

Exhibit A - Mitigation Monitoring and Reporting Program

Project Applicant: County of Monterey RMA- Public Works Condition Compliance & Mitigation Monitoring and/or Reporting Plan	Project Name: Monterey Bay Sanctuary Scenic Trail- Moss Landing Bicycle/Pedestrian Path and Bridge Project File No: _____ APNs: <u>133-181-009, 133-173-005, 133-173-002</u> Approval by: <u>Monterey County Board of Supervisors</u> Date: _____
---	--

*Monitoring or Reporting refers to projects with an EIR or adopted Mitigated Negative Declaration per Section 21081.6 of the Public Resources Code.

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
	I(c)(1)	Concrete Roadside Barrier. Aesthetic treatments and/or color shall be considered during the design of the concrete roadside barriers. Proposed aesthetic treatments and/or color shall be approved by the California Department of Transportation (Caltrans) in consultation with input from the local community prior to the County of Monterey's (County) approval of project plans.	Aesthetic treatments and/or color shall be approved by Caltrans in consultation with input from the local community.	Project Applicant	Prior to the approval of project plans	
	I(c)(2)	Bridge Design. Prior to the approval of project plans, the County of Monterey shall ensure that the bicycle/pedestrian bridge over Elkhorn Slough is designed to complement the seaside character of the Moss Landing Harbor.	The County of Monterey shall ensure that the bicycle/pedestrian bridge over Elkhorn Slough shall be designed to complement the seaside character of the Moss Landing Harbor.	Project Applicant	Prior to the approval of project plans	
	I(c)(3)	Railing Design. Prior to the approval of project plans, the County of Monterey shall ensure that all railings developed as part of the proposed project, including bridge and retaining wall railings, are designed to be as visually open as possible and complement the aesthetic treatments of the new bridge and retaining walls.	The County of Monterey shall ensure that all railings developed as part of the proposed project are designed to be as visually open as possible and complement the new bridge and retaining walls.	Project Applicant	Prior to the approval of project plans	
	I(c)(4)	End Treatments. Prior to the approval of project plans, the County of Monterey shall ensure that end treatments associated with the proposed project are designed to	The County of Monterey shall ensure that end treatments are designed to appear similar to metal beam guardrails.	Project Applicant	Prior to the approval of project plans	

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is require for action to be accepted	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
		appear similar to metal beam guardrails. Advanced Dynamic Impact Extension Module (ADIEM) end-treatments shall not be used for end treatments associated with the proposed project.				
	IV(a)(1)	Preconstruction Nesting Bird Surveys. Prior to the issuance of a notice to proceed with project construction, the County of Monterey shall ensure that the project plans and special provisions specify that a qualified biologist shall be retained to complete preconstruction nesting birds surveys within 300 feet (ft) of all disturbance areas should construction be scheduled to occur within the nesting season (February 22 through August 21).	The County of Monterey shall ensure that project plans and special provisions specify that a qualified biologist shall be retained to complete preconstruction nesting bird surveys should construction be scheduled to occur within nesting bird season.	Project Applicant	Prior to construction	
	IV(a)(2)	Qualified Biologist for Construction Monitoring. Prior to the issuance of a notice to proceed with project construction, the County of Monterey shall ensure that the project plans and special provisions specify that a qualified biologist shall be retained to monitor the construction area for brown pelicans during construction. The biological monitor shall have the authority to stop or delay construction if it is determined that a given activity may pose a threat to brown pelicans.	The County of Monterey shall ensure that project plans and special provisions specify that a qualified biologist shall be retained to monitor the construction area for brown pelicans during construction.	Project Applicant	Prior to/ during construction	
	IV(a)(3)	Marine Mammal Protection Plan. Prior to construction, a Marine Mammal Protection Plan shall be developed for the proposed project and approved by the United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). The Marine Mammal Protection Plan shall include, but may not be limited to, the following measures: <ul style="list-style-type: none"> • A marine mammal impact zone shall be established by a qualified marine biologist, which shall require recording construction-related underwater sound pressure levels (SPL) by a qualified underwater acoustic monitor. The marine mammal impact zone is the area where marine mammals may be negatively 	The County of Monterey shall ensure that a Marine Mammal Protection Plan has been approved by the USFWS that includes, but is not limited to, the measures set forth in Mitigation Measure IV(a)(3).	Project Applicant	Prior to construction/ during construction	

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is require for action to be accepted.	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
		<p>affected by underwater noise generated by in-water construction such as pile driving.</p> <ul style="list-style-type: none"> • Based on the marine mammal impact zone, a buffer/safety zone to be monitored by a qualified biologist shall be established and approved by USFWS. An acceptable buffer is anticipated to be 500 ft from work activities, as was required during the construction of the public wharf and floating dock located on the north side of the mouth of Elkhorn Slough. The approved biologist shall monitor the buffer/safety zone during all in-water construction activities. Once established, the marine mammal buffer/safety zone shall be clearly marked with buoys for easy monitoring. Pile driving shall not begin until the buffer/safety zone is clear of marine mammals. • A “soft start” practice shall be implemented at the onset of pile-driving activities. Pile driving shall be initiated at an energy level less than full capacity (i.e., approximately 40–60 percent energy levels) for at least 5 minutes before gradually escalating to full capacity. The “soft start” practice would ensure that any pinnipeds that are undetected during monitoring of the buffer zone would not be injured. • Limit construction activities, including pile driving, to the daylight hours (8:00 a.m. to 5:00 p.m.) when marine mammals can be most effectively observed. In-water construction (e.g., pile driving) shall be limited to June 15 through October 15. • Construction monitoring by a qualified biologist shall be conducted during all work on the proposed bicycle/pedestrian bridge including over-water construction after the piles have been put in place. The biological monitor shall have the authority to stop or delay construction if it is determined that a given 				

