

COASTAL CONSERVANCY

Staff Recommendation
September 5, 2024

RUSSIAN RIVER FLOODPLAIN RESTORATION PROJECT: 65% DESIGN

Project No. 12-007-03
Project Manager: Michael Bowen

RECOMMENDED ACTION: Consideration and possible authorization to disburse \$499,510 to Endangered Habitats Conservancy to prepare plans, 65% designs and permit application materials for the Russian River Floodplain Restoration Project, consisting of the habitat restoration of 358 acres of floodplain near the town of Windsor, Sonoma County.

LOCATION: West End Road, Windsor, Sonoma County

EXHIBITS

- Exhibit 1: [Project Location Map](#)
- Exhibit 2: [30% Project Designs](#)
- Exhibit 3: [September 29, 2016 staff recommendation](#)
- Exhibit 4: [Statutory Exemption for Restoration Project \(SERP\) Concurrence](#)

RESOLUTION AND FINDINGS

Staff recommends that the State Coastal Conservancy adopt the following resolution and findings.

Resolution:

The State Coastal Conservancy hereby authorizes a grant of an amount not to exceed four hundred ninety-nine thousand five hundred ten dollars (\$499,510) to Endangered Habitats Conservancy (“the grantee”) to prepare plans, 65% designs and permit application materials for the Russian River Floodplain Restoration Project, consisting of the habitat restoration of 358 acres of floodplain near the town of Windsor, Sonoma County.

Prior to commencement of the project, the grantee shall submit for the review and written approval of the Executive Officer of the Conservancy (Executive Officer) the following:

1. A detailed work program, schedule, and budget.

2. Names and qualifications of any contractors to be retained in carrying out the project.

Findings:

Based on the accompanying staff recommendation and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorization is consistent with Chapter 6 of Division 21 of the Public Resources Code, regarding enhancement of coastal resources.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria.
3. The Endangered Habitats Conservancy is a nonprofit organization organized under section 501(c)(3) of the U.S. Internal Revenue Code.

STAFF RECOMMENDATION

PROJECT SUMMARY:

Staff recommends that the State Coastal Conservancy authorize a grant of an amount not to exceed four hundred ninety-nine thousand five hundred ten dollars (\$499,510) to Endangered Habitats Conservancy (EHC) to prepare plans, 65% designs and permit application materials for the Russian River Floodplain Restoration Project (project), consisting of the habitat restoration of 358-acres of floodplain near the town of Windsor, Sonoma County (Exhibits 1 and 2).

When constructed, the project will re-establish a stable, seasonal river-floodplain connection to restore essential ecological processes and functions to sustain off-channel aquatic, wetland, riparian, and upland habitats crucial for recovery of fish and wildlife, particularly Endangered Species Act (ESA)-listed coho and Chinook salmon, and steelhead populations.

The project area currently consists primarily of open ponds created by gravel extraction, separated from the Russian River by unreinforced levees. The project is needed because the unreinforced levees pose a threat of river capture where the river could breach the levee and be diverted into the ponds, destabilizing the river system upstream and causing flooding with severe damage to infrastructure downstream. The warm temperatures in the ponds support non-native fish that prey on listed juvenile salmon and foster mercury methylation degrading water quality in the river. In addition, the loss of off-channel floodplain habitat throughout the Russian River watershed is a contributing factor to the decline of salmonid populations and this project will serve as a demonstration of an approach that could be applied to many other past gravel extraction areas.

The project will restore connectivity between the Russian River and its floodplain. It is designed to restore a broad low-elevation floodplain by grading gradual slopes that merge naturally with upstream and downstream existing terrain and to lower the existing riparian bank terrace at the upstream and downstream extents of the Project site to improve floodplain connectivity and river hydraulics. The constructed interconnected floodplain will be restored to a riparian forest and seasonal wet meadow habitat. Two large floodplain channels will be constructed within the new floodplain and will be inundated by upstream shallow subsurface flow and

groundwater inputs as well as via a direct downstream connection to the river at base flow levels.

These large floodplain channels are intended to concentrate floodplain flow conveyance and provide backwater alcove habitat that can maintain connectivity to existing deep river pools in the mainstem of the Russian River. Large wood habitat structures will be installed within the floodplain channels to enhance habitat complexity and ecological function. Riparian vegetation within the new floodplain will establish naturally, and transitional and upland habitat will be replanted with nursery-grown plant stocks to enhance terrestrial wildlife habitat and structural diversity. Restoration of the seasonal wet meadow will include reseeding with native annual and perennial forbs and may include translocation of vegetative propagules from existing native perennial ground cover on site.

The project will convert approximately 135 acres of open water gravel ponds and 48 acres of adjacent areas to approximately ten acres of back-channel aquatic habitat, five acres of connected freshwater marsh, 22 acres of riparian forest habitat, and 146 acres of wet meadow (Exhibit 2). Remaining acreage within the 358-acre footprint will be dedicated to public access, an off-channel pond to serve an existing water right, and multiple upland habitat types. An approximately 45-acre-foot pond will remain on the project site for an adjacent landowner's existing water right and point of diversion for agricultural purposes. Approximately 11 acres will support improved public access, while also allowing for long-term monitoring and maintenance of the project. Public access amenities include formal seasonal and multi-use trails, two day-use parking areas, a boat-in campground, flood-proof vault restrooms, and a boat access route to the project site.

Project activities include filling and regrading of the four existing gravel ponds; constructing and restoring the Russian River floodplain, side channels, and connected perennial alcoves to deep river pools; installing large wood habitat structures; replacing existing illegal trails and use areas with public access amenities; reconfiguring the existing five-acre pond and water diversion, but not including any new diversion infrastructure; revegetating the site to restore riparian habitat; and monitoring and maintenance of the project site. Although the project has been designed to balance cut and fill, a small amount of offsite material may be imported.

The project will benefit numerous terrestrial, avian and aquatic species, including Central California Coast coho salmon, listed as endangered under the federal and state ESA; Central California Coast steelhead, listed as threatened under the federal ESA; and California Coastal Chinook salmon.

This project phase consists of the preparation of 65% design plans, geotechnical assessments, grading design plans, revegetation plan for the entire site, a Habitat Monitoring and Management Plan, Basis of Design report and permit application materials. The 30% design is complete, and work is underway on preliminary 65% design tasks. The use permit application will be considered by the Planning Commission on October 16, 2024 and a Statutory Exemption for Ecosystem Restoration Projects (SERP) under the California Environmental Quality Act (CEQA) was approved by California Department of Fish and Wildlife (CDFW) on May 22, 2024. The permit applications to be prepared are: U.S. Army Corps of Engineers Clean Water Act Section 404 permit, North Coast Regional Water Quality Control Board Clean Water Act Section

401 and Porter Cologne Water Quality Control Act water quality permit, CDFW Lake and Streambed Alteration Agreement, federal ESA compliance through Section 7 consultation with National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service, and Permit Sonoma Conditional Use and Grading permits.

The previous geotechnical study identified the need for supplemental geotechnical information to support 65% design. These recommendations included increased refinement of fill volume expansion/contraction, settlement rates and additional soil mapping for segregation/reuse to support final grading/revegetation design. Under this task a subcontractor will perform supplemental geotechnical exploration and laboratory testing.

The grading design plans will include interim grading designs for up to three construction phases that balance cut/fills and consistent with consolidation rates and material segregation needs. The plans also will delineate the segregation of soils suitable for floodplain vegetation and reuse of these soils in finished grading of floodplain areas where active revegetation will be undertaken. An opinion of probable construction cost will be developed based on the quantities defined in the 65% restoration grading design plans and the costs will be presented in the basis of design report

The expansiveness of the site, with its wide range of elevations and groundwater levels, demands a rigorous revegetation plan designed with a high chance of success. The revegetation plans will include zonation maps, planting layout and details, and plant materials quantities. The plans will also include irrigation design layout and details intended to convey the design intent. An opinion of probable construction cost will be developed based on the quantities defined in the 65% revegetation design plans and the costs will be presented in the basis of design report.

