

XVIII. LIST OF MITIGATING MEASURES

The following environmental mitigation measures will be incorporated into the Conditions of Approval for this project in order to mitigate identified environmental impacts to a level of insignificance for biological resources (grunion), water quality (turbidity), and traffic (truck hauling operations). Section 8 of this MND provides a description of the monitoring program that incorporates these mitigation measures. The monitoring program also requires monitoring of beach profiles and surf conditions, which are not listed below because they are not associated with any identified potentially significant environmental impact.

**Table 6
List of Mitigation Measures**

Mitigation Measure	Monitoring Type	Monitoring Department
<p>(Biological Resources)</p> <p>Grunion monitoring will occur before construction, and if grunion are present, during construction. No post-construction monitoring is required for grunion. The presence of grunion should not result in a halt to construction, due to the availability of a larger sandy area for spawning immediately up- and down-coast. The project shall be allowed to proceed with modifications as needed to accommodate spawning.</p> <p>A grunion monitor must be present to observe grunion runs two to three weeks prior to construction during a predicted grunion run (according to the grunion calendar produced by the California Department of Fish and Game), and immediately prior to construction. If grunion are not present during their predicted runs, no further monitoring is required. If grunion are present during predicted runs, beach nourishment will only occur above the spring high tide line/kelp line or in the nearshore until the spawning season is over. As an alternative, grunion monitoring could continue throughout the sand placement period, and if they do not spawn during a predicted run then sand could be placed below the spring high tide line.</p>	<p>Project (conducted for each beach fill project)</p>	<p>City of Carlsbad Engineering Department</p>
<p>(Hydrology/Water Quality)</p> <p>Turbidity will be monitored throughout construction to qualify the effect on ocean water clarity from the project. Turbidity will be monitored by an observer from a vantage point (such as a bluff top landward of the placement site) noting the extent of turbid conditions. The observer will map the area of turbidity each day on a base map and photograph the turbidity in the ocean. A map will be created by the observer, and they will document all other pertinent environmental conditions such as waves, wind, and weather. If monitoring indicates excessive turbidity (greater than ambient beyond one-half mile offshore at or down-coast of the placement site) for a prolonged period, assumed to be 5 days, then placement should be halted or modified to reduce turbidity. This judgment should be made by the project engineer in consultation with the City and regulatory staff assigned to the project.</p>	<p>Project (conducted for each beach fill project)</p>	<p>City of Carlsbad Engineering Department</p>

Table 6 (continued)
List of Mitigation Measures

Mitigation Measure	Monitoring Type	Monitoring Department
<p>(Transportation/Traffic)</p> <p><u>Truck/hauling operations</u> will be subject to the following:</p> <ol style="list-style-type: none"> A traffic control plan will be prepared for each beach fill project; Truck operations shall be limited to the hours of 8:00 a.m. to 4:00 p.m., Monday through Saturday (fall/winter) and Monday through Friday (spring/summer) with no activity during holidays; A flagman shall keep pedestrians a safe distance from the truck, notify beach users of the presence of the truck, and ensure that a clear and safe path is maintained. This system will be codified in the traffic control plan prepared for each beach fill project. Public streets used for hauling the beach fill material to the project site shall be cleaned via street-sweeper every third day of truck delivery to the project site. Trucks shall only use haul routes approved by the city, and shall be specified in the traffic control plan prepared for each beach fill project. 	<p>Project (conducted for each beach fill project)</p>	<p>City of Carlsbad Engineering Department</p>

Applicant Concurrence With Mitigation Measures

THIS IS TO CERTIFY THAT I HAVE REVIEWED THE ABOVE REFERENCED MITIGATING MEASURES AND CONCUR WITH THE ADDITION OF THESE MEASURES TO THE PROJECT.

3/6/06

Date


Signature