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
		<p>activity may pose a threat to a marine mammal that has entered the buffer/safety zone.</p> <ul style="list-style-type: none"> • Prior to the initiation of in-water construction, a qualified biological monitor approved by USFWS and NMFS shall conduct monitoring of marine mammals to update existing information on the animals' occurrence in and near the project area, their movement patterns, and their use of any haul-out sites. This preconstruction monitoring shall take place at least 5 days prior to the start of in-water construction and shall cover a period of at least 1 week. • Prior to in-water construction, the approved biological monitor shall conduct environmental awareness training to instruct construction crews regarding the status and sensitivity of sensitive species and habitats (i.e., sea otters and other marine mammals) in the area and the actions to be taken to avoid or minimize impacts to sensitive species in the event sensitive species enter the in-water work area. All construction personnel will be required to sign a log verifying that they received and understood the information presented during the training. • The approved biological monitor shall be present during in-water construction activities to search for target marine mammal species and halt project activities that could result in injury or mortality to these species during the in-water activities and on-land pile driving. Each day, before pile driving (or other loud in-water construction activity) begins, the monitor shall survey the buffer zone for marine mammals. The monitor shall also scan for marine mammals throughout the aquatic portions of the project and vicinity. • The commencement of pile driving activities shall be 				

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is require for action to be accepted	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
		<p>delayed if marine mammals are present within a buffer zone¹ established in consultation with USFWS and NMFS around the new bridge work area. This buffer zone shall be based on pile-driving activities for similar projects and on the feasibility of monitoring the area for animals entering the project area from the open waters of Monterey Bay. The buffer radius shall be established based on a measurement of the distance the 160-decibel (dB) pressure travels in the underwater harbor waters and/or through the air. The radius shall be visibly flagged on the banks of the harbor during these activities. Each day, prior to the start of pile driving, the approved biological monitor shall survey the buffer zone for marine mammals. If a marine mammal is detected, pile driving shall be delayed until the marine mammal has moved beyond the buffer zone, which is verified by visual confirmation or lack of visual sighting with the next 15 minutes of the last sighting to assume that the animal has moved beyond the buffer zone. If the animal should move back into the buffer zone after the commencement of pile driving, no further work stoppage shall be necessary unless the animal comes within an unsafe distance of the work area that may result in injury to the animal. At this point, work shall cease to avoid physical injury to the animal. This distance shall be determined by USFWS and/or NMFS. The biological monitor shall</p>				

¹ A 500 ft radius is intended to be an initial buffer, prior to tests that determine the actual distance at which pile driving noise is recorded to be 160 dBs. Such a buffer has been used on other projects in the vicinity and was selected based on estimates that underwater noise levels can be conservatively predicted to fall below 160 dB outside a radius of between 33 ft and 300 ft for driving steel piles as large as 30 inches in diameter (ICF Jones and Stokes 2010). In addition, an initial 500 ft buffer zone was used for a project of a similar scale (i.e., the Sandholdt Road Bridge Replacement Project) (LSA 2004).

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is require for action to be accepted.	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
		<p>record the species and the numbers and behaviors of any animal(s) entering the buffer zone after the commencement of work, and shall notify the County of Monterey (County), the California Department of Transportation (Caltrans), and NMFS or USFWS via telephone and in writing within 48 hours. The biological monitor shall also submit a written description of the event to Caltrans (and in turn to NMFS and USFWS, as applicable) within 7 days.</p> <ul style="list-style-type: none"> • The buffer radius may be reduced or increased based on a measurement of the distance the 160 dB pressure travels in the underwater harbor waters and/or through the air. This would be determined using approved in-water and in-air acoustic monitoring devices. The County shall notify Caltrans in writing of the proposed change in buffer zone area, who in turn shall notify NMFS and/or USFWS. An approved biological monitor shall operate the monitoring devices during pile driving and any other loud construction activities (e.g., use of hydraulic tools). The devices, when placed at the determined buffer, shall produce acoustic data for the duration of noise-producing activities. An alarm would alert the biological monitor to sound levels approaching 160 dB. • At least 7 days prior to the start of pile driving, the floating dock located at the north end of the Biological Study Area (BSA) west of the existing State Route 1 (SR-1) Bridge shall be excluded from use by seals and sea lions. The proximity (100–300 ft) of this artificial haul-out to the bridge work area would minimize the opportunities for sea lions and seals to be within the buffer zone and therefore cause delays in initiating pile-driving activities. • No disturbance or noise shall be used to encourage the 				

