



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Suite W-2605
Sacramento, California 95825-1846
SFWO_mail@fws.gov



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July 28, 2021

Ryan Heacock
Operations and Maintenance Environmental Support Unit
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, California 95118
fahce@valleywater.org

Subject: Comments on the Draft Program Environmental Impact Report (EIR) for Santa Clara Valley Water District's (Valley Water) Fish and Aquatic Habitat Collaborative Effort (FAHCE) in the Guadalupe River and Stevens Creek Watersheds in Santa Clara County, California

Dear Ryan Heacock:

We, the Sacramento Fish and Wildlife Office of the U.S. Fish and Wildlife Service (Service), are writing to you regarding Valley Water's Draft Program EIR for the proposed FAHCE Project (proposed project) in the Guadalupe River and Stevens Creek watersheds in Santa Clara County, California. At issue are the proposed project's effects on the federally listed as threatened California red-legged frog (*Rana draytonii*), threatened Central Distinct Population Segment of the California tiger salamander (Central California tiger salamander) (*Ambystoma californiense*) and its designated critical habitat, endangered California clapper rail (*Rallus longirostris obsoletus*), endangered salt marsh harvest mouse (*Reithrodontomys raviventris*), threatened Pacific coast Distinct Population Segment of the western snowy plover (western snowy plover) (*Charadrius nivosus nivosus*), endangered California least tern (*Sternula antillarum browni*), threatened Bay checkerspot butterfly (*Euphydryas editha bayensis*) and its designated critical habitat, endangered Metcalf Canyon jewelflower (*Streptanthus albidus* ssp. *albidus*), endangered Santa Clara Valley dudleya (*Dudleya setchellii*), the Federal candidate San Francisco Bay-Delta Distinct Population Segment of longfin smelt (longfin smelt) (*Spirinchus thaleichthys*), the Federal candidate monarch butterfly (*Danaus plexippus*), the federally petitioned foothill yellow-legged frog (*Rana boylei*), and the federally petitioned western pond turtle (*Actinemys marmorata*). This response is provided under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (Act), and in accordance with the implementing regulations pertaining to interagency cooperation (50 CFR 402).

Until the Service officially adopts recent nomenclature changes made by the American Ornithologists' Union to Ridgway's Rail (*Rallus obsoletus*), we maintain the use of California clapper rail (*Rallus longirostris obsoletus*) in this correspondence. Note, the change in taxonomic assignment does not change the listing status of the species.

Valley Water is proposing to implement the FAHCE Settlement Agreement through a Fish Habitat Restoration Plan. The Settlement Agreement is between Valley Water, the Service, National Marine Fisheries Service, California Department of Fish and Wildlife (CDFW), Guadalupe-Coyote Resource Conservation District, Trout Unlimited, Pacific Coast Federation of Fishermen's Associations, Urban Creeks Council, Northern California Council of Federation of Fly Fishers, and California Trout, Inc. (collectively referred to as the Initialing Parties), to resolve disputes regarding Valley Water's use of its water rights on the Stevens Creek and Guadalupe River watersheds in Santa Clara County, California. The Fish Habitat Restoration Plan has been designed as a restoration project to implement measures to improve fish passage and enhance fish habitat within the Stevens Creek and Guadalupe River watersheds while maintaining a reliable current and future water supply and water deliveries where Valley Water holds water rights licenses in northern Santa Clara County. As such, the proposed project is essentially a restoration project implemented through measures specified in the Settlement Agreement and adaptively managed through a program to administer these restoration activities consistent with Valley Water's water rights and water supply commitments. Measures developed through FAHCE are intended to modify instream flows and improve habitat conditions, as appropriate, to meet the management objectives specified in the Settlement Agreement initialed by the Initialing Parties on May 27, 2003. The Settlement Agreement also includes Coyote Creek, but Valley Water decided in 2019 it would be more appropriate and efficient to move California Environmental Quality Act review of the Coyote Creek watershed Phase 1 FAHCE measures to the Anderson Dam Seismic Retrofit Project EIR.

The FAHCE Settlement Agreement management objectives provided guidance to Valley Water for framing the proposed project objectives. The following is a summary of the objectives of the proposed project

1. Objective 1: Restore and maintain a healthy steelhead population in the Stevens Creek watershed by providing suitable spawning and rearing habitat, adequate passage for upmigrating adults and outmigrating juvenile steelhead, and extended distribution of suitable habitat in Phases 2 and 3 as determined through the adaptive management program (AMP);
2. Objective 2: Restore and maintain healthy steelhead and Chinook salmon populations in the Guadalupe River watershed by providing suitable spawning and rearing habitat, adequate passage for upmigrating adults and outmigrating juvenile fish, and extended distribution of suitable habitat in Phases 2 and 3 as determined through the AMP; and
3. Objective 3: Maintain flexible and reliable groundwater recharge to support current and future water supply and water deliveries in a practical, cost-effective, and environmentally sensitive manner so that sufficient water is available for any present or future beneficial use.

Special-Status Amphibians and Aquatic Reptiles

The EIR states on p. ES-10:

The trap-and-truck feasibility study would evaluate the suitability of spawning and rearing habitat for steelhead trout above the [Stevens Creek] reservoir, the practicality of moving steelhead trout above the reservoir and achieving successful outmigration, and

the potential effects of such movement on existing steelhead trout populations in Stevens Creek.

Valley Water should evaluate the effects of the proposed steelhead trap-and-truck program on the California red-legged frog, the State endangered West/Central Coast clade of the foothill yellow-legged frog, and other special-status amphibians above Stevens Creek Reservoir including the effects of predation, resource competition, and the introduction and spread of amphibian diseases (e.g. chytrid fungus (*Batrachochytrium dendrobatidis*) and ranaviruses) and invasive New Zealand mudsnail. Valley Water should evaluate how the effects on special-status amphibians would be minimized and mitigated.

The EIR further states in the Settlement Agreement on p. 24 of Appendix B regarding the Guadalupe Watershed:

Phase Two Management Objective. Subject to paragraph 6.1.2, the distribution of suitable fishery habitat for steelhead trout will be materially extended in Alamitos Creek up to an additional three miles (plus or minus) above Almaden Reservoir, or below either Calero Reservoir or Almaden Reservoir to its confluence with Lake Almaden, as determined feasible.

Valley Water should evaluate the effects on the Santa Clara Valley Habitat Plan-covered California red-legged frog, Central California tiger salamander, and foothill yellow-legged frog, and other special-status amphibians of the reintroduction of steelhead trout in Alamitos Creek above Almaden Reservoir and below Almaden and Calero reservoirs including the effects of predation, resource competition, and the introduction and spread of amphibian diseases (e.g. chytrid fungus and ranaviruses) and invasive New Zealand mudsnail. Amphibians infected with amphibian diseases by the proposed project could then spread the diseases further into the watershed into breeding habitat for the Central California tiger salamander, California red-legged frog, and foothill yellow-legged frog. Infestations of foothill yellow-legged frogs with chytrid fungus in the upper Coyote Creek watershed have resulted in the recent die-off of foothill yellow-legged frogs in portions of the upper Coyote Creek watershed. Chytrid was also recently identified as a cause of mortality in California red-legged frogs. Valley Water should evaluate how the effects would be minimized and mitigated. Valley Water should implement best management practices (BMPs) to prevent the introduction and spread of amphibian diseases and invasive New Zealand mudsnails throughout the proposed project area whenever working within suitable habitat for special-status amphibians.

When implementing the BMP “GEN-15: Salvage Native Aquatic Vertebrates from Dewatered Channels” on p. 3-90 of the EIR, Valley Water should avoid relocating aquatic vertebrates to a different stream and minimize the distance aquatic vertebrates are relocated upstream in order to avoid the introduction and spread of amphibian diseases and invasive New Zealand mudsnail.

Valley Water should evaluate the potential for the California red-legged frog and foothill yellow-legged frog to breed in the streams in the study area in the Stevens Creek and Guadalupe River watersheds and their egg masses scoured or dewatered, and adults and tadpoles washed downstream by proposed FAHCE and FAHCE-plus flow measures. Foothill yellow-legged frogs use periods of steady or decreasing flow rates as a cue to initiate oviposition; therefore, pulse flows or late season flows that occur after the initiation of oviposition could result in the scouring and dewatering of their egg masses. Water temperature is another important cue in the timing of the initiation of oviposition by foothill yellow-legged frogs. Colder water temperatures also slow

