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Mitigation Monitoring and Reporting Program for the Port of Stockton Rail Bridge Replacement and Rail Improvements Project

Prepared for the Port of Stockton

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Prepared for

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1 Introduction

On September 20, 2021, the Port of Stockton (Port), in compliance with the California Environmental Quality Act (CEQA; California Public Resources Code [PRC], Division 13, Section 21000 et seq.) and CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.), certified an Initial Study/Mitigated Negative Declaration (IS/MND) to support the approval of the proposed Rail Bridge Replacement and Rail Improvements Project (proposed project), in accordance with 22 CCR 66265 et seq. The proposed project entails the replacement of a functionally obsolete rail bridge and construction of a new lead track to increase the overall efficiency of train operations within the Port's rail system.

Assembly Bill 3180 (AB 3180), codified in PRC Section 21081.6, became effective January 1, 1989 and requires a Lead or Responsible Agency to adopt a mitigation monitoring and reporting program (MMRP) when approving or carrying out a project. The purpose of this program is to ensure that when an environmental document (either an environmental impact report or a negative declaration) identifies measures to reduce potential adverse environmental impacts to less-than-significant levels, those measures are implemented as detailed in the environmental document. As lead agency for the IS/MND, the Port is responsible for implementation of this MMRP.

The IS/MND prepared for the proposed project addresses the potential environmental impacts, and, where appropriate, recommends measures to mitigate these impacts. As such, this MMRP is required to ensure that adopted mitigation measures are successfully implemented and a monitoring strategy was prepared for each mitigation measure. Once the Port adopts the MMRP, the applicable Port departments will include the mitigation monitoring and reporting requirements in the appropriate documents. Therefore, in accordance with the aforementioned requirements, this document lists each mitigation measure, describes the methods for implementation and verification, and identifies the responsible party or parties.

2 Monitoring Program

Pursuant to AB 3180, this MMRP was prepared to verify compliance with individual mitigation measures. This MMRP identifies each mitigation measure by discipline, the entity or organization responsible for implementation, the timing for implementation, and the entity responsible for monitoring implementation of each measure.

Table 1
Mitigation and Monitoring Program

Mitigation Monitoring Program The Port of Stockton Rail Bridge Replacement and Rail Improvements Project		
Mitigation Measure	Responsible Party and Implementation	Timing and Monitoring
MM-AQ-1: Construction Idling Reductions. The Port will require construction contractors to minimize heavy-duty construction idling time to 2 minutes where feasible. Exceptions include vehicles that need to idle to perform work (such as a crane providing hydraulic power to the boom), vehicles being serviced, or vehicles in a queue waiting for work.	The Port will include requirements in all construction contracts. The Port will require construction contractors to minimize heavy-duty construction idling time to 2 minutes where feasible.	Implemented prior to and during construction with monitoring by the Port.
MM-AQ-2: Use of Tier 4 Engines During Construction. All land-based construction equipment will use USEPA Tier 4 Final engines, except for specialized equipment or when Tier 4 engines are not available. In place of Tier 4 engines, off-road diesel-powered heavy equipment will incorporate retrofits such that emission reductions are achieved equal to or exceeding that of a Tier 4 engine.	The Port will include requirements in all construction contracts. The Port will require construction contractors to use USEPA Tier 4 Final engines, except for specialized equipment or when Tier 4 engines are not available.	Implemented prior to and during construction with monitoring by the Port.
MM-AQ-3: Evaluate Vegetative Barriers. The Port will evaluate areas to potentially include vegetative barriers along the lead track, specifically in the area between the track and residential communities on West Scotts Avenue.	The Port will retain a qualified landscaper to evaluate potential plant species and location(s) for potential installation of a vegetative barrier(s) along areas of the lead track.	The evaluation would occur prior to and/or during construction by the Port, with installation of any vegetative barrier(s) during or following lead track construction.
MM-BIO-1: Obtain Coverage under the SJMSCP or Conduct Nesting Bird Surveys; Bat Surveys and Avoidance Measures; Elderberry Surveys, Setbacks, and Compensation; and Western Pond Turtle Buffer Establishment. To avoid impacts on potentially present special-status species, the proposed project will apply to obtain coverage under the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). The SJMSCP is a voluntary program that allows for participants to be issued streamlined ESA and CESA approvals (Incidental Take Permits) and to mitigate for impacts to certain special-status species. The Port will submit an application for coverage to San Joaquin Council of Governments (SJCOG), the agency that administers the SJMSCP, within 60 days of project construction. SJCOG will review the proposed project, prepare a staff report, and submit the report to the SJMSCP Habitat Technical Advisory Committee, which determines whether the proposed project will be covered under the	The Port will submit an application for coverage to San Joaquin Council of Governments (SJCOG) within 60 days prior to project construction. Assuming the proposed project is approved for coverage, a SJCOG biologist will conduct a site visit to determine which incidental take minimization measures (ITMMs) included in the SJMSCP are applicable to the project. SJCOG will then execute a final summary of applicable ITMMs for the proposed project. The Port will implement all required ITMMs identified by the SJCOG.	Application submitted by the Port within 60 days of project construction. ITMMs implemented prior to and during any ground-disturbing activities.

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SJMSCP. Assuming the proposed project is approved for coverage, a SJCOG biologist will conduct a site visit to determine which incidental take minimization measures (ITMMs) included in the SJMSCP are applicable to the project. SJCOG will then execute a final summary of applicable ITMMs for the proposed project. ITMMs will include surveys, monitoring, and applying temporary construction buffers, if determined appropriate by SJCOG. The Port will implement all required ITMMs identified by the SJCOG. Ground disturbance will not occur until the ITMMs have been satisfied. – If the proposed project is not able to obtain coverage under the SJMSCP, the Port will implement the following avoidance and minimization measures specific to nesting birds (including swallows), bats, VELB, and western pond turtle: ▪ For nesting birds, alternatives to SJMSCP coverage include surveys and avoidance measures consistent with CDFW's standard requirements. If equipment staging, site preparation, or other project-related construction work is scheduled to occur between February 1 and September 15—the nesting season of protected raptors and other avian species—a CDFW-approved biologist will conduct a pre-construction survey of the project area for active nests within 7 days prior to starting project construction. The minimum survey area will be 250 feet for passerines, 500 feet for small raptors, and 1,000 feet for larger raptors. Surveys will be conducted during periods of peak activity (early morning or dusk) and be of sufficient duration to observe movement patterns. If a lapse in project-related work of 15 days or longer occurs, another survey will be performed before construction is re-initiated. If any active bird nests are found, a buffer around the nest will be established by the biologist in coordination with CDFW. The buffer area will be fenced off from work activities and avoided until the young have fledged, as determined by the biologist. The biologist will monitor the active nest until the young have fledged, for at least 2 hours per day when project activities are occurring to observe the behavior of the nesting birds. If the birds show signs of disruption to nesting activities (e.g., defensive flights or vocalizations directed toward	Ground disturbance will not occur until the ITMMs have been satisfied. If the proposed project is not able to obtain coverage under the SJMSCP, the Port will implement avoidance and minimization measures specific to nesting birds (including swallows), bats, VELB, and western pond turtle.	

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project personnel, standing up from a brooding position, or flying away from the nest), the buffers will be expanded by the biologist until no further interruptions to nesting behavior are detectable. - For swallows, alternatives to SJMSCP coverage include avoidance measures consistent with CDFW's standard requirements. Before nesting swallow season (February 1 to September 30), the Port, in consultation with CDFW, will install exclusionary devices on existing bridge structures to prevent the establishment of swallow nests within the footprint of the project area. Exclusionary devices will be limited to solid materials and will not contain monofilament netting or similar material. Exclusionary devices will be inspected weekly while in place to ensure they are in good condition and functioning properly. During inspection, if exclusionary devices need repair, the Port will make repairs immediately upon discovery. Project activities will not be initiated or conducted if an active swallow nest is detected on-site. The qualified biologist will conduct a survey of the bridges no more than 5 days prior to construction activity to ensure that no active nests are present. If any active nests are found, the qualified biologist will establish an appropriate buffer to comply with the Migratory Treaty Act of 1918 and Fish and Game Code 3503. The qualified biologist will increase the buffer if nesting birds show signs of unusual or stressed behavior as a result of project activities. The qualified biologist will have the authority to stop project work activities near the nesting birds if the nesting birds exhibit abnormal behavior, which may cause nest abandonment or the loss of eggs and/or young, until an appropriate buffer is established. To avoid encroachment, the buffers will be clearly marked for avoidance and remain in effect until the young have fledged or until the nest has been abandoned as confirmed by the qualified biologist. - For bats, alternatives to SJMSCP coverage include surveys and avoidance measures consistent with CDFW's standard requirements. A qualified bat biologist will conduct daytime and evening acoustic surveys for bats within 14 days prior to beginning project construction or work at or within 50 feet of the bridges. If bats are		

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identified on-site, the qualified biologist will identify the species, estimated quantity present, roost type, and roost status, but will avoid disturbing bats during surveys. If foraging bats, active roosts, or other signs of bat activity (i.e., guano, urine staining) are identified on-site, the qualified bat biologist will flag or mark all roosts and actively used features for avoidance. If complete avoidance is not possible (i.e., roosts within the bridge structures), then the qualified bat biologist will develop a Bat Mitigation and Monitoring Plan in consultation with CDFW. The Bat Mitigation and Monitoring Plan will include an assessment of all anticipated impacts to bats, including noise disturbance during construction, effective avoidance and minimization measures to protect bats, and compensatory mitigation for permanent impacts to bats or their nesting/roosting habitat. Construction will commence only after the Bat Mitigation and Monitoring Plan is implemented. ▪ For VELB, alternatives to SJMSCP coverage include the following for areas with elderberry bushes identified in pre-construction surveys: ◦ If elderberry shrubs are present on the project site, a setback of 20 feet from the dripline of each elderberry bush will be established. ◦ Brightly colored flags or fencing will be placed surrounding elderberry shrubs throughout the construction process. ◦ For all shrubs without evidence of VELB exit holes which cannot be retained on the project site as described in the previous two bullets, the Port will count all stems of 1-inch or greater diameter at ground level during preconstruction surveys. Compensation for removal of these stems will be provided by the Port in coordination with the U.S. Fish and Wildlife Service (USFWS) and CDFW. ◦ For all shrubs with evidence of VELB exit holes, the Port would undertake transplanting of elderberry shrubs displaying evidence of VELB occupation to VELB mitigation sites during the dormant period for elderberry shrubs (November 1 to		

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February 15). For elderberry shrubs displaying evidence of VELB occupation that cannot be transplanted, compensation for removal of shrubs will be provided by the Port in coordination with USFWS and CDFW. For western pond turtle, alternatives to SJMSCP coverage will include establishing a 300-foot buffer area between any nesting turtle sites and the wetland located near the nesting site. These buffers will be indicated by temporary fencing if construction has or will begin before nesting periods are ended (the period from egg laying to emergence of hatchlings is normally April to November).		
MM-BIO-2: Obtain and Implement NPDES Construction Stormwater General Permit. A NPDES Construction Stormwater General Permit will be obtained for the proposed project, which will require the development of a construction Stormwater Pollution Prevention Plan (SWPPP). The construction SWPPP will include best management practices (BMPs) including or similar to use of barriers (e.g., netting or sandbags) to prevent pollutants from entering the water, equipment inspection for spills, and maintenance and implementation of material spill prevention and cleanup plans. The construction SWPPP will ensure that contaminants are not accidentally introduced into the waterway.	The Port will be responsible for obtaining the NPDES Construction Stormwater General Permit and creating and implementing the SWPPP. The Port will submit an application for coverage to RWQCB within 60 days prior to project construction.	Permit obtained prior to the start of construction. SWPPP implementation during construction with monitoring by the Port.
MM-BIO-3: Conduct In-Water Construction During Established Window. All in-water work will be conducted during the annual CDFW, National Marine Fisheries Service, and USFWS approved work window, which is expected to span from July 1 through November 30.	The Port will include requirements in all construction contracts for construction contractors to conduct all in-water work during the approved work windows.	In-water work completed during the approved window, expected to span from July 1 through November 30.
MM-BIO-4: Employ Soft-Start Techniques, Use Noise Attenuation Device, and Conduct Underwater Noise Monitoring During Impact Pile Driving. During construction, the Port will implement soft-start techniques for impact pile driving, which is industry standard and will be required per regulatory permits. Soft start techniques include bringing pile driving or other loud equipment online slowly, providing any fish that are potentially present the opportunity to disperse from the project area. The Port will also employ a bubble curtain or similar noise attenuation methodology during all impact hammer use. To verify conditions meet the assumptions used in the analysis,	The Port will retain a qualified biologist or hydroacoustic specialist to prepare an underwater noise monitoring plan. The Port will submit the prepared plan to obtain agency approval. Following agency approval of the plan, the Port will comply with the provisions of the plan including conducting noise monitoring during impact hammer use.	Implemented prior to and during construction with monitoring by the Port.

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the Port will prepare an underwater noise monitoring plan, obtain agency approval of the plan, and conduct noise monitoring during impact hammer use.	The Port will require construction contractors to implement soft-start techniques and use noise attenuation devices during impact pile driving. The Port will include soft-start techniques and other underwater noise attenuation requirements in construction contracts.	
MM-BIO-5: Compliance with Permitting Requirements for In-Water or Riparian Habitat Work. For work with the potential to affect jurisdictional waters and wetlands, the Port will conduct a delineation of wetlands/waters and comply with permitting requirements from USACE, Regional Water Quality Control Board (RWQCB), and CDFW to avoid and minimize impacts to jurisdictional waters and riparian habitats. For any unavoidable impacts, compensation for impacts to jurisdictional waters will be provided at agency-approved mitigation ratios, including compensation for permanent fill (1:1 ratio minimum) and compensation for temporary impacts to fish habitat through purchasing aquatic habitat credits at the Shin Kee Mitigation Bank (anticipated to be between 0.3 and 0.6 acre-credits), which is expected to start selling habitat and wetland credits in 2022. Work occurring in stream-dependent riparian habitats will also occur in compliance with permitting requirements from CDFW. The Port will implement erosion control measures, design staging and refueling areas, and require equipment inspections and maintenance to avoid impacts on riparian areas.	The Port will retain a qualified biologist to conduct a delineation of wetlands/waters and comply with permitting requirements from USACE, RWQCB, and CDFW to avoid and minimize impacts to jurisdictional waters and riparian habitats. For any unavoidable impacts, the Port will provide compensation at agency-approved mitigation ratios, including compensation for permanent fill (1:1 ratio minimum) and compensation for temporary impacts to fish habitat through purchasing aquatic habitat credits at the Shin Kee Mitigation Bank (anticipated to be between 0.3 and 0.6 acre-credits). For work occurring in stream-dependent riparian habitats, the Port will require construction contractors to implement erosion control measures, design staging and refueling areas, and require equipment inspections and maintenance to avoid impacts on riparian areas.	Delineation of wetlands/waters completed and permits received prior to the start of construction. Compensation for impacts to jurisdictional waters completed prior to construction. Compliance with permits and implementation of best management practices completed prior to and during construction with monitoring by the Port.

