

# **MITIGATION MONITORING AND REPORTING PROGRAM FOR THE RELOOC STRATEGIC PLAN-OLINDA ALPHA LANDFILL IMPLEMENTATION**

## **1.0 INTRODUCTION**

The California Environmental Quality Act (CEQA) requires a lead or public agency that approves or carries out a project for which an environmental impact report has been certified which identifies one or more significant adverse environmental effects and where findings with respect to changes or alterations in the project have been made, to adopt a "...reporting or monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment" (CEQA, Public Resources Code Sections 21081, 21081.6). A Mitigation Monitoring and Reporting Program (MMRP) is required to ensure that adopted mitigation measures are successfully implemented for the Regional Landfill Options for Orange County (RELOOC) Strategic Plan-Olinda Alpha Landfill Implementation Project. The County of Orange is the Lead Agency for the proposed project and is responsible for implementation of the MMRP. This report describes the MMRP for the project and identifies the departments in the County of Orange that will be responsible for monitoring implementation of the individual mitigation measures in the MMRP.

## **2.0 MITIGATION MONITORING AND REPORTING PROGRAM**

The MMRP for the project will be active through all phases of the project, including design, construction, and operation. The project will be developed in phases and may include permits required for implementation of project components. There are mitigation measures that must be continuously implemented throughout the development and operation of the project.

The attached table identifies the mitigation program required to be implemented by the respective County departments for the RELOOC Strategic Plan-Olinda Alpha Landfill Implementation Project. The table identifies those mitigation measures required by the IWMD to mitigate or avoid significant adverse impacts associated with the implementation of the project, the timing of implementation, and the individual responsible for monitoring compliance. The MMRP also includes columns that will be used by the compliance monitor to document when implementation of the measure is completed. As individual mitigation measures are completed, the compliance monitor will sign and date the MMRP, indicating that the required mitigation measure has been completed for the subject period. The compliance monitor will also note the documentation (title of the monitoring report) that was submitted for each mitigation measure.

**RELOOC STRATEGIC PLAN – OLINDA ALPHA LANDFILL IMPLEMENTATION (EIR 588)**

**MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)**

Mitigation Measure	Implementing Action	Method of Verification	Timing of Verification	Responsible Person	Date Completed
<b>Land Use and Planning</b>					
<b>Measure LU-1</b> Prior to acquiring revised landfill permits and finalization of design plans for the project, the County of Orange and the City of Brea will renegotiate the details of the Memorandum of Understanding (MOU) to allow the disposal of municipal solid waste (MSW) over a longer period of time. Under the proposed project, closure would be extended to approximately 2021 based on increasing the site's air space capacity and increased operational efficiencies, current population projections and existing disposal technologies.	Approval of MOU by both government jurisdictions	Minutes of the OC Board of Supervisors	Prior to acquiring permits and approval of final design plans	Director, IWMD or designee	
<b>Geology and Soils</b>					
<b>Measure G-1</b> Prior to construction of the lateral expansion area, additional geologic data will be obtained and subsequent slope stability analyses will be conducted to verify assumptions made for the stability analysis included in Appendix L in the Final Environmental Impact Report (FEIR).	Acceptance of valid additional geologic data	Confirmation of assumptions in Appendix L	Prior to construction of lateral expansion	IWMD/Deputy Director, Olinda Alpha Landfill	

Mitigation Measure	Implementing Action	Method of Verification	Timing of Verification	Responsible Person	Date Completed
<b>Measure G-2</b> Geologic mapping will be conducted during construction to identify any changes in geologic structure that may impact the stability analysis conducted for the lateral expansion design.	Acceptance of valid geologic mapping	Review of map for changes in geologic structure	Prior to construction of lateral expansion	IWMD/Deputy Director, Olinda Alpha Landfill	
<b>Measure HW-1</b> A composite liner or an alternative to the prescriptive composite liner and leachate collection and recovery system (LCRS) will be placed in the lateral expansion area to intercept and collect leachate for disposal off-site or use as dust control, as approved by the Regional Water Quality Control Board-Santa Ana (RWQCB-SA). A subdrain system will be installed, as necessary, to intercept seeps below the liner. The prescriptive or alternative liner, LCRS and subdrain will be approved by the RWQCB-SA and comply with federal and state requirements (27 CCR).	Approval of liner design, LCRS design, and use of leachate management by RWQCB-SA	Inspection of installation of liner, LCRS, and leachate management by RWQCB-SA	Prior to construction of lateral expansion	IWMD/Deputy Director, Olinda Alpha Landfill	
<b>Measure HW-2</b> The site will continue to comply with the site's Waste Discharge Requirements (WDRs) and Monitoring and Reporting Program requirements imposed by the RWQCB-SA for the protection of water quality.	Issuance of WDRs by RWQCB-SA	Inspection of site by RWQCB-SA	Following continuation of landfill operation in year 2014	IWMD/Deputy Director, Olinda Alpha Landfill	
<b>Measure HW-3</b> The Corrective Action System in place at the landfill will continue operating during the extended landfill operations if detections of volatile organic compounds (VOCs) in	Acceptance of JTD by LEA	Inspection of site by LEA	Following continuation of landfill operation in 2014	IWMD/Deputy Director, Olinda Alpha Landfill	

