Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Technical Proposal

Prepared for:

US Bureau of Reclamation

WaterSMART Aquatic Ecosystem Restoration Projects for Fiscal Year 2023
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Applicant:

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Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

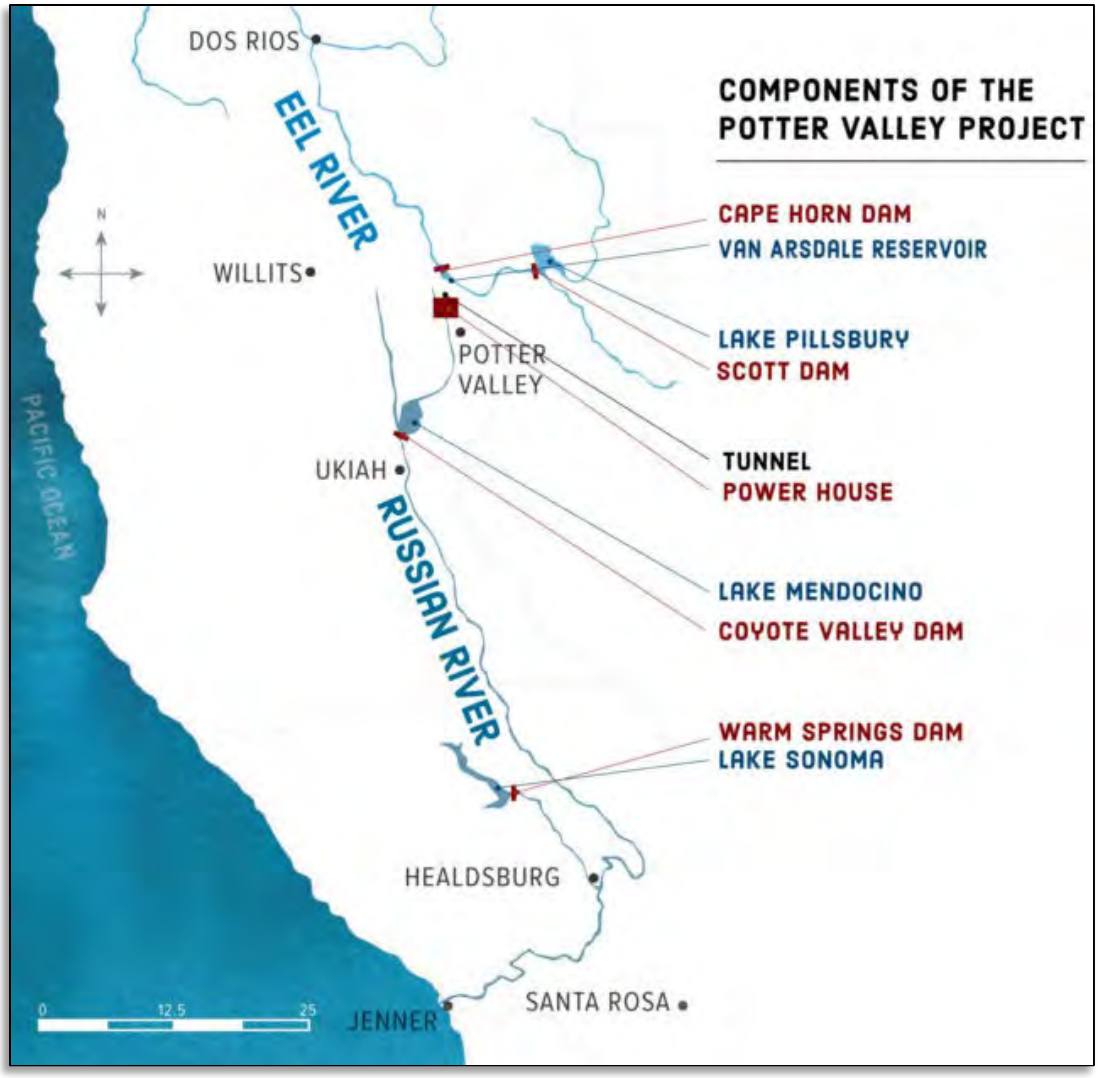
Executive Summary

May 23, 2023
Applicant: Sonoma County Water Agency, Santa Rosa, CA
Application: Category A, Task A
Project Schedule: 36 months. Assuming awards are January 2024, project completion will be December 2026.

The objective of the "Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design Project" (Project) is to develop a 60% design proposal for enhancing fish passage at Cape Horn Dam, located on the Eel River. Cape Horn Dam is part of the Potter Valley Project (PVP). The PVP is located in Mendocino County, California. Its power house is located in the upper reaches of the East Fork Russian River. It is not a federal facility or on federal land. The Project has two primary components. First, it involves the facilitation of a Technical Advisory Group, led by a consultant, who will review the three designs resulting from the "Project Diversion Facilities Assessment" that was funded by CA Department of Water Resources. This group of stakeholders will provide valuable insights and expertise in evaluating the potential alternatives. Second, the project will hire a consultant to further develop the selected preferred alternative and advance it to the 60% design level. This phase aims to refine and enhance the preferred design, ensuring its feasibility and effectiveness in improving fish passage at Cape Horn Dam on the Eel River. The PVP has been diverting water from the Eel River into the Russian River watershed for more than a century. Despite representing less than 2% of the Eel River flow, the PVP has historically accounted for up to 50% of the average annual inflow into Lake Mendocino. The project operates year-round, with variable diversion rates depending on hydrologic conditions and time of year. The PVP has played a crucial role in supplying water for agriculture, consumptive use, and instream flows to benefit aquatic ecosystems. However, its operations have likely contributed to the decline of salmonid populations and ecological conditions in the Eel River. The uncertainties surrounding the PVP's future have necessitated further studies and design planning to identify a preferred alternative for diversion and fish passage improvements at Cape Horn Dam on the Eel River.

Location

The Potter Valley Project (PVP) is located in Mendocino County, California, USA. PVP is situated in the upper reaches of the Russian River watershed and spans areas along the Eel River and Russian River. The nearest city to the PVP is Ukiah. Ukiah is approximately 10 miles southeast of the project area. The latitude and longitude coordinates for the PVP are approximately 39.3860619; -123.1190848.



Map of the Eel River and Russian River watersheds and the components of the Potter Valley Project.[1]

Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design: Technical Proposal

Introduction

Physical Project Description

For over 100 years, the Potter Valley Project (PVP) has diverted from 60,000 to over 150,000 acre-feet per year from the Eel River into the Russian River watershed. This diversion represented less than 2% of the total Eel River flow yet constituted up to 50% of the average annual inflow into Lake Mendocino. Under current PVP operations, water is diverted from the Eel River to the Russian River year-round, at a rate ranging between 45 cubic feet per second (cfs) and 135 cfs depending on the time of year and hydrologic condition. Since 1908, the Eel River diversion has been a vital component of water supply on the Russian River for agriculture, consumptive use, and instream flows for aquatic benefit.

The Eel Power and Irrigation Company commenced construction of the Cape Horn Diversion Dam, Intake, and Tunnels and the Potter Valley Powerhouse in 1905. In 1908, construction of the initial PVP works were completed by the company, which had been reorganized into the Snow Mountain Water and Power Company. In 1920, the Snow Mountain Water and Power Company applied to the US Forest Service (USFS) for a final power permit for the construction of Scott Dam. During the same year, construction of the dam began and a request was made to transfer the application for a final power permit to the Federal Power Commission (predecessor of the current Federal Energy Regulatory Commission, or FERC). The construction of Scott Dam was completed the following year.

The PVP was first licensed by the Federal Power Commission in 1922. The license was transferred to Pacific Gas & Electric Company (PG&E) in 1930. The PVP was relicensed by FERC in 1983 and currently operates under an amended license issued by FERC in 2004. The amended license expired on April 14, 2022. The project is currently being operated under an annual license issued by FERC. It is anticipated FERC will continue to issue annual operating licenses until FERC issues a surrender order for the project.

The uppermost portion of the 9.2 megawatt (MW) PVP includes Scott Dam and the storage reservoir it impounds, Lake Pillsbury, on the Eel River. Below Scott Dam, the Eel River flows approximately 12 miles to Van Arsdale Reservoir, created by Cape Horn Dam. Cape Horn Dam has fish passage facilities enabling salmon, steelhead, and lamprey to access the Eel River and tributary streams between Cape Horn and Scott Dams. There are no fish passage facilities at Scott Dam, which prevents anadromous fish from accessing the watershed above Scott Dam.

At Van Arsdale Reservoir, water that is diverted to the Potter Valley Powerhouse is conveyed into the Russian River watershed by a series of tunnels, conduits, and penstocks, while water remaining in the Eel River is released from, or spills over, Cape Horn Dam, where it flows northwest approximately 150 miles to the Pacific Ocean. Releases made at Scott and Cape Horn Dams support salmon and steelhead populations in the Upper Eel River watershed.

The Potter Valley Powerhouse is located in the Upper Russian River watershed and releases from the powerhouse are a significant source of water in the East Branch Russian River and for local water users. The East Branch Russian River flows south from the Potter Valley Powerhouse (approximately 11 miles) and is impounded by the U.S. Army Corps of Engineers' (USACE) Coyote Valley Dam to form Lake Mendocino. Lake Mendocino is operated and managed by the USACE for the purposes of flood control. As the local, non-federal sponsor, the Sonoma County Water Agency (Sonoma Water) manages releases from Lake Mendocino's water supply pool to meet minimum instream flow requirements and diversions by downstream authorized users. Water from Lake Mendocino is used in Mendocino, Sonoma, and Marin Counties for irrigation, municipal and domestic water supply, recreation, and support of salmon and steelhead populations in the Russian River. Water leaving Lake Mendocino joins with the mainstem Russian River and flows approximately 96 miles to the Pacific Ocean near the town of Jenner.[2]

Process History and Current Regulatory Status

On April 6, 2017, PG&E filed a Notice of Intent (NOI) to file an application for a new license for the PVP[3] and filed a Relicensing Pre-Application Document (PAD).

