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September 21, 2020

Governor's Office of Planning & Research

Sep 22 2020

STATE CLEARINGHOUSE

Ms. Joanna Dixon, Associate Civil Engineer
Marin County
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San Rafael, CA 94903
cortemaderacreek@marincounty.org

Subject: Corte Madera Creek Flood Risk Management Project, Phase 1, Notice of Preparation of a Draft Environmental Impact Report, SCH No. 2020080353, Marin County

Dear Ms. Dixon:

The California Department of Fish and Wildlife (CDFW) has reviewed the Notice of Preparation (NOP) of a draft Environmental Impact Report (EIR) provided for the Corte Madera Creek Flood Risk Management Project, Phase 1 (Project) located in Ross and Kentfield, Marin County. CDFW previously submitted comments in response to the former NOP and Draft Environmental Impact Statement/Environmental Impact Report (SCH No. 2008072036) for the Project.

CDFW is a Trustee Agency with responsibility under the California Environmental Quality Act (CEQA) §15386 for commenting on projects that could impact fish, plant, and wildlife resources. CDFW is also considered a Responsible Agency if a project would require discretionary approval, such as a California Endangered Species Act (CESA) Incidental Take Permit, a Lake and Streambed Alteration (LSA) Agreement, or other provisions of the Fish and Game Code that afford protection to the state's fish and wildlife trust resources. Pursuant to our jurisdiction, CDFW has the following concerns, comments, and recommendations regarding the Project.

PROJECT DESCRIPTION AND LOCATION

Proponent: Marin County Flood Control and Water Conservation District

Objective: The objective of the Project is to reduce the risk of flooding in the communities of Ross and Kentfield. Primary Project activities include removing the wooden Denil fish ladder in Ross; excavating portions of Corte Madera Creek to lower channel elevation and increase flow capacity; removing concrete channel and constructing a natural floodplain in Frederick Allen Park; replacing floodwalls along portions of Corte Madera Creek; installing a stormwater pump station to control flooding in the Granton Park neighborhood; creating larger fish resting pools in reaches of concrete channel; and removing the concrete channel downstream of Stadium Way to improve fish and wildlife habitat.

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Location: The Project is located in the Town of Ross and the unincorporated Community of Kentfield in Marin County. The Project's upstream extent within Corte Madera Creek is at Lagunitas Road in the Town of Ross and the Project terminates at the earthen channel in Kentfield, downstream of Stadium Way. The approximate Project centroid occurs at Latitude 37.95669°, Longitude -122.54892°.

Timeframe: Project construction is proposed for 2022 beginning in spring and finalizing in fall.

The CEQA Guidelines (§§15124 and 15378) require that the draft EIR incorporates a full project description, including reasonably foreseeable future phases of the Project, and that it contains sufficient information to evaluate and review the Project's environmental impact. Please include a complete description of the following Project components in the Project description:

- Footprints of permanent Project features and temporarily impacted areas, such as staging areas and access routes
- Encroachments into riparian habitats, wetlands, or other sensitive areas
- Area and plans for the proposed floodwalls, ground disturbing activities, channel fill removal, fencing, paving, stationary machinery, landscaping, stormwater systems, and any other construction activities
- Operational features of the Project, including level of anticipated human presence (describe seasonal or daily peaks in activity, if relevant), artificial lighting/light reflection, noise and greenhouse gas generation, traffic generation, and other features
- Construction schedule, activities, equipment, and crew sizes
- Dewatering and species relocation plan, including species likely to be encountered

ENVIRONMENTAL SETTING

Sufficient information regarding the environmental setting is necessary to understand the Project's, and its alternative's (if applicable), significant impacts on the environment (CEQA Guidelines, §§15125 and 15360). CDFW recommends that the CEQA document prepared for the Project provide baseline habitat assessments for special-status plant, fish, and wildlife species located and potentially located within the Project area and surrounding lands, including all rare, threatened, or endangered species (CEQA Guidelines, §15380). Fully protected, threatened or endangered, candidate, and other special-status species that are known to occur, or have the potential to occur in or near the Project site, include, but are not limited to:

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- Coho salmon south of Punta Gorda (*Oncorhynchus kisutch*), state and federally listed as endangered
- California Ridgway's rail (*Rallus obsoletus obsoletus*), state and federally listed as endangered, and a Fully Protected Species
- Salt-marsh harvest mouse (*Reithrodontomys raviventris*), state and federally listed as endangered, and a Fully Protected Species
- California black rail (*Laterallus jamaicensis coturniculus*), state listed as threatened and a Fully Protected Species
- Central California Coast Distinct Population Segment steelhead (*Oncorhynchus mykiss irideus pop. 8*), federally listed as threatened
- California red-legged frog (*Rana draytonii*), federally listed as threatened and a California Species of Special Concern (SSC)
- Foothill yellow-legged frog (*Rana boylei*), SSC
- Western pond turtle (*Emys marmorata*), SSC
- Pallid bat (*Antrozous pallidus*), SSC
- White-tailed kite (*Elanus leucurus*), Fully Protected Species
- Napa false indigo (*Amorpha californica var. napensis*), California Rare Plant Rank 1B