Mitigation Measure	Implementing Action	Method of Verification	Timing of Verification	Responsible Person	Date Completed
groundwater continue.					
Surface Water Hydrology					
<b>Measure H-1</b>	Acceptance of JTD by LEA/RWQCB-SA	Inspection of site by LEA and RWQCB-SA	Following continuation of landfill operation in 2014	IWMD/Deputy Director, Olinda Alpha Landfill	
As part of a Joint Technical Document (JTD) to be prepared by IWMD in support of a revised Solid Waste Facility Permit (SWFP) and WDRs for the proposed expansion, the IWMD shall present the assumptions, methods and calculations used to calculate the potential flow quantities for run-on, run-off and sediment content of storm water flow used in sizing drainage and sediment control facilities for Olinda Alpha Landfill in conformance with 27 CCR regulations.					
<b>Measure H-2</b>	Acceptance of JTD by LEA/RWQCB-SA	Inspection of site by LEA and RWQCB-SA	Following continuation of landfill operation in 2014	IWMD/Deputy Director, Olinda Alpha Landfill	
As part of a JTD to be prepared by IWMD in support of a revised SWFP and WDRs for the expansion, the IWMD shall include surface drainage plans for Olinda Alpha Landfill expansion final grading plans, including any berms, down drain systems, perimeter drainage channel improvements and the location of off-site discharge points for run-off water in compliance with 27 CCR regulations.					
<b>Measure H-3</b>	Acceptance of JTD by LEA/RWQCB-SA	Inspection of site by LEA and RWQCB-SA	Following continuation of landfill operation in 2014	IWMD/Deputy Director, Olinda Alpha Landfill	
Diversion and drainage facilities shall be evaluated, designed, constructed and operated to accommodate the anticipated volume of precipitation and peak flows from surface runoff under the precipitation conditions specified in Title 27 of the CCR. Drainage facilities for the landfill expansion shall be designed to					

Mitigation Measure	Implementing Action	Method of Verification	Timing of Verification	Responsible Person	Date Completed
prevent washout of the waste management unit during a 100-year storm event.					
<b>Measure H-4</b> The landfill (including the expansion area) will continue to operate under a National Pollutant Discharge Elimination System (NPDES) Permit to discharge storm flows. The criteria and restrictions of the NPDES Permit and the Storm Water Pollution Protection Plan (SWPPP) and Best Management Practices (BMPs) that accompany the NPDES Permit will be adhered to.	Issuance of NPDES permit by the RWQCB-SA	Inspection of site by RWQCB-SA	Following continuation of landfill operation in 2014	IWM/D/Deputy Director, Olinda Alpha Landfill	
<b>Measure H-5</b> Positive drainage will be ensured in the expansion area by maintaining a two to three percent slope on all landfill deck surfaces.	Acceptance of JTD by LEA/RWQCB-SA	Inspection of site by LEA/RWQCB-SA	Following continuation of landfill operation in 2014	IWM/D/Deputy Director, Olinda Alpha Landfill	
<b>Measure H-6</b> During all landfilling operations in the expansion area, sediment and erosion control plans will continue to be prepared and implemented on an annual basis to reduce sediment and control erosion on the landfill site.	Issuance of NPDES permit by the RWQCB-SA	Inspection of site by RWQCB-SA	Following continuation of landfill operation in 2014	IWM/D/Deputy Director, Olinda Alpha Landfill	
<b>Transportation and Circulation</b>					
<b>Measure T-1</b> Imperial Highway at Valencia Avenue. IWM will contribute a 9.2 percent fair share of the cost to modify the southbound Valencia Avenue approach at Imperial Highway. The fair share allocation is a standard County	Approval and fee authorization by the OC Board of Supervisors	Minutes of the OC Board of Supervisors	Prior to approval of final plans and specifications for the landfill expansion by	Director, IWM or designee	

