

## 5.0 MITIGATION MONITORING PROGRAM

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The California State Lands Commission (CSLC) is the lead agency under the California Environmental Quality Act (CEQA) for the Georgia Pacific (GP) Gypsum Antioch Wharf Upgrade Project (Project). In conjunction with approval of this Project, the CSLC adopts this Mitigation Monitoring Program (MMP) for implementation of mitigation measures (MMs) for the Project to comply with Public Resources Code section 21081.6, subdivision (a) and State CEQA Guidelines sections 15091, subdivision (d), and 15097.

The Project authorizes GP Gypsum, LLC (GP Gypsum or Applicant) to remove, install, and repair structures on the wharf to upgrade the wharf in accordance with the terms and conditions of its existing CSLC Lease No. PRC 1589.

### 5.1 PURPOSE

It is important that significant impacts from the Project are mitigated to the maximum extent feasible. The purpose of a MMP is to ensure compliance and implementation of MMs; this MMP shall be used as a working guide for implementation, monitoring, and reporting for the Project's MMs.

### 5.2 ENFORCEMENT AND COMPLIANCE

The CSLC is responsible for enforcing this MMP. The Project Applicant is responsible for the successful implementation of and compliance with the MMs identified in this MMP. This includes all field personnel and contractors working for the Applicant.

### 5.3 MONITORING

The CSLC staff may delegate duties and responsibilities for monitoring to other environmental monitors or consultants as necessary. Some monitoring responsibilities may be assumed by other agencies, such as affected jurisdictions, cities, and/or the California Department of Fish and Wildlife (CDFW). The CSLC and/or its designee shall ensure that qualified environmental monitors are assigned to the Project.

Environmental Monitors. To ensure implementation and success of the MMs, an environmental monitor must be on site during all Project activities that have the potential to create significant environmental impacts or impacts for which mitigation is required. For the Project, a qualified biologist will be the environmental monitor; he/she will conduct the Worker Environmental Awareness Program (WEAP) training and be on-call during the conduct of all Project activities. Among other duties, the qualified biologist shall have the authority to halt work to ensure impacts to species are minimized and/or avoided. If a listed species is detected, the qualified biologist will also notify CSLC and CDFW staff. Along with the CSLC staff, the qualified biologist is responsible for:

- 1 • Ensuring that the Applicant has obtained all applicable agency reviews and  
2 approvals;
- 3 • Coordinating with the Applicant to integrate the mitigation monitoring procedures  
4 during Project implementation (for this Project, many of the monitoring  
5 procedures shall be conducted during the deconstruction phase); and
- 6 • Ensuring that the MMP is followed.

7 The qualified biologist shall immediately report any deviation from the procedures  
8 identified in this MMP to the CSLC staff or its designee. The CSLC staff or its designee  
9 shall approve any deviation and its correction.

10 Workforce Personnel. Implementation of the MMP requires the full cooperation of  
11 Project personnel and supervisors. Many of the MMs require action from the site  
12 supervisor(s) and the crew. The following actions shall be taken to ensure successful  
13 implementation.

- 14 • Relevant mitigation procedures shall be written into contracts between the  
15 Applicant and any contractors.
- 16 • For this Project, a WEAP (under MM BIO-4) shall be implemented and all  
17 personnel would be required to participate.

18 General Reporting Procedures. A monitoring record form shall be submitted to the  
19 Applicant, and once the Project is complete, a compilation of all the logs shall be  
20 submitted to the CSLC staff. The CSLC staff or its designated environmental monitor  
21 shall develop a checklist to track all procedures required for each MM and shall ensure  
22 that the timing specified for the procedures is followed. The environmental monitor shall  
23 note any issues that may occur and take appropriate action to resolve them.