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
		<p>movement of sea otters and other marine mammals from the work area. The County shall contact USFWS and NMFS to determine the best approach for exclusion of the marine mammals from the in-water work area.</p> <ul style="list-style-type: none"> • Other in-water construction activities (e.g., the use of heavy equipment to place riprap) shall generate noise levels equivalent to that of a diesel truck. For those activities, a 50 ft radius buffer zone shall be established. This buffer zone shall be clearly marked by highly visible stakes that are securely placed into the banks. Each day, before construction begins, the biological monitor shall search the 50 ft radius for marine mammals. If a marine mammal is sighted within the buffer zone, the biological monitor shall require the contractor to delay in-water construction activities until the biological monitor determines that no marine mammals are present within the buffer area. • The biological monitor shall keep a record of all observations of the target species. The information on each observation shall include: (a) species identification and approximate number of animals observed; (b) age class and sex of each animal (if possible); (c) activity and direction of movement; (d) ongoing project activities at the time of observation; (e) responses of target species to project activities; (f) any unusual behavior or circumstances observed (either project- or non-project related); and (g) location, date, and time of each observation. Summary monitoring reports shall be submitted to Caltrans, which shall forward reports to NMFS and USFWS by December 31 of each year that in-water construction activities take place. • In the event the biological monitor determines that a 				

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
		<p>marine mammal has been injured by project activities, all work shall cease and Caltrans shall be notified. Caltrans shall consult with NMFS and/or USFWS to determine if additional measures are necessary. Work may resume upon notification by Caltrans.</p> <ul style="list-style-type: none"> Post-construction monitoring shall be conducted to determine if marine mammals resume their use of haul-out sites. NMFS may require additional project conditions to be applied, depending on the outcome of post-construction monitoring. 				
	IV(a)(4)	<p>Acoustic Monitoring of Pile Driving. During pile driving activities, the project contractor shall ensure that sound levels from pile driving are limited to approved values stipulated by NMFS and USFWS in the conditions of approval for the project (typically 206 dB peak and 183–187 dB cumulative sound exposure levels [SEL], depending on the size of fish expected to be present). Acoustic monitoring as stipulated in the Final Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effect of Pile Driving on Fish (ICF Jones & Stokes and Illingworth and Rodkin 2009) shall be conducted during pile-driving activities. Attenuation methods such as those identified in the Final Technical Guidance (ICF Jones & Stokes and Illingworth and Rodkin 2009) under Best Management Practices (BMPs) (i.e., air bubble curtains) or other Caltrans, NMFS, and USFWS approved systems (i.e., AdBm Technologies sound attenuation system) shall be used to reduce sound levels to the maximum extent practicable.</p>	<p>The project contractor shall ensure that acoustic monitoring is conducted during pile driving activities and that peak sound levels from pile driving are limited to approved values stipulated by NMFS and USFWS in the project's conditions and approval. Attenuation methods such as air bubble curtains, shall be used to reduce sound levels to the maximum extent practicable.</p>	Project Contractor	During pile driving activities	
	IV(a)(5)	<p>Fish Monitoring During Pile Driving Activities. Prior to the issuance of a notice to proceed with project construction, the County of Monterey shall ensure that special provisions for the construction contract specify that in areas of strong current, pile driving shall occur when the</p>	<p>The County of Monterey shall ensure that special provisions for the construction contract include specifications that in areas of strong current, pile driving shall occur when the current is reduced, if</p>	Project Applicant	Prior to construction/ during pile driving activities	

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is require for action to be accepted.	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
		<p>current is reduced (i.e., centered around slack current), if feasible, in order to minimize the number of fish exposed to adverse levels of underwater sound. In addition, during pile-driving activities, the project contractor shall ensure that sound levels from pile driving are limited to approved values stipulated by NMFS and USFWS in the conditions of approval for the project (typically 206 dB peak and 183–187 dB cumulative SEL, depending on the size of fish expected to be present). Acoustic monitoring as stipulated in the Final Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effect of Pile Driving on Fish (ICF Jones & Stokes and Illingworth and Rodkin 2009) shall be conducted during pile-driving activities. Attenuation methods such as those identified in the Final Technical Guidance (ICF Jones & Stokes and Illingworth and Rodkin 2009) under BMPs (i.e., air bubble curtains) or other Caltrans, NMFS, and USFWS approved systems (i.e., AdBm Technologies sound attenuation system) shall be used to reduce sound levels to the maximum extent practicable.</p> <ul style="list-style-type: none"> • A qualified biological monitor shall be on site to monitor fish. If fish are observed to be injured or killed, pile driving shall cease immediately, Caltrans will notify NMFS, and the County will contact the California Department of Fish and Wildlife (CDFW) to determine appropriate steps to avoid additional damage to fish. • Prior to the initiation of construction activities, the approved biological monitor shall conduct environmental awareness training for all construction crews and supervisors. This training shall include information on the status of the sensitive species and habitats in the vicinity of the work area, how and where the sensitive species and habitats may be encountered 	<p>feasible to minimize the number of fish exposed to adverse levels of underwater sound. In addition, pile driving activities shall follow but not be limited to, the measures set forth in Mitigation Measure IV(a)(5).</p>			

