope between the highest bench and the 100 foot setback line.

Fill and rough grading will be continuous as mining progresses. Finish grading and top dressing will occur as areas become available for this activity. During the late summer or early fall months these final land form areas will be prepared for seeding. Seeding and planting will occur in the November to January time period to take advantage of the natural precipitation season for Southern California. At the end of the extraction operations in Phase 4, about 20 - 30 acres of disturbed land will need to be graded and revegetated as the majority of the land disturbed by the operation will have already been reclaimed.

3.2 Revegetation

Revegetation of disturbed areas of the site will be completed in phases and occur after final graded surfaces are achieved. The reclamation plan is intended to stabilize the post-extraction landform, provide visual integration with the natural landscape, and establish a productive native vegetative cover.

Reclamation of the site will include: (1) removal of all manmade structures; (2) grading to achieve final landforms; and (3) revegetation and monitoring. Taken together, all of these activities will achieve the goals of the reclamation plan and leave the site suitable for subsequent land uses. Plant species used will be capable of self-regeneration without continued dependence on irrigation, soil amendments or fertilizer, and will include species representative of the native habitat.

All reclaimed areas will be reseeded by means of hydroseeding or planting of potted seedlings. Application rates shown in Tables 7A through 7D reflect a minimum amount of each plant species that will be used in the mix.

Revegetation Seed Mixes & Container Plants

Table 7A. Southern Willow Scrub Seed Mix

Species	Common Name	% Cover	Quantity	Container Size	Plant Density (ft. on center
Anemopsis californica	yerba mansa	5	810	1 gallon	5
Baccharis salicifolia	mule fat	10	827	1 gallon	7
Leymus condensatus	giant wild rye	5	413	1 gallon	7
Platanus racemosa	Western sycamore	5	13	1 gallon	40
Populus fremonti ssp.	Western cottonwood	10	101	1 gallon	20
Rosa californica	California rose	2.5	405	1 gallon	5
Salix gooddingii	black willow	10	405	1 gallon	10
Salix lasiolepis	arroyo willow	60	3,798	1 gallon	8
	Total:	**122.5**	**7,907**		

Table 7B. Mule Fat Scrub Seed Mix

Species	Common Name	% Cover	Quantity	Container Size	Plant Density (ft. on center
Anemopsis californica	yerba mansa	5	122	1 gallon	5
Baccharis salicifolia	mule fat	90	2,197	1 gallon	5
Leymus condensatus	giant wild rye	5	62	1 gallon	7
Vitis girdiana	wild grape	5	122	1 gallon	5
	Total:	**105**	**2,504**		

Table 7C. Upland Seed Mix

Species	Common Name	Density (lbs./acre)	Purity/Germination %	Lbs.
Baccharis pilularis	coyote brush	2.0	90/80	5.4
Bromus carinatus	California brome	20.0	95/80	54.0
Encelia californica	California encelia	1.0	40/60	2.7
Gnaphalium californicum	California pearly everlasting	2.0	90/80	5.4
Lotus scoparius var. scoparius	deerweed	3.0	90/60	8.1
Rhus integrifolia	lemonade berry	8.0	90/80	21.6
Salvia apiana	white sage	2.0	70/50	5.4
Trifolium tridentatum	tomcat clover	8.0	90/80	21.6
Vulpia microstachys	pacific fescue	8.0	90/80	21.6
	Total:			**145.8**

Table 7D. Emergent Wetland/Understory Seed Mix

Species	Common Name	Density (lbs./acre)	Purity/Germination %	Lbs.
Ambrosia psilostachya	western ragweed	6.0	20/30	56.4
Anemopsis californica	yerba mansa	2.0	50/70	18.8
Artemisia douglasiana	mugwort	3.0	15/50	28.2
Artemisia palmeri	Palmer's sagewort	2.0	20/50	18.8
Bolobschoenus maritimus ssp.	prairie bulrush	3.0	98/60	28.2
Cyperus eragrostis	tall flatsedge	1.0	90/80	9.4
Eleocharis macrostachys	pale spikerush	1.0	90/70	9.4
Euthamia occidentalis	western goldenrod	1.0	30/30	9.4
Juncus acutus ssp. *leopoldii*	spiny rush	0.5	90/80	4.7
Juncus dubius	mariposa rush	2.0	95/50	18.8
Mimulus guttatus	seep monkey flower	1.0	10/60	9.4
Pluchea odorata	marsh fleabane	1.0	20/50	9.4
Oenothera elata ssp. hookeri	great marsh evening	2.0	95/70	18.8
		25.5		**239.7**
Hydroseed Slurry Materials				
Wood Fiber Mulch		2,500		23,500
SuperTack Binder		160		1,504

