

Section 3

THE PROGRAM

I. GEOLOGY

A. Mitigation Measure:

Use compacted materials capable of supporting the weight of construction vehicles and stockpiled rock in the construction of the temporary ramp at the western staging area to the beach.

Impact to be Mitigated:

Potential for significant mass movement of the fill material due to loads imposed by rock storage and truck traffic.

Monitoring Requirements:

A geotechnical analysis including a field investigation, laboratory testing program, and engineering analysis shall be performed to determine the stability of the proposed staging area under the anticipated traffic and loading conditions.

The ramp shall be tested by SLC or an SLC designated monitor after completion, prior to the start of construction activities to ensure that the ramp can support anticipated loading weights.

Timing:

Initial geotechnical investigation of the western staging area shall be performed before final approval of engineering designs for the western staging area and ramp.

All required tests and investigations including post-completion tests of ramp construction shall be completed and fully analyzed prior to start of construction.

**Compliance Standards:**

The geotechnical analysis shall be performed before final approval of ramp design for the western staging area and before construction of the ramp begins. Neither the ramp nor the staging area may be used until all required analyses have been completed. A final geotechnical and engineering study design shall be submitted to the SLC or SLC designated monitor for review and approval at least 45 days prior to commencement of construction.

The study plan, field investigation shall include, at a minimum, the drilling of borings, performance of Standard Penetration Tests, and the retrieval of relatively undisturbed samples for laboratory testing.

The study plan, laboratory program shall include, at a minimum, direct shear or triaxial testing (as appropriate) to develop strength parameters, consolidation testing to evaluate compressibility characteristics, testing to evaluate index properties (moisture, density, grain size distribution, etc.), and compaction testing to evaluate roadway properties.

The study plan, engineering analyses shall focus on bearing capacity and settlement, slope stability, liquefaction potential (if needed) and pavement/roadway characteristics of the materials.

No vehicles exceeding the determined loading capacity of the ramp will be allowed to enter the western staging area.

**B. Mitigation Measure:**

Temporary placement of armor rock, or other impervious material along the base of the seaward portion of the ramp at the western staging area.

**Impact to be Mitigated:**

Increase in sedimentation and turbidity in nearshore waters due to wave erosion of temporary ramp at west staging area during high tide.

**Timing:**

Impervious material shall be in place prior to the start of project construction.

**Compliance  
Standards:**

The base of the temporary ramp shall be covered by an impervious material to at least 2 ft above the high water mark before construction from the western staging area is started.

## II. COASTAL PROCESSES

### A. Mitigation Measure:

Sand shall be added to the foreshore area of Topanga State Beach (estimated 4,000 - 6,000 cy per year) in the event downcoast erosion is exacerbated by the emplacement of the proposed groin field. Replenishment would be repeated as necessary. Replenishment of sand at Topanga State Beach shall be the responsibility of the State and not the Applicant.

### Impact to be Mitigated:

Potential erosion at downcoast beaches.

### Monitoring Requirements:

A beach profiling program shall be implemented to monitor the effect of the proposed groin field on other downcoast beaches in the Santa Monica littoral cell. The applicant shall submit a beach monitoring plan for the review and approval of the SLC at least 60 days prior to the commencement of construction. Such a plan shall incorporate the following:

1. Beach profiles shall be measured perpendicular to the shoreline from a permanent baseline, located on the backshore out to a specified water depth; profile data shall be surveyed at multiple times each year for five years. Multiple inter-annual and intra-annual surveys will be necessary to permit the separation of project effects from (1) normal seasonal variability in beach width, and (2) longer-term phenomenon (particularly El Nino-Southern Oscillation events) that recur with relatively low frequency.
2. In addition to the survey lines downcoast of the groin project, several beach profiles shall be surveyed upcoast of the groin field (to the west) to ascertain whether changes observed at Las Tunas Beach and to the east are coincident with regional changes that might be caused by factors other than interruption of littoral transport by the groin field.