the rate of development of California red-legged frog and foothill yellow-legged frog tadpoles. Studies found foothill yellow-legged frogs were absent when temperatures were below 55 degrees Fahrenheit, but the number of foothill yellow-legged frogs increased significantly with increasing temperatures. Tadpole thermal preference in foothill yellow-legged frogs was found to be 61.7-72.0 degrees Fahrenheit ([CDFW September 20, 2019 Status Review for Foothill Yellow-Legged Frog](#), p. 17). Therefore, colder water temperatures would likely adversely affect the California red-legged frog and foothill yellow-legged frog. Valley Water should evaluate the effects of the proposed colder water temperatures and flow measures on the California red-legged frog, foothill yellow-legged frog, and the Santa Clara Valley Habitat Plan-covered western pond turtle.

The California Natural Diversity Database (CNDDDB) reports the foothill yellow-legged frog as occurring along Guadalupe Creek downstream of Guadalupe Dam (CNDDDB occurrence number 736, CDFW 2021) and along Alamitos Creek below Almaden Dam (CNDDDB occurrence number 2080, CDFW 2021). Thus, any foothill yellow-legged frogs in Guadalupe Creek downstream of Guadalupe Dam and in Alamitos Creek below Almaden Dam could be adversely affected by the proposed colder water temperatures and reservoir operations that would scour or dewater foothill yellow-legged frog egg masses downstream of the dams. Foothill yellow-legged frogs could also be adversely affected by gravel augmentation proposed downstream of Guadalupe Dam (Table ES-2 in the EIR). Foothill yellow-legged frogs could also be adversely affected by attempts to increase riparian shading along the Guadalupe River downstream of Guadalupe Dam and along Alamitos Creek below Almaden Dam as the foothill yellow-legged frog prefers a more open riparian canopy with more sun exposure. Valley Water should survey to determine if foothill yellow-legged frogs still breed downstream of Guadalupe Dam and Almaden Dam and clarify how any affects to breeding foothill yellow-legged frogs would be minimized and mitigated.

The EIR states on p. 3-299 that there would be no mitigation required for the effects of proposed project flow measures on terrestrial wildlife. However, as stated above, the Service believes that foothill yellow-legged frogs and California red-legged frogs could be adversely affected by proposed project flow measures that reduce water temperatures and scour and dewater egg masses.

Valley Water should include habitat features for the western pond turtle in the non-flow FAHCE measures including basking habitat, the restoration and preservation of suitable upland nesting habitat, and maintaining connectivity between streams and nesting habitat.

Valley Water should evaluate the effects of the proposed project on invasive species that threaten the California red-legged frog, Central California tiger salamander, foothill yellow-legged frog, and western pond turtle (e.g. bullfrogs, red-eared sliders, crayfish, non-native fish) either through direct predation, competition, or spread of diseases. The proposed perennial flows in streams that were historically intermittent will promote invasive bullfrogs that will threaten the California red-legged frog, Central California tiger salamander, foothill yellow-legged frog, and western pond turtle throughout the study area and beyond. Valley Water should dispatch any invasive bullfrogs, red-eared sliders, crayfish, non-native fish, and other invasive species observed during implementation of the proposed project that threaten the California red-legged frog, Central California tiger salamander, foothill yellow-legged frog, and western pond turtle. Valley Water should implement an ongoing bullfrog removal program within Valley Water's Almaden-Calero Canal and Calero Reservoir due to the continued threat that bullfrogs sustained by Valley Water's facilities pose to the California red-legged frog, Central California tiger salamander,

foothill yellow-legged frog, and western pond turtle at the Santa Clara Valley Habitat Agency's proposed Calero County Park Reserve that is mitigation for the Santa Clara Valley Habitat Plan.

Central California tiger salamanders have been found trapped within straw wattles used for erosion control. Therefore, Valley Water should apply hydroseed to any straw wattles used within Central California tiger salamander dispersal habitat because it provides more traction for Central California tiger salamanders to safely disperse over them.

Special-Status Tidal Marsh and Salt Pond Species

The EIR states on p. ES-3:

The Project area extends from the Valley Water reservoirs and dams to the tidally influenced areas of Stevens Creek and Guadalupe River because the Proposed Project and alternatives would not substantively affect aquatic habitat conditions in the tidally influenced and estuarine reaches, given the dominant influence that tidal conditions have on the habitat in these areas, both historically and under existing conditions. The Project area is, therefore, smaller than the entire Stevens Creek and Guadalupe River watersheds.