Reference: S&S Seeds, Carpinteria, CA
Jepson Manual: Higher Plants of California. 1993

Each seed mix will be utilized on specific benches in the reclaimed topography. Emergent vegetation will be planted along the shore line, followed by southern willow scrub seed mix on the next bench. The upper bench will be planted to encourage mule fat scrub and the upland seed mix will be planted on 2H:1V slope areas. It is expected that some intermixing of these species will occur along the edges of each bench.

Hydroseeding is the hydraulic application of a homogeneous slurry mixture consisting of water, seed mix, cellulose fiber and a binding agent such as "M" Binder. Fertilizer can be added if the soil analysis shows the need for addition of amendments; however,

native plant communities do not tend to benefit from the use of fertilizer and can result in excessive weed infestations. As such, the use of fertilizer is not anticipated. The hydroseed mixture shall consist of the following materials:

- 2,000 lbs/acre cellulose fiber
- 140 lbs/acre "M" Binder (gluing agent)
- 200 lbs/acre Milogranite (fertilizer if required)
- Seed mix as listed

Hydroseeding application shall be performed only at times when winds are relatively calm between November and February. These months are also selected to take advantage of the natural wet season of Southern California.

Irrigation
Supplemental irrigation of reclaimed lands may be used during the first two years after planting to augment natural precipitation. If used, watering will only occur to assist in initial establishment and/or in long periods of extended dryness. Irrigation will not be used continuously after seeding. Pit water will be utilized if irrigation is implemented. Irrigation will be completed using solid-set sprinklers.

3.3 Monitoring

After seeding and before release of the financial assurance, all revegetated areas must meet performance criteria. The most meaningful performance criteria for erosion control and visual mitigation are based on vegetative cover and species-richness. At two years from completion of revegetation for a specific area, the effort will be evaluated to determine if performance standards have been met. The following minimum standards must be achieved:

Performance Standards

Vegetative Cover (m: meters)	Species Composition / Species Richness	Percent Cover	Density
Seed Mix	Target Goal (year 3): 100% of the most prevalent species shall be native species Monitoring Plot Size: 10 m by 10 m	Target Goal (year 3): 50% cover (all native species combined) Monitoring Plot Size: 20 m by 20 m	N/A
Container Stock	Target Goal (year 3): 5 tree species Monitoring Plot Size: 20 m by 20 m	N/A	Target Goal (year 3): 30 total trees per acre (80% survival) Monitoring Plot Size: 20 m by 20 m

Monitoring will be continued annually until performance standards have been achieved. The performance standards listed above may be re-evaluated, at a later time, both in terms of baseline data and in comparison to success criteria. Therefore, it is possible that minor adjustments will be made to the proposed performance standards.

3.4 Weed Control and Maintenance

Weed eradication will be used to limit and control invasive noxious weeds such as those species listed in Table 8.

Table 8. Weed Species of Concern

Common Name	Scientific Name
Giant Reed, Arundo	*Arundo donax*
Mustard	*Brassica sp.*
Ripgut Brome	*Bromus diandrus*
Cheat Grass, Downy Brome	*Bromus tectorum*
Pampas Grass	*Cortaderia spp.*
Eucalyptus	*Eucalyptus spp.*
Pepperweed	*Lepidium latifolium*
Tree Tobacco	*Nicotiana glauca*
Castor Bean	*Ricinus communis*
Russian Thistle, Tumbleweed	*Salsola tragus*
Tamarisk, Salt Cedar	*Tamarix spp.*

Weed control and maintenance on the site will continue during the reclamation process. Maintenance of the revegetation areas shall consist of reseeding unsuccessful revegetation efforts. If revegetation efforts are not successful within four years following the initial seeding, seeded areas will be reevaluated to determine the measures necessary to improve revegetation success. If necessary, these areas will be reseeded with methods modified, as needed. Prior to reseeding, the revegetation specialist shall evaluate previous revegetation practices and test plot results in an attempt to identify cultural methods to benefit the overall revegetation effort.

