

Vector Management Plan
for the
COTTONWOOD SAND MINING PROJECT
PDS2018-MUP-18-023, PDS2018-RP-18-001,
PDS2018-ER-18-19-007

Prepared for:



County of San Diego
Planning & Development Services
5510 Overland Avenue, Suite 110
San Diego, CA 92123

Project Proponent:

New West Investment, Inc.
565 N. Magnolia
El Cajon, CA 92020

Prepared By:



3511 Camino Del Rio South, Suite 403
San Diego, CA 92108
619-284-8515, Fax 619-284-0115

November 2021

Cottonwood Sand Mining Project Vector Management Plan – June 2021

1.0 Introduction

This Vector Control Plan has been created in consultation with the San Diego County Department of Environmental Health and Quality, Vector Control Program (DEHQ-VCP). Implementation of this plan will ensure the minimization of vectors, such as rodents, flies and mosquitoes that may breed in standing water. This plan is created to meet the vector control requirements for the Cottonwood Sand Mining Project.

The goals of this Vector Management Plan are to:

1. Protect public health
2. Control and reduce public exposure to vectors and human diseases
3. Reduce nuisance characteristics that are associated with vectors

1.1 Project Description

New West Investment, Inc. is applying for a Major Use Permit (MUP) and Reclamation Plan (RP) for the Cottonwood Sand Mining Project (Project). This project will have two major components. The first is the extraction of 5.7 million tons (3.8-million cubic yards) of construction aggregate over a 10-year period on land that is zoned S90 (Holding Area), S80 (Open Space), and S88 (Specific Plan). The second element is the reclamation of the site, including removal manmade structures, grading to final landforms, and revegetation. Reclaimed areas would be restored to an end use of open space, recreational trails, and land suitable for uses allowed by the General Plan and existing zoning classifications. The Project is located in the Jamacha Valley of San Diego County. A vicinity map of the Project area is attached as Figure 1.1-2.

The project includes property within San Diego County Assessor Parcel Numbers:

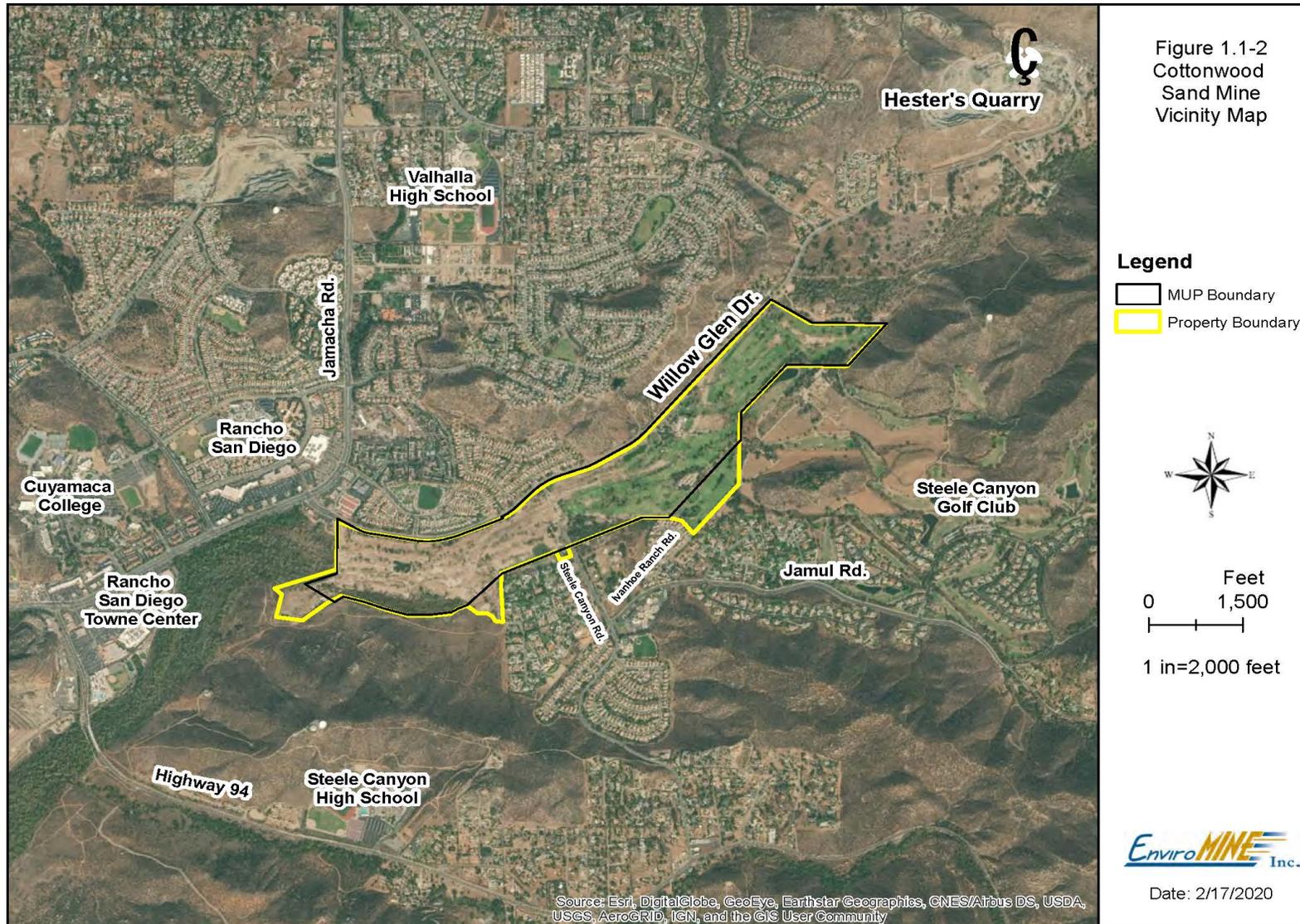
506-021-19-00, 506-020-52-00, 518-012-13-00, 518-012-14-00, 518-030-05-00,
518-030-06-00, 518-030-07-00, 518-030-08-00, 518-030-10-00, 518-030-12-00,
518-030-13-00, 518-030-15-00, 518-030-21-00, 518-030-22-00, 519-010-15-00,
519-010-1700, 519-010-20-00, 519-010-21-00, 519-010-33-00, 519-010-34-00,
519-010-37-00, 519-011-03-00

The proposed MUP and RP area within these parcels totals approximately 280 acres. Mineral extraction and reclamation would occur on approximately 251 acres.

Mineral extraction

The Cottonwood Sand Mining Project will include the approval of a MUP and a RP by the County of San Diego for extraction of 5.7-million tons of construction aggregate and reclamation of the mined lands. The requested MUP would authorize a maximum production limit of 570,000 tons in any calendar year. The project will be developed

and reclaimed in four (4) phases; three mining phases and one final reclamation phase.



Operations are expected to begin in 2022. At a proposed average mineral export rate of 570,000 tons (380,000 cubic yards) per year, the export of 5.7-million tons of material would require approximately 10 years. With two years to complete reclamation, the project life would total 12 years. Thus, the proposed end of mine life is approximately December 2034 assuming a startup date in 2022.

Operations in the Project area will extract, process, and market aggregate using conventional earth moving and processing equipment. The operation will be extracting materials from the alluvial deposits of the Sweetwater River and will have equipment crossings over the existing river channel or parallel to that channel. The maximum anticipated mining depth will be 40 feet below existing ground level. Mining operations will occur in three phases where each main phase will include multiple subphases of less than 30 acres. Overall mining and reclamation will generally progress in a west to east direction. Water will be provided by eight groundwater wells existing onsite and would be used for material washing, dust control, and irrigation of landscaping and reclaimed areas. A series of settling ponds located in the processing area will be used to recycle water and capture fine sediment removed from the sand during processing.

Groundwater will likely be encountered; therefore, the excavation area will be limited to 5 acres in size at any time. This will be accomplished by backfilling areas where mining has been completed with wash fines and overburden prior to expanding the excavation area size. Areas where mining has been completed will be backfilled to an elevation above groundwater level as the mining phases advance.

Reclamation

Following cessation of mineral extraction activities in any given phase, the mine site would be reclaimed. Reclamation will be completed for each sub-phase after the completion of mining in that specific area such that the acreage under active excavation at any one time would be minimized. Reclamation will include backfilling to final grade, removal of all processing equipment, final grading, removal of roads, preparation of seed beds and planting. The final landform will be a relatively flat plain that gently slopes downward from east to west. A deepened floodway will bisect the length of the site. Banks of the floodway will slope up to the plain surface at a 3H:1V ratio or shallower. Onsite materials and sand production by-products will be used as backfill material for the Project.

