State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
2825 Cordelia Road, Suite 100
Fairfield, CA 94534
(707) 428-2002
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

July 30, 2020

Mr. Sam Kumar, Senior Civil Engineer
City of Vallejo
555 Santa Clara Street, 4th Floor
Vallejo, CA 94590

Subject: Mare Island Causeway Bridge Preventative Maintenance Project, Mitigated Negative Declaration, SCH No. 2020069042, City of Vallejo, Solano County

Dear Mr. Kumar:

California Department of Fish and Wildlife (CDFW) personnel have reviewed the draft Mitigated Negative Declaration (MND) for the Mare Island Causeway Bridge Preventative Maintenance Project (Project). CDFW is submitting comments on the draft MND to inform City of Vallejo, as the Lead Agency, of our concerns regarding potentially significant impacts to sensitive resources associated with the proposed Project.

CDFW is a Trustee Agency pursuant to the California Environmental Quality Act (CEQA) Section 15386 and is responsible for the conservation, protection, and management of the State's biological resources. CDFW is also a Responsible Agency because the Project will require a Lake and Streambed Alteration (LSA) Agreement for in-water pile removal and installation.

Environmental Setting

The Mare Island Causeway Bridge (Bridge) is in the City of Vallejo and spans east to west over the Mare Island Strait, in Solano County. The Project occurs in the tidally influenced reach of the Napa River (known as the Mare Island Strait), approximately 2.8 miles north from where the river enters San Pablo Bay. Mare Island Strait provides habitat for a variety of special-status fish species, including several species that are listed under the Endangered Species Act (ESA) and/or California Endangered Species Act (CESA). Northern Coastal Salt Marsh (NCSM) habitat exits underneath the Bridge superstructure at both ends, but the Project has been designed to avoid impacts to NCSM habitat. Most of the Project will be implemented from the Bridge, with some in-channel activities.

Project Description

The proposed Project includes preventative maintenance and repair activities to reduce further deterioration of the Bridge, to provide a safer bridge for the public. Project work will include: cleaning and painting of the towers, handrails, and underside of the Bridge; streetlight upgrades, sidewalk repair, fender system repair, anode replacement, and the

removal and replacement of a new, precast, 24-inch concrete pile. The Project will use paved staging areas on both the east and west side of the Bridge. General construction equipment to be used includes cranes, haul trucks, excavators, backhoes, dump delivery trucks, concrete boom pump, compressors, percussion drills/hammers, vibratory pile installer, painting equipment, and small barges for floating equipment in Mare Island Strait. Repair activities are anticipated to begin in 2022-2023 and take approximately 18 months to complete.

Comments and Concerns

Pile Driving – Impacts to fish and marine mammals

The Project proposes to remove Pile 13 at Bent 19, located near the western end of the Bridge, and replace it with a new 24-inch precast concrete pile. The draft MND states that the new pile will be driven to a depth of 50 to 75 feet below the streambed using a vibratory hammer and will take approximately 30 minutes to install. While using a vibratory hammer for pile installation does minimize peak and cumulative sound exposure levels (SELs), the majority of piles installed in such circumstances require "pile proofing," in which a pile is installed with a vibratory hammer to approximately 95% of the required depth and then finished off with an impact hammer. Pile driving using an impact hammer produces much greater cumulative SELs and peak sound levels that may cause fish and/or marine mammal mortality. CDFW recommends that the draft MND disclose whether "pile proofing" will be necessary for the installation of the new Pile 13, and propose project specific avoidance and minimization measures that reduce sound levels and prevent fish from getting too close to piles during pile driving activities. Such avoidance and minimization measures include sound attenuation devices (e.g. bubble curtains), soft start based avoidances, and sound monitoring during pile driving activities. Additionally, the draft MND should provide a Project-specific noise level analysis, including an aerial map that is labeled with the estimated Cumulative SEL injury zone and the estimated peak injury zone for fish and marine mammals, as a result of pile driving activities.

Water Quality Impact to Special-Status Fish

To reduce potentially significant impacts to special-status fish as a result of impacts to water quality associated with the Project, the Project proposes to implement Mitigation Measure BIO-1, which states that on-site compliance with all Project best management practices and any unanticipated effects on listed species will be monitored. CDFW recommends outlining what specific best management practices will be implemented in Mitigation Measure BIO-1 in order to determine whether implementation of these best management practices will reduce potentially significant impacts to special-status fish species to a level of less-than-significant. The draft MND should also specify what is meant by "unanticipated effects on listed species." For instance, if the Project has the

potential to cause take[1] of a CESA-listed species, the MND should outline that the Project proponent may seek a CESA Incidental Take Permit (ITP) from CDFW prior to the start of project activities.