Both the Stevens Creek and Guadalupe River watersheds are contaminated with mercury due to historic mercury mining. Valley Water should evaluate the effects of the proposed project on the federally listed and special-status tidal marsh and salt pond species (e.g. California clapper rail, salt marsh harvest mouse, California least tern, western snowy plover, and longfin smelt) from the methylation, mobilization, and bioavailability of mercury due to FAHCE flow and non-flow measures, re-operation of the reservoirs, and the disturbance, drying, and wetting of mercury-contaminated sediments within the reservoirs and streams in the study area. According to the EIR on p. 3-88, the Stevens Creek and Guadalupe River watersheds are also contaminated with pesticides and polychlorinated biphenyls (PCBs). Therefore, Valley Water should also analyze the effects of the proposed project on the release of toxic levels of pesticides and PCBs that could harm special-status tidal marsh and salt pond species.

The EIR states on p. 3-263 that the California least tern is included among the 28 special-status wildlife species to be considered in the analysis of the proposed project's effects but not the California clapper rail, salt marsh harvest mouse, western snowy plover, or longfin smelt. Valley Water should explain why the California least tern is being considered in the analysis but not the other special-status tidal marsh and salt pond species that could be affected by the contamination of their prey species with mercury, pesticides, and PCBs.

Valley Water should evaluate the effect of the proposed flow releases on tidal marsh habitat for special-status tidal marsh species and whether the freshwater inflows would result in a conversion of tidal marsh to freshwater or brackish marsh habitat.

Bald and Golden Eagles

Valley Water should evaluate the effects of the proposed project on bald and golden eagles from the methylation and mobilization of mercury, the bioaccumulation of mercury, pesticides, and PCBs within their prey species, and any construction-related disturbance. Valley Water should evaluate whether a permit is needed from the Service under the Bald and Golden Eagle Protection Act. Additionally, the Bald and Golden Eagle Protection Act should be included in the list of Federal statutes in Section 3.8.2.1 of the EIR.

Monarch Butterfly

The monarch butterfly should be included in the list of special-status terrestrial species in Appendix P of the EIR and the effects on the monarch butterfly analyzed in the EIR. The monarch butterfly became a Federal candidate for listing in December 2020. The population of the western monarch butterfly has declined by more than 99 percent since the 1980s. In late 2020, the population estimate for migratory overwintering western monarchs was less than 2,000 butterflies. This extreme population decline is due to multiple stressors across the monarch's range, including the loss and degradation of overwintering groves; pesticide use, particularly insecticides; loss of breeding and migratory habitat; climate change; parasites and disease. Valley Water should analyze the effects of the proposed project on the western monarch butterfly and how the effects will be avoided, minimized, and mitigated. In an attempt to reverse the severe population decline of western monarch butterflies, and to protect other pollinators as well, the Service encourages implementation of the conservation recommendations listed below. The study area contains suitable breeding, foraging, and dispersal habitat for the western monarch butterfly and is located within the western monarch butterfly's Priority 1 early breeding zone of California. Thus, the Service has the following recommendations from our June 11, 2021, "Western Monarch Butterfly Conservation Recommendations":

1. Enhance and maintain habitat in the Priority 1 early breeding zone of California by identifying and protecting existing habitat, and planting native, insecticide-free early-emerging milkweed larval host plant species (e.g., *Asclepias vestita*, *A. californica*, *A. eriocarpa*, *A. cordifolia*, *A. erosa*), and native, insecticide-free flowering plants that are available to monarchs from January-April, as appropriate for the project location ([Nectar Planting Lists; Milkweed Seed Finder](#)). Part of the reason for the recent decline in the western monarch butterfly is thought to be due to climate change. With the recent warmer winters, western monarch butterflies are leaving their overwintering sites along the California coast earlier in the winter before their milkweed larval host plants and nectar plants are available resulting in the loss of fitness and reproductive capacity of monarch butterflies that are not able to find suitable larval host plants for breeding and nectar plants for foraging. Therefore, the Service has determined that the planting of early-emerging milkweed larval host plant species and early-flowering (January-April) nectar plants are essential to reversing the decline of the western monarch due to climate change.
2. Conduct activities in monarch breeding and migratory habitat between November 1 – March 15 when monarchs are likely absent from the study area. Flag and avoid milkweed larval host plants. If any milkweed plants cannot be avoided, remove the milkweed plants between November 1 – March 15 when monarchs are likely absent from the study area and replant suitable native, insecticide-free early-emerging milkweed larval host plant species (e.g., *Asclepias vestita*, *A. californica*, *A. eriocarpa*, *A. cordifolia*, *A. erosa*) in suitable habitat that will not be disturbed.
3. Protect monarchs, other pollinators, and their habitats from pesticides (i.e., insecticides and herbicides).
 - a. Avoid the use of pesticides when monarchs may be present between March 16 – October 31.