The basis of design report entails updating the current 30% basis of design report that summarizes methods, results, and discussion of the above design tasks which may include but not be limited to hydraulic design for construction phasing, stability/risk assessment, instream aquatic habitat design, sediment accretion assessment, grading design, revegetation design and opinion of probable construction cost. The report will include an update to the habitat conversion analysis (existing vs proposed), updates (if necessary) to sensitive species avoidance/minimization measures and permit pathways presented in 30% design report and based on feedback received from agency meetings.

Finally, EHC will produce a Habitat Monitoring and Management Plan (HMMP). The purpose of the HMMP is to describe short-term and long-term habitat monitoring and management tasks and articulate thresholds and triggers for adaptive management. The HMMP will describe the overall project goals, associated habitat management and monitoring goals and objectives, roles and responsibilities, anticipated biological and physical characteristics of the project site (based on the 65% design), and the management, monitoring, and reporting tasks that will be completed on the project site in perpetuity. The HMMP will cover the entire project site, including restored areas and public access areas.

The project partners have worked to advance the project steadily for a decade. Project development has included extensive community and tribal engagement over the last decade.

During development of the Project Feasibility Study (initiated in 2012), a Feasibility Study Partners Planning Group formed and included representatives from interested parties such as Town of Windsor, Redwood Empire Trout Unlimited, Westside Association to Save Agriculture, Sonoma County Agricultural Preservation and Open Space District, Sonoma County Regional Parks, Sonoma Resource Conservation District, Sonoma County Water Agency, Hanson Aggregates Mid-Pacific, Inc. (now owned by Martin Marietta Materials), Russian Riverkeeper, CDFW, NMFS, EHC, and Russian River Wild Steelhead Society. The intent of the Feasibility Study Partners Planning Group was to bring all interested parties together to inform them of the project development, solicit input and guidance, and assist with project-related outreach. Several meetings were held with the group to help develop a description of the project; develop the feasibility study; receive input on the approach, methodology, goals and objectives of the project, and outreach plan; along with providing periodic project updates.

On August 28, 2023, project materials were sent to public agencies, interested parties, and private property owners within 300 feet of the project site. Russian Riverkeeper continues to provide ongoing communication and outreach to the public, adjacent property owners, interested parties, and public officials. Additionally, a public meeting was announced via social media, press release and public flyers, and was held on January 18, 2024, to share information about the project and address any public comments or questions.

Permit Sonoma has processed a reclamation plan amendment and is now processing a use permit application for the proposed project, for which they filed and received a statutory exemption under CEQA from the California Department of Fish and Wildlife. EHC is now very ready and able to initiate 65% design so that permitting of the project can occur.

Site Description: The project is on the east bank of the Middle Reach of the Russian River just west of the Town of Windsor in Sonoma County (Exhibit 1). The site is located between the confluence of Dry Creek and Mark West Creek on a former terrace gravel mine totaling 358-acres. The property has four remnant ponds ranging in size from 18 to 83 acres and an 18-acre compacted area formerly used for gravel processing, as well as 96 acres of developing riparian forest and the adjacent Russian River channel. The Middle Reach of the Russian River extends approximately 8.5 miles. It has been highly straightened and simplified and is characterized by the near total absence of floodplain habitat. It is also nearly devoid of any public access opportunities.

The site was originally owned by various private farmers who sold to Kaiser Sand and Gravel, who then sold to Hanson-Lehigh Aggregates, who recently sold to Martin-Marietta, the current owner. As a gravel quarry, the property is subject to a reclamation plan, previously approved under the Surface Mining and Reclamation Act (California Public Resources Code Section 2710 et seq.). EHC currently holds an option to purchase the property from Martin—Marietta following adoption of a restoration plan by the County, in lieu of a less environmentally beneficial reclamation plan for the site. Before the restoration efforts are initiated the property will be transferred from Martin-Marietta to EHC. Following restoration, the property is expected to be transferred from EHC to Sonoma County Regional Parks.

