

SC 9 MARINE WILDLIFE PROTECTION PLAN

Marine mammal monitoring will be implemented during reconstruction of the Dana Point harbor marina as detailed in this Marine Wildlife Protection Plan (Plan).

PURPOSE OF THE PLAN

The purpose of this Plan is to establish procedures to ensure compliance with Special Condition 9 requirements, thereby avoiding injury and distress of marine mammals to the extent practicable.

The objectives of the Plan are to:

- Establish parameters to monitor site locations for the disturbance of marine mammals during the pile-driving activities;
- Avoid injury to marine mammals through visual monitoring of identified exclusion zones;
- Ensure that coordination with the pile-driving team occurs during pile driving to modify operations related to noise thresholds, if needed; and
- Describe field operations to obtain data.

The Plan incorporates the following parameters:

A. Construction activities shall avoid pile-driving activities during the breeding season for seals and sea lions if pregnant and/or nursing individuals are present within the exclusion zone.

B. An initial ramp-up period or “soft start” procedure at the commencement or re-commencement of pile-driving activities shall be implemented to avoid potential impacts to marine mammals and fish that may be present, but undetected, in the exclusion zone. The pile driver operator shall commence pile driving operations at the lowest possible power setting (approximately 40-60% energy level) with no less than a one-minute interval between each initial strike for a five-minute period. In addition, the pile driver shall employ sound dampening techniques and/or devices (such as wooden blocks, pile cushions, and/or caps) during all pile driving activities.

C. One qualified marine mammal observer (MMO), or more if required to effectively observe the entire exclusion zone shall be present to conduct observations during all pile driving activities. The MMO shall have experience in marine science or marine operations that includes experience observing marine mammals and differentiating normal behavior from signs of injury or distress. The MMO’s duties shall be dedicated to observing marine wildlife only and shall not be assigned other pile driving-related duties. The MMO shall have the appropriate safety and monitoring equipment adequate to conduct his or her activities and be located at an effective vantage point in order to observe the entire exclusion zone without obstruction (e.g., from the rooftop of existing buildings or bluffs).

To be considered qualified to record observations of marine mammals for the project, observers must meet the following criteria:

- Visual acuity in both eyes (correction is permissible) sufficient for discernment of moving targets at the water's surface, with the ability to estimate target size and distance - use of binoculars may be necessary to identify marine mammals;
- Ability to perform field observations and collect data according to assigned protocols;
- Experience or training in the identification of marine mammal species and behaviors;
- Sufficient training, orientation, or experience with the construction operation to provide for personal safety during observations;
- Writing skills sufficient to prepare a report of marine mammal observations, including marine mammal species observed within the exclusion zone; and
- Ability to communicate with project personnel orally, by radio and in person, to provide real-time information on marine mammals observed in the exclusion zone, as necessary.

All monitoring personnel will be provided a copy of this Plan. Monitoring personnel must read and understand the contents of this Plan as they relate to coordination, communication, and identification and reporting.

MMO tasks associated with monitoring and reporting requirements for each of the project activities are summarized below:

- Establishing exclusion zone limits from the pile to be extracted/installed, in coordination with the pile-driving team;
- Monitoring the exclusion zone before pile driving is initiated to identify marine mammals that are present;
- Monitoring marine mammal activity in the vicinity of the pile-driving activity;
- Observing marine mammal behavior and recording observations, as described in paragraph F. below;
- Preparing Monitoring Data Sheets; and
- Preparing a post-construction report.

D. To carefully evaluate the effects of pile driving on pinnipeds in the project area, the first piles to be driven will be located as far as possible from known pinniped haul-out locations in the harbor so that the reaction of the pinnipeds to pile driving activities can be evaluated. The MMO will monitor pinniped reactions during the initial pile driving strikes and then report his/her observations and related information to the Executive Director in the required Hydroacoustic Testing Report.

E. It is anticipated that pinnipeds accustomed to living on or hauling out within the Dana Point Harbor, the breakwater and adjacent areas will tolerate some amount of commotion and disturbance associated with the project's piledriving activities.

- i. If the normal commotion of preparing the work site for the day's pile driving does not cause the resident pinnipeds to disperse beyond the exclusion zone, the MMO will record this in the required logs (see paragraph (F) below) and take photos of any lingering pinnipeds in the exclusion zone.
- ii. If pinnipeds remain within the exclusion zone upon completion of soft-start pile driving activities, regular pile driving activities may proceed as long as the pinnipeds do not exhibit any observable signs of injury or distress. If one or more pinnipeds appear injured or distressed, the MMO shall direct pile driving activities to cease and shall immediately notify the Executive Director for further assistance and guidance.

F. The MMO shall maintain a daily log of observed marine mammals and their behavior that shall be of sufficient detail to determine whether the project causes observable effects to marine mammals. A copy of the MMO's logs shall be submitted to the Executive Director per Section J. below. At a minimum, the daily log observations shall include:

- i. The date and time that monitored pile driving activity begins and ends;
- ii. Piling driving activities (e.g., number of piles being driven and their location within the harbor) occurring during each observation period;
- iii. Weather parameters (e.g., wind speed and direction, percent skycover, visibility, precipitation);
- iv. Ocean conditions (e.g., water level fluctuation, tide, etc.);
- v. A report showing species, numbers, location, and, if possible, sex and age class of all observed marine mammals;
- vi. A description of any observable marine mammal behavior patterns, including those in response to piling driving activities, including their location and distance relative to the work site, direction of travel, and if possible, the correlation of behavior to sound pressure levels (SPLs);
- vii. A description of implementation of any required mitigation measures (e.g., shutdown or delay of piling driving activities); and
- viii. Other human activities in the area. Please see Exhibit "A" for the relevant reporting worksheet.

G. During hydroacoustic testing in accordance with the project's Acoustic Monitoring Plan ("AMP"), the MMO shall establish a marine mammal exclusion zone from the work site. If the MMO observes any marine mammals within this exclusion zone (except for pinnipeds— see subsections (D) and (E) above), the MMO shall notify the applicant and/or pile driving contractor staff as appropriate and require an immediate shut down of pile driving activities. Such activities may restart once the mammal(s) is

observed to leave the exclusion zone or is not observed within the exclusion zone for at least 30 minutes.

H. The outer edge of the exclusion zone shall be determined by the results of the AMP.

I. If the exclusion zone is not entirely visible (e.g., due to darkness, fog, etc.), pile driving shall not commence or continue to proceed (if it is underway) until visual conditions have improved.

J. An annual report summarizing the results of monitoring activities shall be submitted to the Executive Director no later than January 30th, for the preceding calendar year throughout the entirety of the project construction period. The report shall include marine mammal observations (see subsection (e) above), descriptions of any project delays or cessation of operations due to the presence in the project area of marine mammal species subject to protection, and an evaluation of monitoring protocol effectiveness.

The requirements of this Plan are to be implemented during all pile driving and other construction-related activities requiring high decibel noise generation that are part of the scope of the proposed development of this CDP, including during hydro-acoustic testing activities.

Date: _____

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Daily Marine Wildlife Protection Plan Data Sheets
Dana Point Harbor Marina Reconstruction

MMO: _____

Other personnel onsite: _____

Time		Air Temp (°F)	Wave Height (ft.)	Wind (mph)	Cloud Cover (%)
Starting					
Ending					

Tidal Information* (Gauge: _____)		
Sunrise: _____		Sunset: _____
High/Low	Tide Time	Height (ft.)

Other Notes:

