

**State of California
Department of Fish and Wildlife**



M e m o r a n d u m

Date: August 12, 2022

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Governor's Office of Planning & Research

Aug 12 2022

STATE CLEARING HOUSE

DocuSigned by:

Erin Chappell

From: Erin Chappell, Regional Manager

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California Department of Fish and Wildlife-Bay Delta Region, 2825 Cordelia Road, Suite 100, Fairfield, CA 94534

Subject: Marin State Route 37 – Petaluma River Bridge Project, Mitigated Negative Declaration, SCH No. 2022070088, Marin and Sonoma County

The California Department of Fish and Wildlife (CDFW) has reviewed the Notice of Availability (NOA) for the draft Mitigated Negative Declaration (MND) for the Marin State Route 37 (SR-37) Petaluma River Bridge Project (Project), pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹ CDFW is submitting comments on the draft MND as a means to inform the California Department of Transportation (Caltrans) as the Lead Agency, of our concerns regarding potentially significant impacts to sensitive resources associated with the proposed Project.

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's Lake and Streambed Alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish &

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code. Pursuant to our jurisdiction, CDFW has the following concerns, comments, and recommendations regarding the Project.

PROJECT LOCATION AND DESCRIPTION

Caltrans, as the lead agency, proposes the rehabilitation of the Petaluma River Bridge on SR-37 from post mile 0.5 in Sonoma County to PM 14.50 in Marin County. The Project will include rehabilitation of the bridge deck, replacement of the bridge fender system, bridge scour protection within the bed of the Petaluma River, and upgrade of the bridge railings to meet current safety standards. The Project will maintain the bridge structure in a reliable and serviceable condition.

Bridge rehabilitation activities include resurfacing the existing bridge deck. The existing 2 inches of AC pavement will be removed and replaced with polyester concrete deck surfacing. Current standard pavement striping, and markers will be applied. All signs and object markers located along the bridge and its approaches will be relocated or reset in place. A total widening of 1.5 feet is needed to accommodate the new bridge railing. Scour protection will be placed at bents 6 through 14, which are located within the Petaluma River. Scour protection will consist of one-quarter ton rock slope protection (RSP) to a depth of 5 feet, placed approximately 10 feet around each bent.

Temporary access will be necessary for work within the Petaluma River. Fender replacement work to access bents 6 through 14 and to replace the fender system at bents 7 and 8 will occur by barge. Steel piles will be driven into the riverbed to create an isolated work area to facilitate construction of the fenders. Scour protection will be constructed at bents 6 through 14, which will consist of placement of RSP. Temporary cofferdams will be constructed around each bent, and dewatering would occur prior to placement of the one-quarter ton RSP. Temporary cofferdams will be constructed of sheet piles.

REGULATORY AUTHORITY

Lake and Streambed Alteration Notification

CDFW requires an LSA Notification, pursuant to Fish and Game Code section 1600 et. seq., for any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank (including associated riparian or wetland resources); or deposit or dispose of material where it may pass into a river, lake or stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are generally subject to notification requirements.

California Endangered Species Act

Please be advised that a CESA Permit must be obtained if the Project has the potential to result in "take" of plants or animals listed under CESA, either during construction or

over the life of the Project. Issuance of a CESA Permit is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact 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 Permit. CEQA requires a Mandatory Finding of Significance if a project is likely to substantially impact threatened or endangered species (CEQA section 21001(c), 21083, and CEQA Guidelines section 15380, 15064, 15065). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with Fish and Game Code, section 2080. More information on the CESA permitting process can be found on the CDFW website at <https://www.wildlife.ca.gov/Conservation/CESA>.

Fish and Game Code § 5901

Except as otherwise provided in this code, it is unlawful to construct or maintain in any stream in Districts 1, 1^{3/8}, 1^{1/2}, 1^{7/8}, 2, 2^{1/4}, 2^{1/2}, 2^{3/4}, 3, 3^{1/2}, 4, 4^{1/8}, 4^{1/2}, 4^{3/4}, 11, 12, 13, 23, and 25, any device or contrivance that prevents, impedes, or tends to prevent or impede, the passing of fish up and down stream.

Fully Protected Species

Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take, except for collecting these species for necessary scientific research and relocation of a fully protected bird species for the protection of livestock. Take of any fully protected species is prohibited, and CDFW cannot authorize their take in association with a general project except under the provisions of a Natural Community Conservation Plan (NCCP), 2081.7 or a Memorandum of Understanding for scientific research, including efforts to recover fully protected, threatened or endangered species. "Scientific Research" does not include an action taken as part of specified mitigation for a project, as defined in § 21065 of the Public Resources Code.

Raptors and Other Nesting Birds

CDFW has jurisdiction over actions that may result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections protecting birds, their eggs, and nests include sections 3503 (regarding unlawful take, possession or needless destruction of the nests or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird). Migratory birds are also protected under the federal Migratory Bird Treaty Act.

COMMENTS AND RECOMMENDATIONS

CDFW acting as a Responsible Agency, has discretionary approval under CESA through issuance of a CESA Incidental Take Permit (ITP) and LSA Agreement, as well as other provisions of the Fish and Game Code that afford protection to the State's fish and wildlife resources. CDFW would like to thank you for preparing the MND for the Project. CDFW recommends the following updates, avoidance and minimization measures be imposed as conditions of Project approval by the lead agency, Caltrans, to ensure all Project-related impacts are reduced below a level of significance under CEQA:

COMMENT 1: Project Impacts and Analysis to Fish and Wildlife Resources

Issue: The Project proposes activities that are subject to notification requirements pursuant to Fish and Game Code § 1602. The Project has the potential to significantly adversely affect fish and wildlife resources associated with the Petaluma River and the Napa-Sonoma Marsh Complex. The Project Description of the MND lacks specific details on impacts to the bed, bank, channel and upland riparian habitat of the Petaluma River.

Recommendation for Project Impacts to Fish and Wildlife Resources 1: Project Impacts:

The updated MND should provide detailed information for all temporary and permanent Project impacts to the bed, bank, channel and riparian habitat of the Petaluma River and any associated tributaries quantified by acres and linear feet. Temporary access, permanent placement of rock slope protection and shading impacts that will result from the expansion of the Petaluma River Bridge should all be included as part of the updated impact information.

Recommendation for Project Impacts to Fish and Wildlife Resources 2: Night-

Work Analysis: The updated MND should identify the proposed number of nights necessary to complete work in order to adequately describe the potentially significant impacts that night work may have on surrounding fish and wildlife resources.

Recommendation for Project Impacts to Fish and Wildlife Resources 3: Mitigation

Planning: CDFW strongly recommends that the lead agency develop a mitigation plan in coordination with CDFW for any permanent Project impacts that cannot be avoided that will be subject to LSA permitting and include that plan as part of the updated MND. The mitigation plan should include in detail any proposed on and/or off-site mitigation needs necessary to compensate for net-loss of river or stream resources including but not limited to hardscape materials and geo-textile fabric within the bed, bank or channel of a stream, loss of riparian vegetation and mature trees and expansion of existing infrastructure footprint(s). CDFW recommends proposed mitigation plan(s) include details such as mitigation location(s), proposed actions, monitoring, success criteria and any corrective actions.

COMMENT 2: CESA Listed Species

Issue: The Project has the potential to significantly adversely affect special-status fish resources associated with suitable habitat in the Petaluma River and the Napa-Sonoma Marsh Complex. Potential Project impacts may occur during steel pipe pile installation, installation of permanent quarter-ton RSP and from temporary access road construction. These activities associated with the Project may be subject to requirements of CESA. In addition, the Project Description of the MND lacks specific details on potential impacts to State listed species suitable habitat. Furthermore, the rationale provided within the MND does not provide a fair argument why an ITP is not warranted for this Project.

Evidence the impact would be significant: The Project contains suitable habitat for and occurs within areas mapped as historic or current watersheds where anadromous fish are, or historically were found. The species include but are not limited to Steelhead – California Central Valley Distinct Population Segment (DPS) (BIOS; DS-810), Steelhead – Central Coast DPS (BIOS; DS-806), Chinook Salmon – Central Valley Fall Run/Late Fall Run Evolutionarily Significant Unit (ESU) (BIOS; DS-802), Chinook Salmon – Spring Run of the Sacramento River Drainage/Central Valley Spring Run (BIOS; DS-801), Chinook Salmon – Winter Run (BIOS; DS-800), Longfin Smelt (BIOS; DS-1324) and Delta Smelt (BIOS; DS-1249). Furthermore, Page 3-17 of the MND notes that species present within the BSA include the North American Green Sturgeon, Southern DPS (*Acipenser medirostris*), Central California Coast Steelhead (*Oncorhynchus mykiss irideus*), and Longfin Smelt (*Spirinchus thaleichthys*). CDFW strongly recommends that suitable habitat analysis are conducted for the species noted above and impacts to State listed species habitat is also included in the updated MND.

Recommendations: CDFW recommends Table 2-1 on page 2-9 of the MND include a consultation with CDFW for a CESA ITP for the species discussed above. CDFW also recommends incorporating the following as conditions of approval:

Recommended Mitigation Measure 1: Physical Impact Analysis: An analysis of the physical impacts to suitable listed species habitat from installation and/or replacement of piles, quarter-ton RSP, shadow created by extension of the bridge and temporary access roads should be developed and included in the updated MND in text and map form. CDFW strongly recommends that suitable habitat analysis are conducted for the species noted above and impacts to State listed species habitat is also included in the updated MND.

Recommended Mitigation Measure 2: Hydro-Acoustic Impact Analysis: An analysis of the pile driving activities should be included in the updated MND that provides information on the following; the number of pile proposed for installation, location of each pile, size of the piles proposed for installation and the duration of the pile driving activities to occur over hours, days, weeks and months. The MND should also include a series of Isopleth maps and a detailed substrate report. The Isopleth map

should detail the extent in feet, acres and depth to which injurious sound levels will travel within the Petaluma River and San Pablo Bay for peak and cumulative output levels. The substrate report should include information on the substrate type at depth and the expected sound behavior of piles that will be impact driven into the substrate. The analysis should also include piles that are vibratory driven but proofed at the end of install via impact drivers to achieve final pile depths.

Recommended Mitigation Measure 3: Hydro-Acoustic Monitoring Plan: An acoustic monitoring plan to evaluate sound levels during all impact driven pile activities should be included as part of the MND and any subsequent Notification to the LSA or CESA Program. The monitoring plan shall be prepared by a qualified hydro-acoustic monitoring specialist who shall possess the same authority as a qualified biologist and have the ability to direct the resident engineer to stop work as necessary. The acoustic monitoring plan and qualified hydro-acoustic monitoring specialist must be approved in writing by CDFW before pile driving activities may proceed. The plan should also detail information about the placement and depth of hydro-phones from the point of pile strike.

COMMENT 3: California Clapper Rail/California Black Rail

Issue: The Project has the potential to result in potentially significant impacts to fish and wildlife resources that support California clapper rail also known as Ridgway's Rail (CCR), a State Endangered, Federally Endangered, and Fully Protected species and California black rail (CBR), a State threatened and fully protected species. A fully protected species cannot be taken and no permit can be authorized to allow take for this Project. As lead agency, Caltrans must adopt the appropriate avoidance and minimization measures as conditions of approval to avoid take of a fully protected species in the draft MND. This includes avoidance of work during the rail nesting season, utilization of sound attenuation methods both in water and in the ambient air, as well as avoidance of permanent impacts to suitable rail habitat.

Evidence the impact would be significant: The Project proposes to conduct work within suitable habitat and within the predicted range of the CCR and CBR habitat (BIOS; DS-928, DS-2108, DS-2107). Multiple occurrences of the species are also present within the Project limits in the California Natural Diversity Database (CNDDDB) (BIOS; DS-45)) that are considered extant. If permanent impacts are proposed within CCR/CBR habitat, it may not be feasible to incorporate conditions of approval that can reduce the impacts below a level of significance. The proposed actions to temporarily impact habitat for access roads and permanently impact habitat through the placement of quarter-ton rock slope protection has the potential to cause loss of habitat and take of State Fully Protected species. CDFW recommends incorporation of the following into the draft MND:

Recommendation: CDFW recommends the current conditions of approval for CCR/CBR are replaced in the MND with the following conditions of approval:

Recommended Mitigation Measure 1: CCR/CBR Protocol Level Surveys: Protocol level surveys should be conducted beginning between January 15 and February 1. A minimum of four surveys are required, each survey should be 2 to 3 weeks apart and the final survey should be completed by March or mid-April to ensure that no CCR/CBR are present during construction. Surveys should be completed prior to the initiation of construction with three weeks remaining after completion of surveys and before Project initiation to submit results to CDFW for review. Protocol survey requirements should be followed as recommended in the *USFWS Clapper Rail Survey Protocol* (USFWS, 2015), *Secretive Marsh Bird Survey Protocol Comparison in San Francisco Bay* (Wood, 2014) and *USFWS Site-Specific Protocol for Monitoring Marsh Birds* (Wood et al., 2017).

