

1 **7.0 MITIGATION MONITORING PROGRAM**  
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3 As the Lead Agency under the California Environmental Quality Act (CEQA), the  
4 California State Lands Commission (CSLC) is required to adopt a program for reporting  
5 or monitoring regarding the implementation of mitigation measures (MMs) for the  
6 proposed San Francisco Bay and Delta Sand Mining Project (Project), if it is approved,  
7 to ensure that the adopted MMs are implemented as defined in this Environmental Impact  
8 Report (EIR). This Lead Agency responsibility originates in Public Resources Code  
9 section 21081.6(a) (Findings, Mitigation Monitoring and Reporting), and the State CEQA  
10 Guidelines sections 15091(d) (reporting on or monitoring mitigation) and 15097  
11 (Mitigation Monitoring or Reporting).

12 **7.1 MONITORING AUTHORITY**

13 The purpose of a Mitigation Monitoring Program (MMP) is to ensure that measures  
14 adopted to mitigate or avoid significant impacts are implemented. A MMP can be a  
15 working guide to facilitate not only the implementation of mitigation measures by the  
16 Project proponents, but also the monitoring, compliance and reporting activities of the  
17 CSLC and any monitors it may designate.

18 The CSLC may delegate duties and responsibilities for monitoring to other  
19 environmental monitors or consultants as deemed necessary, and some monitoring  
20 responsibilities may be assumed by responsible agencies, such as affected jurisdictions  
21 and cities, and the California Department of Fish and Game (CDFG). The number of  
22 monitors assigned to the project will depend on the number of concurrent mining  
23 activities and their locations. The CSLC or its designee(s), however, will ensure that  
24 each person delegated any duty or responsibility is qualified to monitor compliance.

25 Any mitigation measure that requires the approval of the CSLC must allow at least  
26 60 days for adequate review time. When a MM requires that a mitigation program be  
27 developed during the design phase of the project, the Applicant must submit the final  
28 program to CSLC for review and approval for at least 60 days before mining begins.  
29 Other agencies and jurisdictions may require additional review time. It is the  
30 responsibility of the environmental monitor assigned to each measure to ensure that  
31 appropriate agency reviews and approvals are obtained.

32 The CSLC or its designee will also ensure that any deviation from the procedures identified  
33 under the monitoring program is approved by the CSLC. Any deviation and its correction

1 shall be reported immediately to the CSLC or its designee by the environmental monitor  
2 assigned to the mining event.

### 3 **7.2 ENFORCEMENT RESPONSIBILITY**

4 The CSLC is responsible for enforcing the procedures adopted for monitoring through the  
5 environmental monitor assigned to each mining event. Any assigned environmental  
6 monitor shall note problems with monitoring, notify appropriate agencies or individuals  
7 about any problems, and report the problems to the CSLC or its designee.

### 8 **7.3 MITIGATION COMPLIANCE RESPONSIBILITY**

9 The Applicant is responsible for successfully implementing all the mitigation measures  
10 in the MMP, and is responsible for assuring that these requirements are met by all of its  
11 mining contractors and field personnel. Standards for successful mitigation also are  
12 implicit in many MMs that include such requirements as obtaining permits or avoiding a  
13 specific impact entirely. Other MMs include detailed success criteria. Additional  
14 mitigation success thresholds will be established by applicable agencies with jurisdiction  
15 through the permit process and through the review and approval of specific plans for the  
16 implementation of the MMs.

### 17 **7.4 GENERAL MONITORING PROCEDURES**

18 **Environmental Monitors.** Monitoring procedures will be conducted during the mining  
19 events. The CSLC and the environmental monitor(s) are responsible for integrating the  
20 mitigation monitoring procedures into the mining events in coordination with the Applicant.  
21 To oversee the monitoring procedures and to ensure success, the environmental monitor  
22 assigned to each mining event must be on site during that portion of an event that has  
23 the potential to create a significant environmental impact or other impact for which  
24 mitigation is required. The environmental monitor is responsible for ensuring that all  
25 procedures specified in the monitoring program are followed.

26 **General Reporting Procedures.** Site visits and specified monitoring procedures  
27 performed by other individuals will be reported to the environmental monitor assigned to the  
28 relevant mining events. A monitoring record form will be submitted to the environmental  
29 monitor by the individual conducting the visit or procedure so that details of the visit can be  
30 recorded and progress tracked by the environmental monitor. A checklist will be  
31 developed and maintained by the environmental monitor to track all procedures required  
32 for each MM and to ensure that the timing specified for the procedures is adhered to. The

1 environmental monitor will note any problems that may occur and take appropriate action to  
2 rectify the problems.

3 **Public Access to Records.** The public is allowed access to records and reports used to  
4 track the monitoring program. Monitoring records and reports will be made available for  
5 public inspection by the CSLC or its designee on request.