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is require for action to be accepted.	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
		<p>within the work area, and procedures to follow when the species and habitats are encountered. Measures being implemented to minimize and avoid impacts to sensitive species and habitats shall also be discussed. At the end of the training, construction personnel shall sign a training log stating they attended the worker awareness program and they understand the protection measures being implemented. If additional construction personnel are added after the initial training, the new workers must be trained by the biological monitor prior to starting work.</p> <ul style="list-style-type: none"> • Results of monitoring shall be reported to the County and Caltrans within 2 weeks following the completion of pile-driving activities. • The proposed project shall implement a slow start, thereby allowing fish in the vicinity of the pile driving to move away from the pile before the full force of the pile driver is achieved. • Cast-in-steel shell (CISS) piles shall be set using a vibratory hammer rather than an impact hammer to help reduce overall sound and exposure levels in the slough and harbor. An impact hammer shall be used to drive the piles to final tip elevation. • Pile driving shall be limited to the sound level values stipulated by NMFS and USFWS in the conditions of approval for the project. A qualified biological monitor with experience in acoustic monitoring will work with the contractor to ensure that approved values are not exceeded. • In-water work shall be limited to the period of June 15 to October 15 during each construction season. Although steelhead are not likely to occur in the project area, the summer/fall in-water work window shall avoid in-water work when steelhead may be present. 				

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is require for action to be accepted.	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
		<ul style="list-style-type: none"> • A sound attenuation system that is approved by Caltrans, NMFS, USFWS, and CDFW will be used during pile driving to reduce sound levels to the maximum extent practicable. Examples of the sound attenuation system include air bubble curtain systems and the passive sound attenuation system such as that developed by AdBm Technologies. • All construction activities associated with construction of the new bridge and the removal and replacement of rock shore protection shall be conducted during daylight hours. Limiting work associated with these activities to these periods shall facilitate movement of workers between shore and barges, and monitoring of fish, marine mammals, and sound levels. • A monitoring plan shall be prepared and implemented to monitor noise levels during pile driving and ensure that noise levels do not exceed authorized levels. The plan shall identify at least two monitoring locations (e.g., one at 10 meters from the pile driving and one at the estimated cumulative SEL threshold distance). 				
	IV(a)(6)	Construction Hours. All pile driving, bridge construction, and trail construction shall take place during daylight hours (8:00 a.m. to 5:00 p.m.). This information shall be specified in the special provisions for the construction contract.	The County of Monterey shall ensure and enforce that all construction activities occur during daylight hours by specifying those allowable working hours in the construction contract.	Project Applicant	Prior to/ during construction	
	IV(a)(7)	Incidental Harassment Authorization. Prior to initiation of in-water construction, including moving work barges into the proposed project area, an Incidental Harassment Authorization (IHA) shall be obtained by the County of Monterey from the USFWS and NMFS for the proposed project under the authority of Section 101(a)(5)(D) of the Marine Mammal Protection Act.	The County of Monterey shall obtain an Incidental Harassment Authorization (IHA) from the USFWS and NMFS under the authority of Section 101(a)(5)(D) of the Marine Mammal Protection Act.	Project Applicant	Prior to construction	
	IV(b)(1)	Environmentally Sensitive Area Fencing for Estuarine Wetland/Open Water Habitat. Prior to vegetation	Prior to construction, highly visible barriers shall be installed within 100 feet	Project Contractor	Prior to construction	

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
		clearing, ground disturbance, or construction, highly visible barriers (such as orange construction fencing) shall be installed by the contractor around sensitive habitats adjacent to the proposed project footprint within 100 ft of estuarine wetland/open water habitat. The biological monitor will work with the contractor to identify the location of the fence and monitor its proper installation. No grading or fill activity of any type shall be permitted within these designated environmentally sensitive areas (ESAs). Heavy equipment, including motor vehicles, shall not be allowed to operate within the ESAs. All construction equipment shall be operated in a manner so as to prevent accidental damage to nearby preserved areas. All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities shall occur in developed or designated nonsensitive, upland, habitat areas. The designated upland areas shall be located in such a manner as to prevent the runoff from any spills from entering aquatic habitats. The ESAs shall be denoted on project construction plans and adjusted in the field as necessary prior to construction.	of estuarine wetland/open water and around sensitive habitats. No grading or fill activity or operation of heavy equipment shall be permitted in environmentally sensitive areas (ESAs) and all activities shall occur in developed or designated nonsensitive, upland, habitat areas. The ESAs shall be denoted on project construction plans and adjusted in the field as necessary prior to construction.			
	IV(b)(2)	Estuarine/Open Water Areas Construction Monitoring. During all phases of project construction, the monitoring biologist shall monitor construction activities within the vicinity of estuarine wetland/open water to ensure that wildlife species are not affected during construction and that avoidance and minimization measures are properly implemented.	The monitoring biologist shall monitor construction activities within the vicinity of estuarine wetland/open water to ensure that no wildlife species are affected and that specified mitigation and avoidance measures are implemented properly.	Project Contractor	During construction	
	IV(b)(3)	Construction Employee Environmental Awareness Training. Prior to the initiation of construction activities, environmental awareness training shall be implemented for all construction personnel. This training shall be developed and implemented by the biological monitor. At a minimum, the training shall include the following topics:	A preconstruction environmental awareness training, developed and implemented by the biological monitor, shall be provided to all construction personnel involved in the proposed project that includes, but is not limited to,	Project Contractor	Prior to construction	

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
		(1) biology conservation, and legal status of the sea otter, marine mammals, fisheries and nesting birds; (2) responsibilities of the biological monitor; (3) delineation and flagging of adjacent habitat; (4) limitations on all movement of those employed on site, including ingress and egress of equipment and personnel, to designated construction zones (e.g., personnel shall not be allowed access to adjacent sensitive habitats); (5) on-site pet prohibitions; (6) use of trash containers for disposal and removal of trash; and (7) project features designed to reduce the impacts to listed species and habitat and promote continued successful occupation of adjacent habitat areas. Training shall be repeated for any new construction personnel during the project construction period as needed.				
	IV(b)(4)	Prohibition of Chemicals Harmful to Biological Resources. During the construction and operation of the proposed project, the use of rodenticides, herbicides, insecticides, or other chemicals that could harm estuarine wetland/open water shall be prohibited. This measure will be specified on the project construction plans or special provisions and monitored by the project biological monitor.	The use of rodenticides, herbicides, insecticides, or any other chemicals potentially harmful to estuarine wetland/open water habitat shall be prohibited. This measure shall be specified on construction plan and monitored by the biological monitor.	Project Applicant, Project Contractor	Prior to/ during construction and operation	
	IV(b)(5)	Barge Plan. Prior to initiation of construction activities, the County of Monterey shall review and approve a barge plan, which shall be prepared by the contractor, that provides: (a) detailed procedures to be taken to avoid disturbing the harbor bottom during construction activities and procedures to be followed if the barge bottoms out; and (b) detailed methods and procedures to prevent invasive species from entering Elkhorn Slough during the use of barges. The specific methods and procedures to prevent movement of invasive aquatic species shall follow regulations current at the time of project construction and	The County of Monterey shall review and approve a barge plan prepared by the project contractor that details procedures to be taken to avoid disturbing the harbor bottom during construction activities and methods to prevent invasive species from entering Elkhorn Slough during the transport of barges into Elkhorn Slough during construction.	Project Applicant, Project Contractor	Prior to/ during construction	

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
		<p>the measures shall be approved by the appropriate agencies prior to the temporary transport of the barges into Elkhorn Slough. At a minimum, the barge plan shall include the following measures if barges are being transported from areas with invasive aquatic species (i.e., San Francisco Bay):</p> <ul style="list-style-type: none"> • Emptying of ballast tanks outside the boundaries of the National Marine Sanctuary and prior to entrance into Monterey Bay; • Flush ballast tanks with freshwater, which shall be held in the tanks for at least two days and maintained in the ballast during the length of the project, if possible; • Flush raw water cooling systems and clean sea strainers appropriately prior to moving the barges into Elkhorn Slough; • Prior to departure from San Francisco Bay, the hull shall be inspected for non-native invasive species above and below water-line by divers. If a species is found that closely resembles one of the least wanted invaders, an expert shall be consulted to determine correct identification. If determined to be an invasive non-native species, a report shall be filed with the Elkhorn Slough Natural Estuarine Research Reserve (ESNERR) at (831) 728-2822. Should the expert be unavailable, the material shall be removed by hand and disposed of properly in garbage receptacles on land. The barges shall be transported to Elkhorn Slough within 3 days of completing removal of invasives in order to prevent inoculation. Upon arrival to and prior to entering the Elkhorn Slough, the hull shall be inspected again. 				

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
		This barge plan shall be specified on the project construction plans or special provisions and the terms of the plan shall be monitored by the project biological monitor.				
	IV(b)(6)	Storm Water Pollution Prevention Plan. Prior to the issuance of a notice to proceed with project construction, the County of Monterey shall review and approve a site-specific Storm Water Pollution Prevention Plan (SWPPP) that will identify specific BMPs for each construction activity to eliminate or minimize the potential for the discharge of polluted storm water or unauthorized non-storm water. Specific BMPs shall be implemented during proposed project construction so as not to cause or contribute to an exceedance of any water quality standard. In addition, changes to the BMPs such as alternative mechanisms, if necessary, during proposed project design and/or construction shall be implemented in order to achieve the stated goals and performance standards. These may include silt curtains or turbidity curtains that would contain resuspended sediment on site until it settles.	The County of Monterey shall review and approve a site-specific Storm Water Pollution Prevention Plan (SWPPP) prepared by the project contractor that will identify specific best management practices (BMPs) to eliminate or minimize the potential for the discharge of polluted storm water or unauthorized non-storm water during construction.	Project Applicant, Project Contractor	Prior to/ during construction	
	IV(b)(7)	Habitat Mitigation and Monitoring Plan. Prior to the issuance of a notice to proceed with project construction, the County of Monterey shall assure that a Habitat Mitigation and Monitoring Plan (HMMP) has been developed for the proposed project in coordination with the United States Army Corps of Engineers (Corps), the Regional Water Quality Control Board (RWQCB), and the California Coastal Commission (CCC) to ensure no net loss of estuarine habitat value or acreage. Final details for compensatory mitigation shall be evaluated through coordination among the County, Caltrans, and the resource agencies, including the CCC. The HMMP shall comply with all terms and conditions set forth in the permits (401 and 404) and conditions issued by the resource agencies	The County of Monterey shall coordinate with the United States Army Corps of Engineers (Corps), the Regional Water Quality Control Board (RWQCB), and the California Coastal Commission (CCC) to develop a Habitat Mitigation and Monitoring Plan (HMMP) to ensure no net loss of estuarine habitat value or acreage. Caltrans and the resource agencies shall evaluate the final details for compensatory mitigation. The HMMP shall comply with all terms and conditions set forth in permits and opinions issued by the resource agencies	Project Applicant, Caltrans Resource Agencies	Prior to construction	