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MM-CULT-1: Prepare and Approve a Memorandum of Agreement with the State Historic Preservation Officer and Implement Section 106-Directed Mitigation. The bridge demolition would require a permit from USACE and USCG and would be reviewed under Section 106 of the National Historic Preservation Act. Section 106 requires federal agencies to avoid, minimize, or mitigate adverse effects through a consultation process. USACE or USCG would consult with the State Historic Preservation Officer and other consulting parties to carry out this process. Consultation is expected to result in the development of mitigation measures, documented in a signed Memorandum of Agreement. Section 106-directed measures are expected to include professional recordation of the bridge by a qualified historian, additional historical research, and potential interpretation for the public. This interpretation could include adding information on the bridge to the Port's website and history portal and developing informational brochures or signage on site or in the Port's Administration Building.	The Port will provide information on the project to USCG or USACE. USCG or USACE will consult with the State Historic Preservation Officer and other consulting parties. Consultation is expected to result in the development of mitigation measures, documented in a signed Memorandum of Agreement. The Port will comply with all required mitigation measures. Section 106-directed measures are expected to be implemented by a qualified historian and the Port.	Consultation completed prior to bridge demolition. Mitigation measures implemented during construction with monitoring by the Port.
MM-CULT-2: Implement Provisions for Accidental Discovery During Construction. If upland or submerged cultural resources or archaeological materials are encountered during construction, the proposed project would comply with state and federal requirements regarding identification, evaluation, and mitigation of impacts to significant archaeological sites, as well as consultation with tribes and agencies (including CSLC). This includes CEQA Guidelines Section 15064.5(f), which requires implementing "provisions for historical or unique archaeological resources accidentally discovered during construction" and Section 15064.5(e)(1), which guides actions following the discovery of human remains. The final disposition of archaeological or cultural resources recovered on state tidelands must be approved by CSLC.	The Port will include requirements in all construction contracts. In the event that cultural resources or archaeological materials were to be encountered during construction, per contract requirements, the contractor would stop work until a qualified archaeologist can be retained by the Port to evaluate the find (36 CFR 800.11.1 and 14 CCR 15064.5[f]). Native American tribes and the Office of Historic Preservation would be notified by the Port of the find.	Implemented during construction with monitoring by the Port.
MM-GEO-1: Reclamation District Coordination. The Port will coordinate with Reclamation Districts 403 and 404 prior to any levee excavation and will implement any Reclamation District recommended measures for levee failure or flood abatement and avoidance.	The Port will coordinate with the Reclamation Districts and implement any recommended measures.	Coordination prior to construction. Recommended measures implemented during construction with monitoring by the Port.

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MM-GEO-2: Geotechnical Investigation and Reinforcement Measures. The Port will perform a geotechnical investigation in the vicinity of the rail underpass at Fresno Avenue. The geotechnical investigation will identify design measures to minimize or avoid potential soil or geologic hazards including but not limited to liquefaction, which will be implemented by the Port.	The Port will retain a qualified engineer to perform a geotechnical investigation. Based on the results of the geotechnical investigation, the Port will identify and implement design measures to minimize or avoid potential soil or geologic hazards.	Geotechnical investigation completed prior to final design. Design measures implemented during construction with monitoring by the Port.
MM-GHG-1: Construction Recycling. The Port will require construction contractors to recycle construction and demolition debris where feasible.	The Port will include requirements in all construction contracts for contractors to recycle construction and demolition debris where feasible.	Implemented during construction with monitoring by the Port.
MM-HAZ-1: Work Restrictions at Site 19. Prior to construction work requiring earthwork in Site 19, the Port will prepare an SMP covering the Site 19 work and submit it to DTSC for approval. Ground disturbance in Site 19 will not begin until DTSC has approved the SMP. Construction work, including ground disturbance or excavation, on Site 19 will not extend into the stockpile portion of the site.	The Port will prepare an SMP covering the Site 19 work and submit it to DTSC for approval.	SMP prepared and approved prior to ground disturbance in Site 19. SMP implemented during construction with monitoring by the Port.
MM-NOI-1: Equipment Noise Limitations. Generators will not exceed 70 dBA at a distance of 50 feet; dozers will not exceed 80 dBA at a distance of 50 feet. Verification will be provided to the City prior to approval of grading plans.	The Port will include requirements in all construction contracts that generators and dozers are limited to the stated noise limitations.	Verification provided to the City prior to the approval of grading plans.
MM-NOI-2: Stationary Equipment Limitations. Generators, compressors, and other noisy stationary equipment will be placed as far away from occupied residential properties as is practicable.	The Port will include requirements in all construction contracts that require that generators, compressors, and other noisy stationary equipment are placed as far away from occupied residential properties as is practicable.	Implemented during construction with monitoring by the Port.
MM-NOI-3: Construction Staging Limitations. Construction staging will not be located within 70 feet of occupied residential properties.	The Port will include requirements in all construction contracts that limit construction staging within 70 feet of occupied residential properties.	Implemented during construction with monitoring by the Port.

