
2 AVOIDANCE AND MINIMIZATION MEASURES

To avoid and minimize effects on federally listed species and their habitat within the Action Area, the following section provides avoidance and minimization measures that would be implemented:

- Divers will be used to affix straps to the pipeline; no jetting or mechanical disturbance of the sediments will be utilized.
- The pipeline will be lifted slowly to reduce resuspension.
- A spud barge will be used to pull the pipeline up. The spuds will minimize anchoring and disturbance to the surrounding sediments.
- Vessel fueling will be required at an approved docking facility. No cross vessel fueling will be allowed. Marine vessels generally will contain petroleum products within tankage that is internal to the hulls of the vessels.
- To remove shoreline rip-rap and expose the final segment of pipeline, the shallow draft barge shall remain in place to conduct construction activities. Spuds will be used to affix the barge in place and reduce the need for anchoring. Personnel shall be transported daily to the barge by means of a plank from the shore to limit having to use support vessels and to minimize disturbance to bottom sediments.
- If anchoring is deemed necessary by the selected contractor an anchoring plan will be developed to minimize nearshore and offshore habitat disturbance. The Anchoring Plan shall require that the use of mooring anchors by vessels and barges shall be minimized. The Anchoring Plan shall further specify that if mooring anchors must be used, then a secondary support workboat shall be used to deploy and retrieve mooring anchors and that mooring anchors shall not be dragged along the seafloor.
- Vessels and equipment that rely on internal combustion engines for power and/or propulsion will be kept in good working condition, and compliant with California emission regulations.
- General Practices will be employed to prevent soil, concrete or grout from entering the Bay as a result of activities associated with abandoning the remaining portion of pipeline onshore.
- Construction activities will be performed between June and October to avoid impacts to sensitive species.
- In coordination with the city of Hercules and town of Rodeo, residences in the vicinity of the proposed Project will be notified of the Project schedule and duration.
- The contractor will conduct the appropriate coordination with the U.S. Coast Guard (USCG) to notify other vessel traffic during removal of the pipeline offshore