**Timing:**

3. The spacing, length, depth, timing, and frequency of profiles, and total duration of the monitoring program, as well as the analysis and reporting requirements, shall be established after careful consideration of the scientific and engineering goals of the program. These goals shall be determined in conjunction with appropriate regulatory agencies, and approved by the SLC prior to commencement of the monitoring.
4. The monitoring program shall be continued for a specified period of time (5 years minimum), after completion of project construction, during which time interim reports describing measured changes in beach width shall be prepared; at the end of the initial multi-year study period, all data would be compiled and reviewed, and the monitoring program curtailed, modified, or continued as necessary. The monitoring program shall be continued if it is determined by the SLC that the downcoast beaches have eroded as a consequence of this project.

**Compliance Standards:**

5. If beach profiling data reveal the presence of any downcoast erosion as a result of the installation of the groin field at Las Tunas Beach, replenishment with compatible sand, proportional to volume lost, shall occur upcoast of the location(s) where loss of sand has occurred. Such replenishment at Topanga State Beach shall be done at the expense of the State.

**B. Mitigation Measure:**

An artificial beach fill fillet of approximately 2,000 - 3,000 cubic yards (cy) shall be placed immediately east of the eastern-most groin prior to construction.

**Impact to be Mitigated:**

Downcoast erosion during the construction period.

**Monitoring Requirements:**

A site visit shall be made at the start of project construction by an SLC or SLC-designated monitor to ensure that the beach fill has been placed at the designated location. Measurements shall verify that the approved volume of material has been added.

**Timing:**

The approved volume of beach fill material shall be in place prior to the start of project construction.

**Compliance Standards:**

2,000 - 3,000 cy of compatible material, per ACOE guidelines, shall be placed at the designated location before construction is started.

### **III. BIOLOGICAL RESOURCES**

**A. Mitigation Measure:**

Avoid or replace rocky habitat or surfgrass by replacement of existing rocky habitats and/or surfgrass, depending on extent and location of surfgrass and rocky habitat within the project area and the extent lost from groin installation.

**Impact to be Mitigated:**

The significant loss of nearshore surfgrass and rocky substrate.

**Monitoring Requirements:**

A surfgrass surveying program shall be developed to verify the extent of surfgrass and rocky habitat within the project area prior to construction and the degree of surfgrass and rocky habitat loss resulting from installation of the proposed groin field. The Applicant shall submit such program to the SLC for review and approval at least 60 days prior to the commencement of construction.

The survey program shall include at minimum: a) one pre-construction areal extent survey to verify the total area and location of surfgrass in the project area, and b) a post-construction survey to determine the actual extent of surfgrass lost as a result of the project. Surveyed areas shall include the area offshore the project in order to determine the extent of surfgrass in

water deeper than groin/sand placement. Recovery of surfgrass to 50% of pre-construction conditions 2 years after construction shall be the criterion for determining whether additional habitat replacement is required.

**Timing:**

Pre-construction surveys shall be conducted just prior to initiation of construction.

The post-construction survey shall begin immediately following completion of construction.

The Applicant shall also submit to the SLC, for review and approval, at least 60 days prior to commencement of construction, a plan for rocky habitat and/or surfgrass replacement. Such plan shall specify how rocky habitat and surfgrass will be replaced onsite or offsite if no suitable location for replacement habitat onsite can be found. Such plan shall also propose and discuss the methods which will be used to restore the habitats and alternatives for restoring habitats if the proposed methods are not successful. The restoration plan shall be implemented immediately upon completion of the analysis of post-construction surveys and after the two year period allowed for recovery. The cost of habitat restoration, exclusive of surveys and plans, shall not exceed \$50,000.

**Compliance Standards:**

Both surveys shall be conducted within the designated time frame. Replacement of rocky habitat and/or surfgrass, if required as a result of post-construction survey results, shall be implemented as approved or recommended by the SLC.

**IV. NOISE**

**A. Mitigation Measure:**

The idling of vehicles during periods of inactivity shall be limited to a maximum of 10 minutes.

**Impact to be Mitigated:**

Noise emissions associated with construction activities.