The middle reach of the Russian River is currently incised and has steep banks that separate the river from the floodplain. At the project site, former gravel mining operations included

construction of unreinforced levees and riparian berms separating the river channel from the gravel pits and resulting in further channelization of the riverbed, bank erosion, and a denuded riparian forest. Since gravel mining operations have ceased, the gravel pits (ponds) have partially filled and created warm-water habitat for nonnative predatory fish species and conditions that degrade water quality resulting in harmful algal blooms, increased water temperature, and a sink for methylated mercury, which tends to accumulate in Coast Range reservoirs as a result of naturally occurring mercury. In addition, the project site has become subject to illegal public access, unsanctioned camping, off-road vehicle use, and poaching of riparian trees. Together, these illicit activities, which have contributed to past localized wildfires, pose a risk to public health and safety, and degrade natural resources on site.

Grant Applicant Qualifications: EHC has administered two prior grants from the Conservancy and one existing grant from CDFW in the advancement of this project. Though EHC is a small organization, it has exhibited the ability to manage grants effectively, coordinate extensively, and adhere to the goals and objectives of the project. As described above, before the restoration efforts are initiated the property will be transferred from Martin-Marietta to EHC. Following restoration, the property and all management responsibility is expected to be transferred from EHC to Sonoma County Regional Parks.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA:

The proposed project is consistent with the Conservancy's Project Selection Criteria, last updated on September 23, 2021, in the following respects:

Selection Criteria

1. Extent to which the project helps the Conservancy accomplish the objectives in the Strategic Plan.

See the "Consistency with Conservancy's Strategic Plan" section below.

2. Project is a good investment of state resources.

As discussed in earlier staff recommendations, EHC holds an option agreement with Martin-Marietta on the property. The option stipulates that if restoration planning and discussions with the County of Sonoma result in agreement on the restoration design and reclamation plan, Martin Marietta will donate the fee interest in the property to EHC. An appraisal completed by Hanson Aggregates in 2010 estimated the property value at \$1.5 million. By advancing a feasible reclamation plan for the site, the proposed authorization will ensure that EHC will be able to exercise its option in exchange for EHC assuming the remaining reclamation obligations. Towards this end, project partners are identifying implementation funding alternatives, and working closely with the County of Sonoma to ensure a smooth project development review and approval. Following implementation of the project, the property will transfer to Sonoma County Regional Parks, thereby helping establish a unique riverfront campground in an area lacking in public access opportunities.

The restoration and reopening of 358-acres of private and highly degraded land provides a substantial benefit to the State and advances the State's 30x30 Executive Order.

Equally important, the proposed project will serve as a template for the floodplain restoration and reopening to the public of several similar sites throughout this reach of the Russian River and beyond.

3. Project includes a serious effort to engage tribes. Examples of tribal engagement include good faith, documented efforts to work with tribes traditionally and culturally affiliated to the project area.

Permit Sonoma sent consultation letters to 11 tribes describing the project and requesting tribal input on September 6, 2023. Further outreach to all 11 tribes occurred on October 17, 2023, through an email sent including a link to the project's cultural resources study. Permit Sonoma corresponded via email and phone with representatives of one interested tribe regarding procedures associated with County permit conditions. Permit Sonoma corresponded with representatives from two other tribes, who indicated they would be reviewing project materials and communicate further if questions or concerns arise. Additionally, two other tribes responded to Permit Sonoma stating the project site was outside their area of concern. Permit Sonoma will continue pursuing engagement with the six remaining tribes to ensure the project addresses any tribal interests.

4. Project benefits will be sustainable or resilient over the project lifespan.

As described above, the open pits are set precipitously close to the river channel and are at moderate to high risk of overtopping and pit recapture by the river, a phenomenon that would cause severe damage to infrastructure downstream. The proposed project presents a nature-based solution to this risk by regrading and restoring the site to reestablish a full and functioning floodplain in a reach of the Russian River where no floodplain habitat remains. The design is purely process-based restoration, not form-based, and as such the site is intended to adapt to and evolve with rapidly changing conditions on the river, including for 100-year flood events as well as increasingly episodic and severe storm events anticipated under climate change scenarios. Thus, the project is sustainable and resilient in perpetuity.