In May of 2017, Congressman Jared Huffman convened an Ad Hoc Committee of Eel River and Russian River stakeholders, with the stated goal of agreeing on potentially viable scenarios, built on technical working group recommended solutions, for the future of the PVP and the associated opportunities and impacts of the scenarios. The Ad Hoc Committee adopted two co-equal goals for the PVP:

1. Improve fish passage and habitat on the Eel River sufficient to support recovery of naturally reproducing, self-sustaining and harvestable native anadromous fish populations, including migratory access upstream and downstream at current PVP dam locations; and
2. Minimize or avoid adverse impacts to water supply reliability, fisheries, water quality, and recreation in the Russian River and Eel River basins.[4]

In September of 2018, PG&E issued a solicitation to sell the PVP and sought expressions of interest from interested parties.[5] On January 25, 2019, PG&E notified FERC that it was terminating efforts to sell the PVP, withdrawing its NOI and PAD, and discontinuing the Integrated Licensing Process initiated to prepare a license application.[6]

On March 1, 2019, FERC issued a notice soliciting applications for license for the PVP.[7]

In spring of 2019, five Ad Hoc Committee participants (California Trout; Humboldt County; the Inland Water & Power Commission of Mendocino County, or IWPC; Round Valley Indian Tribes, or RVIT; and Sonoma County Water Agency, or Sonoma Water) agreed to pursue filing an NOI to obtain the license to operate the PVP. This subgroup of Ad Hoc Committee participants is known as the "NOI Parties," the "Planning Agreement Parties," or the "Two-Basin Partnership." On June 28, 2019, the NOI Parties filed a Notice of Intent to file an application for a new license for the PVP and outlined a series of next steps, including preparation of a feasibility study for the PVP. The NOI Parties described a set of Shared Objectives, including: (1) minimizing or avoiding adverse impacts to water supply reliability, fisheries, water quality, and recreation in both basins; (2) improving fish passage and habitat on the Eel River sufficient to support recovery of native anadromous fish populations, including passage at existing dam locations; (3) reliance on best available science and engineering analyses to evaluate options for restoration, water delivery, and hydroelectric generation under a new license; (4) collaboration on funding; (5) active participation of tribes and other stakeholders supportive of the Shared Objectives; (6) economic welfare of both basins; (7) continued hydroelectric generation; and (8) protecting tribal cultural, economic, and other interests in both basins.[8]

On May 13, 2020, the NOI Parties filed a feasibility study report that includes information on the proposed Regional Entity to operate and maintain the PVP and proposed changes to the PVP from what PG&E originally proposed in its PAD filed in April 2017. The NOI Parties' proposal includes, but is not limited to, removal of Scott Dam, increasing diversion capacity at the Van Arsdale Diversion, and modifications to the FERC's previously approved study plan.[9]

In response to the Parties' NOI to file a license application to take over the PVP, FERC required that the NOI Parties fund feasibility studies (estimated to cost about $18 million) by April 14, 2022. NOI Parties worked diligently to meet the requirements of the pre-application process. They also worked directly with PG&E to explore all possible options for the future of the PVP. The NOI Parties were unable to secure funding from PG&E, as they had hoped, or from any other source, and on September 2, 2021 filed a request for abeyance with FERC to extend the filing deadline from April 14 to May 31, 2022.[10]

On September 23, 2021, FERC responded to the NOI Parties' request for a deadline extension. FERC neither approved nor denied the request, but re-stated that the NOI Parties had until April 14, 2022, to submit a final license application.[11] FERC also ordered the NOI Parties to submit additional information in the interim. The NOI Parties submitted the requested information but acknowledged in late-January 2022 that it would not be filing a license application by April 14, 2022.[12]

On May 11, 2022, FERC ordered PG&E to provide a plan and schedule for surrender of the PVP.[13] On July 8, 2022, PG&E provided a plan and schedule for the surrender; that process is currently under way.[14]

Previous Planning and Investigation Efforts by Stakeholders and the Applicant

There has been considerable effort by various stakeholders to suggest and evaluate alternatives for modifications to the PVP, with the general goals of improving fisheries habitat and/or passage while preserving water supply reliability for the Russian River. As described above, both Congressman Huffman's Ad Hoc Committee and the NOI Parties included stakeholders from both the Eel and Russian Rivers who sought a future PVP condition that both improves fish passage and habitat on the Eel River and minimizes or avoids adverse impacts to water supply reliability, fisheries, water quality, and recreation in the Russian River and Eel River basins.

The Ad Hoc Committee commissioned and completed analyses of various fish passage and water supply operations alternatives in order to inform stakeholders of potential physical and operational solutions for the PVP.[15] The NOI Parties undertook a more specific feasibility study of PVP facilities and operations, culminating with the 2020 Feasibility Study Report on Potential Licensing Proposal for Potter Valley Project (FERC P. 77-285) filed with FERC in May of 2020[16, 17] along with an Alternatives Analysis and Project Plan,[18] Capital Improvements,[19] and Fisheries Response[20] Technical Memorandums.

In May of 2022, Sonoma Water executed a grant agreement for $2 million with the State of California Department of Water Resources (DWR) for funding for various work efforts related to further analysis, planning, and design for a revised PVP configuration. Key work tasks include:

1. Establishment of a Russian River Water Forum to identify and collaborate with Russian River water users who benefit either directly or indirectly from imported water from the PVP and to assess support for water conservation and supply projects, and infrastructure changes to allow for the continued transfer of water.
2. Assessment of Project Diversion Facilities to evaluate the feasibility and risks associated with obtaining and modifying critical diversion facilities that will need to be acquired to continue importing water from the Eel River into the Russian River watershed. This task will also develop robust feasibility designs and cost estimates for modifications to and operations of the Cape Horn Dam and appurtenant diversion facilities to restore capacity to meet design flow rate, improve fish passage, assess maintenance needed, and implement feasible upgrades to the system.
3. Identify conservation opportunities, conceive new operational strategies, and potentially develop new storage or conjunctive-use facilities.

The DWR-funded studies are under way, and the Project Diversion Facilities Assessment will yield a short list of three potential Van Arsdale fish passage/diversion alternatives that will meet the ecosystem and water reliability objectives of the Ad Hoc and NOI Parties.

Logical Nexus of the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design Project

Typically, relicensing of a hydroelectric project through FERC is a multi-year endeavor; indeed, PG&E made initial relicense filings 5 ½ years in advance of license expiration, and the previous relicensing of the PVP took over 10 years to complete. The sudden changes of direction (relicense, sell, cease relicensing) by the PVP owner, PG&E, over the course of just two years was not anticipated by the local stakeholders on the Eel and Russian Rivers and has created significant uncertainty regarding the future outcome of the PVP. The estimated cost of over $18 million to take over the relicensing for studies was beyond the capacity of local stakeholders, and parties are working diligently to identify a viable, acceptable project to propose as part of the PVP decommissioning. The proposed "Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design Project" will select a single viable PVP alternative from the results of the DWR-funded "Project Diversion Facilities Assessment" and then mature that preferred alternative to the 60% design level.

Section A1: Description of Project Benefits

Critical Issues of Concern in the Watershed

The Eel River watershed provides critical habitat for federally listed as threatened Chinook salmon, coho salmon, and winter steelhead. Summer steelhead in the Eel River watershed are listed by the State of California as endangered. Scott Dam is a complete barrier to fish passage, fragmenting fish and aquatic habitat connectivity between reaches upstream and downstream of the dam.[21] Cape Horn Dam has fish passage facilities that do not meet current National Marine Fisheries Service (NMFS) standards, fill with sediment, prevent upstream migration after storm events, are inadequate for some species, and likely injure and increase predation risk for downstream migrating salmonids.[22, 23]

Historic anadromous salmon and steelhead populations in the Eel River likely exceeded a million returning salmon and steelhead in good years and have been reduced to about 3,500 fish in recent years. [24, 25] A decline of salmonid populations in the Eel River has been linked to various causes, such as historic logging practices, catastrophic flooding and sediment loading, and salmonid over-harvesting. [21,24] Since its construction, the PVP has likely combined with those effects and further contributed to the decline of salmonid populations and ecological conditions in the Eel River. The PVP has changed the hydrologic, physical, chemical, and ecological processes of the upper Eel River and Russian River to varying degrees. PVP facilities and operations have blocked fish passage, altered the natural streamflow and temperature regime, affected river geomorphology, facilitated establishment of non-native species, and changed the quality of habitat available to native anadromous salmonids, resident species, and amphibian populations. [23]

In the Russian River watershed, Coyote Valley Dam was completed in 1958 and created Lake Mendocino. Water is released from Coyote Valley Dam into the Russian River immediately upstream of the confluence with the West Branch Russian River. The Eel River and Russian River watersheds are thus inherently connected. As in the Eel River watershed, Chinook salmon, coho

salmon, and steelhead are state and federally listed as threatened or endangered. Loss of habitat due to urban and agricultural land uses, water management and diversion, logging, gravel mining, road development, and fish passage barriers have depressed populations of salmon and steelhead in the Russian River watershed. [26]

How the Proposed Project will Benefit Water Resources Management in Two or More River Basins

The PVP has served as a link between the Russian River and Eel River since it began hydropower operations in 1908. For more than 100 years, the PVP has augmented the Upper Russian River and Lake Mendocino. Prior to 2006, the project provided approximately 150,000 acre-feet of inflows annually, on average. Since 2006, the project has provided approximately 60,000-acre feet of inflows annually, on average. Historically, PVP transfers comprise greater than 50% of inflows to Lake Mendocino, on average, while only reducing total Eel River discharge volumes by about 2%.

The proposed project seeks to balance habitat protection and enhancement on both the Russian and Eel Rivers with the water supply benefit of maintaining seasonal water supply transfers from the Eel River to the Russian River through the PVP. The Russian River and Eel River are both home to several species of fish that are threatened or endangered. In addition to listed salmonids, both watersheds are vital habitat for Pacific lamprey – the namesake "Eel" river species. The proposed project will help foster the recovery of these fisheries in both the Russian River and Eel River watersheds.

Flows in the Russian River are managed to ensure compliance with the Endangered Species Act Russian River Biological Opinion issued by NMFS in 2008 and terms and conditions of State Water Resources Control Board Decision (State Board) 1610 and Sonoma Water's water rights permits. [27] The Biological Opinion requires Sonoma Water to request changes to instream flow requirements issued by the State Board under certain hydrologic conditions.

Sonoma Water released the Fish Habitat Flows and Water Rights Project (Fish Flow Project) Draft Environmental Impact Report (DEIR) for public review in 2016 to outline steps to modify its existing water rights permits to comply with the Biological Opinion. A critical component of the Fish Flow Project is to improve conditions for threatened Chinook salmon and steelhead by better preserving cold water in Lake Mendocino. Stored water is released during the dry season for steelhead rearing and fall Chinook migration. Summer and fall storage levels in Lake Mendocino are critically dependent on PVP transfers since the construction of Coyote Valley Dam in 1958, and the basis for the conclusions drawn in the Biological Opinion are also dependent, in part, on historical Lake Mendocino water storage levels that have been augmented by PVP transfers. Moving forward, continued PVP transfers will be an important tool to ensure successful implementation of the Fish Flow Project and the recovery of threatened and endangered species in the Russian River.

Modeling studies for the Two-Basin Partnership simulated a 107-year record (1911-2017) of historical hydrology of the Russian River and Upper Eel River basins under current Russian River

reservoir operations and water demands. [28] The study modeled several PVP scenarios, including a *current operations scenario* (i.e., with current Scott Dam, Cape Horn Dam, and PVP operations), a *run-of-the-river scenario* with seasonal PVP diversions assuming Scott Dam is removed, and a *no PVP scenario* that transfers no water from the Eel River to the Russian River. Under the *no PVP scenario*, model results indicate that 53 years out of the 107-year period, the conservation (water supply) pool at Lake Mendocino would drain at some point during the year, while the *current operations scenario* only simulates this condition for one (1) year out of the 107-year period. This condition has never occurred since the construction of Lake Mendocino in 1958. Without dry-season cold water releases from Lake Mendocino, flow on the Upper Russian River would be expected to fall below 10 cfs in late summer through October during dry years and would result in warm water conditions, both of which are harmful to rearing steelhead and migrating fall Chinook salmon.

The proposed project will select a preferred diversion alternative that provides volitional fish passage for safe, timely upstream and downstream fish migration through a facilitated stakeholder process. Following selection, the preferred alternative will be advanced to a 60% design. One of the criteria for selection of the alternative will be the ability to reliably divert sufficient water from the Eel River to the Russian River to retain the core environmental benefits to the Russian River.

Regional Benefits of the Proposed Project

In addition to providing critical ecosystem and fisheries benefits to both the Eel River and Russian River basins, the proposed project is part of a long-term strategy to provide water supply resiliency for Lake Mendocino in the face of recent exceptional droughts and the mounting effects of climate change. The potential of PVP transfers terminating presents significant challenges for maintaining critical water supply reliability for more than 650,000 people in Mendocino, Sonoma, and Marin counties.