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MM-NOI-4: Dozer and Excavator Limitations. Use of dozers and excavators will be limited where feasible within 70 feet of residential property lines.	The Port will include requirements in all construction contracts that limit the use of dozers and excavators within 70 feet of residential property lines.	Implemented during construction with monitoring by the Port.
MM-NOI-5: Develop and Implement a Construction Truck Route Map. A construction truck route will be developed that avoids sending trucks north of West Scotts Avenue on South Fresno Avenue. Additionally, the route will minimize the number of truck trips accessing the proposed LLDT and underpass sites via West Scotts Avenue by using the existing access road south of the rail line, within the rail right-of-way.	The Port will develop and implement a construction truck route map that meets the stated requirements. The Port will include the truck routes in construction contracts and require compliance as part of construction contracts.	Construction truck route map prepared prior to the start of construction. The route and truck trip limits will be implemented during construction with monitoring by the Port.
MM-NOI-6: Quiet Pile Driving Technologies. "Quiet" pile-driving technology (such as pre-drilling of piles, use of vibratory or sonic pile drivers, and use of more than one pile driver to shorten the total pile driving duration) will be employed where feasible, in consideration of geotechnical and structural requirements and conditions. Pre-drilling piles does not generate high impact-type noises, as emitted during impact pile driving. Noise emissions from pre-drilling activities typically are from diesel-engines and occasional clangs from auger equipment. Where and when feasible, piles driven by a vibratory hammer generally do not generate measurable off-site noise beyond typical construction noises. The Port may elect to limit impact pile driving to only a portion of the total piles driven at the project site, and, if possible, use limited impact pile proofing, only in combination with a vibratory installation process. Other technologies that may reduce impact pile-driving noise include inserting wood blocks between the pile and driver and using acoustic blankets that are suspended around the location of the pile strike.	The Port will retain an acoustic specialist or engineer to consider implementation of technologies to limit or reduce pile driving noise or limitations on impact pile driving.	Implemented during construction with monitoring by the Port.

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MM-NOI-7: Timing Restrictions. The Port will require that the construction contractor limit the timing of pile-driving activity to result in the least possible disturbance. SMC allows for construction 7 days per week between the hours of 7:00 a.m. and 10:00 p.m. However, as a mitigation measure, the Port will limit the times and days of pile-driving activities (i.e., between the hours of 9:00 a.m. and 5:00 p.m. and limit the work to only occur on weekdays). Imposing these additional limits may reduce the potential for disturbance of nearby residences during times of day and/or hours of day when noise-sensitive receptors may have higher sensitivities to impact-type noises.	The Port will include requirements in all construction contracts that limit the times and days of pile-driving activities.	Time limitations imposed during construction with monitoring by the Port.