Habitat descriptions and species profiles should include information from multiple sources, including: aerial imagery, historical and recent survey data, field reconnaissance, scientific literature and reports, and findings from positive occurrence databases such as the California Natural Diversity Database (CNDDDB). Based on the data and information from the habitat assessment, the CEQA document can then adequately assess which special-status species are likely to occur in the Project vicinity.

CDFW recommends that prior to Project implementation, surveys be conducted for special-status species with potential to occur, following recommended survey protocols if available. Survey and monitoring protocols and guidelines are available at:

<https://www.wildlife.ca.gov/Conservation/Survey-Protocol>.

Botanical surveys for special-status plant species, including those with a California Rare Plant Rank (<http://www.cnps.org/cnps/rareplants/inventory/>), must be conducted during the blooming period for all sensitive plant species potentially occurring within the Project area and require the identification of reference populations. Please refer to CDFW protocols for surveying and evaluating impacts to rare plants available at:

<https://www.wildlife.ca.gov/Conservation/Plants>.

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The Project takes place along an urbanized corridor of Corte Madera Creek with residential, business, and community structures developed near the creek. The upstream segments of the Project provide freshwater habitat and a riparian corridor composed mostly of hardwood trees (CDFW 2009). The farthest downstream segment of the Project is tidally influenced and transitions to tidal wetland with fewer riparian trees. Corte Madera Creek is designated critical habitat for the state and federally listed as endangered Coho salmon South of Punta Gorda and the federally listed as threatened Central California Coast Distinct Population Segment steelhead. Corte Madera Creek is also designated essential fish habitat for various life stages of salmon. Steelhead are present in the creek and Coho have historically utilized the watershed.

The quality of Corte Madera Creek as a migration corridor for steelhead and Coho was degraded by the construction of the concrete flood control channel and the installation of the Denil fish ladder, a partial barrier to passage. The upstream portion of the concrete channel, identified as Unit 3, contains 28 evenly spaced concrete pools intended to function as resting pools for migrating salmonids installed when the concrete flood channel was constructed by the Army Corps of Engineers. However, most of the pools fail to reduce flow velocity and provide inadequate cover. Only a few of the existing pools provide suitable resting habitat, and migration is extremely challenging to steelhead currently utilizing the channel. The construction of the flood control channel was likely a contributing factor to Coho salmon's extirpation (Love et al. 2007).

Based on reviewing the Phase 1 Project Information Sheet, CDFW looks forward to reviewing the resting pool proposals throughout Unit 3 of the Project. CDFW recommends that improvement of fisheries habitat and fish passage be included as part of the planning objectives for developing and analyzing alternatives. CDFW recommends including an alternative that includes an improvement for all 28 resting pools to address fish passage in Unit 3.

Specifically, CDFW recommends that the draft EIR incorporate recommendations proposed in the Corte Madera Creek Flood Control Channel Fish Passage Assessment and Alternatives Analysis (Love, 2007). Remediation of the fish passage impediments in Unit 3 by incorporating treatments into the concrete channel, such as those presented in Love (2007), would provide suitable upstream fish passage under the range of anticipated tidal and streamflow conditions through all of Unit 3. The Love report states that the preferred alternative design for resting pools would improve fish passage from 2% to 78% for low flows, and from 1% to 65% for high flows, vastly improving the ability for fish passage during high and low flows.

Incorporating the 2007 Love report offers the opportunity for both remediation of impacts to steelhead and Coho, while also providing flood risk management to protect life and property.

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IMPACT ANALYSIS AND MITIGATION MEASURES

The CEQA Guidelines (§15126.2) necessitate that the draft EIR discuss all direct and indirect impacts (temporary and permanent) that may occur with implementation of the Project. This includes evaluating and describing impacts such as:

- Potential for “take” of special-status species
- Loss or modification of breeding, nesting, dispersal and foraging habitat, including vegetation removal, alteration of soils and hydrology, and removal of habitat structural features (e.g. snags, roosts, overhanging banks)
- Permanent and temporary habitat disturbances associated with ground disturbance, noise, lighting, reflection, air pollution, traffic or human presence
- Obstruction of movement corridors, fish passage, or access to water sources and other core habitat features

The CEQA document should also identify reasonably foreseeable future projects in the Project vicinity, disclose any cumulative impacts associated with these projects, determine the significance of each cumulative impact, and assess the significance of the Project’s contribution to the impact (CEQA Guidelines, §15355). Although a project’s impacts may be insignificant individually, its contributions to a cumulative impact may be considerable; a contribution to a significant cumulative impact – e.g., reduction of available habitat for a listed species – should be considered cumulatively considerable without mitigation to minimize or avoid the impact.

