

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
DIRECTOR'S OFFICE
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**CALIFORNIA ENVIRONMENTAL QUALITY ACT STATUTORY EXEMPTION FOR
RESTORATION PROJECTS
CONCURRENCE NO. 21080.56-2022-002-R3**

Project: Lakeville Creek Restoration Project
Location: Sonoma County
Lead Agency: County of Sonoma
Lead Agency Contact: Rich Stabler, rich.stabler@sonoma-county.org

Background

Project Location: The Lakeville Creek Restoration Project (Project) is located within the Petaluma River watershed, a tributary to the San Pablo Bay in southern Sonoma County. Lakeville Creek is an intermittent watercourse with perennial pools that drains a 0.7 square mile watershed. It is mapped on the Sears Point USGS 7.5' quadrangle (38.147219°N and 122.482576°W) at 15 to 75' in elevation. The Project area is approximately 9.2 acres.

The project site is located on the east side of Lakeville Highway about halfway between Cougar Mountain Road and Highway 37 in southern Sonoma County, primarily on property owned and managed by Sonoma Land Trust (SLT), with a limited portion on the adjacent property owned by Sonoma Raceway. Land uses surrounding the site include diked agricultural lands, restored and protected baylands and grasslands, horse ranches, raceway, rural residential properties, and existing grazing lands.

Funding for the planning phase of the Project has been provided through the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018 (Proposition 68) via the Rivers and Streams Restoration Grant Program implemented by Watershed Restoration Grants Branch of the California Department of Fish and Wildlife (CDFW).

Project Description: By restoring Lakeville Creek, SLT proposes to conserve, restore, protect, or enhance, and assist in the recovery of California native fish and wildlife, and the habitat upon which they depend. The Project is designed to benefit the callippe silverspot butterfly (*Speyeria callippe callippe*) and the California red-legged frog (*Rana draytonii*).

SLT plans to implement restoration of approximately 4,240-foot reach of Lakeville Creek that flows through SLT's 1,142-acre Sears Point Ranch Preserve and the adjacent Sonoma

Raceway property. The Project reach is deeply incised, resulting in reduced connectivity with its floodplain for the majority of the channel length. The channel and overall site conditions make the area suitable for restoration of a multi-threaded channel with extensive floodplain inundation (a “Stage Zero” wetland complex) (Cluer & Thorne 2013). The term “Stage Zero” refers to a class of dynamic, anastomosing (multi-threaded) wetland channel forms that were widely distributed in many landscapes pre-disturbance, and which provide high levels of habitat and ecosystem benefits.

The design will bring the current channel back to its original grade and provide the contours for natural establishment of an anastomosing network of channels. A complex mosaic of channels, wetlands, and uplands is expected to provide more diverse plant and wildlife habitat, allow for greater infiltration and storage of water, and result in a greater likelihood of sustaining wetlands into the future. The process will reconnect the channel to the surrounding floodplain and increase the duration of the seasonal water table in the adjacent floodplains and seasonal wet meadows.

Restoring Lakeville Creek to a distributary channel network and wet meadow ecosystem, similar to what was most likely present historically and what will provide the highest hydrologic and biologic function, requires eliminating the single thread, incised channel and converting the site to a “Stage Zero” wetland complex. The proposed Project consists of the following components:

- Grading throughout the Project reach to replace the incised channel with a broad “Stage Zero” wetland complex with no defined channel; grading will consist primarily of excavation in the upper Project reach and fill in the lower reach
- Revegetation with native perennial seed and plugs throughout the restored “Stage Zero” valley wetland complex, willow cuttings in clusters (“sausals”) along the reach, and limited upland woody plantings
- Fencing to exclude livestock while vegetation is establishing and to facilitate limited grazing access after establishment

The overarching Project goal is to create a functioning coastal alluvial fan ecosystem that more closely resembles historic conditions, is self-sustaining, and is more resilient to climate change.

