

---

# Mitigation Monitoring and Reporting Program

## Clipper Yacht Harbor Marina Dock Replacement Project

---



November 2021

*This page intentionally left blank.*

---

## **MITIGATION MONITORING AND REPORTING PROGRAM**

---

This Mitigation, Monitoring and Reporting Program (MMRP) has been prepared pursuant to the CEQA Guidelines, which state:

“When adopting a mitigated negative declaration, the lead agency shall also adopt a program for reporting on or monitoring the changes which it has either required in the project or made a condition of approval to mitigate or avoid significant environmental effects” (§15074(d)) and;

“The Lead Agency may choose whether its program will monitor mitigation, report on mitigation, or both. “Reporting” generally consists of a written compliance review that is presented to the decision-making body or authorized staff person. A report may be required at various stages during project implementation or upon completion of the mitigation measure. “Monitoring” is generally an ongoing or periodic process of project oversight. There is often no clear distinction between monitoring and reporting and the program best suited to ensuring compliance in any given instance will usually involve elements of both.” (§15097 (c))

The table beginning on the next page list the impacts, mitigation measures, and timing of the mitigation measure (when the measure will be implemented) related to the Clipper Yacht Harbor Marina Dock Replacement Project. All mitigation measures listed here will be implemented by the Project Applicant and/or its contractor(s).

*This page intentionally left blank.*

Impact	Mitigation Measure	Implementation and Timing	Monitoring Responsibility										
<p><b>Impact BIO-1a:</b> Special-status fish species may be prone to injury and/or decreased foraging opportunities during increases in water turbidity associated with project implementation.</p>	<p><b>Mitigation Measure BIO-1a: Avoidance and Minimization Measures for Special-Status Fish.</b> The Applicant and/or its contractor shall implement the following Avoidance and Minimization Measures (AMMs) during project construction. These measures shall be presented on all construction bid documents.</p> <p style="text-align: center;"><b>Project Demolition and Construction Avoidance and Minimization Measures</b></p> <table border="1" data-bbox="449 581 1411 1328"> <tr> <td data-bbox="449 581 541 760">1</td> <td data-bbox="541 581 1411 760">Silt curtains will be utilized to control turbidity during removal and placement of piles. The silt or “turbidity curtain” typically have a skirt of approximately 5’ which controls any sediment suspended in the water column from propagating out of the work area.</td> </tr> <tr> <td data-bbox="449 760 541 976">2</td> <td data-bbox="541 760 1411 976">Floating booms shall be maintained around the project site in order to capture floating debris during all demolition and construction phases. “Floating boom” curtains typically have a 1’ skirt and are designed to keep any floating debris from escaping the work area before it can be removed.</td> </tr> <tr> <td data-bbox="449 976 541 1081">3</td> <td data-bbox="541 976 1411 1081">Divers will recover non-buoyant debris discharged into coastal waters as soon as possible after loss.</td> </tr> <tr> <td data-bbox="449 1081 541 1187">4</td> <td data-bbox="541 1081 1411 1187">Floating debris would be removed from the water and disposed of properly.</td> </tr> <tr> <td data-bbox="449 1187 541 1328">5</td> <td data-bbox="541 1187 1411 1328">Machinery or construction materials not essential for project improvements are prohibited at all times in the subtidal or intertidal zones.</td> </tr> </table>	1	Silt curtains will be utilized to control turbidity during removal and placement of piles. The silt or “turbidity curtain” typically have a skirt of approximately 5’ which controls any sediment suspended in the water column from propagating out of the work area.	2	Floating booms shall be maintained around the project site in order to capture floating debris during all demolition and construction phases. “Floating boom” curtains typically have a 1’ skirt and are designed to keep any floating debris from escaping the work area before it can be removed.	3	Divers will recover non-buoyant debris discharged into coastal waters as soon as possible after loss.	4	Floating debris would be removed from the water and disposed of properly.	5	Machinery or construction materials not essential for project improvements are prohibited at all times in the subtidal or intertidal zones.	<p><b>Implementation:</b> The Applicant and/or its contractor(s) shall implement this measure in throughout project demolition and construction. This measure shall be placed on all construction bid documents.</p> <p><b>Timing:</b> Throughout all project phases.</p>	<p><b>Monitoring:</b> The biological monitor will note and record data for any incidences of special-status fish mortality as a result of discharges of fill material into waters of the U.S., to be provided to NOAA Fisheries, Office of Protected Resources. The biological monitor will maintain a record of any marine mammals observed within the project vicinity, to be made available to City and Resource Agency officials if requested.</p> <p>Initials: _____</p> <p>Date: _____</p>
1	Silt curtains will be utilized to control turbidity during removal and placement of piles. The silt or “turbidity curtain” typically have a skirt of approximately 5’ which controls any sediment suspended in the water column from propagating out of the work area.												
2	Floating booms shall be maintained around the project site in order to capture floating debris during all demolition and construction phases. “Floating boom” curtains typically have a 1’ skirt and are designed to keep any floating debris from escaping the work area before it can be removed.												
3	Divers will recover non-buoyant debris discharged into coastal waters as soon as possible after loss.												
4	Floating debris would be removed from the water and disposed of properly.												
5	Machinery or construction materials not essential for project improvements are prohibited at all times in the subtidal or intertidal zones.												