Of the nine public water systems on the Upper Russian River that serve a combined population of about 55,000, several systems are solely reliant on Upper Russian River surface flows and would be severely impacted if depletions of Lake Mendocino storage inhibited releases. [29] This could also impact Sonoma Water's ability to divert water from the Lower Russian River to serve its more than 600,000 customers in Sonoma and Marin Counties. Together, such depletions in Lake Mendocino storage could cause serious impacts to human health and safety throughout the California North Bay region.

In addition to their critical importance for municipal and industrial water supply and public safety in the Upper Russian River basin, PVP diversions are critical for agricultural businesses in the Russian River basin. In Mendocino County alone, agricultural businesses generate $743 million in business revenue and support more than 5,000 jobs annually. [30]

Of the public water systems and agricultural water users that are not wholly reliant on surface water diversions, many divert groundwater that has been shown to be interconnected with

surface water throughout the Russian River basin. Russian River flows that have been historically augmented by PVP transfers provide groundwater recharge that offsets groundwater extractions that occur in the agriculturally-dominated alluvial groundwater basins along the Russian River. For example, the Groundwater Sustainability Plan for the Ukiah Valley, [31] which encompasses one of the largest alluvial aquifers along the Upper Russian River, has shown that recharge of Russian River surface water is a large component of the overall groundwater budget. Modeling studies for the Two-Basin Partnership showed that under the *no PVP scenario*, summer and fall flows in the Russian River would be significantly diminished. This could, in turn, result in a negative feedback in which diminished Russian River flows reduce groundwater recharge while groundwater extraction increases as water users switch from surface water to groundwater.

Aside from its importance for water supply, Lake Mendocino also serves as a critical component for fire protection in the Upper Russian River basin. Cumulatively, wildfires have burned more than one third of the Russian River watershed since 2017. [32] Lake Mendocino serves as a "dip point" for aerial firefighting efforts in the region. [33] As was stated previously, the proposed project is part of a long-term strategy to provide water supply resiliency for Lake Mendocino that will allow stored water to be used for firefighting purposes.

Role of the Proposed Project in a Strategy to Replace Aging Facilities with Alternate Facilities

The PVP, including Cape Horn Dam, the diversion tunnel, and powerhouse, was constructed and commissioned in 1908. Although the PVP has undergone routine maintenance and various components of the PVP have been upgraded or replaced since construction, many components date back to their original installation or construction. further. One of the outcomes of selection of a successful design will be to identify a cost-effective project that will be able to reliably deliver water to the Russian River while dramatically improving passage, screening and other ecosystem benefits on the Eel River. A cost-effective design will include relatively low operations and maintenance costs, which is achieved by a design that is both efficient and robust. It is anticipated that the selected diversion alternative design will provide improved reliability and performance over the current facilities, and at a lower cost.

How the Proposed Project will Benefit Aquatic Ecosystems

Removal or modification of Cape Horn Dam and Van Arsdale Reservoir would improve fish passage, restore physical and ecological processes, reconnect fragmented habitat, and improve conditions for native species. The proposed Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design project, in conjunction with the decommissioning and removal of Scott Dam, will restore volitional fish passage for anadromous salmonids and Pacific lamprey.

The effects of dam removal or modification and restoration of volitional fish passage are expected to have the greatest influence on salmon and steelhead population productivity by

providing more natural streamflow and water temperatures during the spring juvenile outmigration period and increasing access to more than 500 kilometers (km) of spawning and rearing habitat.[23, 34] A more natural recession of streamflow in spring is expected to lead to more natural emigration timing and improve smolt survival. Restoration of volitional fish passage allows access to river and tributary reaches with variable environmental and habitat conditions that will promote greater juvenile life history diversity and increase overall population resilience.[23] In addition to improving life-history diversity for anadromous salmonids, fish passage improvements will decrease predation and competition from non-native predators (pikeminnow and bass) by removing lentic habitat and reducing overlap between non-native species and salmonids.

Much of the water diverted through the PVP to the Russian River watershed is stored in Lake Mendocino and helps create a deep pool of cold water in the reservoir that supports salmon and steelhead in the mainstem Russian River. The volume of cold water in Lake Mendocino allows water managers to release flows that enable Chinook salmon to ascend the river during fall and gain access to 150 km of spawning habitat. Steelhead reside in the upper mainstem of the Russian River year-round and depend on cold water releases from the reservoir for juvenile rearing from spring through fall.[26, 35]

Status of the Species and Habitat that will Benefit from the Proposed Project

The Central California (CC) Chinook Salmon Evolutionarily Significant Unit (ESU) was originally listed as a federally threatened species in 1999 (64 FR 50394; Attachment A). Status reviews have been conducted in 2005, 2010, 2016 affirming the threatened status of the species. In 2000, NMFS designated critical habitat for CC Chinook salmon ESU (65 FR 7764). CC Chinook salmon ESU range is between Eureka and Santa Rosa and within the interior of the Upper and Lower Eel River.

The Central California Coast (CCC) Steelhead was listed as a federally threatened species in 2000 (65 FR 36074). Status reviews conducted in 2005 and 2010 affirmed the threatened status of the species. In 2000, NMFS designated critical habitat for the CCC steelhead ESU (65 FR 7764). The CCC steelhead ESU ranges from Ukiah in the Upper Russian River to Aptos Creek in Santa Cruz County.

The Central California Coast (CCC) Coho Salmon was listed as a threatened species in 1996 (61 FR 56138). In 2005 a reassessment of its listing was conducted after applying NMFS' Hatchery Listing Policy and was reclassified as endangered (70 FR 37159). In 1999, NMFS designated critical habitat for the CCC coho salmon and the Southern Oregon and Northern California Coast (SONCC) ESUs (64 FR 24049). The designations include a geographic area of approximately 4,000 square miles across California's central coast between Punta Gorda in Humboldt County, and the San Lorenzo River in Santa Cruz County, California.

The Northern California (NC) Steelhead Distinct Population Segment (DPS) was listed as a federally threatened species in 2000 (65 FR 36074). Status reviews conducted in 2005 and 2010

affirmed the threatened status of the species. Critical habitat designations for the NC Steelhead include all accessible reaches and rivers between the Yurok Indian Reservation in Del Norte County and the Russian River watershed.

The Southern Oregon Northern California Coast Coho (SONCC) ESU was listed as a threatened species in 1997 (62 FR 24588). In 2005 a reassessment of its listing status was conducted after applying NMFS' Hatchery Listing Policy and it was reclassified as endangered (70 FR 37160). In 1999, NMFS designated critical habitat for the CCC coho salmon and the SONCC ESU's (64 FR 24049). The designations include all accessible reaches and rivers between Punta Gorda, Humboldt County and the San Lorenzo River in Santa Cruz County, California.

Northern California Summer Steelhead (NCSS) received endangered status under the California Endangered Species Act in 2021. The NCSS currently occupy fluvial habitat from Redwood Creek in northern Humboldt County south to the Mattole River, though they do not occur in all watersheds within this range. NCSS are included in two NMFS-defined geographic diversity strata: Northern Coastal and North Mountain Interior; these two diversity strata encompass 10 historically functionally independent summer steelhead populations.[36] The NCSS range encompasses Redwood Creek, the Mad River, and the Mattole River as well as sectors of the Eel River watershed including the Middle Fork Eel River and the Van Duzen River.[37]

Contribution to the Restoration of Endangered Species, Including Listed Anadromous Fish

The proposed Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design project will sustain, improve, and increase access to critical habitat for five federally-listed populations of salmon and steelhead (Attachment A) in the Eel River and Russian River watersheds. PVP dam removal or modification and restoration of volitional fish passage would provide unimpeded access to approximately 150 km of spawning habitat for Chinook salmon and 500 km for steelhead, or about 6% and 10% of historically accessible habitat, respectively.[34, 38] In the Russian River watershed, Chinook salmon and steelhead spawn and rear in the upper mainstem river and associated tributaries. By preserving a diversion between the Eel River and Russian River, the proposed project will allow diverted water that is stored in Lake Mendocino to be released as cold water below Coyote Valley Dam. Water managers in the Russian River basin can release cold water in sufficient quantities to allow spawning and rearing in the upper 75 and 25 miles of the river respectively. Without the water quality improvements provided by water released from storage in Lake Mendocino, the quantity and quality of critical habitat for steelhead and Chinook salmon in the Russian River watershed will degrade. Critical habitat has also been designated for coho salmon in the Eel River and Russian River watersheds. Coho salmon do not spawn in the upper Eel River or Russian River, but populations in both watersheds utilize flows released from reservoirs for adult migration to tributary spawning habitat and smolt outmigration. The release of stored water in Lake Mendocino and the more natural flow regime in the Eel River that results from dam removal and modification may enhance critical habitat for coho salmon.

The existing fish passage facilities at Cape Horn Dam do not meet NMFS criteria for upstream migrating salmonids, require a temporary installation to pass Pacific lamprey, likely injure downstream migrant salmonids, and increase predation risk. A recent study evaluated the current condition of the Cape Horn Dam fish ladder and found that it failed to meet 7 of 19 criteria including pool volume, freeboard, change in flow direction, and fishway entry hydraulics and dimensions.[39] During winter high flow events, the ladder entrance and pools fill with sediment, delay fish passage, and require extensive maintenance. In a 2019 memo, NMFS concludes that, "Completely replacing the existing fish ladder with a design that would prevent the river from overtopping the lower pools should be considered. A new, efficient fish ladder would be designed to meet current design guidelines for pool size and hydraulics for salmonids and lamprey and include features to aid in operations and maintenance."[22] In recent correspondence with FERC, NMFS reiterated the ongoing deficiencies at Cape Horn Dam and called for the dam owner, PG&E, to conduct: an evaluation of safe, timely, and effective downstream passage for juvenile salmonids and steelhead kelts (post-spawn adults); an evaluation of the frequency, magnitude, and duration of facility closures occurring during high flow and debris load periods; an evaluation of the extent of impacts to ESA-salmonids by their specific life stages; and an evaluation of predation risk to juvenile and adult salmonids at and around the Cape Horn Dam Fish Passage Facility.[40]

Status of Species Not Listed Under the ESA

Pacific Lamprey is a California State Species of Special Concern. Under this designation, the status was identified by as "moderate concern" since the species still occupies much of its native range, but at much smaller numbers.[41] Evidence suggests that large declines may have occurred in the last 50 years. The United States Fish and Wildlife Service (USFWS) has also designated Pacific Lamprey as a Species of Concern.

Section A2: Quantification of Project Benefits

Species and Habitat Health Benefits

Current Status of Species and Habitat Health in the Planning Area

The Eel River is one of California's most important anadromous salmonid rivers, historically ranking second in coho salmon and steelhead production, and third in Chinook salmon production. Current population estimates in the Eel River represent a 99% decline from historical figures.[24] Over the past century, human activity has severely degraded the Eel River ecosystem and endangered its salmonid populations. The primary causes of decline in the Eel River are the same as those across the range of salmonids,[24] dams and diversions, overfishing, poor logging practices, human development and habitat loss, agricultural impacts, hatcheries, and climate change.[42, 43]

The Eel River watershed contains approximately 2,500 km of historically accessible channels with suitable habitat for Chinook Salmon and approximately 5,000 km for steelhead.[34, 38] The upper mainstem Eel River steelhead population was estimated to historically occur almost entirely upstream of Scott Dam, so restored access above Scott Dam would add 463 stream-kms habitat.