Stakeholder Coordination:

The Project has widespread support from local, state and federally elected leaders, and conservation organizations. The original 2007 Project plan won the San Francisco Estuary Partnership's "Outstanding Comprehensive Conservation and Management Plan Implementation Project" from the Friends of the San Francisco Estuary Project in 2005. An enduring partnership with the San Pablo Bay National Wildlife Refuge has provided many hours of in-kind support for previous projects at Sears Point through use of equipment and staff time, and volunteers have contributed hundreds of hours sprigging willows, planting native grasses, and pulling weeds.

Furthermore, SLT commissioned an archaeological survey of the Project area in 2020 prior to development of detailed Project designs. ALTA Archaeological Consultants (ALTA) conducted the survey that included database searches, a pedestrian survey, and shovel test

Specifically, CDFW concurs with the Lead Agency that the Project meets all of the following conditions: (1) the Project is exclusively to conserve, restore, protect, or enhance, and assist in the recovery of California native fish and wildlife, and the habitat upon which they depend; or is exclusively to restore or provide habitat for California native fish and wildlife; (2) the Project may have public benefits incidental to the Project's fundamental purpose; (3) the Project will result in long-term net benefits to climate resiliency, biodiversity, and sensitive species recovery; and includes procedures and ongoing management for the protection of the environment; and (4) Project construction activities are solely related to habitat restoration. Pursuant to Public Resources Code section 21080.56, subdivision (g), CDFW will post this Concurrence on its CEQA Notices and Documents internet page:

<https://wildlife.ca.gov/Notices/CEQA>.

The CDFW Director's concurrence is based on best available science and supported as described below by substantial evidence in CDFW's administrative record of proceedings for the Project.

The Director's determination is also based on a finding that the Project is consistent with and that its implementation will further CDFW's mandate as California's trustee agency for fish and wildlife, including the responsibility to hold and manage these resources in trust for all the people of California.

Discussion

- A. Pursuant to Public Resources Code section 21080.56, subdivision (a), the CDFW Director concurs with the Lead Agency that the Project will restore and enhance habitat for native wildlife, including the California red-legged frog (*Rana draytonii*) and directly contribute to the recovery of the species and the habitat upon which they depend. The Project will create approximately 4.2 acres of wetland complex along approximately 4,240 feet of Lakeville Creek. The wetland complex will restore, and stop the loss of, non-breeding wetland habitat and protect existing depressions that could potentially support breeding habitat. It will also increase native plant cover to provide shelter, predator avoidance, and breeding habitat.

The Project would also protect existing stands of Johnny jump-up (*Viola pedunculata*) present in the Project area. The Viola is the larval host plant for the callippe silverspot butterfly (*Speyeria callippe callippe*). The only population of callippe silverspot butterfly in Sonoma County is reported in the Project's vicinity, at Sears Point (USFWS 2020). In addition to protection of the host plant, the Project includes the addition of the Viola to the revegetation plans to expand existing habitat to support recovery of the species. Nectaring plants are also included in the Project revegetation plans, to expand food sources for the butterfly across the Project area.

- B. Pursuant to Public Resources Code section 21080.56, subdivision (b), the CDFW Director concurs with the Lead Agency that the sole purpose of the project is to enhance and restore habitat for California red-legged frog (*Rana draytonii*), callippe silverspot butterfly (*Speyeria callippe callippe*), wetlands, and native grasslands. The Project has no incidental public benefits. The Project is located on lands owned and managed by the Sonoma Land Trust, which does not afford public access.

- C. Pursuant to Public Resources Code section 21080.56, subdivision (c), the CDFW Director concurs with the Lead Agency that the Project will result in long-term net benefits to climate resiliency, biodiversity, and sensitive species, and includes procedures and ongoing management for the protection of the environment.

Long term net benefits to climate resiliency:

The Project will reconnect the channel to its alluvial valley floodplains; raise the seasonal water table level to re-establish and maintain freshwater wetlands; facilitate the development of ecologically complex habitats that support native plants and wildlife; and create a functioning coastal alluvial fan ecosystem that more closely resembles historic conditions, is self-sustaining, and is more resilient to climate change.