24 Public Access to Records. Records and reports are open to the public and would be  
25 provided upon request.

## 26 **5.4 MITIGATION MONITORING TABLE**

27 This section presents the Mitigation Monitoring Table (Table 5-1) for the following  
28 environmental disciplines: Biological Resources, Cultural and Paleontological  
29 Resources, Hazards and Hazardous Materials, and Hydrology and Water Quality. All  
30 other environmental disciplines were found to have less than significant or no impacts  
31 and are therefore not included below. The table lists the following information, by  
32 column:

- 33 • Potential Impact;
- 34 • Mitigation Measure (full text of the measure);

- 1 • Location (where impact occurs and mitigation measure should be applied);
- 2 • Monitoring/Reporting Action (action to be taken by monitor or Lead Agency);
- 3 • Timing (before, during, or after construction; during operation, etc.);
- 4 • Responsible Party; and
- 5 • Effectiveness Criteria (how the agency can know if the measure is effective).

**Table 5.4-1. Mitigation Monitoring Program**

Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
<b>Biological Resources</b>						
<b>Construction-Related Impacts to Special-Status Fish and Birds</b>	<b>MM BIO-1. Timing of Work.</b> All in-water work shall be performed within the environmental work window between August 1 and November 30.	In-water work areas	Submit all final in-work plans to CSLC at least 30 days before starting work	Before and during work	Applicant/ Contractors/ CSLC	Perform all in-water work between August 1 and November 30
	<b>MM BIO-2. Restriction on Equipment Movements.</b> To avoid potential impacts to sensitive plants that may occur along the shoreline, boats, barges and any floating or submerged equipment shall be prevented from contacting the shoreline to avoid crushing native vegetation or wildlife.	In-water work areas	Submit map of restricted area to CSLC at least 30 days before starting work	Before and during work	Applicant/ Contractors/ CSLC	Impacts to shoreline habitats are prevented
	<b>MM BIO-3. Designation of an Agency-Approved Project Biologist.</b> At least 30 days before initiating Project activities, the Project proponent shall obtain the California Department of Fish and Wildlife's written approval for a designated Project Biologist. The Project Biologist shall be on site during initial Project activities and as necessary to oversee activities described for pile-driving acoustic monitoring (MM BIO-7) and monitoring of sensitive migratory birds (MM BIO-9).	Sensitive habitat areas	Submit name and contact information of Biologist, and any monitoring records to CSLC before starting work	Before and during work	Applicant/ Contractors/ CDFW/ CSLC	Project biologist is approved on time
	<b>MM BIO-4. Worker Environmental Awareness Program (WEAP).</b> A WEAP shall be developed and presented by the Project Biologist. The WEAP shall cover the ecology, identification, legal protections afforded all potentially occurring special-status plant and animal species as well as the identified protective measures and implications of non-compliance. All persons employed or otherwise working on the Project sites shall attend a WEAP presentation prior to performing any work on site.	Not applicable	Submit a copy of the training material, duration of training, attendees sign-in sheet to CSLC before starting work	Before work	Applicant/ Contractors/ CSLC	Avoid sensitive species and habitats

Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	<b>MM BIO-5. Wildlife Protections.</b> If any wildlife is encountered during the course of construction, said wildlife shall be allowed to leave the construction area unharmed and shall not be flushed, hazed, or herded away from the Project site.	All work areas	Submit reports of wildlife encounters and measures taken to protect them to CDFW and CSLC within 24 hours	During work	Applicant/ Contractors/ CDFW/ CSLC	Minimize wildlife harmed or harassed during work
	<b>MM BIO-6: In-Water Turbidity Protections.</b> During pile removal activities, turbidity monitoring shall be monitored daily during an ebb tide, at 31 meters (100 feet) upstream and 92 meters (300 feet) downstream of the work site. If downstream turbidity measures are more than 15 Nephelometric Turbidity Units (NTU) above the upstream level, activities shall cease until turbidity levels drop below 15 NTUs above the upstream measurement. All incidents of exceedance of the turbidity standard shall be reported to the California Department of Fish and Wildlife (CDFW) within 24 hours. A turbidity-monitoring log shall be maintained and provided to the CDFW and the State Lands Commission staffs within 5 days from the completion of work.	In-water work areas	Submit turbidity monitoring logs to CDFW and CSLC within 24 hours for exceeding turbidity standards and all turbidity logs within 5 days of completing the work	During and after work	Applicant/ Contractors/ CDFW/ CSLC	Minimize exceedances of 15 NTU turbidity criterion
	<b>MM BIO-7. Minimize Underwater Sound From Pile Driving.</b> Underwater sound monitoring shall be performed during pile driving for all piles unless monitoring of the first pile of each size and type demonstrates that the accumulated sound exposure levels (SEL) do not exceed the cumulative exposure threshold of 183 decibels at 10 meters. A hydroacoustic monitoring log shall be kept and a monitoring report shall be submitted to the State Lands Commission staff upon completion of pile driving activities. In addition, underwater sound reduction measures shall be implemented, as follows: a) Use of an impact hammer cushion block;	In-water work areas	Submit plans to CSLC 30 days before starting work and incidents of exceeding SEL standards to CDFW and CSLC within 24 hours	Before, during, and after work	Applicant/ Contractors/ CDFW/ CSLC	Minimize exceedances of SEL standards