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
		<p>(USFWS, NMFS, and CDFW) and shall typically include the following provisions:</p> <p>Estuarine habitat will be restored in-kind and on site at a minimum 1:1 ratio within the BSA, if feasible. If off-site restoration is required, it will be done within the same watershed as the proposed project.</p> <p>An establishment period for the replacement habitat, regular trash removal, and regular maintenance and monitoring activities to ensure the success of the mitigation plan until the replacement habitat is deemed satisfactory by the resources agencies (USFWS, NMFS, and CDFW).</p>	and shall include, but not be limited to, the provisions set forth in Mitigation Measure IV(b)(7).			
	IV(b)(8)	<p>ESA Fencing for Dune Scrub Habitat. Prior to vegetation clearing, ground disturbance, or construction, highly visible barriers (such as orange construction fencing) shall be installed around dune scrub habitat adjacent to the proposed project footprint to designate ESAs to be preserved. No grading or construction activity or staging shall be permitted within this habitat. In addition, heavy equipment, including motor vehicles, shall not be allowed to operate within the ESAs. All construction equipment shall be operated in a manner so as to prevent accidental damage to nearby preserved areas. All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities shall occur in developed or designated nonsensitive, upland, habitat areas. This measure shall be specified on the project construction plans and monitored by the project biological monitor.</p>	The County of Monterey shall assure that highly visible barriers are built around dune scrub habitat adjacent to the proposed project to identify environmentally sensitive areas (ESAs) to be preserved. No grading or construction activity, or the operation of heavy equipment, shall be permitted in ESAs and all activities shall occur in developed or designated nonsensitive, upland, habitat areas.	Project Applicant, Project Contractor	Prior to construction	
	IV(d)(1)	<p>Construction Hours. County of Monterey shall specify in the construction plans or special provisions that construction activities are limited to daylight hours (8:00</p>	The County of Monterey shall ensure that construction activities are limited to daylight hours to avoid and minimize the	Project Applicant, Project	Prior to/ during construction	

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	<i>Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Department</i>	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
		a.m. to 5:00 p.m.).	potential impacts to wildlife movement.	Contractor		
	IV(e)(2)	Tree and Root Protection. Trees that are located close to the construction site(s) shall be protected from inadvertent damage from construction equipment by fencing off the canopy drip-lines and/or critical root zones (whichever is greater) with protective materials, wrapping trunks with protective materials, avoiding fill of any type against the base of the trunks and avoiding an increase in soil depth at the feeding zone or drip-line of the retained trees. Said protection, approved by a certified arborist, shall be demonstrated prior to issuance of building permits subject to the approval of the Resource Management Agency (RMA) – Director of Planning. If there is any potential for damage, all work must stop in the area and a report, with mitigation measures, shall be submitted by a certified arborist. Should any additional trees not included in this permit be harmed, during grading or construction activities, in such a way where removal is required, the County of Monterey shall obtain required permits.	The project contractor shall ensure that trees that are located close to the construction site shall be protected from damage by fencing off the canopy and/or critical root zones with protective materials, wrapping trunks with protective materials, avoiding fill of any type against the base of trunks, and avoiding an increase in soil depth at the feeding zone or drip-line of the retained trees. These protection measures shall be approved by a certified arborist.	Project Contractor, RMA-Planning Department	Prior to the issuance of building permits and during construction	
	IV(e)(3)	Tree and Root Protection. Prior to beginning any tree removal, trees which are located close to trees approved for removal shall be protected from inadvertent damage from equipment or tree removal activity by fencing off the canopy drip-lines and/or critical root zones (whichever is greater) with protective materials. Any tree protection measures recommended by a County-approved tree consultant, in addition to the mitigation measure, shall be implemented.	The County of Monterey shall hire an arborist to conduct on-site monitoring services that include ensuring that tree protection measures are in place and that trees to be retained are not damaged.	Project Applicant	Prior to tree removal	

