

MEMORANDUM

TO: Isabelle Minn, Principal
Place Works
2040 Bancroft Way, Suite 400
Berkeley, California 94704

DATE: September 1, 2024

FROM: James Martin, Principal
Environmental Collaborative

SUBJECT: Responses to Comments from CDFW
Peter's Creek Bridges Project, Mitigated Negative Declaration
SCH No 2022100515
San Mateo County, California

This memo serves to provide responses to comments made by the California Department of Fish and Wildlife (CDFW) regarding some of the information contained in the Initial Study/Mitigated Negative Declaration (IS/MND) for the Peter's Creek Bridges Project (Project) issued by the County of San Mateo Planning and Building Department on October 24, 2022 (These comments were raised in a comment letter by CDFW (dated November 22, 2022), which is contained in **Attachment 1**. These concerns of CDFW relate to the need for additional details on the proposed bridge design for the Project, together with the potential impacts on the state-endangered and federally-threatened marbled murrelet (*Brachyramphus marmoratus*) and adequacy of proposed mitigation, among other concerns. In response to these concerns, County staff, myself, and others from the applicant's consulting team coordinated with CDFW representatives to better understand the issues and how to revise the proposed mitigation accordingly. These included a conference call on March 6, 2023 and a site visit on June 14, 2023. Project plans were submitted to CDFW representatives for review in 2023, who determined that the proposed free-span bridge designs did not pose any further concern for potential disruption of fish and aquatic life movement. Based on input from CDFW, several mitigation measures from the IS/MND and the 2021 *Biological Resource Assessment* (BRA)¹ that formed the basis for the mitigation measures in the IS/MND have been revised as described below. Of particular concern was the proposed use of artificial noise deterrent systems during the MAMU nesting season and how to address the potential impacts of bridge construction activities during the breeding season of MAMU.

¹ Environmental Collaborative, 2021. *Biological Resource Assessment, Peters Creek Bridge Project, San Mateo County, California*. Prepared for PlaceWorks. December.

The November 2022 comment letter from CDFW describes the role of CDFW as both a Trustee Agency and a Responsible Agency under CEQA for the Project, reviews the regulatory authority of CDFW, and provides specific comments and recommendations related to the Project as recommended in the IS/MND. These comments and recommendations from CDFW taken from their letter of November 2022 are captured below in italics, followed by my responses.

COMMENT 1: Project Design Analysis and Coordination

***Issue:** CDFW believes the MND does not sufficiently disclose or analyze potentially significant impacts to some fish and wildlife resources. CDFW is also concerned the proposed Project design to grade and construct the second bridge within Peter's Creek may not be the least environmentally impactful alternative. Site specific information is needed to ensure bridges are designed to meet the flow capacity of a given system, protect fish passage in fish bearing systems and to ensure potential barriers are remediated.*

***Recommendation 1 – Design Coordination:** Early coordination with Habitat Conservation and the CDFW Conservation Engineering Branch is recommended to provide review and analysis of any proposed structures or Project elements with the potential to impact fish and wildlife resources. CDFW Conservation Engineering Branch should be provided engineered drawings and design specification planning sheets during the initial design process, prior to design selection and re-initiating design consultation at 30% design at minimum and through the permitting process for review and comment.*

***Recommendation 2 - Bridge and Stream Crossing References:** CDFW recommends utilizing the design principles outlined in the California Salmonid Stream Habitat Restoration Manual, Part XII (CDFW, 2009) and NOAA Fisheries Service Guidelines for Salmonid Passage at Stream Crossings (National Marine Fisheries Service, 2001) into stream crossing designs. CDFW strongly recommends the above manuals are included and referenced when designing the structure and creek work aspect of the Project. Such designs allow natural stream flow and sedimentation processes to continue for long term dynamic channel stability.*

Response to Comment 1. The 2021 BRA and the Biological Resources section of the IS/MND includes a detailed assessment of the temporary and permanent impacts of the Project on the regulated waters and aquatic habitat of Peters Creek. Both bridge crossings would be free span structures and would not disrupt the beds or lower banks of Peters Creek. As acknowledged in the 2021 BRA and in Subsection 4.c of the IS/MND, the Project involves the temporary installation of coffer dams and dewatering of the creek to allow equipment in the channel to construct the two new bridges and reinforce the bank in one location along the access road. The existing crossing of the ephemeral drainage would also be modified as part of the access road improvements to Bridge 2. Collectively, an estimated 3,000 sq. ft. of regulated waters below the Ordinary High-Water Mark (OHWM) would be temporarily disturbed to accommodate the access road, coffer dams, and construction activities within state and federally regulated waters. Both bridges would be constructed to avoid disrupting plant growth and aquatic habitat within the active channel; bridge abutments would be located above the OHWM. Thus, impacts to regulated waters would mostly be temporary and involve a relatively small area.

Appropriate measures would be implemented as part of the Project to prevent erosion and sedimentation, degradation of downgradient waters as a result of construction activities, controls

to minimize disturbance to regulated waters, and successful implementation of habitat enhancements. Temporary construction access within the channel would be restricted to the dry season to minimize disturbance to surface waters and seasonal aquatic habitat. Preconstruction clearance surveys and worker training would precede any in-channel work, and the low flows in Peters Creek would be by-passed around the construction zone when the temporary coffer dams are in place. Areas disturbed by construction access into the Peters Creek channel would be restored to pre-disturbance conditions, with post-construction monitoring provided to confirm that all disturbed areas are successfully restored.

In response to the concerns of CDFW, the bridge designs were shared with engineers from the Conservation Engineering Branch of CDFW for review and comment, and to ensure they were consistent with the design principles outlined in the California Salmonid Stream Habitat Restoration Manual, Part XII and NOAA Fisheries Service Guidelines for Salmonid Passage at Stream Crossings as called for in CDFW Recommendations 1 and 2. This review confirmed that the designs do not pose a risk of impeding passage of fish and other aquatic life. No revisions to the proposed bridge designs were considered necessary based on the review by the Conservation Engineering Branch of CDFW. No modifications to the mitigation measures in the IS/MND were considered necessary in response to Comment 1 and Recommendations 1 and 2 made by CDFW.

COMMENT 2: Marbled Murrelet

Issue: *The MND has not sufficiently disclosed or adequately analyzed the potentially significant impacts to marbled murrelet (*Brachyramphus marmoratus*). The proposed Project is located within the breeding range of the marbled murrelet. The Project within designated Critical Habitat for marbled murrelet (<https://ecos.fws.gov/ecp/species/4467#crithab>). CDFW is aware of known suitable habitat approximately within the Project vicinity. During the breeding season, marbled murrelets will use this flyway of Peter's Creek to travel twice a day (dawn and dusk) to and from the ocean to breeding habitat in the forest. According to the Project description, in-water construction activities will be conducted between August 1 to October 1 which is prior to the end of the marbled murrelet breeding season (September 15). Equipment such as backhoes, excavators, front loaders, and skid steers, fit the "High" (81-90 dB) to "Very High" (91-100 dB) category within the U.S. Fish and Wildlife Service's (USFWS) sound categories.*

Evidence of Impacts: *The marbled murrelet is a small seabird which uses coastal redwood forests from Santa Cruz to Del Norte counties during the breeding season (March 24 to September 15). The marbled murrelet is listed as state endangered pursuant to Fish and Game Code 2050 et seq., and federally threatened pursuant to Title 16, United States Code 1531 et seq. Marbled murrelets have been documented nesting in mature, old-forests as well as younger forest stands with late-seral elements such as large trees with limbs >6 inches wide or limb defects. Nesting chronology of the marbled murrelet varies greatly between nesting seasons and geographic areas (McShane et al. 2004). In California, evidence suggests that murrelet juveniles typically fledge prior to September 10; however, this is based on a small number of records (Hamer and Nelson 1995). Adult murrelets flying past the Project area to nest sites located further upstream during parental feeding of young may therefore experience noise and visual disturbance from construction activities. Most adult murrelet flights to*

deliver food to the young occur before sunrise (two-thirds), while some occur at dusk (one-third), and occasionally during the day.²

Recommendation 1 – Avoidance of Marbled Murrelet Noise Deterrent: CDFW strongly recommends the Project does not include any noise deterrents for marbled murrelets since murrelets are sensitive to sounds. Additional sounds such as noise deterrents may impact murrelets and the different life cycles such as feeding of young or fledglings. CDFW strongly encourages the Project performs early consultation with CDFW to reduce impacts to murrelets.