Impact	Mitigation Measure		Implementation and Timing	Monitoring Responsibility
	6	Operators of construction equipment and all other project workers shall not harass any marine mammals, waterfowl, or fish in project area.		
	7	Netting, sandbags, tarps and/or other forms of barriers shall be installed between the water and work areas and equipment storage areas to prevent any unpermitted material from entering bay.		
	8	Erosion control/ sedimentation BMPs shall be used to control sedimentation impacts to coastal waters during project staging and demolition.		
	9	Contractor shall ensure no debris, soil, silt, sand, sawdust, rubbish, cement or concrete washings thereof, oil or petroleum products, from construction shall be allowed to enter into or placed where it may be washed by rainfall or runoff into waters of the United States.		
	10	All floatable debris and trash generated by construction activities within the project area shall be disposed of as soon as possible or at the end of each day.		
	11	Maintain good housekeeping. Maintain clean site at end of every construction day. Do not drop mud and debris from construction vehicles into public streets. Sweep turning areas and pavement entrances as needed.		
	12	At the end of the construction period, the project applicant or its contractor shall inspect the project area and ensure that no		

Impact	Mitigation Measure		Implementation and Timing	Monitoring Responsibility
		debris, trash or construction materials has been left on the shore or in the water.		
	13	Pile driving activities shall be conducted using the soft start method The soft start method will include striking the piles with a lighter initial blow, which generates a lower sound level, to divert fish and marine mammals from the project area prior to full hammering, which generates the highest sound levels.		
	14	A sound curtain, or bubble curtain, shall be employed during pile driving to break up sound waves. The sound curtain would consist of a perforated hose laid in a circle to release air bubbles around the pile and diesel impact hammer.		
	15	¾-inch plywood cushion blocks shall be placed on top of each pile during pile driving activities.		
<p><b>Impact BIO-1b:</b> Marine mammals may be impacted by decreased visibility and feeding opportunities during any increase in turbidity during project construction. Noise associated with pile driving may also negatively impact marine mammal health and mobility.</p>	<p><b>Mitigation Measure BIO-1b: Avoidance and Minimization Measures for Marine Mammals.</b> To reduce impacts to marine mammals to less than significant levels, the following measures shall be implemented:</p> <ul style="list-style-type: none"> <li>The project Applicant shall create and maintain a visual 500-meter safety zone around sound sources (i.e., pile drivers and/or any motorized equipment with sound waves entering Richardson Bay) in the event that the sound level is unknown or cannot be adequately predicted. This will be required at the onset of construction. The safety zone shall be maintained by the qualified biologist through the use of a rangefinder (or similar measuring device) to closely approximate the 500-meter distance from the source of the sound (i.e., pile driver) and monitoring marine mammals within this distance. An aerial map outlining an approximate boundary within</li> </ul>		<p><b>Implementation:</b> The Applicant and/or its contractor(s) shall implement this measure in throughout project demolition and construction. This measure shall be placed on all construction bid documents.</p>	<p><b>Monitoring:</b> The biological monitor will note and record data for any incidences of special-status fish mortality as a result of discharges of fill material into waters of the U.S., to be provided to NOAA Fisheries, Office of</p>