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
	V(a)(1)	<p>Cultural Resources Negative Archaeological Report. If, during the course of construction, cultural, archaeological, historical, or paleontological resources are uncovered at the site (surface or subsurface resources), work shall be halted immediately within 50 meters (165 feet) of the find until a qualified professional archaeologist can evaluate it. The County of Monterey Resource Management Agency (RMA) – Planning and a qualified archaeologist (i.e., an archaeologist registered with the Register of Professional Archaeologists) shall be immediately contacted by the responsible individual present on site. When contacted, the project planner and the archaeologist shall immediately visit the site to determine the extent of the resources and to develop proper mitigation measures required for the discovery.</p>	<p>If cultural, historical, or paleontological resources are uncovered during construction, work shall be stopped within 50 meters (165 feet) of the resource. In addition, the construction contractor shall contact the County of Monterey RMA- Planning and a qualified archaeologist immediately. When contacted, the project planner and the archaeologist shall immediately visit the site to determine the extent of the resources and to develop proper mitigation measures required for the discovery.</p>	<p>Project Contractor, Project Applicant</p>	<p>During construction</p>	
	V(d)(1)	<p>Cultural Resources Positive Archaeological Report. If human remains are accidentally discovered during construction, the following steps will be taken.</p> <p>There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:</p> <ul style="list-style-type: none"> • The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and if the coroner determines the remains to be Native American: <ul style="list-style-type: none"> ○ The coroner shall contact the Native American Heritage Commission and the RMA – Planning within 24 hours. ○ The Native American Heritage Commission shall identify the person or persons from a recognized local tribe of the Esselen, Salinan, Costonoans/Ohlone 	<p>If human remains are uncovered at the project site, work shall be halted immediately until the coroner of Monterey County can evaluate them. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of identification. Pursuant to Section 5097.9 and 5097.993 of the Public Resources Code, the Native American Heritage Commission shall identify a “Native American Most Likely Descendent” to inspect the site and provide recommendations for the proper treatment of the remains and any associated grave goods.</p>	<p>Project Applicant, Project Contractor</p>	<p>During construction</p>	

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.	Responsible Party for Compliance	Timing	Verification of Compliance (name/date)
		<p>and Chumash tribal groups, as appropriate, to be the most likely descendent.</p> <ul style="list-style-type: none"> ○ The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.9 and 5097.993, or <ul style="list-style-type: none"> • Where the following conditions occur, the landowner or his authorized representatives shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance: • The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission. • The descendent identified fails to make a recommendation; or • The landowner or his authorized representative rejects the recommendation of the 				

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.	Responsible Party for Compliance	Timing	Verification of Compliance (name/date)
		descendent, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.				
	VIII(d)(1)	Soil/Fill Contaminant Testing. Prior to construction, the project contractor shall test the fill material behind the riprap along the shore of Moss Landing Harbor and the man-made fill associated with the former Pajaro Valley Consolidated Railroad railroad bed south of Elkhorn Slough for the presence of soil contaminants. The results of the soil/fill testing will determine the handling and disposal of potentially contaminated soils within the proposed project area.	The project contractor shall test the fill material behind the riprap along the shore of Moss Landing Harbor and the man-made fill associated with the former Pajaro Valley Consolidated Railroad railroad bed south of Elkhorn Slough to determine the proper handling of any contaminated soils.	Project Contractor	Prior to construction	
	VIII(d)(2)	Aerially Deposited Lead Testing. Prior to construction, the County of Monterey shall test the portion of the proposed project between Stations 68+00 and 86+30 for the presence of aerially deposited lead (ADL) in accordance with California Department of Transportation guidelines. Results of the ADL testing will determine the handling, reuse, and disposal of potentially ADL contaminated soils within the proposed project area.	The County of Monterey shall test the portion of the proposed bicycle/pedestrian pathway between Stations 68+00 and 86+30 for the presence of aerially deposited lead (ADL) in accordance with Caltrans guidelines, and then properly dispose of any contaminated soils.	Project Applicant	Prior to construction	
	IX(a)(1)	Construction General Permit Requirements. The County of Monterey (County) shall ensure that the proposed project complies with the requirements of the National Pollutant Discharge Elimination System (NPDES) Construction General Permit (Order No. 2009-009-DWQ, as amended by 2010-0014- DWQ and 2012-0006-DWQ); NPDES No. CAS000002 and any subsequent permits as they relate to construction activities. This will include submission of the Permit Registration Documents, including a Notice of Intent, risk assessment, site map, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and signed certification statement to the State Water	The County of Monterey shall comply with the requirements of the National Pollution Discharge Elimination System (NPDES Construction General Permit, (Order No. 2009-009-DWQ, as amended by 2010-0014-DWG and 2012-0006-DWQ; NPDES No. CAS000002) and any subsequent permits as they relate to construction activities. This will include submission of the Permit Registration Documents, including a Notice of Intent, risk assessment, site map, Storm Water	Project Applicant	Prior to construction	