Recommendation 2 – Marbled Murrelet Audio and Visual Disturbance Buffers: If conducting two-year protocol level surveys is not feasible, or if nesting marbled murrelets are detected during surveys, CDFW recommends a qualified biologist develop appropriate avoidance disturbance buffers around suitable habitat identified within 0.25 miles of the Project area and access road to be implemented during Project activities that occur during the murrelet breeding season (March 24 to September 15). Appropriate audio and visual disturbance buffers shall follow the USFWS' Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California, dated October 1, 2020. Although the cover letter indicates that the guidance is valid only to the southern limit of the Russian River watershed, CDFW recommends use of the guidance document throughout the entire murrelet range including San Mateo and Santa Cruz counties.

If the determined audio and visual disturbance buffers around the identified suitable nesting habitat do not incorporate the Project area and access road footprint, then no specific marbled murrelet mitigation measures are required.

CDFW staff is available to provide further guidance and consultation on appropriate avoidance and mitigation measures for the marbled murrelet.

Recommendation 3 – Construction Activities Occurring Daily: CDFW recommends that construction activities be prohibited within two hours of official sunrise and sunset to avoid visual and noise disturbance during peak hours of adult murrelet flights from the ocean to the nest trees.

Recommendation 4 – Avoid Attracting Predators: CDFW recommends that measures be taken to avoid attracting predators of murrelets as result of construction activities at the Project. Ravens, crows and jays, which have large home ranges, are known predators of marbled murrelet eggs and nestlings.³ CDFW recommends that the biological monitor instruct the work crew that all garbage and food scraps shall be packed out and disposed of in animal-proof containers. Workers, when feasible, should consume food inside their vehicles. These measures shall also apply for construction activities occurring during the marbled murrelet breeding season outside the seasonal disturbance buffer.

² Hamer, T.E. and S.K. Nelson, 1995. Nesting Chronology of the Marbled Murrelet. In: Ecology and Conservation of the Marbled Murrelet (C.J. Ralph, G.L. Hunt, Jr., M.G. Raphael, and J.F. Piatt, eds.). U. S. Forest Service, Gen. Tech. Rep. PSW-GTR-152, Pacific Southwest Research Station, Albany, California.

³ Marzluff, J.M. and E. Neatherlin, 2006. Corvid response to human settlements and campgrounds: causes, consequences, and challenges for conservation. Biological Conservation 130: 301-314.

Response to Comment 2. The concerns of CDFW over the potential impacts of the Project on MAMU are understood. Many of these concerns were reiterated during the conference call with representatives of the CDFW, the County planner, and applicant's consulting team on March 6, 2023. In advance of the conference call, a preliminary consultation for the Project prepared by Julie Coombes, Senior Environmental Scientist Supervisor with the Timberland Conservation & Wildlife Resiliency and Water Rights Unit of CDFW was shared with the team by email on March 3, 2023. Documents assembled by Ms. Coombes as part of the preliminary consultation are contained in **Attachment 2**. These included: 1) the 2020 and 2021 MAMU Survey Report prepared for Save The Redwoods League by Alex Rinkert, the results of which were summarized in the 2021 BRA, 2) the text summarizing the results of the preliminary consultation by CDFW, 3) Table 1 from the USFWS 2020 Noise Harassment Analysis,⁴ 4) a map showing the Peters Creek Habitat with Noise Buffers (Map 1), 5) a map of showing Suitable Habitat Trees within Peters Creek Habitat Area (Map 2), and 7) a map showing MAMU Habitat within a 5-mile Buffer of the Project Area (Map 3).

The input from CDFW made several issues very clear – 1) that the Project vicinity is considered occupied MAMU habitat by CDFW, 2) that Project construction and post-construction use of the area has the potential to negatively impact MAMU, 3) that the proposal to use artificial noise deterrents as part of the recommended approach to mitigating construction activities is unacceptable, and 4) that some details in the proposed Project Controls contained in the 2021 BRA and the mitigation measures in the IS/MND conflict with current guidance of CDFW in avoiding and minimizing impacts on MAMU and should be revised. The four recommendations from CDFW in their comments related to MAMU are understood and form the basis for the recommended revisions to the Mitigation Measures in the IS/MND.

In response to comments from the CDFW, several of the Project Controls and mitigation measures recommended in the 2021 BRA must be revised. These Project Controls and recommended mitigation measures from the 2021 BRA were used in preparing the mitigation measures contained in the Biological Resources section of the IS/MND. Where modifications are recommended to mitigation measures from the IS/MND in response to the comments from CDFW, these are shown with new text in double underline and deleted text in ~~overstrike~~. The numbering shown below for the mitigation measures is taken directly from that used in the Biological Resources section of the IS/MND. Only mitigation measures from the IS/MND where revisions are recommended are listed below.

Mitigation Measure 2 [BIO-1a]: Marbled Murrelet (MAMU) Nesting Habitat Avoidance. Appropriate measures shall be taken to mitigate potential adverse impacts on MAMU nesting in proximity to the Project improvements. This shall be accomplished through implementation of the following measures:

Restrictions on Tree Removal:

1. Tree removal and trimming required by the Project shall occur outside of the MAMU breeding season (March 24 ~~April 1~~ to September 15) to minimize disturbance to MAMU nesting.
2. Trees identified for removal under the Project shall first be assessed for suitability as MAMU nesting trees by a qualified wildlife biologist. Although none of the trees

⁴ USFWS, 2020, Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California, October 1.

proposed for removal appear to be large enough to function as nesting habitat for MAMU, this will be confirmed in advance of any tree removal. Typical credentials for a qualified biologist include a minimum of four years of academic training and professional experience in biological sciences and related resource management activities, and a minimum of two years of experience conducting surveys for MAMU.

3. Trees determined to have suitable elements for nesting by MAMU will be retained under the Project, if feasible. If a suitable nest tree(s) cannot be retained as part of the Project, the qualified biologist shall coordinate with the USFWS and CDFW regarding removal of a potential MAMU nest tree from occupied habitat and shall identify additional measures to address this loss. This may include follow-up monitoring of nest activity in the area to provide additional data on MAMU use of the Study Area, or other measures considered appropriate by the USFWS and CDFW.

Preconstruction Surveys

4. Prior to initiation of construction during the MAMU nesting season, the qualified biologist shall conduct a preconstruction survey to determine whether any active MAMU nests are located within line-of-sight of proposed Project construction activities. This preconstruction survey may be conducted as part of the larger preconstruction survey for active nests of other bird species called for in Mitigation Measure 4 [BIO-4].