Mitigation Measure	Implementing Action	Method of Verification	Timing of Verification	Responsible Person	Date Completed
RDMD guideline for intersections operating at a Level of Service (LOS) E without a project and LOS F with a project as the LOS is unacceptable. Under both scenarios, IWMD will contribute its fair share to the incremental impact to the southbound Valencia Avenue approach at Imperial Highway which would change that LOS E to LOS F (Refer to Appendix F-9 in the FEIR for supporting calculation sheets).	The proposed modifications include one additional southbound left turn lane and re-configuration of the rest of the southbound lanes (i.e. one through and one right turn lane) to one through lane and one optional through/right lane. This measure can be accomplished with re-striping only and with no additional street widening.	the BOS			
This improvement will result in an intersection capacity utilization (ICU) of 0.836 (LOS D) with mitigation compared to an ICU of 0.981 (LOS E) without mitigation.					
<b>Measure T-2</b> <u>Imperial Highway and Kraemer Boulevard.</u> IWMD will contribute a 100 percent fair share to the cost to modify the eastbound Imperial Highway approach at Kraemer Boulevard. The 100 percent fair share allocation is a standard County RDMD guideline for intersections operating at a LOS D without a	Approval and fee authorization by the OC Board of Supervisors	Minutes of the OC Board of Supervisors	Prior to approval of final plans and specifications for the landfill expansion by the BOS	Director, IWMD or designee	

Mitigation Measure	Implementing Action	Method of Verification	Timing of Verification	Responsible Person	Date Completed
project (an acceptable LOS) and LOS E with a project (an unacceptable LOS). Since the projected traffic associated with the Olinda Alpha Landfill expansion project, on its own, would cause the LOS D at the Imperial Highway and Kraemer Boulevard intersection to operate at LOS E, IWMD will contribute 100 percent of the cost to improve the LOS to an acceptable LOS D.					
The proposed modifications are to provide an eastbound right turn only lane. This mitigation measure requires widening on the south side, relocation of street light poles and other street furniture.	Air Quality	Approval of final plans and specifications for the landfill expansion by the BOS	Inclusion of dust suppression techniques in the specifications for the project	IWMD/Deputy Director, Olinda Alpha Landfill	Prior to approval of final plans and specifications for the landfill expansion by the BOS

**Measure AQ-1**

Applicable dust suppression techniques from Rule 403 are summarized below. Additional dust suppression measures in the South Coast Air Quality Management District (SCAQMD) California Environmental Quality Act (CEQA) Air Quality Handbook are also included as part of the project's mitigation. Implementation of these dust suppression techniques will reduce the fugitive dust generation (and thus the PM<sub>10</sub> component). Compliance with these rules will reduce impacts on nearby sensitive receptors.

Applicable Rule 403 measures:

Mitigation Measure	Implementing Action	Method of Verification	Timing of Verification	Responsible Person	Date Completed
<p>a. Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).</p> <p>b. Water active sites at least twice daily. (Locations where grading is to occur will be thoroughly watered prior to earth moving).</p> <p>c. All trucks hauling dirt, sand, soil, or other loose materials are to be covered, or should maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) section 23114 (freeboard means vertical space between the top of the load and top of the trailer).</p> <p>d. Pave construction access roads at least 100 feet onto the site from main road.</p> <p>e. Traffic speeds on all unpaved roads shall be reduced to 15 miles per hour (ph) or less.</p>					
<p><i>Additional SCAQMD CEQA Air Quality Handbook dust measures:</i></p> <p>a. Revegetate disturbed areas as quickly as possible.</p> <p>b. All excavating and grading operations shall be suspended when wind speeds (as instantaneous gusts) exceed 25 mph and dust plumes are visible.</p> <p>c. All on-site streets shall be swept once a day if visible soil materials are carried to adjacent streets (recommend water sweepers with reclaimed water). Install wheel washers where vehicles enter and exit unpaved roads onto paved roads, or wash trucks and any equipment leaving the site each trip.</p>				IWMD/Deputy Director, Olinda Alpha Landfill	
<b>Measure AQ-2</b> Dust generated by the construction activities shall be retained on-site and kept to a minimum by following the dust control	Approval of final plans and specifications for the landfill	Inclusion of dust suppression techniques in	Prior to approval of final plans and specifications	IWMD/Deputy Director, Olinda Alpha Landfill	