Based on the comprehensive analysis of the direct, indirect, and cumulative impacts of the Project, the CEQA Guidelines (§§ 15021, 15063, 15071, 15126.2, 15126.4 and 15370) direct the lead agency to consider and describe all feasible mitigation measures to avoid potentially significant impacts in the draft EIR, and/or mitigate significant impacts of the Project on the environment. This includes a discussion of take avoidance and minimization measures for special-status species, which are recommended to be developed in early consultation with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service and CDFW. These measures can then be incorporated as enforceable Project conditions to reduce potential impacts to biological resources to less-than-significant levels. Fully protected species such as California Ridgway’s rail, California black rail, and salt marsh harvest mouse, may not be taken or possessed at any time (Fish and Game Code § 3511). Therefore, the draft EIR is advised to include measures to ensure complete take avoidance of these fully protected species.

CDFW is available to provide biological Mitigation Measures for fully protected species and other special-status species, including California Ridgway’s rail, California black

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rail, salt marsh harvest mouse, California red-legged frog and foothill yellow-legged frog, western pond turtle, bats, special-status plants, and nesting birds to name a few.

Based on our virtual meeting on September 17, 2020, CDFW is pleased that you will be incorporating the tree replacement ratios provided by CDFW:

Oak trees:

- 4:1 replacement for trees 5 to 10 inches diameter at breast height (DBH)
- 5:1 replacement for trees greater than 10 inches to 15 inches DBH
- 15:1 replacement for trees greater than 15 inches DBH, which are considered old-growth oaks

Replacement oaks will come from nursery stock grown from locally sourced acorns, or from acorns gathered locally, preferably from the same watershed in which they are planted.

Other tree species greater than or equal to 6 inches DBH will be mitigated at the following ratios:

- 1:1 replacement for non-native trees
- 3:1 replacement for native trees

Riparian Habitat Impact Analysis

CDFW considers riparian habitat a sensitive plant community that is valuable for a diversity of wildlife species. Riparian zones maintain shade (which is especially important for regulating water temperatures for fish), protect against windthrow, produce litterfall, provide important migratory routes for wildlife, and serve to recruit instream woody debris which provides habitats, food and shelter for invertebrates and fish. Riparian vegetation also acts as a filter strip for sedimentation from erosion sources. Based on the virtual meeting on September 17, 2020, CDFW is concerned with the placement of up to 10-foot high flood walls along long portions of the Project. CDFW recommends a buffer between the wall and the creek and recommends the area be planted with native riparian vegetation of all types, including grasses, herbs, vines, shrubs, and trees, with trees being utilized to the maximum extent possible.

The Project area should be revegetated and restored within the same season as construction following a Restoration Plan accepted in writing by CDFW. CDFW recommends habitat mapping and tree surveys be conducted to refine potential impacts prior to submitting the Restoration Plan. CDFW is available to work with the County to determine an appropriate offsite planting location as well.

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Both the on-site and potentially off-site Restoration Plan should monitor and maintain, as necessary, all plants for a minimum of ten (10) years to ensure successful revegetation. Planted trees and other vegetation should each have a minimum of 85 percent survival at the end of five years. If revegetation survival and/or cover requirements do not meet established goals, replacement planting, additional watering, weeding, invasive exotic eradication, or any other practice, to achieve these requirements should occur. Replacement plants should be monitored with the same survival and growth requirements for five years after planting.

Modifications to Corte Madera Creek

Any proposed regrading in the draft EIR should assess impacts, and at a minimum, be designed to maintain existing year-round instream habitat. The analysis should include the geomorphology of the creek upstream of the bypass outlet. CDFW recommends a critical riffle analysis utilizing CDFW's Standard Operating Procedure for Critical Riffle Analysis for Fish Passage in California.¹ This may include addressing fish passage design criteria, sediment transport, design storm elevations, scour potential, and shear stress involved in the bypass structure.

CDFW recommends implementing guidance and recommendations from the California Salmonid Stream Habitat Restoration Manual.² Fish passage should include rearing, foraging, osmoregulation, smoltification, and related functions necessary to support fish through a range of life stages. Avoid use of heavy geotextile fabric and minimize the use of rock riprap to the extent feasible to achieve bank stabilization. If fabric is needed, it should be made of natural, biodegradable materials. Stabilization should be achieved through integration of biological bank stabilization methods, including use of live willow cuttings and other appropriate native species.