5. If active MAMU nests are discovered where visual and noise disturbance from Project construction activities may result in harassment or take, the qualified biologist shall monitor the nest location and identify any additional construction control measures in consultation with the USFWS and CDFW as part of the MAMU Nest Avoidance Program called for below. These may include restrictions on the timing of disruptive construction activities within line-of-sight of the active nest until the nest is no longer in use as determined by the qualified biologist, at which time construction may proceed at this location without additional MAMU restrictions. Nest monitoring frequency shall be determined by the qualified biologist on a nest-by-nest basis considering the particular construction activity, duration, and proximity to the nest.

6. The qualified biologist may revise their construction-restriction determinations at any time during the nesting season, including applying additional restrictions if considered necessary to prevent harassment or take.

Project Construction Activities:

7. The qualified biologist shall evaluate the schedule of Project construction, identify any activities associated with the Project that could affect active MAMU nests, and develop a MAMU Nest Avoidance Program (NAP) in coordination ~~consultation~~ with the USFWS and CDFW that addresses any potential harassment or take.

~~8. An artificial noise deterrent system shall be developed and implemented as appropriate to acclimate individual MAMU that could be establishing new nests in the Project vicinity to construction activities. The artificial noise deterrent system shall be operating starting one hour before sunset and continuing until one hour after sunset from March through May, or until Project construction activities generating high noise levels have been initiated, whichever is later in the year.~~

8. Construction activities shall be restricted during the MAMU breeding season (March 24 to September 15) using the following minimum parameters and restrictions, together with the controls specified under the MAMU NAP.

- A. Tree removal shall be restricted to outside the entire nesting season.
- B. No construction shall be allowed from March 24 to July 31.
- C. Any construction between August 1 and September 15 shall be performed in accordance with the MAMU NAP. This shall include a prohibition on all construction activities generating “High” (81-91 dB), “Very High” (91-100 dB) and “Extreme” (101-110) noise generating activities based on the 2020 USFWS Guidance.⁵ Depending on the findings of the MAMU NAP, staging and other activities generating noise levels of less than 80 dB may be allowable outside the daily flight restrictions in #9 below.
- D. The qualified biologist shall perform a worker training prior to the start of any construction to educate all workers on the sensitivity of the area, presence of MAMU, and importance of avoiding attracting predators as a result of construction activities. All garbage and food scraps shall be packed out and disposed of in animal-proof containers. Workers, when feasible, shall consume food inside their vehicles.

9. Any construction activities between August 1 and September 15, including use of the access road, shall be prohibited within two hours of the official sunrise and within two hours of the official sunset to avoid visual and noise disturbance during peak hours of adult murrelet flights between the ocean and nests. Project activities which produce noise levels between 70 dB and 90 dB shall be restricted to between two hours after sunrise and two hours before sunset during the MAMU breeding season. Project activities which produce noise levels of 91 dB or greater shall be prohibited during MAMU breeding season.

10. Construction control measures determined necessary during the preconstruction surveys shall also be implemented as part of the MAMU NAP.

11. Construction practices called for in Mitigation Measure 8 [BIO-5] *Construction Restrictions to Protect Wildlife* shall be implemented to minimize disturbance to MAMU habitat and avoid attracting additional predators.

Post Construction Monitoring and Management:

12. Appropriate management practices shall be implemented as part of future trail use to minimize any adverse effects on MAMU habitat in the Study Area. This shall include installation of interpretive signage defining restrictions on visitor behavior during the MAMU breeding season, packing out all trash to avoid attracting additional MAMU predators, and a prohibition of pets on the trail system. At minimum, permanent interpretive signage shall be installed at the staging area along Portola Redwoods State Park Road and at each of the new bridge crossings.

⁵ USFWS, 2020, Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California, October 1.

13. Conduct follow-up monitoring of MAMU nest activity in the Study Area by a qualified biologist for a minimum of five years to provide additional data on MAMU use.

Mitigation Measure 4 [BIO-4]: Avoidance of Bird Nests in Active Use. Adequate measures shall be taken to avoid inadvertent take of bird nests protected under the federal Migratory Bird Treaty Act and State Fish and Game Code when in active use. This shall be accomplished by taking the following steps.

1. If initial grubbing and tree removal is proposed during the nesting season and in advance of the MAMU construction restrictions (February 1 ~~to March 24~~ August 31), a focused survey for nesting raptors and other migratory birds shall be conducted by a qualified biologist within 7 days prior to the onset of construction in order to determine whether any active nests are present in the Study Area and surrounding area within 300 feet of proposed construction. The survey shall be reconducted any time construction has been delayed or curtailed for more than 7 days during the nesting season.

2. Typical credentials for a qualified biologist include a minimum of four years of academic training and professional experience in biological sciences and related resource management activities, and a minimum of two years of experience conducting surveys for each species that may be present within the Study Area.

3. If no active nests are identified during the construction survey period, or construction is initiated during the non-breeding season (September 1 to January 31), then construction may proceed with no restrictions other than those related to MAMU as called for in Mitigation Measure 2 [BIO-1a]: Marbled Murrelet (MAMU) Nesting Habitat Avoidance.

4. If it is determined that construction may affect an active nest, the qualified biologist shall establish a no-disturbance buffer around the nest(s) and all construction activities restricted within the buffer until a qualified biologist determines the nest is no longer in use. Required setback distances for the no-disturbance buffer zone shall be based on input received from the CDFW, and the setback may vary depending on species and sensitivity to disturbance. As necessary, the no-disturbance zone shall be fenced with temporary orange construction fencing if construction is to be initiated elsewhere in the Study Area. Typically, these buffer distances are 250 feet for passerines and 500 feet for raptors; however, the buffers may be adjusted if topography or other obstructions block the line-of-sight between the nest and the construction area. For bird species that are federally and/or State-listed sensitive species (i.e., fully protected, endangered, threatened, species of special concern), the qualified biologist shall coordinate with CDFW (and USFWS for FESA-protected species nests such as marbled murrelet) regarding modifying nest buffers, prohibiting construction within the buffer, and modifying construction activities.

5. Modifying nest buffer distances, allowing certain construction activities within the buffer, and/or modifying construction methods in proximity to active nests for non-listed species shall be done at the discretion of the qualified biologist. Any work that must occur within established no- disturbance buffers around active nests shall be monitored by a qualified biologist. If adverse effects in response to construction activities within the buffer are observed and could compromise the nest viability, work within the no-disturbance buffer(s) shall be modified as directed by the qualified biologist or halt until

the nest occupants have fledged if monitoring indicates continued disturbance to the active nest.

6. With the exception of MAMU, any Any birds that begin nesting within the Project site and survey buffers amid construction activities shall be assumed to be habituated to construction-related or similar noise and disturbance levels and no work exclusion zones shall be established around active nests in these cases; however, should birds nesting nearby begin to show signs of disturbance associated with construction activities, then no-disturbance buffers shall be established as determined by the qualified wildlife biologist.

7. A report of findings shall be prepared by the qualified biologist and submitted to the County for review and approval prior to initiation of construction during the nesting season and in advance of the MAMU construction restrictions (February 1 to March 24 August 31). The report shall either confirm absence of any active nests or should confirm that any young are located within a designated no-disturbance zone and construction can proceed. No report of findings is required if construction is initiated during the non-nesting season (September 1 to January 31) and continues uninterrupted according to the above criteria.