Seavy et al. (2009) states that riparian habitat restoration will become even more important with climate change as these systems are naturally resilient, provide habitat connectivity between aquatic and terrestrial ecosystems, and serve as thermal refugia for wildlife. At Lakeville Creek, SLT expects that reconnecting the creek with its floodplain will promote the conditions in which riparian vegetation will thrive and the hydroperiod of adjacent seasonal wetlands will increase to provide habitat for a variety of species across multiple taxa. Improving water infiltration and raising the water table will help plants and wildlife survive in warmer, dryer, and more variable conditions. Stabilizing and enhancing wetlands with a diverse palette of native perennial species will enable the site to experience high flow events, which may occur more often, without damage or significant soil erosion. The Project will also increase hydration of the site's vegetation, reducing its vulnerability to wildfires, which are also increasing frequency due to climate change factors. Planted willow "sausals" will provide thermal refugia for wildlife. The increased spatial heterogeneity of functioning habitats (riparian, seasonal wetland, grassland) that will be achieved is also considered vital to achieving climate resilience (Timpone-Padgham et al. 2017).

Furthermore, as California is projected to continue to warm, heat waves will increase in intensity and duration, sea level will rise at least a few feet, and extreme storms and droughts are expected to become more frequent. San Pablo Bay will be impacted by all these stressors, as acknowledged in the 2015 Baylands Ecosystem Habitat Goals Science Update. One of the primary recommendations of the 2015 report is to restore complete ecosystems by connecting tidal ecosystems to their upland watersheds. The Project will be implemented just above the historic baylands margin and is a step towards making this connection. Restoring bay-adjacent wetland and riparian habitat will support the abilities of native vegetation and wildlife to shift in response to rising sea level.

Long term net benefits to biodiversity:

The Project will have a net benefit to biodiversity in the area, both by itself and in conjunction with related regional efforts, and both in terms of supporting special-status and non-listed, but locally limited, species and plant alliances.

Currently, wetland habitat on the Project site is declining due to channel incision and lowering water tables. Native grassland and native forb stands are also being lost, as

erosion from channel incision eats into the adjacent upland areas. The loss of these types would represent a reduction of biodiversity in the region. Native freshwater wetland, and native grass and wildflower stands, have undergone extensive historic losses in the region due to development and intensive agricultural uses in low-lying grassland, riparian, and wetland areas. The Project will reverse this loss, supporting long-term viability of vegetation types that would otherwise be lost over time as non-native, disturbance-tolerant weedy vegetation expanded. Specific vegetation types that will be restored include stands of Baltic rush (*Juncus arcticus*) marsh, brown-headed rush (*Juncus phaeocephalus*) marsh, spike rush (*Eleocharis palustris*) marsh, meadow barley (*Hordeum brachyantherum*) and California oat grass (*Danthonia californica*) meadow, and *Viola pedunculata* stands. In addition to these dominant species, restoration palettes include a diversity of supplemental native forb, rush, and grass species to increase the species richness present.

The expansion of the amount and diversity of native wetland, grassland, and woody riparian habitat along the reach of Lakeville Creek will improve conditions for both special-status and non-listed wildlife species. Common wildlife populations, including birds, bats, mammals, and butterflies, will benefit from the Project. Adding willow “sausals” where almost no woody vegetation currently exists will provide improved foraging and roosting habitat for many bird species, such as western bluebird (*Sialia mexicana*) and Say’s phoebe (*Sayornis saya*), as well as for bats. The added woody cover will also provide protective cover for mammals such as coyotes (*Canis latrans*) and gray fox (*Orocyon cinereoargenteus*) traversing the open grasslands and moving among the area’s uplands, valley floor, and baylands. Reversing the decline of wetlands, with improved structural diversity, will provide cover, foraging, and nesting opportunities for many bird species, such as marsh wren, great blue heron, and great egret. Plantings of nectar-producing species including California buckeye (*Aesculus californica*) will provide new food sources for many butterfly species.