Recommended Mitigation Measure 2: CCR/CBR Avoidance and Minimization: If CCR/CBR is detected during protocol surveys, no work activity shall occur from February 1 to August 31 during the CCR/CBR nesting season, within or near suitable CCR/CBR habitat. Suitable CCR/CBR habitat includes but is not limited to marshes, wetlands, streams and waterways, as well as associated upland habitat capable of providing upland refugia habitat as determined by a qualified biologist experienced with CCR/CBR.

Recommended Mitigation Measure 3: CCR/CBR Avoidance Buffers: If breeding CCR/CBR are determined to be present, activities will not occur within 700 feet of an identified calling center. If the intervening distance across a major slough channel or across a substantial barrier between the CCR/CBR calling center and any activity area is greater than 200 feet, work may proceed at that location within the breeding season in consultation with CDFW.

Recommended Mitigation Measure 4: CCR/CBR High Tide Restriction: To avoid the loss of individual CCR/CBR, activities within or adjacent to CCR/CBR suitable habitat will not occur within 2 hours before or after extreme high tides (6.5 feet or above, as measured at the Golden Gate Bridge). This is when the marsh plain is inundated and protective cover for CCR/CBR is limited. Project activities could prevent CCR/CBR from reaching available cover.

COMMENT 4: Salt Marsh Harvest Mouse

Issue: The Project has the potential to result in potentially significant impacts to fish and wildlife resources that support salt marsh harvest mouse (SMHM) a State Fully Protected species and State and Federal Endangered species. As lead agency, Caltrans must adopt the appropriate avoidance and minimization measures as conditions of approval to avoid take of a Fully Protected species in the draft MND.

Evidence the impact would be significant: The Project proposes to conduct work within suitable habitat and within the predicted range of SMHM (BIOS; DS-943, DS-2568). An occurrence of the species is also present within the Project limits in the

CNDDDB (BIOS; DS-45) that is considered extant. If permanent impacts are proposed within SMHM habitat, it may not be feasible to incorporate conditions of approval that can reduce the impacts below a level of significance. The proposed actions to temporarily impact habitat for access roads and permanently impact habitat through the placement of quarter-ton rock slope protection has the potential to cause loss of habitat and take of State Fully Protected Species.

Recommendation: CDFW recommends replacement of the current conditions of approval for SMHM with the following conditions:

Recommended Mitigation Measure 1: SMHM Suitable Habitat Analysis and Survey: A qualified biologist experienced with SMHM shall conduct a suitable habitat analysis and focused surveys a minimum of one season prior to the initiation of construction. Focused surveys shall occur in areas proposed for work within three-hundred feet of tidal marsh habitat. Maps of suitable habitat and any detections of SMHM should be included in the draft MND.

Recommended Mitigation Measure 2: Construction Monitoring and Survey: A qualified biologist, experienced with SMHM shall conduct focused surveys a minimum of seven days prior to the initiation of construction including the creation of staging and access roads within three-hundred feet of tidal marsh habitat. Any vegetation within suitable habitat shall be cleared with hand-tools under supervision of a qualified biologist. Heavy equipment such as tractors or excavators working in SMHM habitat may proceed after the initial hand clearing has occurred and the biologist has given approval to proceed. A biologist shall be present on-site at all times when work is occurring in SMHM habitat. If a mouse of any species is observed within the Project area, work within the vicinity should be halted immediately by the qualified biologist and the mouse should be allowed to leave the work area. SMHM may not be handled or captured at any time during site preparation or Project activities. If an injured or dead SMHM is discovered at the Project sites, consultation with CDFW is required immediately.

Recommended Mitigation Measure 3: SMHM High Tide Restriction: See **Recommended Mitigation Measure 4: CCR/CCR High Tide Restriction** and apply the same measure for SMHM.

COMMENT 5: Light Impact Analysis and Discussion

Issue: A significant portion of the proposed Project limits within the SR-37 corridor do not contain any overhead artificial light sources. It is unclear if the Project proposes the installation of new or replacement light sources. Artificial light sources can include overhead street lights, bridge luminaries, flashing beacons, informational signs and warning signals. CDFW strongly recommends that no new or replacement artificial light sources are installed as a result of Project completion. New lighting especially in areas where no lighting currently exists, has potential for significant impacts to occur that

could result in a finding of significance. Artificial light spillage beyond the prism of the roadway into natural areas may result in a potentially significant impacts through substantial degradation of the quality of the environment. Artificial light pollution also has the potential to significantly and adversely affect biological resources and the habitat that supports them. Unlike the natural brightness created by the monthly cycle of the moon, the permanent and continuously powered lighting fixtures create an unnatural light regime that produces a constant light output. Continuous light output for 365 days a year can also have cumulatively significant impacts on fish and wildlife populations.