The above recommended revisions to **Mitigation Measure 2 [BIO-1a]: Marbled Murrelet (MAMU) Nesting Habitat Avoidance** and **Mitigation Measure 4 [BIO-4]: Avoidance of Bird Nests in Active Use** serve to address the concerns of CDFW over potential impacts of the project on MAMU. With the above recommended revisions, potential impacts on MAMU would be mitigated to a level of less than significant. Further review and conditions made by CDFW as part of the permit application process for the Project could include additional restrictions and controls, which would serve to further address any remaining concerns of CDFW related to impacts on MAMU and other regulated resources within the Study Area.

One final issue discussed with CDFW during the site visit on June 14, 2023, was the potential for presence of special-status plant species in the Study Area. It was explained that systematic surveys had actually been conducted for special-status plants in 2022, but the results had not been incorporated into the IS/MND. The results of the systematic surveys are summarized in a report I prepared, which is contained in **Attachment C** of this memo. No special-status plant species were detected during field surveys conducted on April 27 and July 8, 2022, and none are suspected to occur on the Project site. The report contained in **Attachment C** fulfills the requirements of **Mitigation Measure 6 (BIO-1B): Rare Plant Avoidance Measures**. Because no special-status plants were encountered or are believed to occur on the Project site, no additional restrictions or requirements are considered necessary with regard to special-status plant species.

I trust this provides you and the County with the information necessary to finalize the IS/MND for this Project. Please feel free to contact me at 510-393-0770 if you have any questions regarding our responses to comments from CDFW regarding the Pere's Creek Bridges Project.

Attachment1: CDFW Comment Letter of November 22, 2022

Attachment 2: CDFW Peters Creek Bridge Project Marbled Murrelet Consultation

Attachment 3: Results of Systematic Surveys for Special-Status Plants

ATTACHMENT 1

CDFW Comment Letter of November 22, 2022



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
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Governor's Office of Planning & Research

November 22, 2022

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STATE CLEARING HOUSE

Ms. Summer Burlison
San Mateo County Planning & Building Department
455 County Center, 2nd Floor
Redwood City, CA 94063
sburlison@smcgov.org

Subject: Peter's Creek Bridges Project, Mitigated Negative Declaration,
SCH No. 2022100515, San Mateo County

Dear Ms. Burlison:

The California Department of Fish and Wildlife (CDFW) has reviewed the draft Mitigated Negative Declaration (MND) for Peter's Creek Bridges 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 County of San Mateo 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 (LSA) 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 & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as

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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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

The Project is located along Slate Creek Road (Peter's Creek), South Skyline area, Assessor's Parcel Number 085-070-070. The Project includes the removal and reconstruction of an existing bridge (Bridge 1) and the construction of a new bridge (Bridge 2) crossing Peter's Creek. The bridges will be clear span structures that are 50 feet by 11.5 feet (Bridge 1) and 100 feet by 8.7 feet (Bridge 2) in span.

Replacement Bridge 1 will replace an existing old railroad flat car bridge and will be fire truck rated. New Bridge 2 will be located between two high banks about 800 feet upstream of Bridge 1. A short area of the roadway to the location of Bridge 2 will be temporarily expanded to provide a minimum width of 12 feet for equipment and material. Additionally, a large stump in the access road to Bridge 2 will be removed and the access way re-graded.

The Project proposes a total of 1,563 cubic yards (cy) of grading (1,048 cy cut and 515 cy fill) and the removal of 18 trees, including 16 trees ranging in size from 5 inches in diameter to 10 inches in diameter, one 35-inch diameter Douglas-fir and one 28-inch diameter redwood. The bridges will serve maintenance and recreation users. Footings/foundations for the bridges will be outward of top-of-bank and above the ordinary high water line. However, temporary water diversions within the creek bed will be necessary for construction access and for equipment to work at the sites. Construction will occur during the dry season and is expected to take two to three months for each bridge, with the bridges to be constructed sequentially as improvement to Bridge 1 is needed in order for construction vehicles and equipment to access the site for Bridge 2. Additionally, some minor realignment of trail segments around these bridges is proposed.

REGULATORY AUTHORITY

Lake and Streambed Alteration Agreement

The Project has the potential to impact stream resources including mainstems, tributaries, drainages and floodplains associated with varied aquatic resource types within the Biological Study Area (BSA) including but not limited to Peters Creek. If work is proposed that will impact the bed, bank, channel or riparian habitat, including the trimming or removal of trees and riparian vegetation, please be advised that the proposed Project may be subject to LSA notification. CDFW requires an LSA notification, pursuant to Fish and Game Code § 1600 et. seq., for any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, bank or channel or deposit or dispose of material where it may pass into a river, lake or

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stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are generally subject to notification requirements.

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, 1³/₈, 1¹/₂, 1⁷/₈, 2, 2¹/₄, 2¹/₂, 2³/₄, 3, 3¹/₂, 4, 4¹/₈, 4¹/₂, 4³/₄, 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. Fish are defined as a wild fish, mollusk, crustacean, invertebrate, amphibian, or part, spawn, or ovum of any of those animals (Fish and Game Code § 45).

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 Guidelines §§ 21001 subd. (c), 21083, 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 Fish and Game Code, § 2080. More information on the CESA permitting process can be found on the CDFW website at <https://www.wildlife.ca.gov/Conservation/CESA>.

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 Communities Conservation Plan (NCCP), 2081.7 or a Memorandum of Understanding for scientific research purposes. “Scientific Research” does not include an action taken as part of specified mitigation for a Project, as defined in Section 21065 of the Public Resources Code.

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COMMENTS AND RECOMMENDATIONS

COMMENT 1: Project Design Analysis and Coordination

Issue: CDFW believes the MND does not sufficiently disclose or analyze potentially significant impacts to some fish and wildlife resources. CDFW is also concerned the proposed Project design to grade and construct the second bridge within Peter's Creek may not be the least environmentally impactful alternative. Site specific information is needed to ensure bridges are designed to meet the flow capacity of a given system, protect fish passage in fish bearing systems and to ensure potential barriers are remediated.

Recommendation 1 – Design Coordination: Early coordination with Habitat Conservation and the CDFW Conservation Engineering Branch is recommended to provide review and analysis of any proposed structures or Project elements with the potential to impact fish and wildlife resources. CDFW Conservation Engineering Branch should be provided engineered drawings and design specification planning sheets during the initial design process, prior to design selection and re-initiating design consultation at 30% design at minimum and through the permitting process for review and comment.

Recommendation 2 - Bridge and Stream Crossing References: CDFW recommends utilizing the design principles outlined in the California Salmonid Stream Habitat Restoration Manual, Part XII (CDFW, 2009) and NOAA Fisheries Service Guidelines for Salmonid Passage at Stream Crossings (National Marine Fisheries Service, 2001) into stream crossing designs. CDFW strongly recommends the above manuals are included and referenced when designing the structure and creek work aspect of the Project. Such designs allow natural stream flow and sedimentation processes to continue for long term dynamic channel stability.

COMMENT 2: Marbled Murrelet

Issue: The MND has not sufficiently disclosed or adequately analyzed the potentially significant impacts to marbled murrelet (*Brachyramphus marmoratus*). The proposed Project is located within the breeding range of the marbled murrelet. The Project within designated Critical Habitat for marbled murrelet (<https://ecos.fws.gov/ecp/species/4467#crithab>). CDFW is aware of known suitable habitat approximately within the Project vicinity. During the breeding season, marbled murrelets will use this flyway of Peter's Creek to travel twice a day (dawn and dusk) to and from the ocean to breeding habitat in the forest. According to the Project description, in-water construction activities will be conducted between August 1 to October 1 which is prior to the end of the marbled murrelet breeding season (September 15). Equipment such as backhoes, excavators, front loaders, and skid

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steers, fit the “High” (81-90 dB) to “Very High” (91-100 dB) category within the U.S. Fish and Wildlife Service’s (USFWS) sound categories.