Estimates of potential production for reaches upstream of Scott Dam range from approximately 800 to 10,000 adult Chinook and 500 to 25,000 adult steelhead.[23] Historical counts of adult steelhead at the Cape Horn Dam fish ladder routinely exceeded 3,000 fish in the first half of the 20th century (Figure 1). Except for a period of enhanced returns due to hatchery production during the 1990s, steelhead numbers declined through the latter half of the 20th century and returns in the past 20 years are often below 250 fish.[44] Adult Chinook salmon escapement to the upper Eel River and Cape Horn Dam has generally declined over the past 40 years and recent counts are often less than 500 fish (Figure 2).

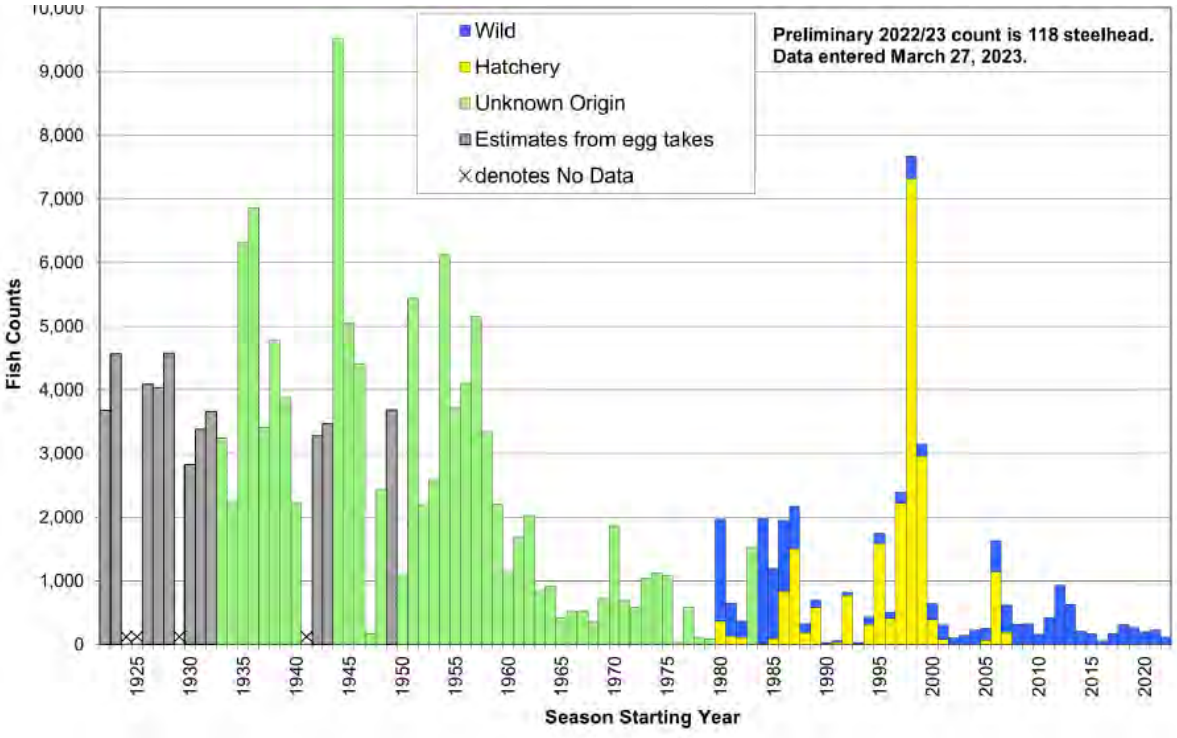


Figure 1. Historical adult steelhead counts at the Eel River Van Arsdale (Cape Horn Dam) Fisheries Station. PG&E Potter Valley Project 2023 Annual Agency Meeting.

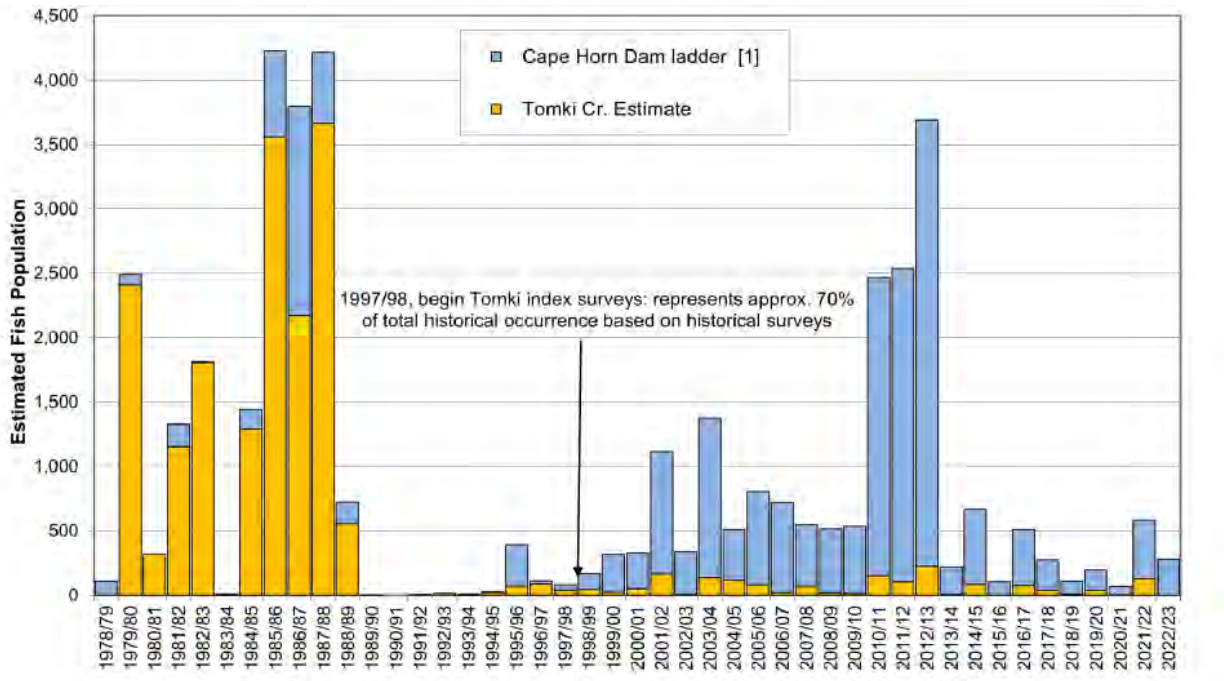


Figure 2. Historical adult Chinook salmon returns to the upper Eel River at the Cape Horn Dam fish ladder and Tomki Creek. PG&E Potter Valley Project 2023 Annual Agency Meeting.

The Russian River was renowned as producing the third largest run of steelhead in California during the first half of the 20th century.[45, 26] Although few historical estimates exist, escapement may have exceeded 50,000 fish annually in the 1950s. Returns of adult hatchery steelhead have averaged 6,700 fish for the past 20 years (Figure 3) but have dropped dramatically to less than 1,500 during the recent 4-year drought.

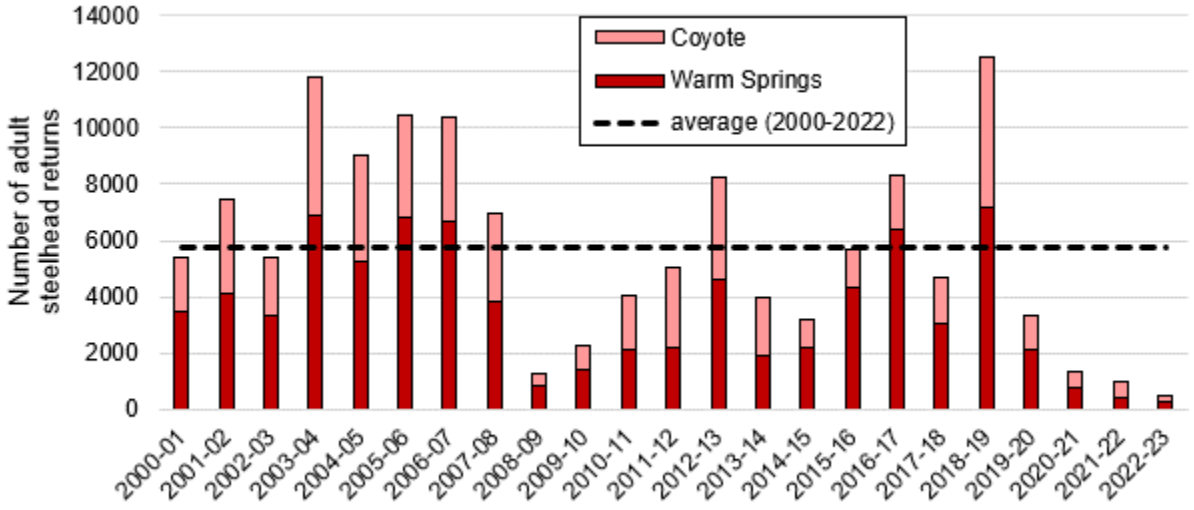


Figure 3. Adult steelhead returns to Russian River hatcheries at Coyote Valley Dam/Lake Mendocino and Warm Springs Dam/Lake Sonoma (Sonoma Water 2022).

In the Russian River watershed, no reliable estimates of historic Chinook salmon abundance exist, but NMFS has identified the Russian River population as an essential, functionally independent population with a spawner abundance target of 9,300 adults.[46] Returns of spawning Chinook salmon to the Russian River over the past 20 years have average 3,000 fish (Figure 4). Recent Chinook salmon counts have been less than 2,000 fish.

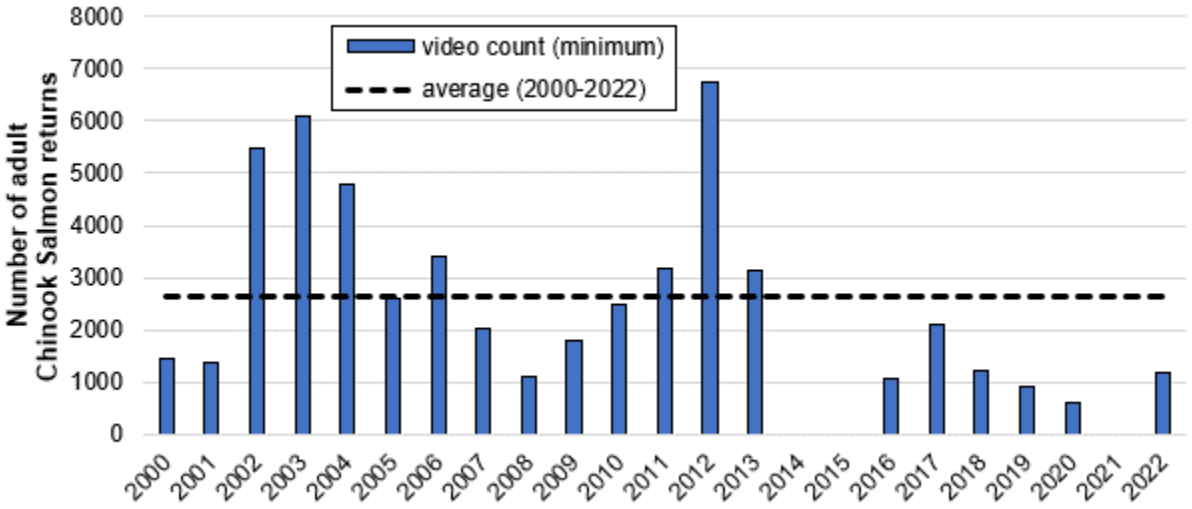


Figure 4. Video counts of adult Chinook salmon passing through the fish ladder at Mirabel Dam on the lower Russian River (Sonoma Water 2022).