Fish and Game Code section 5901 states that unless authorized, it is unlawful to construct or maintain a device that prevents or impedes the passing of fish up and downstream. Fish and Game Code section 45 defines "fish" as wild fish, mollusks, crustaceans, invertebrates, or amphibians, including any part, spawn or ova thereof.

Please coordinate with CDFW for technical support and assistance. CDFW supports channel naturalization and the restoration of habitat and channel complexity to support fisheries and a broad range of aquatic and riparian wildlife.

¹ <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=93986&inline>

² <https://www.wildlife.ca.gov/Grants/FRGP/Guidance>

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Sea Level Rise

The State of California Sea-Level Rise Guidance/2018 Update (California Natural Resources Agency 2018) provides a science-based methodology for state and local governments to analyze and assess the risks associated with sea-level rise and incorporate sea-level rise into their planning, permitting, and investment decisions. The Marin Shoreline Sea Level Rise Vulnerability Assessment/Bay Waterfront Adaptation & Vulnerability Evaluation (BayWAVE) (Marin County 2017) provides context and estimates of the physical and fiscal impacts across the County's bayside shoreline over the coming decades. It includes sea level rise scenarios ranging from 10 inches in the near-term (15 years) to 20 inches in the medium-term (mid-century) and to 60 inches in the long-term (end of century). Since the purpose of the Project is to reduce long-term flood risk, and a portion of this downstream channel is tidal, CDFW recommends incorporating the long-term (end of century) scenarios for sea level rise, beyond the 15 year estimate, to fully evaluate Project impacts.

REGULATORY REQUIREMENTS

California Endangered Species Act

Please be advised that a CESA ITP must be obtained if the Project has the potential to result in take³ 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 ITP.

CEQA requires a Mandatory Finding of Significance if a project is likely to substantially restrict the range or reduce the population of a threatened or endangered species. (Pub. Resources Code, §§ 21001, subd. (c), 21083; CEQA Guidelines, §§ 15380, 15064, and 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 CESA.

Lake and Streambed Alteration Agreement

CDFW requires an LSA Notification, pursuant to Fish and Game Code section 1600 et. seq., for Project activities affecting lakes or streams and associated riparian habitat.

³ Take is defined in Fish and Game Code section 86 as hunt, pursue, catch, capture, or kill, or attempt any of those activities.

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Notification is required 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 subject to notification requirements. CDFW will consider the CEQA document for the Project and may issue an LSA Agreement. CDFW may not execute the final LSA Agreement until it has complied with CEQA as a Responsible Agency.

Migratory Birds and Raptors

CDFW also has authority over actions that may disturb or destroy active nest sites or take birds without authorization. Fish and Game Code sections protecting birds, their eggs, and nests include sections 3503, 3503.5, and 3513. Fully protected species may not be taken or possessed at any time (Fish and Game Code, § 3511). Migratory birds are also protected under the federal Migratory Bird Treaty Act.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special-status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form, online field survey form, and contact information for CNDDDB staff can be found at the following link: <https://wildlife.ca.gov/data/CNDDDB/submitting-data>.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. 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. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

CONCLUSION

CDFW appreciates the opportunity to comment on the NOP to assist the County in identifying and mitigating Project impacts on biological resources.

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Questions regarding this letter or further coordination should be directed to Ms. Amanda Culpepper, Environmental Scientist, at amanda.culpepper@wildlife.ca.gov; or Ms. Karen Weiss, Senior Environmental Scientist (Supervisory), at karen.weiss@wildlife.ca.gov.

Sincerely,

DocuSigned by:

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Gregg Erickson
Regional Manager
Bay Delta Region

cc: Office of Planning and Research, State Clearinghouse (SCH No. 2020080353)

REFERENCES

- California Natural Resources Agency. 2018. State of California Sea-level Rise Guidance. https://opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf
- CDFW. 2009. California Department of Fish and Game East Marin County-San Francisco Bay Watersheds Stream Habitat Assessment Reports: Corte Madera Creek. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=94525&inline>
- CDFW. 2018. Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Sensitive Natural Communities. <https://www.wildlife.ca.gov/Conservation/Survey-Protocols#377281280-plants>
- Love, Michael and Associates and Jeff Anderson and Associates. 2007. Corte Madera Creek Flood Control Channel Fish Passage Assessment and Alternative Analysis. September 2007.
- Marin County. 2017. Marin Shoreline Sea Level Rise Vulnerability Assessment/Bay Waterfront Adaptation & Vulnerability Evaluation. Prepared by BVB Consulting LLC for Marin County Department of Public Works, June 2017. https://www.marincounty.org/-/media/files/departments/cd/planning/slr/baywave/vulnerability-assessment-final/final_allpages_bvbconsulting_reduced.pdf?la=en
- USFWS. 2005. Revised Guidance on Site Assessment and Field Surveys for the California Red-legged Frog March 2005. https://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/crf_survey_guidance_aug2005.pdf