Evidence of Impacts: The marbled murrelet is a small seabird which uses coastal redwood forests from Santa Cruz to Del Norte counties during the breeding season (March 24 to September 15). The marbled murrelet is listed as state endangered pursuant to Fish and Game Code 2050 et seq., and federally threatened pursuant to Title 16, United States Code 1531 et seq. Marbled murrelets have been documented nesting in mature, old-forests as well as younger forest stands with late-seral elements such as large trees with limbs >6 inches wide or limb defects. Nesting chronology of the marbled murrelet varies greatly between nesting seasons and geographic areas (McShane *et al.* 2004). In California, evidence suggests that murrelet juveniles typically fledge prior to September 10; however, this is based on a small number of records (Hamer and Nelson 1995). Adult murrelets flying past the Project area to nest sites located further upstream during parental feeding of young may therefore experience noise and visual disturbance from construction activities. Most adult murrelet flights to deliver food to the young occur before sunrise (two-thirds), while some occur at dusk (one-third), and occasionally during the day (Hamer and Nelson 1995).

Recommendation 1 – Avoidance of Marbled Murrelet Noise Deterrent: CDFW strongly recommends the Project does not include any noise deterrents for marbled murrelets since murrelets are sensitive to sounds. Additional sounds such as noise deterrents may impact murrelets and the different life cycles such as feeding of young or fledglings. CDFW strongly encourages the Project performs early consultation with CDFW to reduce impacts to murrelets.

Recommendation 2 – Marbled Murrelet Audio and Visual Disturbance Buffers: If conducting two-year protocol level surveys is not feasible, or if nesting marbled murrelets are detected during surveys, CDFW recommends a qualified biologist develop appropriate avoidance disturbance buffers around suitable habitat identified within 0.25 miles of the Project area and access road to be implemented during Project activities that occur during the murrelet breeding season (March 24 to September 15). Appropriate audio and visual disturbance buffers shall follow the USFWS’ *Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California*, dated October 1, 2020. Although the cover letter indicates that the guidance is valid only to the southern limit of the Russian River watershed, CDFW recommends use of the guidance document throughout the entire murrelet range including San Mateo and Santa Cruz counties.

If the determined audio and visual disturbance buffers around the identified suitable nesting habitat do not incorporate the Project area and access road footprint, then no specific marbled murrelet mitigation measures are required.

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CDFW staff is available to provide further guidance and consultation on appropriate avoidance and mitigation measures for the marbled murrelet.

Recommendation 3 – Construction Activities Occurring Daily: CDFW recommends that construction activities be prohibited within two hours of official sunrise and sunset to avoid visual and noise disturbance during peak hours of adult murrelet flights from the ocean to the nest trees.

Recommendation 4 – Avoid Attracting Predators: CDFW recommends that measures be taken to avoid attracting predators of murrelets as result of construction activities at the Project. Ravens, crows and jays, which have large home ranges, are known predators of marbled murrelet eggs and nestlings (Marzluff and Neatherlin 2006). CDFW recommends that the biological monitor instruct the work crew that all garbage and food scraps shall be packed out and disposed of in animal-proof containers. Workers, when feasible, should consume food inside their vehicles. These measures shall also apply for construction activities occurring during the marbled murrelet breeding season outside the seasonal disturbance buffer.

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 Mr. Will Kanz, Environmental Scientist, at (707) 337-1187 or Will.Kanz@wildlife.ca.gov; or Mr. Wesley Stokes, Senior Environmental Scientist (Supervisory), at (707) 339-6066 or Wesley.Stokes@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Erin Chappell
Erin Chappell
Regional Manager
Bay Delta Region

cc: State Clearinghouse #2022100515

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ATTACHMENT 2

CDFW Peters Creek Bridge Project Marbled Murrelet Consultation – March 3, 2023

CDFW Peters Creek Bridge Project Marbled Murrelet Consultation

March 3, 2023

BRIDGE CONSTRUCTION NOISE HARASSMENT ANALYSIS

CDFW conducted a noise disturbance analysis for the proposed Peters Creek bridge construction project according to the U.S. Fish and Wildlife Service (USFWS) document titled *“Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California”* (USFWS Revised 2020). The analysis identified the dominant pre-project sound level for the occupied marbled murrelet (MAMU) Habitat Area as “Natural Ambient”. Operation of the bridge construction project has the potential to generate sound levels categorized as “High”, “Very High”, and “Extreme”. Equipment such as backhoes, excavators, front loaders, skid steers, and pile driving fit the “High” (81-90 dB), “Very High” (91-100 dB) and “Extreme” (101-110 dB) categories within USFWS sound categories (Table 1).

Based on the above-described expected noise levels, the disturbance guidance recommends disturbance buffers of 500 feet for bridge construction operations producing high sound levels and 1,320 feet for very high and extreme sound levels around the occupied habitat area during the breeding season (Map 1).

CDFW RECOMMENDATIONS

The Peters Creek habitat area is classified as “occupied” by marbled murrelets based on surveys conducted by Alex Rinkert for *Save the Redwoods League* in 2020 and 2021 (Rinkert, 2021). Sites with “presence” are those sites where there have been at least one murrelet detection (i.e., the sighting or hearing of one or more birds), while “occupied sites” are sites where murrelets have been observed exhibiting sub canopy behaviors (i.e. flying below, thru, into, or out of the forest canopy within or adjacent to a site of potential habitat), which indicate that the site has some importance for breeding or important social behaviors (Evans Mack 2003). CDFW’s Marbled Murrelet Survey Protocol Guidelines state that once a site has been determined to be occupied by murrelets, it shall be considered occupied indefinitely (CDFW 2003).

To avoid “take” or adversely affecting marbled murrelets during project operations, the following conditions should be incorporated into the project as enforceable conditions. These recommendations apply to only the Peters Creek Bridge Project.

Recommendations During the MAMU Breeding Season:

1. The breeding season for marbled murrelets shall be March 24 to September 15.
2. Seasonal noise buffers shall be applied to occupied marbled murrelet habitat during the breeding season. Bridge construction activities producing High sound levels shall not occur within 500 feet of the habitat area during the marbled murrelet breeding season. Bridge construction activities producing Very High and Extreme sound levels shall not occur within 1,320 feet of the habitat area during the marbled murrelet breeding season (Map 1). Buffers shall be flagged or otherwise marked in the field.

3. The project shall not include any noise deterrents for marbled murrelets since murrelets are sensitive to sound disturbance. No data exists showing the introduction of noise deterrents successfully deters murrelets, nor does data exist showing murrelets are not adversely impacted by noise deterrents. Additional sounds such as noise deterrents may impact murrelets and the different life cycles such as feeding of young or fledglings.
4. If project activities cannot be avoided within the habitat area and/or in the noise buffers during the breeding season, an Incidental Take Permit (ITP) shall be obtained from CDFW.
5. If project activities cannot be avoided within the habitat area and/or in the noise buffers during the breeding season; construction activities, including use of the access road, shall be prohibited within two hours of official sunrise and within two hours of official sunset to avoid visual and noise disturbance during peak hours of adult murrelet flights from the ocean to the nest trees.