Evidence the impact would be significant: Artificial night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication (e.g., bird song; Miller 2006), determining when to begin foraging (Stone et al. 2009), behavior thermoregulation (Beiswenger 1977), and migration (Longcore and Rich 2004). Artificial night lighting has also been found to impact juvenile salmonid overwintering success by delaying the emergence of salmonids from benthic refugia and reducing their ability to feed during the winter (Contor and Griffith 1995). For nocturnally migrating birds, direct mortality as a result of collisions with anthropogenic structures due to attraction to light (Gauthreux, 2006) is another direct effect of artificial light pollution. There are also more subtle effects, such as disrupted orientation (Poot et al. 2008) and changes in habitat selection (McLaren et al. 2018). There is also growing evidence that light pollution alters behavior at regional scales, with migrants occupying urban centers at higher-than-expected rates as a function of urban illumination (La Sorte et al. 2021). While artificial light pollution can act as an attractant at both regional (La Sorte et al. 2021) and local (Van Doren et al. 2017) scales, there is also evidence of migrating birds avoiding strongly lit areas when selecting critical resting sites needed to rebuild energy stores (McLaren et al. 2018). Due to the high potential for songbirds and nocturnally active State listed and special-status species such as American Badger CDFW recommends no lighting is installed as a result of Project completion to avoid these potentially significant impacts to biological resources.

Recommendation: Please incorporate the following into the Project MND:

Recommended Mitigation Measure 1 – Light Output Analysis: Isolux Diagrams that note current light levels present during pre-Project conditions and the predicted Project light levels that will be created upon completion of the Project shall be included in the draft MND. If an increase in light output from current levels to the projected future levels is evident additional avoidance, minimization or mitigation shall be developed in coordination with the natural resource agencies to offset indirect impacts to special-status species. Within 60 days of Project completion, the lead agency shall conduct a ground survey that compares projected future light levels with actual light levels achieved upon completion of the Project through comparison of Isolux diagrams. If an increase from the projected levels to the actual levels is discovered, additional avoidance, minimization or mitigation measures may also be required in coordination with the natural resource agencies. This analysis should be conducted across all potential alternatives and compared in table and map format.

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Recommended Mitigation Measure 2 – Light Output Limits: All LEDs or bulbs installed as a result of the Project shall be rated to emit or produce light at or under 2700 kelvin that results in the output of a warm white color spectrum.

Recommended Mitigation Measure 3 – Vehicle Light Barriers: Solid barriers at a minimum height of 3.5 feet should be installed in areas where they have the potential to reduce illumination from overhead lights and from vehicle lights into areas outside of the roadway. Barriers should only be utilized as a light pollution minimization measure if they do not create a significant barrier to wildlife movement. Additional barrier types should be employed when feasible, such as privacy slats into the spacing of cyclone fencing to create light barriers for areas outside the roadway.

Recommended Mitigation Measure 4 – Reflective Signs and Road Striping: Retro-reflectivity of signs and road striping should be implemented throughout the Project to reduce the need for electrical lighting.

Recommended Mitigation Measure 5 – Light Pole Modifications and Shielding: All new or replacement light poles or sources of illumination shall be installed with the appropriate shielding to avoid excessive light pollution into natural landscapes or aquatic habitat within the Project corridor in coordination with CDFW. In addition, the light pole arm length and mast heights should be modified to site-specific conditions to reduce excessive light spillage into natural landscapes or aquatic habitat within the Project corridor. In areas with sensitive natural landscapes or aquatic habitat the lead agency should also analyze and determine if placing the light poles at non-standard intervals has the potential to further reduce the potential for excessive light pollution caused by decreasing the number of light output sources in sensitive areas.

CONCLUSION

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California's fish and wildlife resources. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

Questions regarding this letter or further coordination should be directed to Robert Stanley, Senior Environmental Scientist (Specialist), at (707) 339-6534 or Robert.Stanley@wildlife.ca.gov; or Wesley Stokes, Senior Environmental Scientist (Supervisory), at (707) 339-6066 or Wesley.Stokes@wildlife.ca.gov.

cc: State Clearinghouse #2022070088

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