Restoration of Lakeville Creek also contributes to biodiversity as part of the larger restoration work throughout the region. The Project builds upon more than thirty years of conservation work and investment in the baylands and adjacent watersheds of Sonoma County. Long-term survival of varied native habitats depends on extensive, well-connected areas with high ecological function. Each smaller restoration project, including this Project, plays an essential part in sustaining the regional fabric of diverse native wetland, riparian, and grassland systems.

Long term net benefits to sensitive species: Implementation of the Project will provide a net benefit for multiple special-status species to aid in species recovery.

The Project will expand potentially suitable seasonal habitat for Western pond turtle (*Actinemys marmorata*), Species of Special Concern (SSC). Marginal habitat is currently present in isolated areas along the bed of the existing incised channel, but habitat quality is low due to the lack of habitat complexity. Implementation of the Project will improve habitat complexity, adding cover and foraging resources, and expand quality habitat by expanding the wetlands across the 9.2-acre Project area.

Tricolored blackbird (*Agelaius tricolor*, State threatened) are uncommon summer and rare winter residents in Sonoma County. A breeding colony is reported within 0.5 mile to the north of the Project area with confirmed nesting nearby. This species depends on wetland vegetation, which is currently limited in the Project area. Implementation of the Project will increase cover and forage available for the species and may expand use of the area by tricolored blackbirds as nesting already occurs on nearby sites.

The Project area currently supports marginally suitable aquatic and migratory habitat for California red-legged frog (federally threatened and State SSC). The restoration effort is designed to improve this potential habitat; in the upper reach, several existing depressions in the channel which could potentially support breeding will be retained. In the lower reach, final grading will be intentionally rough to allow topographic variability and differential settling to create seasonally flooded depressions over time; these could also potentially support breeding. Restoration with structurally diverse native vegetation will provide improved cover and foraging resources for this species.

The only population of callippe silverspot butterflies (federally endangered) within Sonoma County is reported for the Sears Point area based on Hill (2018) cited in USFWS (2020). USFWS (2020) notes there are over 1,200 acres of contiguous grassland habitats surrounding the Sears Point population, although not all this land is currently protected. The upland habitat of the San Pablo Bay NWR, managed by the Sonoma Land Trust, consists of 900 acres, with the Sonoma Raceway to the east. USFWS (2020) also notes that host plants are widespread, but nectar plants are low in density. Overall, “the Sears Point population is in low condition” (USFWS 2020). The callippe silverspot butterfly occurs sympatrically with the Zerene fritillary (*Speyeria zerene sonomensis*), and genetic analysis is the only way to distinguish between the two species. A limited number of *Speyeria* were observed in 2019, but the species is unknown based on the potential for both closely related species to occur there (USFWS 2020). Adult butterflies were observed nectaring in the area, and the area supports large stands and individual *Viola pedunculata*, the larval host plant. The Project will result in a net benefit to silverspot butterflies. Project grading and access routes have been planned to avoid *Viola* populations, and *Viola* is included in the revegetation planting as a means to expand the host plant population. In addition, adult nectar sources will also be planted, including California buckeye (*Aesculus californicus*) and mule’s ears (*Wyethia angustifolia*), to further improve habitat and increase biodiversity in the area.

Implementation of the Project will provide long term benefits for sensitive species recovery. The Project will also provide long-term benefits to special-status bird species known to use the site, including northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), and Bryant’s savannah sparrow (*Passerculus sandwichensis alaudinus*). The improved habitat diversity and reversal of wetland decline will provide greater foraging, roosting, and nesting opportunities for these species.

Procedures and ongoing management for the protection of the environment:

Protection and conservation measures will be implemented during construction to avoid and minimize impacts to sensitive resources and to protect the environment. Furthermore, protection measures are to be designed to avoid impacts on federally

listed California red-legged frogs and other wildlife species and their habitats, protect native plants and plant communities, protect aquatic species, protect nesting birds, and protect water quality. For example, the construction work window will be limited to occur between July 15 to October 15, when callippe silverspot butterfly are not in their flight period. Another measure will include, if a wintering burrowing owl (*Athene cunicularia*) is detected in the Project site, a Qualified Biologist will establish suitable buffers to ensure the owl is not disturbed by the Project. To prevent encroachment, the established buffers will be clearly marked by high visibility material. The established buffers will remain in effect until the burrow is no longer occupied as confirmed by the Qualified Biologist.