Year-Round Recommendations:

6. The Peters Creek Habitat Area shall be considered occupied by marbled murrelets.
7. No vegetation modification shall occur to trees exhibiting suitable habitat features and to the surrounding screen trees (Map 2). In California, the marbled murrelet nests in mature coastal coniferous forests usually on moss-covered limbs >6 inches wide or with limb defects (McShane et al. 2004). Nest tree features include large diameter trees, platforms, and moss, in addition to limb and tree crown deformities (Baker et al. 2006). Mature conifer stands often have a complex tree crown structure with gaps in the canopy which allow access by adult murrelets to and from nest platforms during parental incubation exchanges and chick feeding (Ralph et al. 1995). CDFW shall be contacted should the project be unable to avoid vegetation modification to the habitat trees and screen trees to discuss further protection measures.
8. Measures shall be taken to avoid attracting predators of murrelets as a result of construction activities. Ravens, crows and jays, which have large home ranges, are known predators of marbled murrelet eggs and nestlings (Marzluff and Neatherlin 2006). Trash and food scraps attract corvid predators and by removing these attractants corvid predation on marbled murrelets can be reduced (Hérbert and Golightly 2007). A biological monitor shall instruct the work crew that all garbage and food scraps shall be packed out and disposed of in animal-proof containers. Workers, when feasible, shall consume food inside their vehicles. These measures shall also apply for construction activities occurring during the marbled murrelet breeding season outside the seasonal disturbance buffers.
9. If marbled murrelets are detected during operations, project activities shall stop immediately and CDFW shall be consulted. Take of marbled murrelet is prohibited under the California Endangered Species Act (CESA) without appropriate take coverage.
10. Prior to bridge construction, the project manager shall inform all construction crews of the above recommendations through a pre-project meeting.

11. The above recommendations shall remain in effect during the life of the project operations. Consultation with CDFW shall be required if the location and boundary lines of the project are modified and if any new information is received regarding marbled murrelet occurrences near the proposed project area.

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Table 1. Estimated disturbance distance (in feet) due to elevated action-generated sound levels affecting the northern spotted owl and marbled murrelet, by sound level.

Existing (Ambient)

Pre-Project Sound Level (dB)^{1, 2}

Anticipated Action-Generated Sound Level (dB)^{2, 3}

Moderate (71-80)

High (81-90)

Very High (91-100)

Extreme (101-110)

“Natural Ambient”⁴

(< = 50)

50 (165)^{5,6}

150 (500)

400 (1,320)

400 (1,320)

Very Low (51-60)

0

100 (330)

250 (825)

400 (1,320)

Low (61-70)

0

50 (165)

250 (825)

400 (1,320)

Moderate (71-80)

0

50 (165)

100 (330)

400 (1,320)

High (81-90)

0

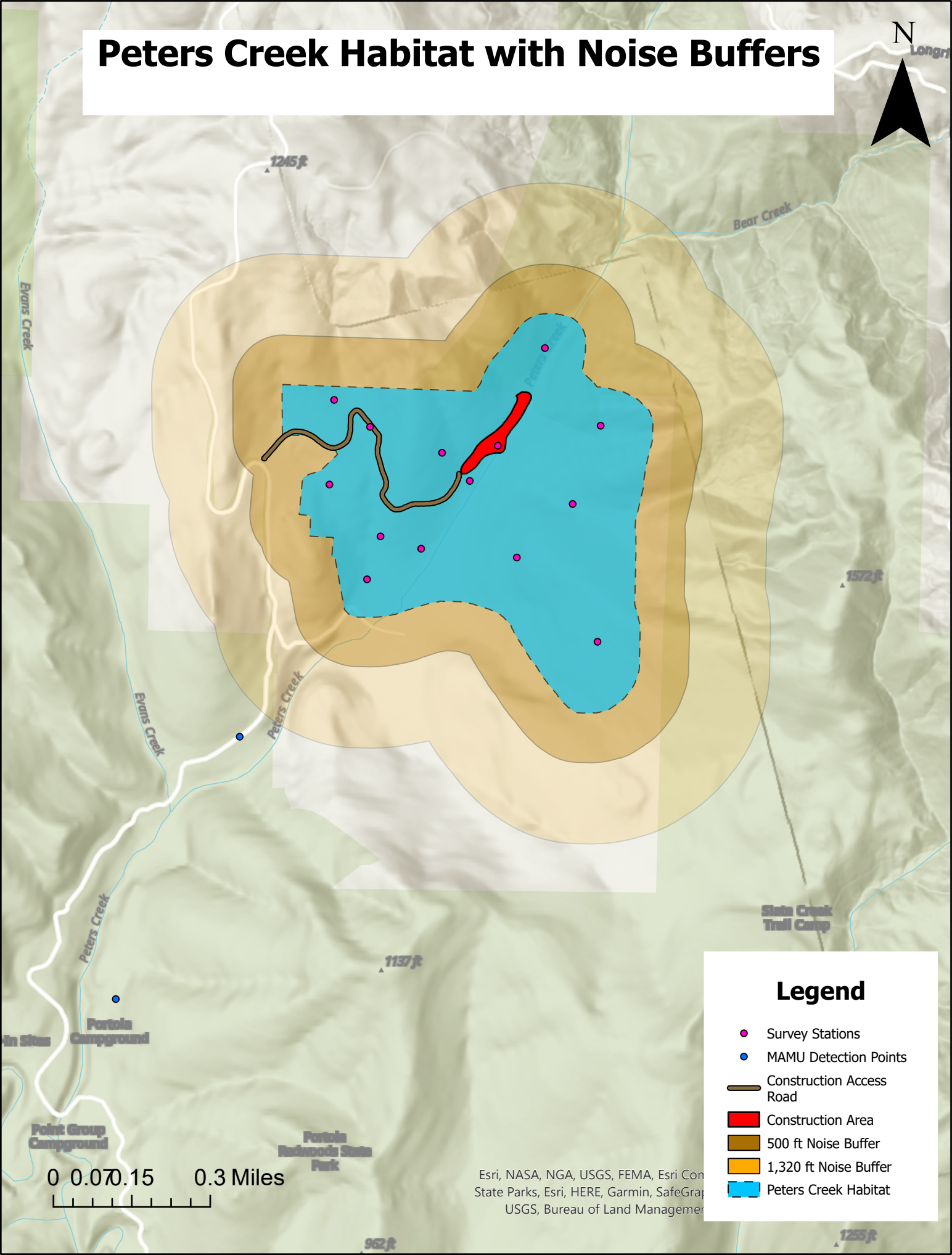
50 (165)

50 (165)

150 (500)