5. Project delivers multiple benefits and significant positive impact.

In addition to the considerable ecological and recreational benefits of the project described above, the proposed project will achieve many other benefits regionally.

First, by expanding the floodplain and the associated retention of surface water over a broad area, the project will increase groundwater infiltration in a reach rather oversubscribed by diversions for the grape growing industry.

Second, the project will dramatically expand riparian canopy and tree cover, thereby reducing temperatures locally and increasing carbon sequestration in the vicinity.

Third, by being located adjacent to a popular but highly travelled road, the project site will afford the opportunity for a bike path that reduces risk to cyclists and pedestrians.

Finally, the project will dramatically increase outdoor recreational opportunities for an expanding suburban population, as well as the urban population of Santa Rosa to the south.

6. Project planned with meaningful community engagement and broad community support.

See Project Summary above.

PROJECT FINANCING

Coastal Conservancy	\$499,510
California Department of Fish and Wildlife	\$717,900
Project Total	\$1,217,410

Conservancy funds for this project are expected to come from the Fiscal Year 2022-2023 appropriation from the General Fund to the Conservancy for the purpose of environmental cleanup, water supply studies, and public access projects in the Eel and Russian River watersheds. (The Budget Act of 2022, SB 154, as amended by AB 179, Chapter 249 of the Statutes of 2022). The recommended grant is an appropriate use of this fund source because it will fund plans and designs for an environmental cleanup project in the Russian River Watershed. This project is considered an environmental cleanup project because current conditions at the project site contribute to water quality degradation, dumping, and the threat of flooding. The restoration of the site will mitigate these problems. CDFW has approved a grant of \$717,900 of Proposition 68 funds for this project. In addition to CDFW's funding, CDFW has also concurred that the project qualifies for the Statutory Exemption for Habitat Restoration Projects (SERP), which provides significant cost savings for the project. It is quite likely that the CEQA process for a project of this scale would have ranged from \$500,000 to \$1,000,000 and would have delayed the project for a significant period.

Unless specifically identified as "Required Match," the other sources of funding and in-kind contributions described above are estimates. The Conservancy does not typically require matching funds or in-kind services, nor does it require documentation of expenditures from other funders or of in-kind services. Typical grant conditions require grantees to provide any funds needed to complete a project.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The phase of design for the restoration project is consistent with Division 21, Chapter 6 of the Public Resources Code as described in the staff recommendation for the earlier phase of design in Exhibit 3.

CONSISTENCY WITH CONSERVANCY'S [2023-2027 STRATEGIC PLAN](#):

Consistent with **Goal 3.2 Restore or Enhance Habitats**, the grant is to complete 65% designs and permit application materials for this landscape scale ecosystem restoration project.

Consistent with **Goal 4.3 Multi-benefit Nature Based Climate Adaptation**, the project will set back development from the floodplain in an era of increasingly severe storms, expand habitat and groundwater infiltration and reduce flood risk to surrounding areas.

CONSISTENCY WITH LOCAL WATERSHED MANAGEMENT PLAN/STATE WATER QUALITY CONTROL PLAN:

A variety of watershed management plans have been developed for the Russian River, largely in response to either habitat degradation or reductions in populations of listed species. These plans include, but are not limited to, instream flow studies, fishery recovery plans, TMDL listings and associated studies.

Many waterbodies in the Russian River watershed are listed under Clean Water Act Section 303(d) due to water quality impairments caused by several different pollutants. Examples of those listed include the entire Russian River watershed which is impaired for sediment and temperature, as well as pathogen, mercury, phosphorus, and dissolved oxygen impairments identified in waterbodies throughout the watershed.

The project will not resolve all ecological challenges within the Russian River, but it will go far towards improving water quality and quantity within the highly modified Middle Reach, where the legacy of terrace mining continues to impact the area. By reducing stream velocities, enabling groundwater recharge, eliminating methylation of mercury within the ponds and creating floodplain habitat to attenuate flows and enable silt to deposit, the project will help achieve performance targets for water quality within the Middle Reach Russian River.