- b. Screen all classes of pesticides for pollinator risk to avoid harmful applications, including biological pesticides such as *Bacillus thuringiensis* ([UC Integrated Pest Management](#)).
 - c. Avoid the use of neonicotinoids or other systemic insecticides, including coated seeds, any time of the year in monarch habitat due to their ecosystem persistence, systemic nature, and toxicity.
 - d. Avoid the use of soil fumigants.
 - e. Consider non-chemical weed control techniques, when feasible ([Cal-IPC Non-chemical BMPs](#)).
 - f. Avoid herbicide application on blooming flowers. Apply herbicides during young plant phases, when plants are more responsive to treatment, and when monarchs and other pollinators are less likely to be nectaring on the plants.
 - g. Whenever possible, use targeted application herbicide methods, avoid large-scale broadcast applications, and take precautions to limit off-site movement of herbicides (e.g., drift from wind and discharge from surface water flows).
 - h. Separate habitat areas from areas receiving treatment with a pesticide-free spatial buffer and/or evergreen vegetative buffer of coniferous, non-flowering trees to capture chemical drift. The appropriate monarch and pollinator habitat spatial buffer size is contingent upon several factors, including weather and wind conditions, but at a minimum, the habitat should be at least 40 feet from ground-based pesticide applications, 60 feet from air-blast sprayers, and 125 feet from any systemic insecticide applications or seed-treated plants.
4. To minimize the spread of the pathogen *Ophryocystis elektroscirrha* (OE), do not plant non-native tropical milkweed (*Asclepias curassavica*). OE can build up on tropical milkweed and infect monarchs, because these plants are evergreen and do not die back in the winter. OE can be lethal to monarchs.
 5. Remove tropical milkweed that is detected, and replace it with native, insecticide-free milkweed and native, insecticide-free nectar plants appropriate for the location.
 6. Report milkweed and monarch observations from all life stages, including breeding butterflies, to the [Monarch Milkweed Mapper](#) or via the [project portal](#) in the iNaturalist smartphone app.
 7. To provide benefits for monarchs and other pollinators anywhere on the landscape within the breeding/migratory zone, install native, insecticide-free milkweed and native, insecticide-free nectar plants that bloom throughout the year, as is feasible for the location ([Nectar Planting Lists; Milkweed Seed Finder](#)).

Listed Serpentine Endemic Plants and Invertebrates

Any disturbance of the Metcalf Canyon jewelflower, Santa Clara Valley dudleya, and Bay checkerspot butterfly should be avoided the maximum extent feasible. Valley Water should minimize the potential for the introduction and spread of invasive plant species into suitable

serpentine habitat for the Metcalf Canyon jewelflower, Santa Clara Valley dudleya, Bay checkerspot butterfly, and other special-status and Santa Clara Valley Habitat Plan-covered serpentine plant species by (1) cleaning all soil and plant material from all equipment and clothing before entering work sites within or near suitable serpentine habitat, and (2) and revegetating with suitable native plant species.

Appendix P of the EIR on p. 16 states that the Metcalf Canyon jewelflower was documented along the Almaden-Calero Canal by Valley Water biologists in 2016-2017. The Service is aware of the occurrence of the most beautiful jewelflower but not the Metcalf Canyon jewelflower in this area. Please provide more information to the Service and the Santa Clara Valley Habitat Agency on the occurrence of the Metcalf Canyon jewelflower along the Almaden-Calero Canal and report any verified sightings to the CNDDDB.