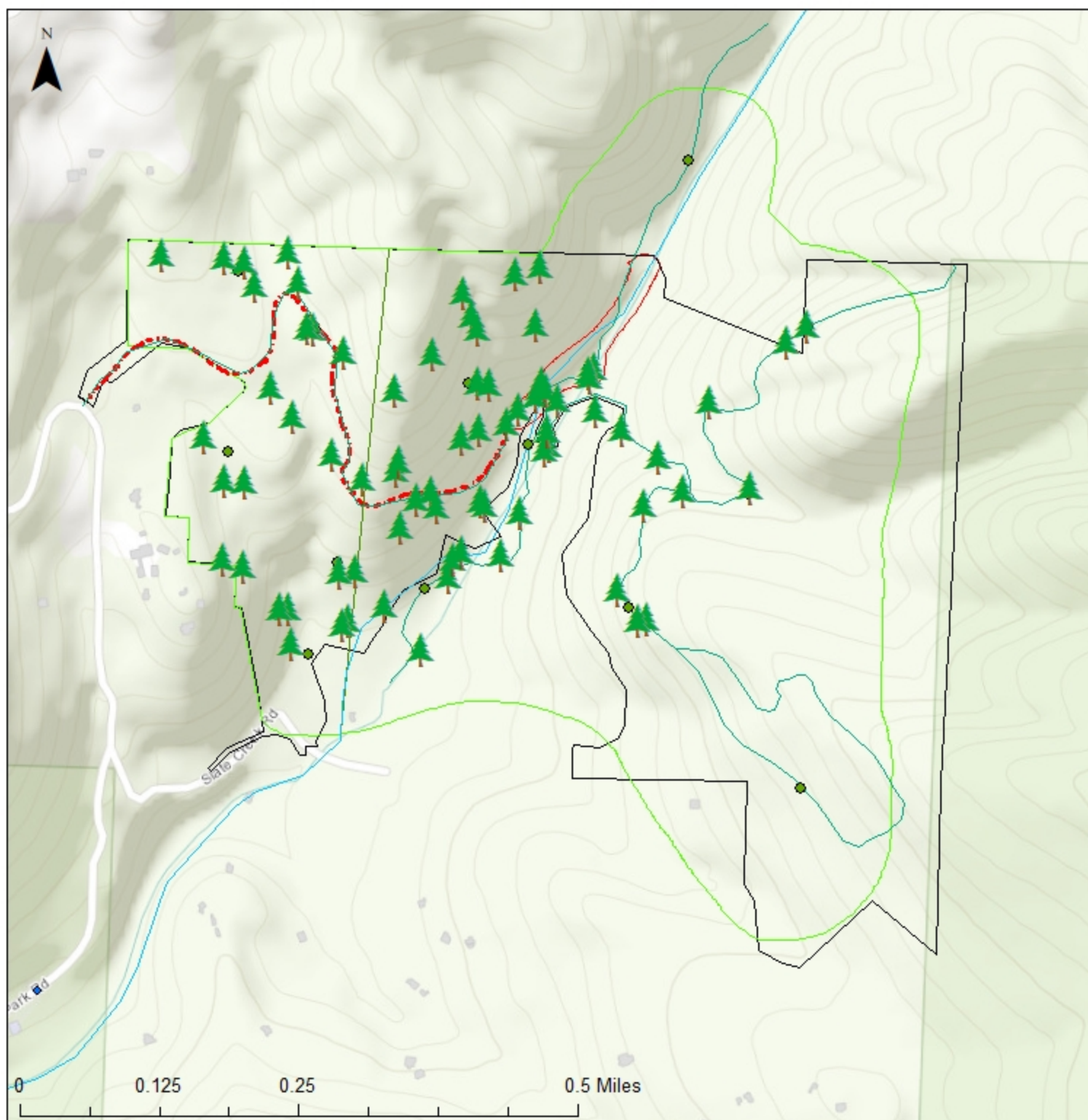
Project Sound Sources	Reported Decibel Level @ 50 ft	Relative Noise Level ²
Pumps	81 ³	High
Horizontal Boring Hydraulic Jack	82 ³	High
Slurry Machine	82 ³	High
Vacuum Street Sweeper	82 ³	High
Concrete Pump	82	High
Log Loader	83	High
Ground Compactor	83 ³	High
Concrete Batch Plant	83	High
Dump Truck	84	High
Flat Bed Truck	84	High
Roller	85 ³	High
Mowers, leaf blowers	85	High
Passenger Cars/Light Trucks (65 mph)	85	High
Auger Drill Rig	85	High
Truck Horn (Warning)	85 ³	High
Equipment > 5 horsepower	85	High
Impact Wrench	85	High
Concrete Truck	85	High
Road Grader	85	High
Chain saws	85 ³	High
Highway-Traffic	85	High
Dozer	85 ³	High
Rock Drill	85 ³	High
Crane	85 ³	High
Paver	85 ³	High
Scraper	85 ³	High
Pneumatic tools	85 ³	High
Large Diesel Engine	86	High
Generator	87	High
Front-end Loader	87	High
Drill Rig	88	High
Medium Trucks & Sport Vehicles (65 mph)	89	High
General construction	89	High
Large Truck	89	High
Jackhammer	89 ³	High
Concrete Saw	90	High
Hydra Break Ram	90	High
Mounted Impact Hammer Hoe-Ram	90	High
Large Tree Falling	92	Very High
Clam Shovel	93	Very High
Jake Brake on Truck	94	Very High
Hydromulcher	94	Very High
Boat motors	95	Very High
RVs (large)	95	Very High
Pneumatic Chipper	95	Very High
Heavy Trucks and Buses	95	Very High
Heavy Construction	96	Very High
Logging Truck	97	Very High
Railroad	98	Very High
Vibratory (Sonic) Pile Driver	101 ³	Extreme
Impact Pile Driver	101	Extreme
Guardrail Installation and Pile Driving	105	Extreme
23 ft Detonation Cord, on surface	106	Extreme
Track Hoe	106	Extreme
Helicopter S-61 (large, single rotor, loaded)	112	Extreme
Rock Blast	112	Extreme
12 ft Detonation Cord, buried	112	Extreme
Exterior Cone Blast w/ sand bags	120	Extreme
Jet Overflight	136	Extreme
Exterior Cone Blast (obstructed)	127	Extreme
Treetop Blast	137	Extreme

Peters Creek Habitat with Noise Buffers



Legend

- Survey Stations
- MAMU Detection Points
- Construction Access Road
- Construction Area
- 500 ft Noise Buffer
- 1,320 ft Noise Buffer
- Peters Creek Habitat



Murrelet Habitat Consultations

-  Tree_Points
-  Station_Points
-  MAMU_Detection_Points
-  Trail_Polylines
-  Stream_Polylines
-  SiteBoundary_Polylines
-  Construction_Access_Road_Polyline
-  Survey_Area_Polygons
-  PropBoundary_Polygons
-  Construction_Project_Area_Polygon
-  CZU Lightning Complex Perimeter
-  Occupied
-  Presence
-  Suitable, Not Surveyed
-  Probable Absence
-  Not Suitable

Peters Creek Habitat with 5 Mile Radius



Legend

-  MAMU Detection Points
 5 Mile Radius
Murrelet
Consultations
 Occupied
 Presence
 Suitable, Not Surveyed
 Peters Creek Habitat

Esri, NASA, NGA, USGS, FEMA, Calitri, SafeGraph, GeoTechnologies, Inc.

0 0.5 1 2 Miles

ATTACHMENT C

Results of Systematic Surveys for Special-Status Plants – November 21, 2022

Consultation • Documentation • Restoration
41 Jeanette Court • Walnut Creek, CA 94596
Phone 510-393-0770 • beach127@aol.com

MEMORANDUM

TO: Isabelle Minn, Principal
Place Works
2040 Bancroft Way, Suite 400
Berkeley, California 94704

DATE: November 21, 2022

FROM: James Martin, Principal
Environmental Collaborative

SUBJECT: Results of Systematic Surveys for Special-Status Plants
Peters Creek Bridge Project Site
San Mateo County, California

The memo serves to provide written documentation on the results of the systematic surveys for special-status plant species conducted for the Peters Creek Bridge (Bridge Project) site in San Mateo County, California. As you know, the goal of the Bridge Project is to rebuild an existing bridge and construct a new bridge over Peter's Creek on property that is owned and managed by Save the Redwoods League. These bridges would be part of an access improvement program that allows for safe and low impact access to the property as well as the adjacent State Park lands and trails.