Impact	Mitigation Measure	Implementation and Timing	Monitoring Responsibility
	<p>the waters of Richardson Bay may be utilized to help visualize the 500-meter safety zone.</p> <ul style="list-style-type: none"> <li>A qualified biologist on shore will visually survey the safety zone (by naked eye and binoculars) to ensure that no marine mammals are within or surfacing/traveling within the zone before pile driving begins. If a marine mammal is observed within the safety zone before pile driving begins, pile driving will be delayed until the marine mammals move out of the area, as evidenced by observed surfacing and/or hauling out of the individual outside the project area.</li> </ul> <p>If marine mammals enter the safety zone after pile driving of a segment has begun, pile removal and installation will continue. The qualified biologist will monitor and record the species and number of individuals observed, and note behavior patterns. If the animal appears distressed, and if it is operationally safe to do so, pile removal and installation will cease until the animal leaves the area, as evidenced by observed surfacing and/or hauling out of the individual outside the project area. Prior to the initiation of each new pile event, the area will again be thoroughly surveyed by the biologist. With the implementation of Mitigation Measure BIO-1b, potential impacts to marine mammals will be reduced to less than significant levels.</p>	<p><b>Timing:</b> Throughout all project phases.</p>	<p>Protected Resources. The biological monitor will maintain a record of any marine mammals observed within the project vicinity, to be made available to City and Resource Agency officials if requested.</p> <p>Initials: _____</p> <p>Date: _____</p>
<p><b>Impact BIO-2:</b> Sensitive eelgrass beds in proximity of the project site may be directly impacted if they have colonized the project area since</p>	<p><b>Mitigation Measure BIO-2: Implementation of Clipper Yacht Harbor Eelgrass Mitigation Plan.</b> The following details the methods of survey and actions to be taken to protect nearby eelgrass habitat and ensure any new eelgrass habitat within the project site will not be significantly impacted during project implementation:</p> <ul style="list-style-type: none"> <li>A qualitative survey would be conducted prior to construction (within the April – October growing season) for presence/absence of eelgrass shoots by examining the project footprint and</li> </ul>	<p><b>Implementation:</b> In the event eelgrass is observed in the project footprint and immediate vicinity (minimum of a 10-meter</p>	<p><b>Monitoring:</b> Survey and monitoring plans will be provided to NOAA Fisheries, CDFW, and USACE 45 days prior to</p>