The Metcalf Canyon jewelflower, Santa Clara Valley dudleya, Bay checkerspot butterfly, and other Santa Clara Valley Habitat Plan-covered serpentine endemic species are threatened by atmospheric nitrogen pollution from the exhaust of vehicle traffic in the Santa Clara Valley and surrounding regions. Atmospheric nitrogen deposition from vehicle exhaust fertilizes the naturally nutrient-limited serpentine soils allowing for the spread of invasive plant species that threaten the serpentine-endemic plant species including the larval host plant for the Bay checkerspot butterfly. Proposed project vehicle traffic will contribute to the cumulative effects of atmospheric nitrogen deposition on the Metcalf Canyon jewelflower, Santa Clara Valley dudleya, Bay checkerspot butterfly, and other Santa Clara Valley Habitat Plan-covered serpentine endemic species. Valley Water should minimize the effects of atmospheric nitrogen deposition from proposed project vehicle traffic on the Metcalf Canyon jewelflower, Santa Clara Valley dudleya, Bay checkerspot butterfly, and other Santa Clara Valley Habitat Plan-covered serpentine endemic species by making voluntary payments of nitrogen deposition fees to the Santa Clara Valley Habitat Agency to fund the management of invasive plant species in habitat for these serpentine-endemic species. Valley Water should avoid the effects of atmospheric nitrogen deposition on listed and rare serpentine-endemic species by using only electric vehicles, which would also reduce the emissions of greenhouse gases that contribute to climate change.

Tricolored Blackbird

The State threatened and Santa Clara Valley Habitat Plan-covered tricolored blackbird (*Agelaius tricolor*) has been observed breeding in freshwater marsh habitat within Calero Reservoir. The Santa Clara Valley Habitat Plan does not allow the removal of any tricolored blackbird breeding habitat that has been occupied within the last five years. Valley Water should evaluate the effects of the proposed project on the tricolored blackbird including how the reoperation of Calero Reservoir would affect breeding habitat for tricolored blackbird within Calero Reservoir and whether the breeding habitat would be sufficiently surrounded with water throughout the breeding season to deter mammal predators.

Riparian Migratory Birds

Valley Water should incorporate riparian habitat features in proposed project restoration projects within the study area that would benefit riparian migratory birds including the tricolored blackbird, yellow warbler, black-headed grosbeak, common yellowthroat, song sparrow, Swainson's thrush, warbling vireo, Wilson's warbler, and yellow-breasted chat consistent with the [Riparian Habitat Joint Venture's Riparian Bird Conservation Plan](#).

Santa Clara Valley Habitat Plan

Valley Water should determine which proposed project activities within the Guadalupe River watershed are covered by the Santa Clara Valley Habitat Plan by comparing to the description of covered activities in Chapter 2 of the Santa Clara Valley Habitat Plan (e.g. “Three Creeks HCP In-Stream Capital Projects” on pp. 2-55 – 2-58; “Three Creeks HCP Conservation Program Operations and Maintenance Actions” on pp 2-82 – 2-84; “Sediment Removal and Mercury Remediation” on pp. 2-70 – 2-71 in [Chapter 2 Santa Clara Valley Habitat Plan](#)). Valley Water should analyze whether the proposed project is consistent with the Santa Clara Valley Habitat Plan and does not conflict with the Santa Clara Valley Habitat Plan. Valley Water should also analyze whether the flow measures in the FAHCE-plus Alternative are consistent with and would be covered by the Santa Clara Valley Habitat Plan.

The EIR states on p. 3-317 that “proposed flow measures would not affect VHP [Santa Clara Valley Habitat Plan]-covered species. Therefore, there would be no VHP conflict.” However, as stated previously, the Service believes that the Santa Clara Valley Habitat Plan-covered foothill yellow-legged frog and California red-legged frog may be adversely affected by proposed project flow measures that would reduce water temperatures and result in the scouring or dewatering of the frogs’ egg masses. Valley Water should evaluate the extent of foothill yellow-legged frog and California red-legged frog stream habitat that would be adversely affected by proposed project flow and water temperature measures and submit Santa Clara Valley Habitat Plan project reporting forms to the Santa Clara Valley Habitat Agency that account for the amount of stream habitat for foothill yellow-legged frog and California red-legged frog that would be permanently impacted. Valley Water should propose appropriate mitigation for permanent impacts to stream habitat for foothill yellow-legged frog and California red-legged frog.