In a 2016, 5-year status review of threatened California coastal steelhead, NMFS concluded that all populations are well below viability targets, most being between 5% and 13% of goals.[46] For central California coast Chinook salmon, NMFS concluded that there has been a mix in population trends, with some population escapement numbers increasing and others decreasing. Overall, there is a lack of compelling evidence to suggest that the status of Chinook populations has improved or deteriorated appreciably since the previous status review. [46, 47, 48]

Fish habitat and production potential throughout much of the Eel River watershed have been significantly impaired from past and recent intensive land use practices.[49, 50] Notable recent and ongoing land uses in the watershed include grazing, industrial timber management, rural and residential development, gravel extraction, and widespread cannabis cultivation. These activities, along with historical widespread disturbance of the landscape from intensive logging, forest community alteration, and construction of roads and railways, followed by large floods in the 1955 and 1964, have caused extensive changes to much of the watershed. Impacts from these changes include widespread landslides, channel aggregation and simplification, loss of riparian vegetation, increased water temperatures, and altered hydrology. These alterations have contributed to widespread fish habitat loss and population declines.[25, 49, 36, 50] Additionally, the United States Environmental Protection Agency (USEPA) has listed all Eel River sub-watersheds as impaired on the federal Clean Water Act 303(d) list, primarily for excessive sediment and increased water temperatures. The ecology of the Eel River watershed has also

been fundamentally altered by the presence of non-native species, most notably Sacramento Pikeminnow.[23]

California has experienced well below average precipitation in 8 of the past 11 water years (2012, 2013, 2014, 2015, 2019, 2020, 2021, and 2022), record high surface air temperatures in water years 2014 and 2015, and record low snowpack in 2015. [47] Some paleoclimate reconstructions suggest that the current period of drought is the most extreme in the past 500 or perhaps more than 1,000 years.[51] The effects of this extended drought on water supplies and water temperatures are a major concern for salmonid populations in Eel River and Russian River basins. Drought conditions are known to reduce the amount of water available, resulting in reductions (or elimination) of flows needed for adult salmonid passage, egg incubation, and juvenile rearing and migration.

During dry hydrologic conditions and extended periods of drought, water quality and quantity associated with discharged flows from Eel River and Russian River dams pose a critical threat to the survival and recovery of ESA listed salmonids.[46] During recent droughts in 2013-2015 and 2019-2022, both reservoirs were at near record low levels. Poor water years can result in unreliable water supply and extremely low reservoir storage elevations potentially leading to adverse water quality and quantity conditions for downstream rearing juvenile steelhead and upstream migrating adult Chinook salmon. Specifically, low reservoir storage elevations in Eel River and Russian River reservoirs can lead to stressful water temperatures (i.e., in excess 20°C) and significantly reduced flows for summer rearing steelhead and migrating adult Chinook salmon.[46]

How the Study and Design Efforts of the Proposed Project will Address Species and Habitat Health

Cape Horn Dam fish passage improvements will benefit salmonid population resiliency to drought in both the Eel River and Russian River basins. By restoring volitional fish passage, Eel River Chinook and steelhead will be able to access perennially cold natural flows in the upper watershed. By maintaining a diversion between the Eel River and Russian River, the proposed Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design project will allow storage and release of cold water from Lake Mendocino and Coyote Valley Dam to preserve spawning and rearing habitat in the upper Russian River watershed.

Water Supply Benefits

Current Status of Water Availability for Aquatic Ecosystems

The PVP influences the natural water availability and ecosystem processes in the upper Eel River and the Russian River watersheds. Diversions to the Russian River at Cape Horn Dam occur year-round but are typically a smaller proportion of the available (unimpaired) Eel River flow during the late fall, winter, and early spring. During summer, dam releases to the Eel River are often stable and higher magnitude than unimpaired flows. The colder and more stable

water can disrupt the food web downstream.[23] While water availability is important year-round, the most sensitive time for the Eel River ecosystem is during the spring recession (March through June) when juvenile Chinook salmon and steelhead are rearing and preparing for outmigration.

While spring flows in the Eel River will be reduced after the removal of Scott Dam, the increased duration of the spring recession and natural pattern of water temperatures after dam removal facilitates the outmigration of salmonids. The difference in spring recession rates between current conditions impaired by PVP reservoirs and modeled unimpaired conditions is most significant during dry years.[23] (Figure 5). In river reaches below Scott Dam, colder water can delay outmigration for juvenile salmonids, and the corresponding later outmigration may cause a higher mortality risk from non-native predators.[23] Similar hydrological changes persist downstream of Cape Horn Dam but can be dampened by tributary accretion (Figure 6).

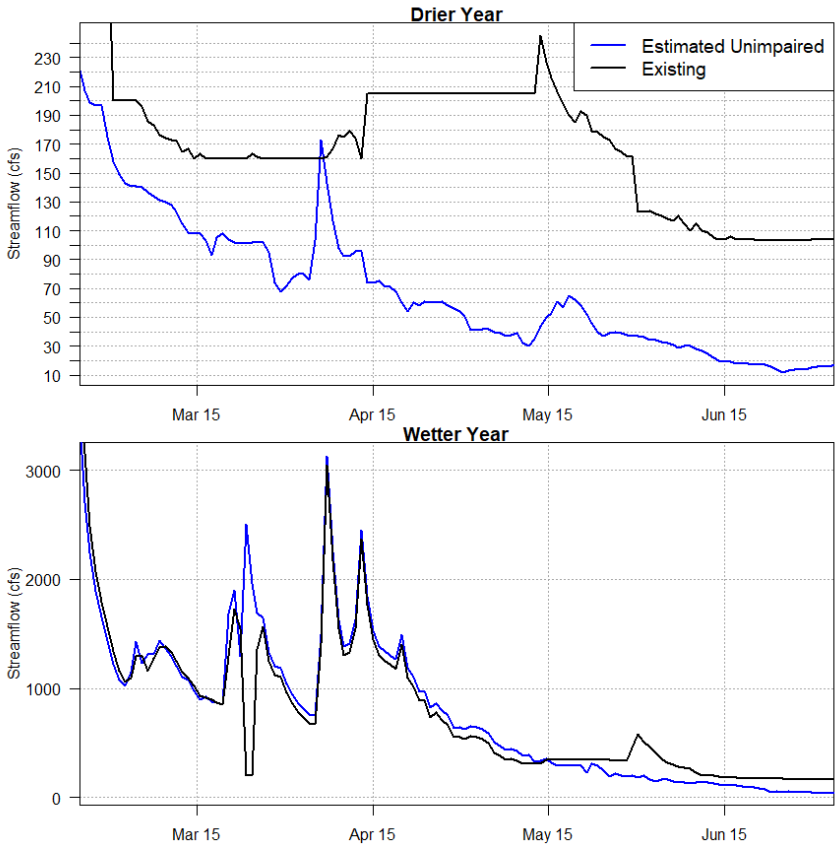


Figure 5. Spring recession hydrographs comparing modeled existing and modeled unimpaired flows for between Scott Dam and Cape Horn Dam for an example drier year (2015) and wetter year (2017).

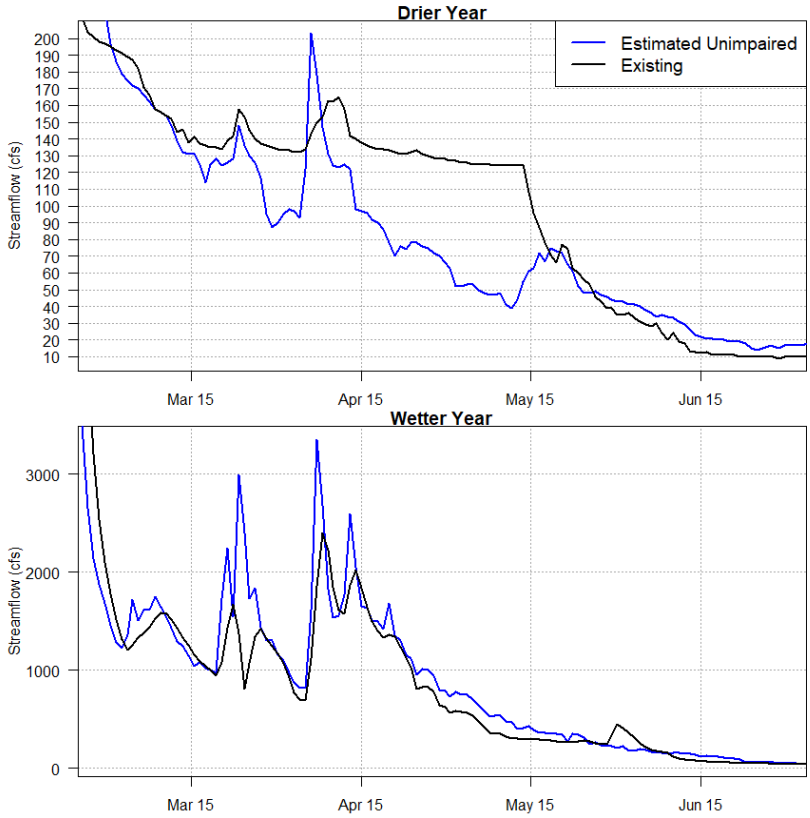


Figure 6: Spring recession hydrographs comparing modeled existing and modeled unimpaired flows for below Cape Horn Dam using the same example drier (2015) and wetter water (2017) year used in Figure 5.

At 3,970 square miles, the Eel River watershed is the third largest watershed in California, with a total average annual discharge volume of roughly 5 million acre-feet. Due to its climate and geography, the Eel River is a dynamic river system with flashy storm hydrographs and large inter-seasonal variability. From 1910–2022, the USGS Scotia gage (11477000) near the outlet recorded average wet and dry season flows of roughly 17,500 cfs (Jan–Mar), and 200 cfs (Jul–Sep), respectively. Other than the roughly 10% of the Eel River watershed that is impaired by Scott Dam and Cape Horn Dam, most of the Eel River flows are unimpaired and available for aquatic ecosystem benefits, including for threatened and endangered species. The watershed is remote and rugged, and there is relatively little water demand by communities and agriculture compared to other California rivers.

The Russian River system is a smaller watershed, encompassing 1,435 square miles and averaging total discharge volume of 1.5 million acre-feet annually. Like the Eel River, the Russian River is also a highly dynamic river system. However, it is also a highly managed system with two water supply and flood control reservoirs that capture runoff from about 18% of the watershed. Operation of the reservoirs must balance water supply and flood control for communities and agriculture, while maintaining minimum instream flow requirements to

support aquatic ecosystems, including threatened and endangered anadromous fish species. Since the construction of Coyote Valley Dam and Lake Mendocino in 1958, the average Russian River flows at the USGS Hacienda gage (11467000) near the outlet vary between roughly 5,700 and 160 cfs during the wet (Jan–Mar) and dry (Jul–Sep) seasons, respectively.