Following construction, the site will be stabilized and erosion control measures will be implemented. Revegetation will be implemented as per the revegetation plan in the construction documents and will include native plant salvage and replanting, wetland plug planting, willow staking, re-seeding of disturbed uplands, and restoring access and staging areas to pre-construction conditions.

A five-year post-project Monitoring Plan has been developed for the Project. The objectives of the Monitoring Plan are to ensure the Project performs as expected and to document site conditions that are indicators of ecosystem function. Methods to fulfill these objectives will include professional determinations that the Project site is stable, shows no problematic erosion and plants are establishing per survival metrics. Groundwater dynamics and wetland extent and conditions will be monitored for post-project performance, as well. Annual monitoring reports will be prepared that describe monitoring activities and progress effectiveness. Monitoring and reporting will occur for five years post-project and will include information on the following elements:

- Geomorphic stability: Annual on-site evaluations by the project geomorphologist and civil engineer will be performed to document that 1) the project was built to design specifications (as-built survey), and 2) that the Stage Zero valley remains stable and performing as expected. Important aspects of the Stage Zero valley function and evolution will be documented through photos and surveys. Changes to the valley bottom and habitat features will be documented graphically using Civil3D. Valley profiles, sections, and plan view maps will be prepared, as needed, to show changes over the 5-year monitoring period.
- Water table elevation and groundwater storage improvement: Changes to water table elevations (depth) and groundwater storage trends will be documented by the five groundwater wells and pressure transducers installed for baseline monitoring. Any of the groundwater monitoring wells that are removed during construction will be replaced in an adjacent location. The two metrics that will be evaluated to track project effectiveness are: 1) the relative elevations to which the water table increases to during storm events and then declines to between storm events (rate and amount of decline); and 2) the estimated average and minimum valley groundwater storage volumes during the winter and spring wet period (Dec 1 – June 1). Groundwater storage will be based on percent porosity (from geotechnical soil analyses) and depth of monitored

alluvial fill (10 feet), which will be used to evaluate relative change in conditions from pre- to post-project conditions, not absolute change. Water table hydrographs will be produced for each of the groundwater well locations. Graphs will be prepared showing depth to water table and monthly rainfall amounts. This data will be used to calculate the performance measures and to qualitatively show changes in water table dynamics pre- and post- project.

- Wetland extent: Wetland establishment will be assessed in spring of Year 5 by mapping of vegetation types within the graded footprint. Vegetation mapping will be to the alliance level for wetland and native grassland types; non-native annual grassland alliances will be mapped as a group. This will be aligned with existing baseline mapping and allow for comparison of pre- and post-construction comparison. Wetland vegetation types are those that support a dominance of facultative or obligate wetland species. Baseline site assessment found that wetland vegetation types (including Baltic rush meadow, brownheaded rush marsh, and cattail marsh) comprised 0.5 acres of the approximately 5.5-acre proposed grading area. See PCI (2021a) for further details on vegetation types. The mapping will be conducted by a vegetation ecologist in spring, when vegetation types are most readily identifiable, using sub-meter GPS equipment. Vegetation types will be identified by visual assessment and comparison with Manual of California Vegetation (CNPS 2022) definitions. In addition, visual observations of each alliance's plant species composition, and general observations of wetland vegetation distribution and condition, will be recorded. The monitoring report will include a map of wetlands, acres per vegetation type, and text describing findings.
- Wetland function: Post-construction California Rapid Assessment Method for Wetlands (CRAM) assessments will be performed in late spring or early summer in Year 1 and Year 5. Furthermore, in conjunction with the CRAM assessments, a wildlife survey will be conducted by a wildlife biologist. This visual survey will record all animal species and habitat features observed within the project area. No quantitative analysis will be conducted, but observations of wildlife use of the restored habitat will provide qualitative information on the value of the Stage Zero complex for wildlife.
- Revegetation success: Revegetation success will be monitored through annual assessments of plant cover, species composition, and willow survivorship. Natural regeneration may be counted towards survivorship numbers and cover assessments. If revegetation metrics are falling below targets, needs for maintenance measures or remedial actions will be identified. These could include invasive species removal, replanting, improved herbivory protection, supplemental irrigation, or other measures.