Valley Water should specify how incidental take coverage would be acquired for any adverse effects of the proposed project on federally listed species that are not covered by the Santa Clara Valley Habitat Plan (e.g. Stevens Creek watershed is outside of the permit area for the Santa Clara Valley Habitat Plan, and the Santa Clara Valley Habitat Plan does not cover effects to federally listed tidal marsh and salt pond species). Valley Water should request that all flow and non-flow FAHCE measures and other proposed project-related activities in the Stevens Creek watershed be included as covered activities in the proposed amendment to the Santa Clara Valley Habitat Plan (as they are in the Guadalupe River watershed) in order to cover the effects of the proposed project on the California red-legged frog, western pond turtle, and other special-status species.

Terrestrial Wildlife Passage

Table ES-4 on p. ES-23 of the EIR states regarding Impact TERR-4 that the proposed project would have a “less than significant” or “beneficial” impact on the movement of any native resident or migratory wildlife species or established native resident or migratory terrestrial wildlife corridors. The EIR further states on p. 3-312:

Winter and summer base flows and a spring pulse flow would not adversely affect wildlife movements or any known wildlife corridors, as flows would remain within the channel, and only rarely top the bank on Calero Creek. Ramping rates would increase and decrease flows slowly enough for wildlife to adjust travel if necessary.

However, recent studies funded by the Santa Clara Valley Habitat Agency along State Route 152 near Pacheco Pass in southeastern Santa Clara County demonstrated that vehicle strikes of terrestrial wildlife increased along the highway when the underpasses and culverts along Pacheco Creek under State Route 152 were flooded during seasonal winter high flows leaving terrestrial wildlife with no options but to cross the highway ([Wildlife Permeability Study Highway 152 Pacheco Pass](#)). The proposed project will maintain or increase perennial flows year-round and increase pulse flows in streams throughout the study area that were historically intermittent. The proposed project perennial flows and increase in pulse flows may impede the safe passage of terrestrial wildlife underneath roads near stream crossings within the study area when the underpasses and culverts are flooded which may result in the injury or killing of special-status terrestrial species including the State candidate Southern California/Central Coast mountain lion Evolutionarily Significant Unit (*Puma concolor*) and other special-status mammals, amphibians, and reptiles. Valley Water should minimize vehicle strikes of terrestrial wildlife by incorporating terrestrial wildlife crossings in project designs (e.g., [USGS May 2021 Animal Crossings for Amphibians and Reptiles](#); [Caltrans March 2021 BMPs Reduce Roads Impacts on Amphibians and Reptiles](#)). Valley Water should improve terrestrial wildlife passage in the study area by cleaning out culverts that block wildlife safe passage under roads and installing shelves in underpasses that provide a dry pathway for wildlife when the underpasses are flooded (e.g., Santa Clara Valley Habitat Agency's Pacheco Creek Reserve undercrossing).

Plant Pathogen *Phytophthora*

Valley Water should minimize the potential for the introduction and spread of the plant pathogen *Phytophthora* by implementing the BMPs at [calphytos website](#). Valley Water should acquire plantings for restoration projects only from nurseries that can verify that they are implementing phytosanitary BMPs that prevent the infection of their nursery stock with *Phytophthora*.

If you have any questions regarding this letter, please contact Joseph Terry, Senior Biologist (joseph_terry@fws.gov) or at (916) 943-6721 or Ryan Olah, Coast Bay Division Supervisor (ryan_olah@fws.gov), at (916) 414-6623.

Sincerely,

Ryan Olah
Coast Bay Division Supervisor

cc:

Gary Stern, National Marine Fisheries Service, Santa Rosa, California
Darren Howe, National Marine Fisheries Service, Santa Rosa, California
Brenda Blinn, California Department of Fish and Wildlife, Fairfield, California
Jessica Maxfield, California Department of Fish and Wildlife, Fairfield, California
Emily Jacinto, California Department of Fish and Wildlife, Fairfield, California
Craig Weightman, California Department of Fish and Wildlife, Fairfield, California
Edmund Sullivan, Santa Clara Valley Habitat Agency, Morgan Hill, California
Kim Squires, U.S. Fish and Wildlife Service, Bay/Delta Fish and Wildlife Office, Sacramento, California

Patrick Samuel, California Trout, Inc., San Francisco, California

Chuck Hammerstad, Northern California Council of the Federation of Fly Fishers, San Jose,
California

Mike Conroy, Pacific Coast Federation of Fishermen's Association

Matt Clifford, Trout Unlimited, Emeryville, California