1.2 Existing Conditions

The Project site is situated on the floodplain of the Sweetwater River which flows through the central part of the project site. It is located parallel to Willow Glen Drive and on both sides of Steele Canyon Road in the unincorporated Jamacha-Rancho San Diego area of San Diego County. The western RP boundary for the Project is 1.2 miles northeast of the bridge on State Route 94, where the highway crosses the Sweetwater River. The eastern Project boundary is approximately 6.5 miles west, southwest of the Loveland Reservoir dam. The Project site is surrounded by open space, undeveloped areas, a golf course, and residential areas.

The Project site is currently utilized by the Cottonwood Golf Club for two permitted 18-hole golf courses. Currently, one of the golf courses is not in operation and all golf operations will end prior to initiating onsite project activities. The topography of the Project site is generally flat with an overall gentle slope to the west. The Sweetwater River extends in a general east-west direction and consists of a low-flow channel and the associated floodplain. Surface water on site is ephemeral and only present during precipitation events or water releases from the Loveland Reservoir.

The property supports 14 vegetation communities/habitat types: disturbed wetland, freshwater marsh, southern cottonwood-willow riparian forest (including disturbed), southern willow scrub (including disturbed), tamarisk scrub, arundo-dominated riparian, open water, Diegan coastal sage scrub (including disturbed), man-made pond, eucalyptus woodland, non-native woodland, non-native vegetation, disturbed habitat, and developed lands.

2.0 Vector Management

Vector sources occur where site conditions provide habitat suitable for breeding. These can include any source of standing water, including wetlands, irrigation ponds, detention basins and infiltration basins. A standard requirement for projects of this type is the incorporation of measures, or Best Management Practices (BMPs), to reduce the health risks and nuisance factors associated with the vectors which can result from the standing, stagnant water, and water detention systems (County of San Diego 2007).

This vector management plan is necessary to address collection of water within Sweetwater River, the proposed mining areas, and the process settling ponds. Surface water within the Sweetwater River is ephemeral and only present during precipitation events or water releases from the Loveland Reservoir. At times, groundwater may collect in the mining areas. Therefore, these areas will need to be monitored and managed to achieve proper vector management. This type of management is described in the conditions listed below. The project will also operate under an approved Industrial Storm Water Pollution Prevention Plan (SWPPP).

2.1 Management Practices

2.1.1 Mosquitoes

Mining Areas

During a recent geologic investigation of the property, groundwater levels were encountered from 5 to 18 feet below surface grade. Because the property is situated in a drainage area, groundwater elevation is expected to fluctuate between dry and rainy periods from year to year. A pond may develop if the mining reaches the groundwater elevation. The mining areas will be limited to 5 acres in size at any time. This will be accomplished by backfilling mined areas with wash fines and overburden prior to expanding the mining area size. Within the mining area, eight existing ponds on the two golf courses will be removed.

Extraction and reclamation will be an active, ongoing process which will prevent invasive or exotic vegetation, vegetation overgrowth and vandalism. Trash and debris collection and removal will occur continuously by the site personnel.

Process Settling Ponds

The settling ponds will be used to recycle water used in the screening and washing process and will be under constant circulation during operation. These ponds will be used to protect surface water quality and to recycle the process water through the settling of wash fines most of which will settle in the first pond (referred to as the muck pond.) These ponds will also be used to collect local runoff which may be transporting earthen solids. These ponds will be cleaned occasionally by removing the sediment collected. During operation, the ponds will be maintained by the routine removal of vegetation, sediment, trash and debris.

Sweetwater River

The Sweetwater River flows through the project site entering at the northeastern site boundary, traveling in a southwesterly direction, and exiting at the southwestern site boundary. Water is generally absent from the streambed throughout most of the year and surface water on site is ephemeral and only present during precipitation events or water releases from the Loveland Reservoir. The streambed is generally unvegetated and subject to maintenance activities, such as mowing.

Water in the Sweetwater River may occur during periods of high intensity rain and local runoff events. However, ponding in these events will be short term due to high infiltration rates of the streambed material.

Monitoring

The operator will control mosquito breeding using BMPs in accordance with requirements of the San Diego County DEHQ. Following is a list of conditions to ensure that water collected in the mining areas, process settling ponds, and Sweetwater River does not propagate the breeding of vectors.