The planned "Stage Zero" conditions along Lakeville Creek have generally been designed to not require long-term maintenance or management. Grading has been designed to maintain long-term connectivity between the floodplain and improve habitat conditions for native plants and wildlife in perpetuity.

Lastly, part of SLT's mission is developing long-term land protection strategies and thus is committed to stewardship of the entire preserve in perpetuity. SLT's ongoing land management practices will continue to apply here and elsewhere on the preserve. These practices will include ongoing management of livestock grazing to support conservation goals; annual monitoring and treatment of high-priority invasive plant species; oversight of limited human uses such as educational field trips; and management for wildfire resilience or recovery.

D. Pursuant to Public Resources Code section 21080.56, subdivision (d), the CDFW Director concurs with the Lead Agency that the Project does not include any construction activities, except those solely related to habitat restoration. The Project-related construction activities described are all related to the overall goal of the Project to restore or enhance habitat in the Project area. The following construction activities are proposed:

- Mobilization/Demobilization. The contractor will coordinate construction access, schedule, timing, and safety protocols. Project start-up meetings and general construction materials procurement will occur. Equipment and materials will be hauled to the site. At the end of the Project all remaining materials and the equipment will be hauled out.
- Access and Staging. The contractor will prepare the access and staging areas for construction by prepping staging areas (remove and store topsoil), improving access routes sufficient to handle construction traffic, installing temporary boundary fencing, and installing composite mats for driving across wetland areas. At the end of the construction period, the contractor will remove temporary access materials and restore the access routes and staging areas through decompaction, seeding, and mulching.
- "Stage Zero" Grading. The contractor will grade the Lakeville Creek channel per the construction plans. Grading has been designed so that soil cut and fill grading quantities are balanced and no spoils off haul or soil import are necessary. Care will be taken to minimize impacts to surrounding wetlands and habitat protection zones. Measures will be in place to prevent turbid water from entering flowing water in the active channel. Flexible growth medium and straw wattles will be installed per plans to provide erosion control until plants are established.
- Revegetation. The contractor will salvage, stockpile and replace topsoil. In wetland areas, the top 6 inches of soil, including vegetation, will be salvaged and replaced. Restoration areas with slopes greater than 2 percent will be heavily planted with wet meadow plug plantings and straw wattles will be installed to prevent runoff. Willow pole planting will occur in key locations. Additional plug and shrub planting will occur in upland areas. Revegetation is also depicted on the Project construction plans.

Scope and Reservation of Concurrence

This Concurrence is based on the proposed Project as described by the Lead Agency Determination and the request for concurrence submitted to CDFW on March 9, 2022. If there are any subsequent changes to the Project that affect or otherwise change the Lead

Agency's Determination on March 9, 2022, the Lead Agency, or any other public agency that proposes to carry out or approve the Project shall submit a new Lead Agency Determination and request for concurrence from CDFW pursuant to Public Resources Code section 21080.56.

Any other public agency that proposes to carry out or approve the Project, including CDFW, shall exercise their independent judgment as required by law and determine whether Public Resources Code section 21080.56 applies. If any public agency determines in an exercise of its independent judgment the statutory exemption applies, this Concurrence shall remain in effect and no separate concurrence from CDFW shall be required if that public agency determination is based on the proposed Project as described by the Lead Agency Determination and the request for concurrence submitted to CDFW on March 9, 2022, and no Project changes or changes in condition could affect that Lead Agency Determination.

Other Legal Obligations

The Project shall remain subject to all other applicable federal, state, and local laws and regulations, and this Concurrence shall not weaken or violate any applicable environmental or public health standards. (Pub. Resources Code, § 21080.56, subd. (f).)

CDFW Director's Certification

By: 

Charlton H. Bonham, Director
California Department of Fish & Wildlife

Date: 3/30/22