PVP inflows have augmented the water available for aquatic ecosystems and anadromous fish species in the Russian River for over a century. The PVP has historically transferred about 150,000 acre-feet from the Eel River to the Russian River, annually, prior to 2006, and about 60,000 acre-feet, annually, since 2006. Average Lake Mendocino inflows, as measured by the USGS Calpella gage (11461500) on the East fork of the Russian River, are 210,000 acre-ft annually (1941–present), meaning that prior to 2006 the PVP comprised more than half of the total inflows to Lake Mendocino, on average, and about 10% of the average total Russian River outflows.

How the Proposed Project will Address Water Availability of Aquatic Ecosystems

PG&E's decision to not relicense PVP presents several potential outcomes for Scott Dam and Cape Horn Dam, each of which will impact water availability for aquatic ecosystems. One outcome could result in complete decommissioning of the PVP, which could cease transfers of water to the Russian River entirely and would have significant impacts on water availability for aquatic ecosystems in the Russian River. Alternatively, an as-yet-unknown regional entity could take over operation and maintenance of some or all components of the PVP to maintain transfers to the Russian River. The removal of Scott Dam and reconnection of historical upstream anadromous fish habitat is a potential outcome under either scenario. The proposed project assumes the potential for Scott Dam removal and would operate under a run-of-the-river framework in which transfers occur only when Eel River flows are above some minimum threshold and would likely cease during some portion of the dry season. Successful implementation of the proposed project will have the dual benefits of improving fish passage at the Van Arsdale diversion facilities to foster habitat reestablishment above Scott Dam on the Eel River, while also improving the reliability of PVP transfers during the wet season to support environmental flows in the Russian River.

Removing Scott Dam will result in fall, winter, and spring pulse flows no longer being attenuated by Lake Pillsbury. These pulse flows can be important for both adult and juvenile migration, and for maintaining productive invertebrate and primary production habitats.[23] The diversion schedule (while yet to be determined) is likely to rely on seasonal diversions that occur during the wetter seasons (winter/early spring) when the proportion of diversion to unimpaired flow is small and least impactful to the downstream ecosystem.

The modeling studies developed for the Two-Basin Partnership provide a basis to quantify impacts of various PVP scenarios, including a scenario analogous to the proposed project. As described in Section A1, these studies simulated a 107-year record (1911–2017) of historical hydrology of the Russian River and Upper Eel River basins to evaluate several PVP scenarios, including a *current operations scenario*, a *run-of-the-river scenario* with seasonal PVP diversions

but Scott Dam removed, and *a no PVP scenario* that assumes no transfers of water from the Eel to the Russian River and also assumes that Scott Dam is removed.

Results from the modeling studies (Table 1) show that under the *run-of-the-river* and *no PVP* scenarios in which Scott Dam is removed and natural flow conditions resume, dry-season Eel River flows would be reduced, likely resembling pre-dam, dry-season flow conditions. Results show that under the *run-of-the-river* scenario, inflows to Lake Mendocino and on the mainstem Russian River are somewhat reduced, while the reliability of Lake Mendocino is maintained. However, under the *no PVP* scenario, reliability of Lake Mendocino, and the ability to release cold water for Fall run Chinook salmon, is significantly reduced. Without dry-season cold water releases from Lake Mendocino, flow on the Upper Russian River would be expected to fall below 10 cfs in late summer through October during dry years and would result in warm water conditions, both of which are harmful to rearing steelhead and migrating fall Chinook salmon.

Evaluation Metric	***Current Operations[52]***	***Run of the River[53]***	***No PVP[54]***
June–Sept flows below Scott Dam on Eel River	150 cfs	51 cfs	51 cfs
Average June–Sept flows on mainstem Russian River[55]	150 cfs	130 cfs	10 cfs
Number of years (out of 107 years modeled) Lake Mendocino conservation pool is depleted	1	1	53
Minimum Average Annual Inflow to Lake Mendocino[56]	21,100 AF	12,500 AF	4300 AF

Table 1: Two-Basin Partnership model scenario outputs

Other Quantifiable Benefits

As illustrated in previous sections, inflows from the PVP have augmented the water balance of the Russian River for over 100 years and are critical for maintaining water supply reliability of Lake Mendocino and the 650,000 people that rely, wholly or in part, on the Russian River for water supply. Modeling studies completed by the Two-Basin Partnership (Table 1) have estimated that with current water demands, minimum instream flow requirements, and reservoir operations, the removal of the PVP could hinder the ability of Lake Mendocino to make year-round releases into the Upper Russian River in nearly half of all years. The implications of this vulnerability are outlined in more detail in Section A1.

How the Proposed Project will Address Other Critical Issues of Concern

In addition to improving fish passage on the Eel River, the proposed project will improve the reliability of the PVP to transfer water to the Russian River during the wet season, maintaining the critical linkage to the Russian River. As shown in Table 1, modeling simulations from the Two-Basin Partnership show that a run-of-the-river scenario would be sufficient to maintain the

reliability of Lake Mendocino and its ability to make year-round releases of water that 650,000 residents of Mendocino, Sonoma, and Marin counties rely on. Section A1 outlines in more detail how the proposed project will maintain water supply reliability for the region.

Section B1: Restoration Planning

Prior Planning Efforts Related to the Project

Specific Planning, Strategy, Study, and Design Plans Supporting the Proposed Project

As described in the Introduction, until early 2019 PG&E was moving ahead with relicensing the existing PVP, substantially unchanged. From early 2019 when PG&E discontinued relicensing, an entirely new configuration for the PVP had to be considered. Concepts around improved fish passage, potential dam removal, potential abandonment of generation (e.g., water supply only) would all need to be evaluated.

A multidisciplinary team of engineers and biologists from professional consulting firms, Sonoma Water, NMFS, the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, the Mendocino County Inland Water and Power Commission, Round Valley Indian Tribes, and California Trout evaluated potential fish passage improvements at Cape Horn Dam.[57, 58, 39] The Team prepared a list of over 14 upstream fish passage alternatives, seven downstream fish passage alternatives, and three screening and three diversion alternatives for the Van Arsdale Diversion facility. Each alternative was described at a high level and then subjected to a screening evaluation process that considered the advantages and disadvantages of each, qualitative capital and operations and maintenance costs, and then assigned an "advance" or "do not advance" recommendation with a justification. Through the initial screening, four alternatives were selected to be advanced further. Those alternatives are:

Alternative 1 – New Fish Ladder: This alternative would include a new fish ladder at Cape Horn Dam for upstream fish passage on the left bank, a spillway gate and a new ogee weir section to control pool elevation in Van Arsdale reservoir, pass downstream migrants, and manage sediment. The reservoir pool elevation would be maintained to ensure diversion flow capacity is maintained.

Alternative 2 – Control Section with Pump Station: This alternative would include partial removal of the concrete gravity portion of Cape Horn Dam and construction of a new pump station near the dam to divert and convey water upstream to the Van Arsdale tunnel network. The channel upstream of the dam and new pump station would be generally unconstrained and free to evolve as a natural channel solution to fish passage.

Alternative 3 – Roughened Channel with Gravity Supply: This alternative would include complete removal of the concrete gravity portion of Cape Horn Dam and construction of a roughened channel and new diversion weir near the intake to the Van Arsdale Diversion facility.

Alternative 4 – Upstream Diversion with Gravity Supply: This alternative would include removal of Cape Horn Dam in its entirety and construction of a small check structure roughly 2,000 feet upstream of the dam and a new conveyance system upstream of the Van Arsdale Diversion to convey flow to the tunnel network.

Scope of Prior Planning Effort Supporting the Proposed Project

In May of 2022, Sonoma Water executed a grant agreement for $2 million with the State of California Department of Water Resources (DWR) for funding for various work efforts related to analysis, planning, and design for a revised PVP configuration. Three of the alternatives outlined in the previous section (alternatives 1-3) are being designed to the 30% level using these funds. Each alternative is being evaluated for the feasibility and risks associated with obtaining and modifying critical diversion facilities that will need to be acquired to continue importing water from the Eel River into the Russian River watershed. This task will also develop robust feasibility designs and cost estimates for modifications to and operations of Cape Horn Dam and appurtenant diversion facilities to restore capacity to meet the design flow rate, improve fish passage, assess maintenance needed, and implement feasible upgrades to the system. The technical elements of the design process are being guided by tribes, local, state, and federal agencies, and non-governmental organizations that conducted the screening evaluation and developed the initial alternatives.

Collaborative Development of Prior Planning Effort

There has been considerable effort by various stakeholders to suggest and evaluate alternatives for modifications to the PVP, with the general goals of improving fisheries habitat and/or passage while preserving water supply reliability for the Russian River. As described previously, both Congressman Huffman's Ad Hoc Committee and the NOI Parties included stakeholders from both the Eel River and Russian River who sought a future PVP condition that both improves fish passage and habitat on the Eel River and minimizes or avoids adverse impacts to water supply reliability, fisheries, water quality, and recreation in the Russian River and Eel River basins.

The Ad Hoc Committee commissioned and completed analyses of various fish passage and water supply operations alternatives in order to inform stakeholders of potential physical and operational solutions for the PVP.[59] The NOI Parties undertook a more specific feasibility study of PVP facilities and operations, culminating with the 2020 Feasibility Study filed with FERC in May of 2020 [60, 61] along with an Alternatives Analysis and Project Plan,[62] Capital Improvements,[63] and Fisheries Response Technical Memorandums.[64]

In addition to the 30% design of three of the four PVP fish passage alternatives identified in the 2020 Feasibility Study, DWR grant funding is allocated for various work efforts related to further analysis, planning, and design for a revised PVP configuration. Key work tasks include:

1. Establishing a Russian River Water Forum to identify and collaborate with Russian River water users who benefit either directly or indirectly from imported water from the PVP and to assess support for water conservation and supply projects, and infrastructure changes to allow for the continued transfer of water, and
2. Identifying conservation opportunities, developing new operational strategies, and potentially constructing new storage or conjunctive-use facilities for water users in Potter Valley.

The DWR-funded studies are under way, and the Project Diversion Facilities Assessment will yield 30% designs for three potential Van Arsdale fish passage/diversion alternatives that are expected to meet the ecosystem and water reliability objectives of the Ad Hoc and NOI Parties.

Value and Continuity Added by this Proposal to Prior Planning Efforts

As described elsewhere, the stakeholder- and DWR-funded studies currently under way will complete three consolidated and refined versions of earlier feasibility-level concepts for a water diversion-only project, including enhanced fish passage alternatives and options for continued reliable water supply for the Russian River. Work funded by this grant opportunity is proposed to further advance and refine those concepts to a single stakeholder-selected alternative, develop the design for that alternative to 60%, and provide cost estimates that will allow planning for funding and implementation.

Section B2: Stakeholder Involvement and Support

Stakeholder Sectors and Engagement

As described in the Executive Summary, the proposed project is one component of the larger re-envisioning of the PVP. Stakeholder involvement to date can be described in three phases:

Phase 1 (2017-2022)
Initial stakeholder engagement through the PVP Ad Hoc Committee convened by Congressman Jared Huffman to complement the formal FERC relicensing process and to consider a broad range of scenarios for the future of PVP. PG&E, Sonoma County Water Agency, and California Trout contracted with the Consensus Building Institute to provide impartial facilitation of the Ad Hoc Committee, which served as a venue for regional water planning alongside consideration of salmonid population recovery. See the Introduction for a description of co-equal goals and objectives.

Ad Hoc stakeholders can be categorized into four general categories as follows.