Impact	Mitigation Measure	Implementation and Timing	Monitoring Responsibility
<p>the last survey. Sensitive eelgrass beds in proximity, but outside the project area may be impacted by increased turbidity associated with project demolition and construction.</p>	<p>immediate vicinity (minimum of a 10-meter buffer, or as determined by a qualified biologist at the time of the survey) at low tide. Survey results are valid for up to 60 days during the growing season. However, if the end of the 60-day validity period ends outside of the growing season (April-October), survey results are considered valid until the following growing season. Other minor exceptions to this stipulation are outlined in the California Eelgrass Mitigation Policy and Implementing Guidelines (2014). According to the policy and implementing guidelines, surveys are conducted through mapping the extent of eelgrass on a fine scale, through visual and acoustic mapping technologies, and should encompass vegetated as well as unvegetated areas within the survey area. If no eelgrass is determined to be at risk of being impacted during project implementation, a post-construction survey following the same survey protocol would be conducted to confirm no impacts to any nearby eelgrass.</p> <ul style="list-style-type: none"> <li>• If any eelgrass shoots are present and at risk of being impacted by project implementation, a mitigation plan would be provided to NOAA Fisheries, CDFW, and USACE at least 60 days prior to project implementation. A reference site used as a control shall also be included in the mitigation plan.             <ul style="list-style-type: none"> <li>○ According to the California Eelgrass Mitigation Policy, at a minimum the mitigation plan should include:                 <ul style="list-style-type: none"> <li>▪ Description of the project area</li> <li>▪ Results of preliminary eelgrass survey and pre/post-project eelgrass surveys</li> <li>▪ Description of projected and/or documented eelgrass impacts</li> <li>▪ Description of proposed mitigation site and reference site(s)</li> <li>▪ Description of proposed mitigation methods</li> </ul> </li> </ul> </li> </ul>	<p>buffer, or as determined by a qualified biologist at the time of the survey), pre- and post-construction eelgrass surveys shall be conducted.</p> <p><b>Timing:</b> One qualitative survey shall be conducted in April-October prior to project initiation (dock demolition). Pre- and post-construction eelgrass surveys may be required, dependent on results of qualitative survey. Any pre-construction quantitative eelgrass surveys would be conducted within the 60 days prior to starting in-water work. All surveys would be conducted</p>	<p>project initiation for review, consultation, and approval. If any eelgrass shoots are present and at risk of being impacted by project implementation, a mitigation plan would be provided to NOAA Fisheries, CDFW, and USACE at least 60 days prior to project implementation. In the event project-related impacts to eelgrass are identified, all qualitative and quantitative pre- and post-construction eelgrass surveys, as well as any required mitigation plans, will be provided to CDFW for</p>

Impact	Mitigation Measure	Implementation and Timing	Monitoring Responsibility
	<ul style="list-style-type: none"> <li>▪ Construction schedule, including specific starting and ending dates for all work including mitigation activities</li> <li>▪ Schedule and description of proposed post-project monitoring and when results will be provided to NMFS</li> <li>▪ Schedule and description of process for continued coordination with NMFS through mitigation implementation</li> <li>▪ Description of alternative contingent mitigation or adaptive management should proposed mitigation fail to achieve performance measures</li> <li>○ Mitigation should begin within 135 days following the initiation of in-water project implementation that will impact eelgrass habitat, so that mitigation begins within the same growing season that impacts will occur. However, for impacts beginning 90 days prior to, or during, the low-growth season (November-March), mitigation may begin within 30 days after the start of the following growth season, or 90 days following impacts, whichever time period is longer, without the requirement of additional mitigation.</li> <li>○ Mitigation ratios are summarized from the California Eelgrass Mitigation Policy in the following: <ul style="list-style-type: none"> <li>▪ Localized Temporary Impacts: for impacts of less than 100 m<sup>2</sup> and eelgrass habitat being fully restored within one year of initial impacts, a ratio of replacement would be 1:1.</li> <li>▪ All other impacts that may occur as a result of this project being implemented would likely have a ratio of replacement of 1.2:1, where 2x the amount of eelgrass impacted is planted and/or restored under</li> </ul> </li> </ul>	<p>consistent with the recommendations and requirements outlined in the NOAA Fisheries 2014 Eelgrass Mitigation Policy and Implementation Guidelines.</p>	<p>review, consultation, and approval.</p> <p>Initials: _____</p> <p>Date: _____</p>