Mitigation Measure	Implementing Action	Method of Verification	Timing of Verification for the landfill expansion by the BOS	Responsible Person	Date Completed
measures listed below.	<p>a. During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems shall be used to prevent dust from leaving the site and to create a crust after each day's activities cease.</p> <p>b. During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas in the late morning and after work is completed for the day and whenever wind exceeds 15 mph.</p> <p>c. During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas in the late morning and after work is completed for the day and whenever wind exceeds 15 mph.</p> <p>d. Soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation.</p> <p>e. Trucks transporting soil, sand, cut or fill materials, and/or construction debris to or from the site shall be tarped or maintain 6 inches of freeboard from the point of origin.</p>	expansion by the BOS	the specifications for the project		

Mitigation Measure	Implementing Action	Method of Verification	Timing of Verification	Responsible Person	Date Completed
Noise					
<b>Measure N-1</b> During all project site excavation and grading, the project contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.	Approval of final plans and specifications for the landfill expansion by the BOS	Inclusion of noise suppression measures in the specifications for the project	Prior to approval of final plans and specifications for the landfill expansion by the BOS	IWMD/Deputy Director, Olinda Alpha Landfill	
<b>Measure N-2</b> The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the active construction areas.	Approval of final plans and specifications for the landfill expansion by the BOS	Inclusion of noise suppression measures in the specifications for the project	Prior to approval of final plans and specifications for the landfill expansion by the BOS	IWMD/Deputy Director, Olinda Alpha Landfill	
<b>Measure N-3</b> The construction contractor shall locate equipment staging in areas to result in the greatest distance between construction related noise sources and noise sensitive receptors nearest the active construction areas during all project construction.	Approval of final plans and specifications for the landfill expansion by the BOS	Inclusion of noise suppression measures in the specifications for the project	Prior to approval of final plans and specifications for the landfill expansion by the BOS	IWMD/Deputy Director, Olinda Alpha Landfill	
<b>Measure N-4</b> The construction contractor shall restrict all construction-related activities that would result in high noise levels between the hours of 8:00 PM and 7:00 AM on weekdays, including Saturday, or at any time on Sunday or a federal holiday.	Approval of final plans and specifications for the landfill expansion by the BOS	Inclusion of noise suppression measures in the specifications for the project	Prior to approval of final plans and specifications for the landfill expansion by the BOS	IWMD/Deputy Director, Olinda Alpha Landfill	
<b>Measure N-5</b>	Approval and	Minutes of the	Prior to	Director,	

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For residential units on Valencia Avenue north of Carbon Canyon Road which are approved prior to any approval of an expansion at Olinda Alpha Landfill, which are constructed and occupied before 2013 and which would be impacted by 65 dBA CNEL or higher traffic noise, the County of Orange IWMD will contribute a fair share to a road noise reduction program for these residences, if such a program is implemented by the City of Brea. This program could potentially implement a variety of road noise reduction measures, which may include reduction in road speeds on the segment of Valencia Avenue north of Carbon Canyon Road, construction of sound walls adjacent to the affected residences and/or installation of rubberized asphalt concrete on Valencia Avenue north of Carbon Canyon Road.	fee authorization by the OC Board of Supervisors	OC Board of Supervisors	approval of final plans and specifications for the landfill expansion by the BOS	IWMD or designee	
<b>Aesthetics</b>				IWMD/Deputy Director, Olinda Alpha Landfill	
<b>Measure AS-1</b> The existing Olinda Alpha Landfill Landscape Master Plan (LMP) that was developed in concert with IWMD and the City of Brea Citizens Advisory Committee in 1994 to address minimization of interim and permanent visual impacts will be revised to include the proposed vertical and horizontal expansion. The current seed mixes in the LMP will be identified for use on the appropriate areas of the expansion. The revised LMP will execute the original goal of	For Final (Closure) Plan, Acceptance of JTD by LEA.	For Final (Closure) Plan, inspection of the site by LEA.	Prior to approval of final plans and specifications for the landfill expansion by the BOS	IWMD/Deputy Director, Olinda Alpha Landfill	

Mitigation Measure	Implementing Action	Method of Verification	Timing of Verification	Responsible Person	Date Completed
blending the landfill property with the adjacent native open space area. The revised plan will be approved by IWMD and the City of Brea and will be included in the Closure Plan for the site as part of the SWFP and WDR revision application.	The phased interim landscape plan included as part of the LMP will be revised to continue visual screening of the landfill operations and facilities for the expansion and to assist in blending the manufactured slopes with surrounding open space prior to landfill closure.				
<b>Measure AS-2</b>	All outdoor lighting, including any construction-related lighting, shall be designed, installed and operated in a manner that ensures that all direct rays from project lighting are contained within the landfill property, and that residences and undeveloped areas that may provide wildlife value are protected from spillover light and glare.	Approval of final plans and specifications for the landfill expansion or other landfill building construction by the BOS	Inclusion of light and glare suppression measures in the specifications for all landfill projects	Prior to approval of final plans and specifications by the BOS	IWMD/Deputy Director, Olinda Alpha Landfill
<b>Cultural and Scientific Resources</b>					
<b>Measure C-1</b>	The construction bid package, related construction and design plans, and specifications shall require that if buried cultural material is encountered during project construction, the County's construction contractor shall immediately stop work in the area. Work shall be halted until the County	Approval of final plans and specifications for the landfill expansion by the BOS	Inclusion of archaeological resource protection measures in the specifications for the landfill expansion by the BOS	Prior to approval of final plans and specifications for the landfill expansion by the BOS	IWMD/Deputy Director, Olinda Alpha Landfill