Weed control is necessary to reduce or eliminate the occurrence of undesirable non-native species of plants that may invade the site where mining activities have removed the native plant cover and where active and natural revegetation is taking place. Non-native invasive species (weeds) can compete with native plant species for available moisture and nutrients and consequently interfere with revegetation of the site after the completion of mining.

The occurrence of weeds on the site shall be monitored by quarterly visual inspection. The goal is to prevent weeds from becoming established and depositing seeds in areas to be revegetated at a later date. If inspections reveal that weeds have become, or are becoming, established on the site then removal will be initiated.

Weed removal will be accomplished through manual, mechanical or chemical methods depending on the specific circumstances. Smaller plants (brome grasses, pepper weed) that cover more area may be sprayed, scraped with a tractor, or chopped by hand, depending up on the size of the area of infestation and the number of desired native plants in proximity or mixed with the weeds.

Revegetated areas must also be maintained to protect against accelerated erosion. Where surface erosion produces rills or gullies in excess of 6 inches in depth, the

surface will be repaired and, if necessary, the source of runoff water will be re-routed to reduce the need for further persistent maintenance problems.

4.0 FINANCIAL ASSURANCE

The operator will, pursuant to SMARA and County Code, post a financial assurance payable to the County and the State Department of Conservation in an amount sufficient to cover the cost of reclaiming disturbed portions of the site. The financial assurances will be reviewed and updated annually.

5.0 REQUIRED APPROVALS, PERMITS, AND REVIEW

The discretionary agency actions for the Project are as follows:

1. San Diego County: Amended Major Use Permit P98-014
2. San Diego County: Reclamation Plan
3. U.S. Army Corps of Engineers: Section 404 Clean Water Act Permit
4. California Department of Fish and Game: 1602/1603 Stream or Lake Alteration Agreement
5. San Diego Regional Water Resources Board: Waste Discharge Order and 401 Water Quality Certificate
6. San Diego County Air Pollution Control District: Emissions Discharge Permit

6.0 POST MINING LAND USES

Reclamation of disturbed portions of the Project site would be phased with mining activities and operations, and would return the area to beneficial post-mining land uses. Post-mining land uses would include open space conservation areas with recreational trail easements.

7.0 PROJECT SUMMARY

A summary of pertinent details for the Project is presented in Table 9 as follows:

Table 9. Project Summary

General Site Information	
Applicant	El Monte Nature Preserve Mine
Project Proponent	El Monte Nature Preserve, LLC
Property Owner (s)	Helix Water District
Project Site Area	565 acres (approximate)
Project APN's	392-150-17, 391-061-01
Surface Elevation	430’ to 490’ AMSL
General Plan Designation	Public Agency Lands
Zoning	S-82, Extractive Use; A-70, Agriculture
Williamson Act Contract	No
MRZ Designation	MRZ-2
Current Land Use	Undeveloped Land
Major Use Permit Boundary	530 acres
Reclamation Plan Boundary	233 acres
Mining	
Mining Area	188.6 acres including golf course ponds
Setback Area	44.5 acres
Maximum Mining Depth	340 feet AMSL (approximately 90' below existing ground surface)
Average Groundwater Elevation	Approximately 390 feet AMSL.
Mining Slopes	2H:1V (horizontal:vertical) maximum
Type of Minerals	Alluvium
Maximum Total Production	18 million tons
Maximum Annual Production	1.5 million tons
Commencement of Mining	Within 1 Year After Permit Approval
Duration of Project	19 Years (15 years of extraction and reclamation with 4 years for final reclamation after cessation of extraction)
Mining Permit Expiration	January 31, 2035
Reclamation	
Revegetated Area	Approximately 78 acres (including golf course ponds)
Water Surface	110 acres
Duration of Reclamation	Continuous starting in year 4 and extending for 4 Years following cessation of mining.
Completion of Reclamation	2035 estimated
Post Mining Land-Use	Open Space with recreational trail easements