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	<p>b) Use of impact hammers only during daylight hours;</p> <p>c) Implementation of “soft start” procedures, in which impact strikes gradually increase in energy and frequency of impacts to permit wildlife to vacate the surroundings; and</p> <p>d) Use of a bubble curtain surrounding piles during pile driving operations.</p>					
	<p><b>MM BIO-8. Toxic Substances Protections.</b> To ensure toxic substances are not released into the aquatic environment, the following measures shall be followed:</p> <p>a) All engine-powered equipment shall be well-maintained and free of leaks of fuel, oil, hydraulic fluid or any other potential contaminant;</p> <p>b) All engine-powered equipment used and operated from the decks of barges, boats or the wharf shall be positioned over drip-pans;</p> <p>c) A spill prevention and response plan shall be prepared in advance of the commencement of work; a spill kit with appropriate clean-up supplies shall be kept on hand during operations. The kit shall include a floating oil-absorbent sock that could be immediately deployed and maintained around the work barges in the event of a spill or any accidental leakage of fuel or hydraulic fluids;</p> <p>d) Refueling and maintenance of mobile equipment shall not be performed directly over the waters of the river. Only approved and certified fuel cans with “no-spill” spring-loaded nozzles shall be used; and</p> <p>e) All spill cleanup materials or other liquid or solid wastes shall be securely containerized and labeled in the field during transport by barge to the contractor’s yard.</p>	All work areas	Submit all plans to CSLC 30 days before starting work	Before and during work	Applicant/ Contractors/ CSLC	Minimize environmental contamination from toxic substances

Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	<p><b>MM BIO-9. Protection of Migratory Birds.</b> To ensure special-status and other migratory birds are not harmed during construction, the following measures shall be followed:</p> <p>a) If construction activities are scheduled to occur outside of the breeding season (i.e., September 1 through January 31), no preconstruction surveys or other MMs are necessary.</p> <p>b) If construction activities are scheduled to occur during the breeding season (i.e., February 1 through August 31), a preconstruction nesting bird survey shall be conducted of the wharf structures, the identified work area and a buffer zone (see below). The survey should be performed by a qualified biologist no more than two weeks prior to the initiation of work. If no active nest is observed, work may proceed without restrictions. An active nest is one that contains eggs, chicks, or young birds that have not fledged from the nest.</p> <p>c) For any active nests found near the construction limits (76 meters [250 feet] for raptors and 33 meters [100 feet] for passerines), the Project biologist shall map their location and make a determination as to whether or not construction activities are likely to disrupt the nest or cause nest failure. If it is determined that construction is unlikely to disrupt incubation, rearing, or fledging, construction may proceed. If it is determined that construction may disrupt these behaviors, the no-construction buffer zone shall be implemented. In general, the buffer zone shall be a minimum of 300 feet from the drip line of the nest tree or nest for raptors and 50 feet for passerines. The ultimate size of the no-construction buffer zone may be adjusted by the Project biologist based on the species involved, topography, lines of sight between the work area and the nest, physical</p>	Project site and vicinity	Submit all plans to CSLC 30 days before starting work and consult with the appropriate CDFW or USFW staff	Before and during work	Applicant/ Contractors/ CDFW/ USFW/ CSLC	Minimize construction impacts to migratory birds

Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	<p>barriers, and the ambient level of human activity. The buffer zone may be reduced after consultation and with concurrence from the California Department of Fish and Wildlife and/or the U.S. Fish and Wildlife Service Division of Migratory Bird Management. If it is determined that construction activities are likely to disrupt an active nest, construction activities within the no-construction buffer zone shall not proceed until the Project biologist determines that the young have left the nest and are foraging independently or the nest is no longer active.</p> <p>d) If maintenance of a no-construction buffer zone is not practicable, active nests should be monitored by a qualified biologist to document breeding and rearing behavior of the adult birds. If it is determined that construction activities might cause nest abandonment, work shall cease until the young have left the nest and are foraging independently or the nest is no longer active.</p>					
	<p><b>MM BIO-10: Protection of Marine Mammals.</b> To ensure potential impacts to harbor seals and California sea lions are minimized, the Project Biologist shall monitor for the presence of marine mammals during impact pile driving activities. The following acoustic “exclusion zone” shall be enforced around a pile being driven with an impact hammer:</p> <ul style="list-style-type: none"> <li>• 510 meters for 72-inch piles</li> <li>• 200 meters for 48 and 42-inch piles</li> <li>• 150 meters for 30 and 24-inch piles</li> </ul> <p>If a harbor seal or California sea lion is observed within the exclusion zone during impact hammer driving, pile driving will stop until the individual(s) moves beyond the limit of the exclusion zone on its own volition. Once the individual(s) moves outside of the exclusion zone, impact pile driving may resume.</p>	Project site and vicinity	Comply	During work	Applicant/ Contractors/ CSLC	Minimize construction impacts to marine mammals

Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
<b>Cultural and Paleontological Resources</b>						
<b>Construction-Related Impacts to Cultural Resources</b>	<p><b>MM CUL-1: Discovery of Previously Unknown Cultural Resources.</b> Should additional cultural materials be uncovered during Project implementation, Project activities shall cease within 100 feet of the find and a Cultural Resources Specialist and California State Lands Commission (CSLC) staff shall be contacted immediately. The location of any such finds must be kept confidential and measures should be taken to ensure that the area is secured to minimize site disturbance and potential vandalism. Additional measures to meet these requirements, after a qualified Cultural Resources Specialist has been notified, include assessment of the nature and extent of the resource, including its possible eligibility for listing in the National Register of Historic Places, and subsequent recordation and notification of relevant parties based upon the results of the assessment. Title to all abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in the tide and submerged lands of California is vested in the State and under the jurisdiction of the CSLC. The final disposition of archaeological, historical, and paleontological resources recovered on State lands under the jurisdiction of the CSLC must be approved by the Commission.</p>	In-water work areas	Comply and coordinate with CSLC	During work	Applicant/ Contractors/ CSLC	Minimize construction impacts to cultural resources
	<p><b>MM CUL-2: Unanticipated Discovery of Human Remains.</b> If human remains are encountered during implementation of the Project, all provisions provided in California Health and Safety Code section 7050.5 and California Public Resources Code section 5097.98 shall be followed. Work shall stop within 100 feet of the discovery and a qualified Cultural Resources Specialist must be contacted immediately, who shall consult with the County</p>	In-water work areas	Comply and coordinate with CSLC	During work	Applicant/ Contractors/ CSLC	Minimize construction impacts to cultural resources

Potential Impact	Mitigation Measure (MM)	Location	Monitoring / Reporting Action	Timing	Responsible Party	Effectiveness Criteria
	Coroner. In addition, California State Lands Commission (CSLC) staff shall be notified. If human remains are of Native American origin, the County Coroner shall notify the Native American Heritage Commission within 24 hours of this determination and a Most Likely Descendent shall be identified. No work is to proceed in the discovery area until consultation is complete and procedures to avoid and/or recover the remains have been implemented.					
<b>Hazards and Hazardous Materials</b>						
Accidental Spill of Construction-Related Hazardous Materials (Fuels, Lubricants, etc.)	MM BIO-6 In-Water Turbidity Protections (see above)					
	MM BIO-8 Toxic Substances Protections (see above)					
<b>Hydrology and Water Quality</b>						
Turbidity and Resuspension of Bay Sediments in Water Column	MM BIO-6 In-Water Turbidity Protections (see above)					
	MM BIO-8 Toxic Substances Protections (see above)					