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.	Responsible Party for Compliance	Timing	Verification of Compliance (name/date)
		Resources Control Board via the Storm Water Multi-Application and Report Tracking System at least 30 days prior to the start of construction. Construction activities will not commence until a Waste Discharger Identification number is received from the Storm Water Multi-Application and Report Tracking System. The SWPPP will be prepared by a Qualified SWPPP Developer; will meet the requirements of the Construction General Permit; and will identify potential pollutant sources associated with construction activities, including potential pollutants from in-water construction work, such as barge work, identify non-storm water discharges, develop a water quality monitoring and sampling plan, and identify, implement, and maintain Best Management Practices (BMPs), including protection of slough waters from barge activity, to reduce or eliminate pollutants associated with the construction site. BMPs will include, but not be limited to, Good Housekeeping, Erosion Control, and Sediment Control BMPs. The BMPs identified in the SWPPP will be implemented during project construction. The County will comply with the sampling and reporting requirements of the Construction General Permit, as applicable. If required, a Rain Event Action Plan will be prepared and implemented by a Qualified SWPPP Developer within 48 hours prior to a rain event of 50 percent or greater probability of precipitation according to the National Oceanic and Atmospheric Administration. The County or their contractor shall also prepare and submit an Annual Report no later than September 1 of each year using the Storm Water Multi-Application and Report Tracking System. A Notice of Termination shall be submitted to the State Water Resources Control Board within 90 days of completion of construction and stabilization of the site.	Pollution Prevention Plan (SWPPP), annual fee, and signed certification statement to the State Water Resources Control Board via the Storm Water Multi-Application and Report Tracking System. In addition, the SWPPP shall be designed to identify potential pollutant sources associated with construction activities; identify non-storm water discharges; develop a water quality monitoring and sampling plan; and identify, implement, and maintain Best Management Practices (BMPs) to reduce or eliminate pollutants associated with the construction site.			
	IX(a)(2)	Source Control and Site Design BMPs. During	The County of Monterey shall include	Project	Prior to	

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.	Responsible Party for Compliance	Timing	Verification of Compliance (name/date)
		<p>development of plans, specifications, and estimates (PS&E), the County of Monterey shall incorporate source control and site design Best Management Practices (BMPs). The BMPs shall be properly designed and maintained to target pollutants of concern. These Source Control and Site Design BMPs shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Site Design and Landscape Planning. Existing vegetation shall be preserved to the extent possible during proposed project construction. Where vegetation must be disturbed, it shall be reestablished with erosion control seeding. Only plant species that do not require irrigation or maintenance shall be incorporated into the replanting plans. 	<p>details about the proposed project-specific source control and site design Best Management Practices (BMPs) to target pollutants of concern during project construction and operation as part of the development plans, specifications, and estimates.</p>	Applicant	construction	
	IX(a)(3)	<p>Operational BMPs. The County of Monterey shall incorporate operational Best Management Practices (BMPs). The BMPs shall be properly designed and maintained to target pollutants of concern. These operational BMPs shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Pet Waste Control. Signs notifying the public to pick up and properly dispose of pet waste shall be placed in landscaped areas adjacent to the proposed project. • Trail Sweeping Program. A sweeping program shall be implemented to periodically sweep the proposed project in order to minimize the potential for pollutant loads from these areas in storm water and dry weather flows. • Litter Control Program. The litter control program shall focus on litter control removal along the proposed project and landscaped areas. • Drainage Facility Inspection. On-site drainage facilities shall be inspected and cleaned/maintained as necessary, at a minimum annually, prior to October 1. 	<p>The County of Monterey shall implement Best Management Practices (BMPs) during project operation to target pollutants of concern in the proposed project area.</p>	Project Applicant	During operation	

Exhibit A - Mitigation Monitoring and Reporting Program

Permit Cond. No.	Mitig. No.	Conditions of Approval and/or Minimization/Mitigation Measures and Responsible Land Use Dept.	Compliance or Monitoring Actions to be performed. Where applicable, a certified professional is required for action to be accepted.	Resp. Party for Compliance	Timing	Verification of Compliance (name/date)
	IX(c)(4)	Erosion Control Plan. The County of Monterey (County) shall ensure that the proposed project complies with the County Municipal Code, Chapter 16.12. During the plans, specifications, and estimates (PS&E) phase, an Erosion Control Plan shall be prepared to indicate the proposed methods for the control of runoff, erosion, and sediment movement.	The County of Monterey shall ensure that the Erosion Control Plan for the proposed project is consistent with the County Municipal Code, Chapter 16.12 and that the proposed methods for erosion control are provided on the plans, specifications, and estimates.	Project Applicant	Prior to construction	
	XII(a)(1)	Muffling Devices. During construction, the contractor shall ensure that all construction equipment is fitted with appropriate sound muffling devices, which shall be properly maintained and used at all times such equipment is in operation.	The County of Monterey shall ensure that all construction equipment is fitted with appropriate sound muffling devices, which shall be properly maintained and used at all times.	Project Contractor	During construction	
	XII(a)(2)	Placement of Stationary Construction Equipment. During construction, the project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.	The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.	Project Contractor	During construction	
	XII(a)(3)	Placement of Construction Staging Areas. During construction, the contractor shall locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site during construction activities.	The project contractor shall locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site.	Project Contractor	During construction	
	XII(a)(4)	Construction Hours. Except as otherwise permitted, construction activities shall be restricted to the hours of 8:00 a.m. to 5:00 p.m. weekdays; noise-producing construction activities shall be prohibited on Saturdays, Sundays, and legal holidays within 500 feet of a noise-sensitive land use.	The project contractor shall ensure that all construction activities are restricted to the hours of 8:00 a.m. to 5:00 p.m.	Project Contractor	During construction	

Exhibit A - Mitigation Monitoring and Reporting Program

This page intentionally left blank