- Federal and Tribal stakeholders: Congressman Jared Huffman's Office, Round Valley Indian Tribes, Coyote Valley Band of Pomo Indians, Bear River Rancheria, Wiyot Tribe, Dry Creek Rancheria

- Resource agencies: U.S. Fish and Wildlife Service, National Marine Fisheries Service, U.S. Forest Service, North Coast Regional Water Quality Control Board, California Department of Fish and Wildlife, State Water Resources Control Board
- Water suppliers, local governments and utilities: Potter Valley Irrigation District, Inland Water and Power Commission, Sonoma Water, City of Ukiah, Sonoma County, Mendocino County, Humboldt County, Lake County, Pacific Gas and Electric Company
- Non-governmental organizations: California Trout, Russian Riverkeeper, Friends of the Eel River, The Nature Conservancy, Trout Unlimited, Pacific Coast Federation of Fishermen's Association

Through the Ad Hoc Committee, a California Department of Fish and Wildlife grant to California Trout resulted in feasibility studies in which four fish passage alternatives were developed.

Phase 2 (2019-Present)
Ongoing engagement through the Two-Basin Partnership or NOI Parties (described in the Introduction), which included California Trout; Humboldt County; Inland Water and Power Commission of Mendocino County, or IWPC; Round Valley Indian Tribes, or RVIT; and Sonoma Water. The NOI Parties undertook investigating continuing licensing of the PVP, which included seeking funding for additional studies as well as a more specific feasibility study of PVP facilities and operations, culminating with the 2020 Feasibility Study filed with FERC in May of 2020 along with a Fisheries Response Technical Memorandum.

Phase 3 (2023-Present)
Stakeholder engagement through the Russian River Water Forum (RRWF), which was convened through funding from the California Department of Water Resources. The Water Forum will seek to identify water-supply resiliency solutions that respond to PG&E's planned decommissioning of the PVP while protecting Tribal interests and supporting the stewardship of fisheries, water quality, and recreation in the Russian River and Eel River basins.

The Water Forum convening body (called the Planning Group) includes more than 30 stakeholders representing Tribes, environmental and resource interests, water suppliers, local and regional governments, agriculture, and utilities. The Planning Group held its first meeting in May 2023 and working groups, including a Fisheries and Water Supply Working Group (Working Group), will focus on specific, technical issues will meet this summer. This Working Group will be apprised of, and regularly updated, on the status of the proposed project. This Working Group will also be a conduit to provide information about progress on the proposed project to the larger Planning Group.

Project Proposal
A Technical Advisory Group (TAG) will work together to review the three facilities and fish passage alternatives under development through the Assessment of Project Diversion Facilities (DWR grant funded project as described in the Introduction). Some of this work will be preaward work as described in the Budget Narrative. Under this proposed project, the TAG will work through a facilitated discussion, to consider efficacy, cost, risk, constructability,

operations, maintenance and other issues and select a single project to advance to 60% design. During the design phase of the proposed project, the TAG will convene to review the design and provide feedback.

The proposed project will take advantage of the existing Water Forum stakeholder process through regular updates provided to the Fisheries and Water Supply Working Group, the Planning Group and the Leadership Council.

Documentation of Stakeholder Commitment

Letters of support for the proposed project have been submitted by a broad group of stakeholders, including environmental interests, water suppliers, agricultural organizations, recreation interests, and local governments. See Attachment E for letters of support that were received for the proposed project.

Support Expressed by Stakeholders

As described in the Introduction, there has been extensive stakeholder support for improving fisheries habitat/passage. An initial analysis of various fish passage options was commissioned by Congressman Huffman's Ad Hoc Committee and more specific feasibility studies were conducted by the Two-Basin Solution Partners.

The California Department of Fish and Wildlife provided funding and feedback during the preparation of a technical memo that described potential fish passage approaches at the Cape Horn Dam site.[39] NOAA Fisheries regional office also provided feedback during the feasibility study phase. Fish passage experts from both agencies are expected to participate in the technical working group proposed by the project.

Ensuring Participation by a Diverse Array of Stakeholders

Since 2017, with the creation of Congressman Huffman's Ad Hoc Committee, a diverse array of stakeholders have been actively engaged in the broader PVP process. Moving forward, the proposed project includes a technical review process that will include experts who will be recommended by stakeholder organizations with expertise in fisheries issues and by resource agencies. In addition, broader outreach and engagement will be provided through the Water Forum – specifically the Fisheries and Water Supply Working Group. This Working Group is currently being formed and will include representatives from resource agencies, environmental organizations, Tribes, agriculture, and water suppliers. A representative from the proposed project team and TAG will update the Working Group at meetings and provide detailed information at key project phases.

The Working Group will provide updates to the larger, stakeholder-based Planning Group at regular intervals. Planning Group meetings are held approximately every month, are open to

the public, and are advertised through known stakeholder groups and on the Water Forum website. The Water Forum will also provide regular progress updates for the public on its website and will include updates on the proposed project.

Opposition to the Proposed Project

While there is no known opposition to the project, it is likely that there will be conflicting interests with regard to the continued existence of Cape Horn Dam on the Eel River and continued water diversions to the Russian River. However, the vast majority of stakeholders (including those involved in the Ad Hoc Committee and the Two-Basin Solution Partnership) understand that there is a need for a solution that provides benefits to both river basins. Trusted messengers will be engaged to meet with potential opponents early in the proposed project, to ensure that they understand the value of improved fish passage and have an opportunity to share concerns.

Section C: Project Implementation and Readiness to Proceed with Study and Design

Implementation Plan for Proposed Project

Project-Specific Stakeholder Outreach During the Award Period

A key component of the proposed project is the work of the TAG, composed of fisheries and fish passage experts, who will review the three fish passage/diversion alternatives as they are developed to 30% design under the DWR grant. Through a facilitated process led by a consultant, the TAG will consider efficacy, cost, risk, constructability, operations, maintenance, and other issues to select one of the alternatives to be advanced to a 60% design. It is also anticipated that the TAG will be periodically updated and provide technical review during the 60% design process.

Plan to Carry Out Relevant Studies

The proposed "Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design Project" will select a single viable PVP alternative from the results of the DWR-funded Project Diversion Facilities Assessment. As noted above, one of the key components of the proposed project is a facilitated process that will evaluate the three alternatives developed under the DWR grant and recommend a single alternative to be advanced under the proposed project. The proposed project anticipates that some refinement of the alternatives, engineering support, and focused studies may be needed to better inform the TAG and selection of a preferred alternative. Advancing the preferred alternative from a preliminary engineering level of design to 60% design will require several relevant studies to refine and advance development of the engineering design.

The following are considered relevant studies and items that will be needed to refine and inform design of the preferred alternative as part of the proposed project:

1. Supplemental design and bathymetric surveys
2. Geotechnical investigations and report(s)
3. Non-destructive testing and condition assessment of diversion facilities
4. Phase 1 environmental site assessment
5. Supplemental utility research, potholing, and mapping
6. Sediment management and quality studies
7. Control of water and dewatering needs assessment
8. Construction sequencing options assessment
9. Operational and constructability assessment
10. Detailed hydrodynamic and sediment transport modeling

Geotechnical investigations will be needed to inform geologic and seismic hazards to be considered in design, address potential suitability of onsite materials for reuse, locate bedrock control, address any potential settlement considerations for infrastructure to be constructed, and provide recommendations for design. Nondestructive testing and condition assessment will help determine the remaining useful life of specific existing facilities and assess the extent of rehabilitation or modification of existing improvements to support the proposed project. Sediment management and quality studies will inform types and methods of dredging that may be required, develop earthwork volumes and strategies for reuse and/or offsite disposal, determine requirements that may be needed to handle any dredged materials, identify potential local borrow sites for materials to be incorporated into design elements, and develop strategies for overall sediment management during construction and immediately following construction. Construction sequencing options will be developed to determine the best sequencing options for earthwork removal, reuse, and disposal; constructability; species protection; and cost efficiency. Control of water and dewatering needs will be identified to inform constructability and construction sequencing. A review and assessment of the 60% design will be conducted to ensure the overall operational and constructability objectives of the projects are met. Lastly, refined land and bathymetric surveys, environmental site assessments, and supplemental utility research will help identify any further constraints that need to be considered in the proposed project.

Design Status of the Proposed Project and Activities Needed to Reach 60% Design

The DWR-funded study currently under way involves three basic work tasks: 1) data collection and analysis, 2) hydraulic and sediment transport modeling, and 3) alternatives analysis and preliminary engineering.

Data collection under the current effort is focused on collecting available data and information relevant to the project and conducting a data gap analysis to understand where limitations may exist. Topographic and bathymetric data are being collected to inform preliminary design of

alternatives, in addition to water level and flow data being collected to aid in calibration of hydraulic models. The hydraulic and sediment transport modeling efforts are focused on better understanding how the facilities under various alternatives will perform under future flow conditions and with both near-term potential releases of stored sediment in Lake Pillsbury and long-term reconnection of sediment supply in the upper Eel River watershed. The modeling task is critical to understanding the potential effects of these future flow and sediment conditions and future deposition patterns on project diversion infrastructure and water supply reliability resulting from Scott Dam removal under the various alternatives currently being developed. The alternatives analysis task under the current effort is focused on diversion facility modifications, the existing tunnel condition and improvements that may be needed, and the transitioning of the existing powerhouse to an energy dissipating and diversion flow control facility. Each alternative is being developed to a 30% preliminary engineering design level and will include civil and structural layouts and alignments, access and staging, sections, and key elevations and details. Key criteria are also being developed by which to assess alternatives including water supply reliability, engineering design complexity, constructability, environmental constraints, potential for ecological uplift, stakeholder/agency support, and capital and operation and maintenance costs. The preliminary engineering task will yield a short list of three potential Van Arsdale fish passage/diversion alternatives that are expected to meet the ecosystem and water reliability objectives of the Ad Hoc and NOI Parties.

The proposed project will utilize the TAG described in Section B2 to review the three alternatives as they are further developed and recommend a preferred alternative to advance to a 60% design. The TAG will be facilitated by a consultant who was hired through a competitive selection process as part of the proposed project. The selection of a preferred diversion alternative will consider which alternative best meets overall project objectives of providing improved fish passage conditions for safe, timely upstream and downstream fish migration in the Eel River while providing reliable diversion of sufficient quantity to meet water reliability objectives and environmental benefits in the Russian River. Following selection, the preferred alternative will be advanced to a 60% design.

The process of advancing the selected alternative to a 60% design will require several relevant studies noted above and incorporate key takeaways and conclusions reached from these studies. Additionally, the design process will incorporate input from the TAG. Anticipated deliverables include engineering plans, technical specifications, and cost estimates developed to a 60% level of completion.

Section D: Presidential and Department of the Interior Priorities

Climate Change

How the Proposed Project Addresses Climate Change and Increases Resiliency

Based on historical climate trends and future climate projections, the region where the proposed project is to take place is likely to experience increased temperatures, rising sea levels, extreme precipitation, and river flooding as well as increased frequency and severity of drought and wildfire due to the climate crisis. Sonoma Water worked with the United States Geological Survey (USGS) on a study to investigate how climate change affects water resources and habitats in the San Francisco Bay Area, specifically in the Russian River Valley and Santa Cruz Mountains.[65] The study predicted a warming trend over the 21st century with variations in the warming rate. Using a Basin Characterization Model, USGS predicted reduced early and late wet season runoff during the next century as well as higher variability in water supply due to higher variability in precipitation. As a result, according to Sonoma Water's Climate Adaptation Plan, water demand is likely to increase due to increased evapotranspiration and climatic water deficit during extended summers.[66] The outcomes of the USGS Scientific Investigations Report also informed climate change impacts to water supply and demands in Sonoma Water's adopted 2020 Urban Water Management Plan.