Impact	Mitigation Measure	Implementation and Timing	Monitoring Responsibility
	<p>the assumption that half of the planted/restored eelgrass will survive.</p>		
<p><b>Impact CUL-1:</b> Pile removal (old piles) and pile driving (new piles) into the marine sediments of the Richardson Bay may unearth or disturb previously unidentified buried archaeological resources during project demolition and construction.</p>	<p><b>Mitigation Measure CUL-1: Conduct Archaeological Monitoring.</b> The applicant shall retain a qualified professional archaeologist or archaeological firm to conduct archaeological monitoring during pile removal. The archaeologist shall be on the barge, or where piles and construction debris are first placed on removal from the water, in order to be allowed to examine the piles and other removed material for evidence of archaeological resources. If archaeological resources are suspected to have been discovered, then ground disturbing and pile removal work will cease in order to allow the archaeological monitor time to examine the potential resource.</p> <p>All Native American artifacts (tribal finds) shall be considered as a significant Tribal Cultural Resource, pursuant to PRC 21074 until the lead agency has enough evidence to make a determination of significance.</p> <p>If any tribal find is discovered, work on pile removal will cease and the Federated Indians of Graton Rancheria shall be contacted and consulted. The City shall coordinate with a qualified archaeologist and the Federated Indians of Graton Rancheria to develop an appropriate treatment plan for the resources. The plan may include tribal monitoring, implementation of underwater archaeological data recovery, and subsequent laboratory processing and analysis.</p> <p>In the event that a historic period archaeological resource which is likely to be significant under CEQA is discovered, work shall cease, and a qualified archaeologist shall develop an appropriate treatment plan for the resources.</p> <p>A monitoring report will be written detailing all archaeological finds and submitted to the City and the NWIC.</p>	<p><b>Implementation:</b> The Applicant and/or its contractor(s) shall implement this measure during pile removal and sediment disturbing activity.</p> <p><b>Timing:</b> During all sediment disturbing phases of Project construction.</p>	<p><b>Monitoring:</b> This mitigation measure shall be placed on all construction bid and specification document. An archaeological report, if appropriate, will be written detailing all archaeological finds and submitted to the City and the Northwest Information Center.</p> <p>Initials: _____</p> <p>Date: _____</p>

Impact	Mitigation Measure	Implementation and Timing	Monitoring Responsibility
<p><b>Impact CUL-2:</b> Pile removal and pile driving into the marine sediments of the Richardson Bay may disturb human remains during project demolition and construction.</p>	<p><b>Mitigation Measure CUL-2: Unanticipated Discovery of Human Remains.</b> In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the MLD from the deceased Native American. The MLD shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.</p>	<p><b>Implementation:</b> The Applicant and/or its contractor(s) shall implement this measure in the event human remains are discovered.</p> <p><b>Timing:</b> During all sediment disturbing phases of Project construction.</p>	<p><b>Monitoring:</b> The County Coroner will detail the findings in a coroner's report.</p> <p>Initials: _____</p> <p>Date: _____</p>
<p><b>Impact GEO-1:</b> Project demolition and construction could unearth paleontological resources, including fossils.</p>	<p><b>Mitigation Measure GEO-1: Unanticipated Discovery of Paleontological Resources.</b> If paleontological resources are discovered during construction, sediment-disturbing activities shall halt immediately until a qualified paleontologist can assess the significance of the discovery. Depending on determinations made by the paleontologist, work may either be allowed to continue once the discovery has been recorded, or if recommended by the paleontologist, recovery of the resource may be required, in which sediment-disturbing activity within the area of the find would be temporarily halted until the resource has been recovered. If treatment and salvage is required, recommendations shall be consistent with Society of Vertebrate Paleontology guidelines and current professional standards. The City will ensure that information on the nature, location, and depth of all finds is readily available to the scientific community through university curation or other appropriate means.</p>	<p><b>Implementation:</b> The Applicant and/or its contractor(s) shall implement this measure in the event any paleontological resources are discovered.</p> <p><b>Timing:</b> During all sediment-disturbing phases of project</p>	<p><b>Monitoring:</b> If paleontological resources are uncovered, a report shall be prepared by the qualified paleontologist describing the find and its deposition.</p> <p>Initials: _____</p> <p>Date: _____</p>

<b>Impact</b>	<b>Mitigation Measure</b>	<b>Implementation and Timing</b>	<b>Monitoring Responsibility</b>
		demolition and construction.	