## 6 **7.5 MITIGATION MONITORING TABLES**

7 The following mitigation monitoring tables list the following information for each  
8 significant impact:

- 9 • Impact (impact number, title, and impact class);
- 10 • Mitigation Measure (summary text of the measure);
- 11 • Location (where the impact occurs and the mitigation measure should be  
12 applied);
- 13 • Monitoring/reporting action (the action to be taken by the monitor or Lead  
14 Agency);
- 15 • Effectiveness criteria (how the agency can know if the measure is effective);
- 16 • Responsible agency; and
- 17 • Timing (during operation, etc.).

Table 7-1. Mitigation Monitoring Program – Biological Resources

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<b>BIO-6:</b> Sand mining could result in smothering or burial of, or mechanical damage to, infauna and epifauna, and reduced fish foraging. (Class II)	<b>BIO-6:</b> Establish a 100-foot buffer around hard bottom areas within and adjacent to Central Bay mining leases.	Hard bottom areas within and adjacent to Central Bay mining leases.	Applicant to submit quarterly E-trac data of Central Bay mining events.	Evidence that sand mining has taken place only outside the 100 foot buffer and hard bottom areas in the vicinity of Central Bay leases.	CSLC	Quarterly E-trac data to be submitted.
<b>BIO-8:</b> Regular operation of sand mining activities will cause entrainment and mortality of delta and longfin smelt. (Class I)	<p><b>BIO-8a:</b> Applicants shall implement operational measures to minimize the potential for entrainment and mortality of delta and longfin smelt.</p> <ul style="list-style-type: none"> <li>• <u>Timing of dredging relative to X2:</u>  <u>To protect delta and longfin smelt and potentially eggs and young larvae from mortality related to entrainment, sand mining activities shall be restricted upstream of the X2 location (i.e., the location of 2 parts per thousand (ppt) salinity) from December 1 through June 30 each year. This location changes during the water year in response to river flows and its location is tracked on the following website: <a href="http://cdec.water.ca.gov/cgi-progs/queryDaily?X2">http://cdec.water.ca.gov/cgi-progs/queryDaily?X2</a>. The degree and duration of mining restrictions, and the specific locations where mining should be restricted during this sensitive seasonal period will be based on factors including the specific location of X2 relative to mining activities, species presence and relative abundance in the Project area based on sampling data from the nearest survey stations, and the overall status of the species (population trend).</u></li> </ul>	Suisun Bay and Western Delta lease areas, including Middle Ground Shoal and Suisun Associates; Central Bay.	Applicants shall submit to CSLC written documentation that they have obtained an Incidental Take Permit and have complied with the conditions contained in the permit.	Evidence of a CDFG approved Incidental Take Permit and compliance with its conditions. <u>BCDC would be unable to issue new permits for sand mining – needed for the Project to proceed – prior to the CDFG issuing an Incidental Take Permit for the Project.</u>	CSLC / CDFG	Within 12 months of issuance of new leases approval.

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	<p><u>Specific seasonal restrictions will be set through consultation with the California Department of Fish and Game (CDFG) and would likely be a requirement of any Incidental Take Permit that may be issued for the Project.</u></p> <ul style="list-style-type: none"> <li>• <u>Current restrictions on sand mining operations;</u></li> </ul> <p><u>As specified in the National Marine Fisheries Service Biological Opinion (NMFS 2006) and the U.S. Fish and Wildlife Service Letter of Concurrence (USFWS 2006), serve to avoid and minimize take of delta smelt. Currently there are no Federal restrictions on longfin smelt. Due to similar life stages, however, State delta smelt restrictions and conditions will be applied to both smelt species. These conditions include restrictions on pump priming, limiting the total mining volume, prohibiting mining in areas of shallow water depth and in proximity to shorelines, restricting mining to the designated lease areas which are away from sensitive habitat, and monitoring and reporting the location of each mining event.</u></p> <ul style="list-style-type: none"> <li>• <u>Additional requirements and restrictions to minimize and avoid take.</u></li> </ul> <p><u>Will be set through consultation with the CDFG and would likely be a</u></p>					