**Monitoring Requirements:**

An SLC or SLC-designated site monitor shall time the duration of idling by construction vehicles at least twice daily throughout the construction period to ensure that excessive idling does not occur.

**Compliance Standards:**

Construction vehicles shall not remain idling for a period longer than 10 minutes.

**B. Mitigation Measure:**

Make certain that construction vehicles stay as far seaward as possible when traversing the beach.

**Impact to be Mitigated:**

Proximity of construction activity to sensitive receptors.

**Monitoring Requirements:**

An SLC or SLC-designated site monitor shall observe the daily movement of construction vehicles along the beach to ensure that trucks traverse the beach as far from residences as possible.

**Timing:**

At all times throughout the construction phase.

**Compliance Standards:**

Trucks shall traverse the beach just above the water line.

**C. Mitigation Measure:**

Minimize the number of trucks on the beach itself by holding trucks in upper access area until space is available to unload material at the beach.

**Impact to be Mitigated:**

Proximity of idling trucks to sensitive receptors.

**Monitoring Requirements:**

An SLC or SLC-designated site monitor shall observe truck activity at the beach to document the absence of idling trucks on the beach.

**Timing:**

At all times throughout construction.

**Compliance Standards:**

Trucks shall not proceed down to the waterfront from the access area until adequate space for immediate unloading is available at the beach. At no time shall a truck be idling on the beach unless it is engaged in the unloading of material.

**D. Mitigation Measure:**

High performance mufflers shall be used on all vehicles entering the project site.

**Impact to be Mitigated:**

The level of noise emission during project construction.

**Monitoring Requirements:**

An SLC or SLC-designated site monitor shall inspect arriving trucks to verify utilization of high performance mufflers on all vehicles entering the project site.

**Timing:**

At all times throughout construction.

**Compliance Standards:**

No vehicle which is not equipped with a high performance muffler shall enter the project site.

**E. Mitigation Measure:**

The eastern staging area shall be located as far to the east as possible.

**Impact to be Mitigated:**

Proximity of construction activity to sensitive receptors.

**Monitoring Requirements:**

The eastern staging area shall be inspected just prior to the start of construction by an SLC or SLC-designated site monitor to ensure that the staging area is located as far east as possible and that the area is fenced off or otherwise clearly marked. Subsequent verification of continued compliance shall occur during monthly site visits during the 20 weeks of construction.

**Timing:**

During project construction.

Compliance Standards:

The area required for the eastern staging area shall be a fenced-off area located in the easternmost portion of the available area.

#### IV. RECREATION

A. Mitigation Measure:

Schedule project construction for "off-season", i.e. after October 1.

Impact to be Mitigated:

Interference with recreational opportunities.

Monitoring Requirements:

An SLC or SLC designated monitor shall visit the site on the first day of construction.

Timing:

The start of project construction.

Compliance Standards:

Construction shall not be started prior to October 1, of any year.

B. Mitigation Measure:

Utilize minimal portions of available state beaches for staging areas.

Impact to be Mitigated:

Reduction in beach area available for recreational usage and damage to recreational facilities.

Monitoring Requirements:

A site visit shall be conducted by an SLC or SLC-designated monitor on the first day of construction to ensure that usable areas are fenced or clearly marked and that all equipment is stored within these boundaries. Follow-up site visits, conducted monthly, shall verify continued compliance. A final site visit shall be conducted upon completion of construction to investigate areas used for, or damaged by, construction activities and ensure their return to pre-construction condition.

Timing:

Throughout project construction.

Compliance Standards:

Allowable staging areas shall be marked or fenced off and clearly visible to all construction personnel. Equipment and materials shall not be stored outside the designated staging area. All areas used for, or damaged by construction activity shall be returned to their pre-construction condition.

**VI. VISUAL RESOURCES**

A. Mitigation Measure:

Decrease truck arrivals and move vehicles quickly into staging areas from access areas (see Traffic Mitigation Measures).

Impact to be Mitigated:

Preclusion of viewsheds from the highway during construction.