Cliff Swallows and Other Nesting Birds

The Project could potentially impact bird species that commonly nest on bridges (e.g. cliff swallows; *Petrochelidon pyrrhonota*), as well as other nesting birds that may occur in the vicinity of the Project area. The draft MND states that birds nesting under the bridge would be considered acclimated to urban disturbance, and therefore, do not require no-disturbance buffers from Project activities. CDFW is concerned that noise elevating Project activities (e.g. pile driving) could have an adverse impact on birds nesting under the bridge. The Mitigation Monitoring and Reporting Plan contained in the draft MND states the following regarding preventative measures to ensure birds do not nest on or underneath the bridge structure prior to the start of Project activities:

"Measures should be taken to prevent establishment of nests on the bridges, culverts, headwalls, and other suitable structures prior to construction. Effective techniques to prevent nest establishment include using exclusion devices and removing and disposing of partially constructed and unoccupied nests of migratory or nongame birds on a regular basis to prevent their occupation. This can be done by:

- *On a weekly or more frequent basis, remove all partially completed nests using either hand tools or high-pressure water; and/or*

- *Hang netting from the bridge before nesting begins. If this technique is used, netting should be in place from late February until Project construction begins."*

Because cliff swallows are protected by the Migratory Bird Treaty Act of 1918, nesting control methods must not harm or disturb active nests of the species. CDFW discourages the use of exclusion netting due to documented cases where swallows have become entangled in such netting, resulting in harm and mortality to the species. A combination of bioacoustics (i.e. distress calls), and bridge surface modification (i.e. the application of Teflon sheeting to bridge surfaces) was found to be very effective in preventing cliff swallow nest establishment on bridge surfaces during field studies conducted in the Central Valley by University of California, Davis researchers in 2007 and 2008 (Delwiche, Coates, Gorenzel, and Salmon, 2010). If power washing is used to remove partially constructed nests, a qualified biologist shall be on-site at all times and shall first determine that the nest is not active (i.e. partially constructed and no birds are inside of the nest.

[1] Fish and Game Code section 86: "Take" means hunt, pursue, catch, capture, kill, or attempt to hunt, pursue, catch, capture, or kill.

Lake and Streambed Alteration Agreement

CDFW requires an entity to notify CDFW before commencing any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream or use material from a streambed. Ephemeral and/or intermittent streams and drainages (that are dry for periods of time or only flow during periods of rainfall) are also subject to Fish and Game Code section 1602. The Project will require an LSA Agreement due to the removal of Pile 13 and installation of a new pile (i.e. pile driving) in the Mare Island Strait.

Issuance of an LSA Agreement is subject to CEQA. CDFW, as a Responsible Agency under CEQA, will consider the CEQA document for the Project. The CEQA document should identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring, and reporting commitments for completion of the agreement. To obtain information about the LSA notification process, please access our website at https://www.wildlife.ca.gov/conservation/lsa.

Please be advised that CDFW is transitioning to the Environmental Permit Information Management System (EPIMS), an online system, for all LSA notifications. EPIMS will be available for standard Notifications starting August 1, 2020. On September 1, 2020, paper copies and PDFs, including Joint Aquatic Resource Permit Applications (JARPAs), will no longer be accepted outside of EPIMS. For more information about EPIMS, please visit https://wildlife.ca.gov/Conservation/Environmental-Review/EPIMS.

California Endnagered Species Act Incidental Take Permit

CESA prohibits unauthorized take of candidate, threatened, and endangered species. Therefore, if take or adverse impacts to any species listed under CESA cannot be avoided either during Project activities or over the life of the Project, a CESA ITP must be obtained (pursuant to Fish and Game Code Section 2080 *et seq*.). Issuance of a CESA ITP is subject to CEQA documentation; therefore, the CEQA document should specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the proposed Project will impact any CESA-listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA ITP. More information on the CESA permitting process can be found on the CDFW website at https://www.wildlife.ca.gov/Conservation/CESA.

CEQA Filing Fee

CDFW anticipates that the Project will have an impact on fish and/or wildlife, and assessment of filing fees is necessary (Fish and Game Code, § 711.4; Pub. Resources Code, § 21089). Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW.

CDFW appreciates the opportunity to provide comments on the draft MND for the proposed Project and is available to meet with you to further discuss our concerns. Additionally, CDFW is available to work with the project applicant in order to complete their LSA Notification. If you have any questions, please contact Mr. Garrett Allen, Environmental Scientist, at Garrett.Allen@wildlife.ca.gov; or Ms. Karen Weiss, Senior Environmental Scientist (Supervisory), at Karen.Weiss@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Gregg Erickson
BE74D4C93C604EA...

Gregg Erickson
Regional Manager
Bay Delta Region

cc: State Clearinghouse

References Cited

Delwiche, Michael; Coates, Robert W.; Gorenzel, W. Paul; and Salmon, Terrell P. (2010) “Improved Methods for Deterring Cliff Swallow Nesting on Highway Structures,” *Human–Wildlife Interactions*: Vol. 4: Iss. 2, Article 16. DOI: https://doi.org/10.26077/s05m-ya91