Table 7-1. Mitigation Monitoring Program – Biological Resources

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p><u>requirement of any Incidental Take Permit that may be issued for the Project. To further minimize take, the Applicants shall keep the end of the pipe and drag head as close to the bottom as possible, and no more than three feet from the bottom, whenever feasible when priming the pump or clearing the pipe. Additional requirements and restrictions may be set through consultation with CDFG.</u></p>					
	<p><b>BIO-8b:</b> Applicants shall provide off-site mitigation to compensate for the impacts of the taking that may be unavoidable.</p>	<p>Suisan Bay and Western Delta lease areas, including Middle Ground Shoal and Suisun Associates; Central Bay.</p>	<p>Applicants shall submit to CSLC written documentation that they have obtained an Incidental Take Permit and have complied with the conditions contained in the permit.</p>	<p>Evidence of a CDFG approved Incidental Take Permit and compliance with its conditions. <u>BCDC would be unable to issue new permits for sand mining – needed for the Project to proceed – prior to the CDFG issuing an Incidental Take Permit for the Project.</u></p>	<p>CSLC / CDFG</p>	<p>Within 12 months of issuance of new leases approval.</p>
<p><b>BIO-9:</b> Green sturgeon, Chinook salmon, and steelhead trout will be impacted during sand mining. (Class II)</p>	<p><b>BIO-9a:</b> Sand mining halted during peak Chinook salmon migration.</p>	<p>Suisan Bay and Western Delta lease areas, including Middle Ground Shoal and Suisun Associates.</p>	<p>Beginning March 1 of each year that the sand mining leases are in effect, the applicants shall communicate weekly with USFWS and CSLC to determine the timing of that year's outmigration peak. CSLC shall confirm in writing, based on physical inspection and/or electronic tracking data</p>	<p>Evidence that no sand mining has taken place during the peak outmigration period, as defined and reported by USFWS.</p>	<p>CSLC</p>	<p>Sand mining closure period to be determined prior to April 1 of each year. Confirmation of closure by June 1 of each year.</p>

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			(E-trac data) that no sand mining occurs during the peak outmigration period.			
	<b>BIO-9b:</b> Sand mining limited to daylight hours from January 1 to May 31.	Suisun Bay and Western Delta lease areas, including Middle Ground Shoal and Suisun Associates.	Applicant to submit quarterly E-trac data, including time of mining events. CSLC to confirm in writing that all mining events in Suisun Bay and Western Delta lease areas have occurred only during daylight hours from January 1-May 31 of each year.	Evidence that sand mining has taken place only during daylight hours during the period peak outmigration period January 1-May 31 of each year.	CSLC	Quarterly E-trac data to be submitted within one month of end of each quarter. CSLC written confirmation of compliance within two months of the end of each quarter.

Table 7-2. Mitigation Monitoring Program – Hazards and Hazardous Materials

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<b>HAZ-1:</b> Potential for accidental leak or spill of hazardous materials. (Class II)	<b>HAZ-1:</b> Provide a California Non-tank Vessel Contingency Plan (CANTVCP) to the CSLC.	Not applicable	Jerico to provide evidence of CDFG approval of CANTVCP.	Evidence of approved CANTVCP.	CDFG/CSLC	Within three months of certification of the EIR.

Table 7-3. Mitigation Monitoring Program – Air Quality

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<b>AIR-2:</b> Potential impacts on climate change. (Class II)	<b>AIR-2:</b> Prepare and implement a Greenhouse Gas Reduction Plan.	Project area	Applicants to submit and CSLC to review and approve GHG Reduction Plan. Applicants to provide annual evidence of confirmed GHG inventory and report of GHG Reduction Plan implementation.	Confirmed annual GHG inventories must demonstrate reduction or offset of GHG emissions to target level.	CSLC	Within three months of lease issuance.

Table 7-4. Mitigation Monitoring Program – Cultural Resources

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<b>CUL-1:</b> Inadvertent discovery of historical resources or "unique archaeological resources." (Class II)	<b>CUL-1:</b> Cease operations and notify California State Lands Commission and Army Corps of Engineers.	Project area	Applicants to provide immediate notification of any inadvertent discovery and evidence that operations have ceased in the immediate area of the discovery. Applicants to provide annual report of all inadvertent discoveries and responses.	Evidence of appropriate response to inadvertent discovery, including reporting and ceasing operations in the vicinity of the discovery.	CSLC	Ongoing during lease period; annual reports to be submitted by January 31 of each year.
<b>CUL-3:</b> Inadvertent discovery of human remains. (Class II)	<b>CUL-3:</b> Cease operations and notify County Coroner.	Same as CUL-1	Same as CUL-1	Same as CUL-1	Same as CUL-1	Same as CUL-1

Table 7-5. Mitigation Monitoring Program – Land Use and Recreation

Impact	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<b>LU-4:</b> Conflicts with regional or local land use plans or policies. (Class II)	<b>LU-4.</b> Implement MM BIO-6, BIO-8a, BIO-8b, BIO-9a, BIO-9b, HAZ-1, <b>AIR-2</b> CUL-1, and CUL-3.	Varies	See specific actions above for each mitigation measure.	See criteria above for each mitigation measure.	See responsible agencies above for each mitigation measure.	See above for each mitigation measure.