Monitoring Requirements:

An SLC or SLC-designated site monitor shall observe truck arrivals at staging areas to verify that no more than 4 vehicles are present in staging areas at any time.

Timing:

Throughout project construction.

Compliance Standards:

Not more than 4 trucks shall be visible at either staging area at any one time.

**VII. HEALTH AND SAFETY**

A. Mitigation Measure:

Staging areas shall be fenced off to preclude public access.

Impact to be Mitigated:

Exposure of public to potential injury at staging area with stockpiled material and equipment.

**Monitoring Requirements:**

A site visit will be made by SLC or its designated monitor at the start of project construction. Monthly follow-up visits should verify continued compliance.

**Timing:**

Throughout construction period.

**Compliance Standards:**

Fencing must preclude public access to all areas containing construction materials and equipment.

**B. Mitigation Measure:**

A warning sign will be posted at each groin in an area that is clearly visible to beach users and where damage to such sign from surf is minimized.

**Impact to be Monitored:**

Public exposure to potential rip current and submerged rock hazards associated with the presence of the groins.

**Monitoring Requirements:**

The State upon completion of construction and prior to reinstatement of public access to the project area shall place a sign at each groin which warn the public of the hazards.

**Timing:**

Prior to completion of project construction.

**Compliance Standards:**

Signs shall be installed as specified.

**VIII. AIR QUALITY**

- A. Mitigation Measure:** Watering or paving of construction roads.
- Impact to be Mitigated:** Control of fugitive dust as required by SCAQMD Rule 403.
- Monitoring Requirements:** SCAQMD rules are subject to verification by an SCAQMD representative who has the authority to conduct site inspections.
- Timing:** During clearing, grading, earth moving, or excavation activities throughout the construction period.
- Compliance Standards:** All roads being used for project construction should be either paved or watered regularly.

- B. Mitigation Measure:** Maintain equipment engines in proper tune.
- Impact to be Mitigated:** Increased emissions from construction and delivery vehicles.
- Monitoring Requirements:** SCAQMD rules are subject to verification by an SCAQMD representative who has the authority to conduct site inspections.
- Timing:** Throughout project construction.
- Compliance Standards:** No truck shall give off unusually high visible exhaust plumes or odors. Truck maintenance records shall show that tune-ups/maintenance has been performed per manufacturers specifications.

- C. Mitigation Measure:** Construction areas shall be wetted down during the late morning and after working hours during the day as needed to prevent raised dust from leaving the site.

**Impact to be Mitigated:** Generation of increased dust at the site from vehicular movement and deposition of rock/sand at the staging areas and onsite.

**Monitoring Requirements:** An SLC or SLC-designated site monitor shall inspect construction areas daily to ensure that water trucks are operating at designated times and that construction areas are wetted adequately.

**Timing:** Throughout the construction period after any clearing, grading, earthmoving or excavating activities.

**Compliance Standards:** Appropriate areas shall be wetted down enough to form a crust on the surface with repeated soakings and prevent dust pick up by the wind. Water trucks shall operate as need.

**D. Mitigation Measure:** Street sweeping shall be completed when silt has been carried over to adjacent thoroughfares.

**Impact to be Mitigated:** Spread of silty material into adjacent public areas.

**Monitoring Requirements:** An SLC or SLC-designated monitor shall examine adjacent public areas daily for the presence of construction-derived dust.

**Timing:** As needed throughout the construction period.

**Compliance Standards:** Silt generated as a result of project construction shall not be allowed accumulate in adjacent public thoroughfares.

**E. Mitigation Measure:** Low sulfur fuel (0.05% or less by weight) will be used for all construction equipment.

**Impact to be Mitigated:** The level of sulfur emissions during construction.

**Monitoring Requirements:** During daily site activities an SLC or SLC-designated monitor shall examine trucks in operation for high sulfuric odors and records of fuel purchase. Applicant

contractor shall carry records of fuel purchases in trucks showing time of purchase, vehicle fueled, and sulfur content of fuel.

**Timing:** Throughout project construction.

**Compliance Standards:** All onsite diesel construction equipment shall use diesel fuel with a sulfur content of 0.05% or less by weight as verified by contractor records.