In addition, the project will also help design necessary stream bank stabilization and riparian improvements consistent with the soil conservation and water quality policies in Sonoma County's General Plan Resource Conservation Element (Sections 2.0-2.2 and 3.0). The project will incorporate design elements that enhance habitat for salmonids and utilize native plants for revegetation consistent with policies calling for the protection of biotic resources, endangered species and marine fishery resources (Sections 5.1, 5.2 and 6.0-2).

CEQA COMPLIANCE:

This project is exempt from review under the California Environmental Quality Act (CEQA) pursuant to Public Resources Code section 21080.56(a)(1). This section exempts projects that conserve, restore, protect, or enhance, and assist in the recovery of California native fish and wildlife, and the habitat upon which they depend. Pursuant to Public Resources Code Section 21080.56(e), the lead agency must obtain the concurrence of the director of the California Department of Fish and Wildlife (CDFW) to utilize this exemption. Permit Sonoma, as lead agency, requested concurrence from CDFW on February 28, 2024.

On May 22, 2024, the Director of CDFW concurred with Permit Sonoma's determination that the project meets the qualifying criteria set forth in Public Resources Code section 21080.56, subdivisions (a) to (d), inclusive. Specifically, the CDFW Director concurred 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 has 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 posted its Concurrence on its CEQA Notices and Documents internet page:

<https://wildlife.ca.gov/Notices/CEQA> (Exhibit 4).

This Concurrence was based on the best available science and supported by substantial evidence in CDFW's administrative record of proceedings for the project. That same administrative record is held by and has been reviewed by Conservancy staff. Among other things, such as the design to date, staff reviewed the best management practices (BMPs) dictated for inclusion in the project description in order to ensure compliance with the findings of the concurrence.

The BMP section states that prior to and during implementation of the project, BMPs and avoidance and minimization measures will be implemented and include but are not limited to:

- Special-status plants protection measures including pre-construction surveys, and avoidance, if feasible. Seed collection or relocation may be conducted for special-status plants that cannot be avoided.
- Special-status amphibians and reptiles protection measures including preconstruction surveys and if species are encountered, relocation of special status amphibians and reptiles to suitable habitat as directed by CDFW.
- Special-status birds, raptors, and bats protection measures including preconstruction surveys for special-status birds, raptors, and bats. Active bird nests or bat colonies/roosts will be buffered in coordination with qualified biologists and CDFW staff. Removal of vegetation during the non-nesting season will be completed to the greatest extent practical.
- Special-status American badgers protection measure including pre-construction and if active burrows are identified habitat buffers will be put in place in coordination with qualified biologists and CDFW.
- Special-status salmonid protection measures include riverine in-channel work limitations for the in-water work period (June 15-October 15). While unlikely, salmonids could be assumed present in the ponds. Measures to protect salmonids will be further refined through project permitting and consultation with National Marine Fisheries Service (NMFS) and CDFW.
- Erosion Control BMPs include seeding, straw mulching, geotextiles, plastic covering (during temporary material storage only), erosion control blankets and mats, precipitation-related stop-work conditions, and wood mulching.
- Sediment Control BMPs include silt fencing, fiber rolls, sediment basins, silt curtains, and check dams.
- Additional BMPs include solid waste facilities, sanitary facilities for workers, and designated fueling and maintenance areas away from the channel.

Beyond these BMPs, anticipated permits include a U.S. Army Corps of Engineers Clean Water Act Section 404 permit, Clean Water Act Section 401 and Porter Cologne Water Quality Control Act water quality permit, CDFW Lake and Streambed Alteration Agreement, federal ESA compliance through Section 7 consultation with NMFS and U.S. Fish and Wildlife Service, and Permit Sonoma Conditional Use and Grading permits. Each of these permits will impose additional conditions and protections, and all permit conditions will be implemented during construction of the project.

Upon approval of the project, Conservancy staff will file a Notice of Exemption.