Mitigation Measure	Implementing Action	Method of Verification	Timing of Verification	Responsible Person	Date Completed
If retain a qualified archaeologist, and the nature and significance of the find are determined. If significant archaeological material is found, it shall be salvaged and collected in compliance with all applicable regulations and sent to a designated museum.					
<b>Measure C-2</b> If human remains are encountered during project construction, the County's construction contractor shall immediately stop work in the area. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.	Approval of final plans and specifications for the landfill expansion by the BOS	Inclusion of human remains protection measures in the specifications for the project	Prior to approval of final plans and specifications for the landfill expansion by the BOS	IWMD/Deputy Director, Olinda Alpha Landfill	
<b>Measure C-3</b> A Paleontological Resources Impact Mitigation Program (PRIMP) will be implemented. The PRIMP shall include, but not be limited to, the following: paleontological monitoring, preparation of any collected specimens to the point of	Approval of contract with a paleontological resource firm	Inclusion of a PRIMP in the contract with the paleontological resource firm	Prior to approval of the contract with a paleontological resource firm by the BOS	IWMD/Deputy Director, Olinda Alpha Landfill	

Mitigation Measure	Implementing Action	Method of Verification	Timing of Verification	Responsible Person	Date Completed
identification, curation of specimens to a museum or similar institution and preparation of a mitigation report documenting any findings.					
<b>Hazards</b>					
No mitigation is required					
<b>Public Services</b>					
No mitigation is required					
<b>Biological Resources</b>					
<b>Measure B-1</b>	Approval of a MMRP for the mitigation of biological resources by the CDFG	Approval of a successful and self-sustaining replacement oak population by the CDFG	Prior to removal of the 1.3 acres of coast live oak	IWMD/Deputy Director, Olinda Alpha Landfill	
Prior to the removal of the 1.3 acres of coast live oak, IWMD shall prepare and submit a Mitigation Monitoring and Reporting Program (MMRP) to the California Department of Fish and Game (CDFG) for review and approval. In accordance with an approved MMRP, IWMD will replace the 1.3 acres of coast live oak woodland at a 1:1 ratio (or as otherwise approved by the CDFG). The location of coast live oak plantings on the landfill will be determined in consultation with CDFG and a qualified ecologist. However, if the ultimate location of these replacement oaks are within the disposal area of the landfill, the RWQCB-SA will need to approve the plan to ensure that the tree root system does not compromise landfill operations and/or closure (final cover) requirements.					
<b>Measure B-2</b>	Approval of a CSSMP for the mitigation of coastal biological	Approval of a successful and self-sustaining CSS habitat by	Prior to removal of the 4.0 acres of CSS and the 10.4 acres of cut/slope revegetation, IWMD shall prepare and submit a Coastal	IWMD/Deputy Director, Olinda Alpha Landfill	

Mitigation Measure	Implementing Action	Method of Verification	Timing of Verification	Responsible Person	Date Completed
Sage Scrub Mitigation Plan (CSSMP), to the CDFG for review and approval. In accordance with an approved CSSMP, the IWMD will replace the 4.0 acres of CSS and the 10.4 acres of cut/slope revegetation, which provide marginally suitable habitat for the California gnatcatcher, at a 1:1 ratio (or as otherwise approved by the CDFG). Guidelines for the CSSMP are:	resources by the CDFG	the CDFG	10.4 acres of cut/slope revegetation		

- The mitigation areas/sites shall have been evaluated and selected on the basis of their suitability for use as coastal sage scrub revegetation areas. The parameters evaluated shall include but not be limited to soil conditions, slope aspect, proximity to adjacent coastal sage scrub, level of difficulty of site preparation, and ownership status.
- The mitigation plan shall provide procedures to prepare the soils in the mitigation area, provide detailed seeding/planting mixtures, provide seeding/planting methods and provide any other procedures that will be used for successful revegetation.
- Maintenance and monitoring goals shall be established.