**F. Mitigation Measure:** Construction activity will be discontinued during second stage smog alerts.

**Impact to be Mitigated:** Increases in emissions from construction and delivery vehicles

**Monitoring Requirements:** The SLC or SLC-designated monitor shall verify any issuance of a second stage smog alert and stop construction activities.

**Compliance Standards:** No construction activity shall occur during a second stage smog alert.

**G. Mitigation Measure:** Caterpillar design equipment will be used whenever possible.

**Impact to be Mitigated:** Level of NOx emissions during project construction.

**Monitoring Requirements:** An SCAQMD monitor should contact the truck sub-contractor to verify usage of caterpillar design equipment as available.

**Compliance Standards:** If the necessary Caterpillar design construction equipment is available, it should be used.

## **IX. TRAFFIC**

**A. Mitigation Measure:** Four sand delivery trucks shall enter and exit the staging areas at a time.

**Impact to be Mitigated:**

Potential conflicts between left turning trucks and eastbound PCH traffic.

**Monitoring Requirements:**

An SLC or SLC-designated site monitor shall observe the ingress or egress of trucks at the staging/access areas to ensure that there is traffic control to ensure truck movement occurs in groups of four.

**Timing:**

Throughout project construction.

**Compliance Standards:**

Trucks shall be entering and exiting staging areas in groups of four.

**B. Mitigation Measure:**

Truck traffic shall be prohibited from entering the staging areas from westbound PCH during the a.m. and p.m. peak traffic hours.

**Impact to be Mitigated:**

Potential conflicts between left turning trucks and PCH traffic during peak traffic periods.

**Monitoring Requirements:**

An SLC or SLC-designated site monitor shall observe trucks entering the site during peak hours on a daily basis to verify approach from the eastbound side of PCH only during peak hours.

**Timing:**

During designated hours throughout the construction period.

**Compliance Standards:**

Trucks shall not enter staging areas between 7:00 a.m. and 8:00 a.m. & 4:00 p.m. and 5:00 p.m. from the westbound side of PCH.

**C. Mitigation Measure:**

Truck traffic carrying armor rock from Ojai shall be rerouted to S.R. 33, Highway 101 and Los Posas Road. Truck traffic carrying armor rock from Camarillo shall use Pleasant Valley Road and Los Posas Road to access PCH.

**Impact to be Mitigated:**

Potential congestion within the central business districts of Santa Paula and Oxnard.

**Monitoring Requirements:**

The contractor's final route selection shall be submitted to SLC for verification that the designated routes are to be followed.

**Timing:**

Selection and approval of final routes shall occur prior to the start of construction.

**Compliance Standards:**

The routes as specified shall be selected by the contractor.

**D. Mitigation Measure:**

Truck traffic carrying sand from either Hansen Dam or Irwindale shall use the S.R. 118 freeway, Madera Road, Olsen Road the Moorpark freeway (S.R. 23), Los Posas Road, and eastbound PCH during the p.m. peak hours.

**Impact to be Mitigated:**

Exacerbation of increased traffic volumes along westbound PCH during the p.m. peak hour by sand delivery trucks.

**Monitoring Requirements:**

Final route selection shall be submitted by the contractor to SLC for verification that the designated routes are to be followed.

**Timing:**

Final route selections shall be made and approved by SLC prior to the start of construction.

**Compliance Standards:**

No truck shall arrive from the westbound side of PCH between 3:00 and 5:00 p.m.

**E. Mitigation Measure:**

Two ingress and egress points shall be used at each staging area.

**Impact to be Mitigated:**

Increased congestion on PCH due to queuing of trucks at ingress and egress points of staging areas.

**Monitoring Requirements:**

The site visit made by an SLC or SLC-designated monitor prior to the start of construction shall verify the existence of two access points at each staging area.

**Timing:**

Access points shall be delineated prior to the start of construction and utilized throughout construction.

**Compliance  
Standards:**

**Each staging area shall have 2 ingress/egress points  
which shall remain operational throughout  
construction.**