The operator will implement an active management plan to control mosquitoes as described below:

1. As wash water is pumped to the process settling basins for use in material processing and dust control, excess water will be collected and allowed to infiltrate or return to process cycle after a short retention period. Two submersible pumps enclosed in a waterproof casing would feed and circulate the wash water. Water used in the washing operation would be continuously reused and recycled. Therefore, this water will be constantly circulating and will help to prevent propagation of vectors.
2. During the wet season (October through March) the mining areas, process settling ponds, and the streambed will be visually inspected monthly by the operations staff for the presence of vectors. If necessary, corrective measures will be initiated.

3. In the dry season (July through September) the mining areas, process settling ponds and the streambed will be visually inspected weekly by the operations staff for the presence of vectors.

Corrective Measures

If necessary, corrective measures described below will be initiated.

- The removal of emergent vegetation will occur when recommended by the DEHQ -VCP or when emergent vegetation (e.g., cattails, sedges, etc.) is in excess of 50% of the surface area.
- Emergent vegetation will be controlled by hand labor, mechanical means or by frequent clear cutting. Herbicides may be used as needed to control re-growth.
- Vegetation clearing is intended to prevent habitat for mosquito larvae and refuge from predation by predatory fish, if present.
- Removal of the vegetation by hand will be the preferred method in order to lessen the re-growth frequency and density.
- Eliminate floating vegetation conducive to mosquito production (i.e., water hyacinth [*Eichhornia* spp.], duckweed [*Lemna* and *Spirodela* spp.], and filamentous algal mats).
- Foot pathways will be maintained for surveillance and abatement methods. Sizing of pathways will be a minimum of 5 feet wide to allow access to any ponded area.

2.1.2 Rodents

The plant area will include a processing plant, a mobile modular unit used for the scale booth and a site office, and metal cargo containers to store tools or small equipment. The remaining golf course building structures, including the clubhouse and maintenance facility, will be demolished at the end of Phase 2 mining. These buildings and structures may attract rodents to the Project site. Good housekeeping practices will be followed such as:

- Place all trash and debris in trash bins.
- Cover/close all trash bins.
- Trash bins will be removed by a licensed refuse disposal company on a regular basis.

If evidence of rat activity is observed, the operator will utilize electric or snap traps to control the rodents. Dead rats will be placed in a plastic bag and disposed of in a trash container.

2.3 Education

Employees engaged in the operation and maintenance of the Cottonwood Sand Mining Project will be trained on how to control vectors. Training sessions will be held at least once per year for all staff. The training shall cover all of the MUP and RP conditions set forth to avoid and/or discourage vector breeding including:

- Chemical and vegetation removal procedures for non-wetland standing water.
- Biological controls and vegetation maintenance for wetland waters.
- Inspection and maintenance procedures for any open water source.
- Routine inspection and maintenance of storm water basin BMPs, if necessary.

3.0 Long-Term Maintenance

Ongoing maintenance shall include monitoring of the mining areas, process settling ponds and the river for the existence of vector conditions. Appropriate measures approved by the DEHQ-VCP will be utilized. Maintenance shall continue until reclamation has been completed and approved.

4.0 SUMMARY OF MEASURES TO MINIMIZE VECTORS

Following is a summary of the management practices that the project will implement to minimize vectors:

- Circulate water in settling ponds constantly.
- During the wet season (October through March), visually inspect the mining areas, process settling ponds and the streambed for the presence of vectors monthly. Implement corrective measures if needed.
- During the dry season (July through September) visually inspect the mining areas, process settling ponds and the streambed weekly for the presence of vectors. Implement corrective measures if needed.
- Remove emergent vegetation when recommended by the DEHQ-VCP or when emergent vegetation (e.g., cattails, sedges, etc.) is in excess of 50% of a water surface area.
- Utilize chemical controls under the advice of DEHQ.
- Collect and place all trash and debris in trash bins.
- Cover/close all trash bins.

- Trash bins will be removed by a licensed refuse disposal company on a regular basis.

5.0 REFERENCES

County of San Diego. 2007. Guidelines for Determining Significance – Vectors, July 30.

6.0 LIST OF PERSONS AND ORGANIZATIONS CONTACTED

Greg Slawson, Senior Vector Ecologist, San Diego County Department of Environmental Health and Quality Vector Control Program.

7.0 SIGNATURES

The measures identified herein are considered part of the proposed project design and will be carried out as part of project implementation. I understand the breeding of mosquitoes is unlawful under the State of California Health and Safety Code Section 2060-2067. I will permit the County of San Diego, Vector Surveillance and Control program to place adult mosquito monitors and to enforce this document as needed.

Property Owner _____

Project Applicant _____

Greg Slawson, DEHQ VCP _____