The 2021 *Biological Resource Assessment* (BRA)¹ that Environmental Collaborative prepared for the Bridge Project provided a review of the potential for presence of special-status plant species known from the south San Mateo County vicinity. No special-status plant species were detected at the time of the field survey conducted as part of the field survey for the BRA conducted in September 2019. Suitable habitat for State and federally-listed special-status plant species is either absent or these species would have been detectable during the survey in 2019, if present. However, the BRA concluded that there was still a remote potential for presence of three special-status plant species – minute pocket moss (*Fisidens pauperculus*), Dudley's lousewort (*Pedicularis dudleyi*), and white-flowered rein orchid (*Piperia candida*) - in the limits of construction which could have been indiscernible at the time of the field reconnaissance in September 2019. None have any legal protective status under the Endangered Species Acts but have a California Rare Plant Rank (CRPR) of 1B (rare and endangered in California and elsewhere in the CNPS Inventory and warrant further consideration under CEQA. Information on each of these species is summarized as follows.

¹ Environmental Collaborative, 2021. *Biological Resource Assessment, Peters Creek Bridge Project, San Mateo County, California*. Prepared for PlaceWorks. December.

Minute pocket moss has a CRPR of 1B.2. This moss species is found in north coast coniferous forest communities with damp coastal soil. The closest occurrence reported by the CNDDDB less than a mile south of the Study Area in Portola State Park on hard moist soil within redwood forest. Suitable habitat for this species occurs throughout the site vicinity in the moist forest understory along Peters Creek.

Dudley's lousewort has a CRPR of 1B.2. It is a perennial herb which blooms from April to June. This species occurs in maritime chaparral, cismontane woodland, north coast coniferous forest, and valley and foothill grassland communities. Numerous occurrences of Dudley's lousewort have been reported within Portola State Park along Peters Creek less than a half mile downstream of the Project reach. Suitable habitat for this species occurs throughout the site vicinity in the moist forest understory along Peters Creek.

White-flowered rein orchid. White-flowered rein orchid (*Piperia candida*) has a CRPR of 1B.2. It is a perennial herb which blooms from May to September, sometimes as early as March. This species is sometimes found in serpentine-derived soils within broadleafed upland forest, lower montane coniferous forest, and north coast coniferous forest communities. The nearest occurrence is documented in Portola State Park about two miles downstream of the Project reach near the confluence of Peters and Pescadero creeks. Suitable habitat for this species occurs throughout the Study Area in the moist forest understory along Peters Creek.

Systematic surveys were performed throughout the limits of potential disturbance associated with the Bridge Project by myself and botanist Zoya Akulova Barlow. The surveys were conducted on April 27 and July 8, 2022, according to the latest *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* of the California Department of Fish and Wildlife.² Given the dense shade created by the forest canopy throughout the site, groundcover is relatively sparse, making the survey effort relatively straight forward. All plants encountered were inspected and identified to the degree necessary to determine possible rarity, and a list of plant species encountered during the surveys was prepared (see list in **Attachment 1**).

No special-status plant species were encountered on the site and none are suspected to occur based on the results of the systematic surveys conducted in the spring and summer of 2022. The majority of the plant species at the site are native, representing about 90 percent of the total plant species observed.

Please feel free to contact me at 510-393-0770 if you have any questions regarding the results of the systematic surveys for special-status plant species on the Peters Creek site.

Attachment: Plant List for Peters Creek Bridge Site

² California Department of Fish and Wildlife, 2018. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities*. March 20.

ATTACHMENT 1

Plant List for Peters Creek Bridge Site

**List of Plant Species Observed during Botanical Surveys
For the Peters Creek Bridge Project Site, San Mateo County
Conducted on April 27 and July 8, 2022ⁱ**

Scientific nameⁱⁱ	Common name	Native
<i>Acer macrophyllum</i>	big leaf maple	yes
<i>Actaea rubra</i>	baneberry	yes
<i>Adenocaulon bicolor</i>	American trailplant	yes
<i>Adiantum aleuticum</i>	western maidenhair fern	yes
<i>Alnus rhombifolia</i>	white alder	yes
<i>Anisocarpus madioides</i>	woodland madia	yes
<i>Boykinia occidentalis</i>	western boykinia	yes
<i>Carex bolanderi</i>	Bolander's sedge	yes
<i>Cirsium vulgare</i>	bull thistle	no
<i>Clintonia andrewsiana</i>	red clintonia	yes
<i>Collomia heterophylla</i>	varied leaved collomia	yes
<i>Corylus cornuta</i> ssp. <i>californica</i>	beaked hazelnut	yes
<i>Cyperus eragrostis</i>	tall flatsedge	yes
<i>Erythranthe guttata</i>	seep monkey flower	yes
<i>Epilobium ciliatum</i>	slender willowherb	yes
<i>Epipactis helleborine</i>	helleborine	no
<i>Equisetum telmateia</i> ssp. <i>braunii</i>	giant horsetail	yes
<i>Euonymus occidentalis</i>	burning bush	yes
<i>Galium triflorum</i>	fragrant bedstraw	yes
<i>Heteromeles arbutifolia</i>	toyon	yes
<i>Iris fernaldii</i>	Fernald's iris	yes
<i>Juncus patens</i>	common rush	yes
<i>Lonicera hispidula</i>	pink honeysuckle	yes
<i>Lysimachia latifolia</i>	scarlet pimpernel	no
<i>Maianthemum stellatum</i>	false Solomon seal	yes
<i>Medicago lupulina</i>	black melic	no
<i>Melica subulate</i>	Alaska oniongrass	yes
<i>Myosotis latifolia</i>	forget-me-not	no
<i>Nemophila parviflora</i>	small flowered nemophila	yes
<i>Notholithocarpus densiflorus</i>	tan oak	yes
<i>Osmorhiza berteroi</i>	sweet cicely	yes
<i>Oxalis oregana</i>	redwood sorrel	yes
<i>Petasites frigidus</i> var. <i>palmatus</i>	western coltsfoot	yes
<i>Polypodium californicum</i>	California polypody	yes
<i>Polypogon interruptus</i>	ditch beard grass	yes
<i>Polystichum dudleyi</i>	Dudley's sword fern	yes
<i>Polystichum munitum</i>	western sword fern	yes
<i>Prosartes</i> sp.	drops of gold	yes
<i>Pseudotsuga menziesii</i>	Douglas-fir	yes
<i>Pteridium aquilinum</i>	bracken fern	yes

<i>Ribes</i> sp.	gooseberry	yes
<i>Rosa gymnocarpa</i>	woodland rose	yes
<i>Rubus armeniacus</i>	Himalayan blackberry	no
<i>Rubus parviflorus</i>	thimbleberry	yes
<i>Rubus ursinus</i>	California blackberry	yes
<i>Sanicula crassicaulis</i>	gamble weed	yes
<i>Scirpus microcarpus</i>	small fruited bullrush	yes
<i>Sequoia sempervirens</i>	coast redwood	yes
<i>Stachys rigida</i> var. <i>quercetorum</i>	rough hedge nettle	yes
<i>Tiarella trifoliata</i> var. <i>unifoliata</i>	sugarscoop	yes
<i>Toxicodendron diversilobum</i>	poison oak	yes
<i>Trillium ovatum</i>	western white trillium	yes
<i>Umbellularia californica</i>	California bay tree	yes
<i>Urtica dioica</i>	stinging nettle	yes
<i>Vaccinium ovatum</i>	huckleberry	yes
<i>Veronica americana</i>	American brooklime	yes
<i>Viola sempervirens</i>	evergreen violet	yes
<i>Woodwardia fimbriata</i>	giant chain fern	yes

ⁱ Surveys conducted by Zoya Akulova-Barlow and James Martin.

ⁱⁱ Nomenclature according to: on-line Jepson eFlora and Calflora.