Over the past 20 years, the PVP annually provided an average 60,000 AF of water from the Eel River to the Russian River that sustained communities, businesses, and several ESA-listed salmonid species. Even with water from the PVP, the recent drought necessitated water rights curtailments throughout the Russian River. The removal and abandonment of the PVP's water diversion facilities could have catastrophic water supply impacts. Climate change is anticipated to result in deviations from historical precipitation regimes. The water provided through the PVP is critical for the region to maintain resiliency to climate change-fueled impacts to annual precipitation and allow needed time to implement further measures to help communities adapt to new climatic conditions. The proposed project will focus on a local solution for maintaining the flow of water from the PVP into the Russian River watershed while also emphasizing Russian River water supply resilience and fisheries in both river basins.

How the Proposed Project will Build Long-Term Resilience to Drought

Extreme drought conditions are predicted to occur with increasing frequency and intensity in the Russian River watershed as the climate changes. The adverse environmental, economic, health, welfare, and social impacts of drought pose an imminent threat of disaster and threaten to cause widespread potential harm to people, businesses, agriculture, property, communities, the environment, wildlife, and recreation across the region. The proposed project is a key component among a portfolio of conservation opportunities and operational strategies to improve drought resilience in the Russian River watershed.

Under the run-of-the-river diversions scenario, transfers from the PVP into the Russian River watershed and Lake Mendocino will be more variable and concentrated into a condensed timeframe. The proposed project would improve reliability by minimizing operational shutdowns and disruptions that would impact annual diversion volumes, especially during drought conditions.

Apart from the atmospheric river events of winter 2022-23, recent drought conditions resulted in historically low water storage levels in the region's two water supply reservoirs, Lake Mendocino and Lake Sonoma, threatening the water supply for over 650,000 people in Mendocino, Sonoma, and Marin counties.

The recent drought impacted many local fish and wildlife populations in Sonoma County that are dependent on aquatic habitats for all or a portion of their lifecycle. Threatened steelhead and endangered coho salmon require perennial streams with cool water for juvenile growth and survival. The drought increased water temperatures and caused drying of many fish-bearing creeks. The lower Russian River had the second lowest flow during spring 2021 since records began in the 1940s, resulting in relatively warm water during the period when steelhead and coho migrate to the ocean. Stream monitoring documented that a substantial number of coho salmon-bearing creeks had dried, indicating reproductive failure of juvenile coho in many tributaries critical to endangered coho populations in the Russian River watershed. The California Department of Fish and Wildlife, assisted by Sea Grant and Sonoma Water, were able to rescue coho before some creeks completely dried, but there was still substantial mortality directly attributable to drought conditions. Warm Springs Hatchery propagates steelhead and coho salmon and uses cold water released from Lake Sonoma to operate the facility. Historically low lake levels resulted in warm water conditions that threatened the survival of juvenile coho being reared at the hatchery requiring the emergency transport of 3,631 coho to the Casa Grande High School Fish Hatchery.

Most seasonal wetlands in the region did not fill completely in 2021 due to dry winter conditions. This disrupted the breeding and offspring survival of many amphibians. For example, the endangered California tiger salamander breeds in seasonal wetlands (vernal pools) in Sonoma County, many of which did not fill. During spring 2021 surveys of over 100 vernal pools, only four tiger salamander larvae were found, indicating near reproductive failure across the county.

The latest drought rivaled the 1924 drought and the 1976-77 drought as the drought of record. The area benefitting from the PVP experienced significantly reduced water supplies, with consequential adverse environmental, economic, health, welfare, and social impacts that posed an imminent threat of disaster and widespread potential harm to people, businesses, agriculture, property, communities, the environment, wildlife, and recreation throughout the region.

Urban communities located in the upper 40 miles of the Russian River rely almost exclusively on PVP imports and/or water stored in Lake Mendocino during the summer and fall of most years. These communities are particularly vulnerable to impacts from changes in PVP operations. According to modeling performed by the water supply technical working group, under Congressman Huffman's Ad Hoc Committee, with drought and the potential loss of the water diversion, it's predicted that there will be an insufficient supply of water during 8 of the next 10 years to support water needs along the Russian River. It's also projected that in 2 of those 8 years there will be a 30,000 acre-feet shortage of water in the Russian River, and Lake

Mendocino will essentially go dry. If the proposed project succeeds in preserving and improving the PVP's water diversion facilities, the benefits of this effort could be realized for a century or more.

Disadvantaged or Underserved Communities

How the Proposed Project Benefits Disadvantaged or Underserved Communities

The proposed project will enhance fish passage which is critical for ongoing diversions from the Eel River into the Russian River. As described in Section A1, the diversion supports Russian River flows that serve nine water systems on the Upper Russian River and that serve 55,000 people. The majority of these people live in disadvantaged communities including Redwood Valley, most of the city of Ukiah, Hopland, Cloverdale and the unincorporated areas between these communities.

PVP diversions are also critical for agricultural businesses in the Russian River basin. In Mendocino County (most which is designated as a disadvantaged community), agricultural businesses generate $743 million in business revenue and support more than 5,000 jobs annually.

People living in disadvantaged upper Russian River communities also rely heavily on Lake Mendocino for swimming, picnicking, boating, fishing and hiking. Without the proposed project and the ensuing diversion, as described in Section A1, model results indicate that in 53 years out of a 107-year period, the conservation pool at Lake Mendocino would drain at some point during the year. In addition, the Russian River itself provides nature and recreation benefits to disadvantaged communities. Without dry-season cold water releases from Lake Mendocino, flow on the Upper Russian River would be expected to fall below 10 cfs in late summer through October during dry years, effectively eliminating most recreational opportunities.

In the Eel River basin, the proposed project will benefit the Round Valley Indian Tribes, by providing enhanced passage and survival for Chinook salmon, steelhead and lamprey -- all species of significance for the Tribe. The Tribe is considered a disadvantaged community.

See Attachment C, Community Maps, for Disadvantaged Communities and Tribal Communities in the vicinity of the proposed project.

Tribal Benefits

How the Proposed Project Benefits a Tribe, Supports Tribally-led Conservation and Restoration Priorities, and Benefits Indigenous Traditional Knowledge and Practices

Historically, tribal communities relied heavily on the Eel River fishery resources for subsistence and were integral to their beliefs of being interconnected with nature and seasonal patterns.

The Cape Horn Dam fish passage project provides an opportunity to balance water supply reliability, cultural values, economics, fisheries, and ecological health of the Eel and Russian rivers. The recovery of anadromous fish populations in the Eel River, while maintaining Russian River water supply reliability, would provide tremendous cultural, social, and ceremonial value (both tangible and intangible) for tribal and non-tribal communities.[23]

The Eel River is the ancestral home of numerous Tribes, including the Cahto, Pomo, Lassik, Nongatl, Sinkyone, Wilaki, Wiyot, and Yuki peoples. Tribes forcibly moved to the area in the early 20th-century also continue to reside in the Eel River community, holding federal water rights and advocating for its stewardship. The river was historically one of the most productive salmon habitats in the continental United States;[67] further, its indigenous lamprey and aquatic invertebrates are essential to the traditional gift economy and ceremonial regalia of local Tribes. Due not only to at-risk fish and wildlife but also to the Eel River's role in "tribal and cultural sustenance," the national non-profit American Rivers listed the Eel River as #6 on its list of the 10 most endangered rivers in America in 2023. Round Valley Indian Tribes Tribal Council President Randall Britton stated in April 2023, "We have a sacred duty to restore the Eel River, which has provided food, culture, and a way of life since time immemorial."[68]

Tribes along the Eel River today are considered disadvantaged communities; fishing in the river provides a vital source of sustenance and economic benefit. In 1873, Congress used the natural flows of the Eel River to expand the Round Valley Reservation's northern, eastern, and western boundaries, thus establishing "the privilege of fishing in said streams" as reserved for the Tribes.[69]

The Round Valley Indian Tribes and others were key partners in Congressman Jared Huffman's Ad Hoc Committee, funded by a grant from the State of California Natural Resources Agency from its inception in 2019 through the grant's expiration in December 2022. In the effort to design a Two-Basin solution in light of PG&E's decommissioning of the PVP, a goal of the committee was to "respect tribal rights and their traditional connections to aquatic life, water, and cultural resources in both basins."[70]

The current Russian River Water Forum, which is funded by a grant from the California Department of Water Resources, includes advocates from numerous Tribes. Tribes who have received briefings or participated in the Water Forum include the Federated Indians of Graton Rancheria, Dry Creek Rancheria Band of Pomo Indians, Lytton Rancheria of California, Cloverdale Rancheria of Pomo Indians, Kashia Band of Pomo Indians, Pinoleville Pomo Nation, Guidiville Indian Rancheria, Coyote Valley Band of Pomo Indians, Hopland Band of Pomo Indians, Redwood Valley Little River Band of Pomo Indians, Potter Valley Tribe, Round Valley Indian Tribes, Yokayo Tribe of Indians, and Ya-Ka-Ama.

Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Attachment A: Status of Species to Benefit from the Proposed Project

ESU	Listing Status	Basin	Citation
California Coastal Chinook salmon	Threatened 1999 (64 FR 50394)	Eel River, Russian River	**Title**: Coastal Multispecies Plan California Coastal Chinook Salmon. Volume 2 **Corporate Author(s):** United States, National Marine Fisheries Service; United States, National Marine Fisheries Service., West Coast Region **Published Date:** 2016 **URL**: https://www.fisheries.noaa.gov/resource/document/final-coastal-multispecies-recovery-plan-california-coastal-chinook-salmon
CCC Steelhead	Threatened 2000 (65 FR 36074)	Russian River	**Title**: Coastal Multispecies Plan Central California Coast Steelhead. Volume 4 **Corporate Author(s)**: United States, National Marine Fisheries Service; United States, National Marine Fisheries Service., West Coast Region **Published Date**: 2016 UBRL: https://www.fisheries.noaa.gov/resource/document/final-coastal-multispecies-recovery-plan-california-coastal-chinook-salmon
CCC Coho	Endangered 1996 (61 FR 56138); 2005(70 FR 37159)	Russian River	**Title**: Recovery plan for the evolutionarily significant unit of Central California Coast coho salmon. Volume 1 **Corporate Author(s)**: United States, National Marine Fisheries Service; United States, National Marine Fisheries Service., Southwest Region **Published Date**: 2012 **URL**: https://repository.library.noaa.gov/view/noaa/15987
NC steelhead	Threatened 2000 (65 FR 36074)	Eel River	**Title**: Coastal Multispecies Plan Northern California Steelhead. Volume 3 **Corporate Author(s):** United States, National Marine Fisheries Service; United States, National Marine Fisheries Service., West Coast Region **Published Date:** 2016 **URL**: https://www.fisheries.noaa.gov/resource/document/final-coastal-multispecies-recovery-plan-california-coastal-chinook-salmon
SONCC coho salmon	Threatened 1997 (62 FR 24588)	Eel River	**Title**: 2016 5-Year Review : Summary & Evaluation of Southern Oregon/Northern California Coast Coho Salmon

	2005(70 FR 37160)		**Corporate Author(s):** United States, National Marine Fisheries Service; United States, National Marine Fisheries Service., West Coast Region Arcata, California **Published Date:** 2016 **URL**: https://repository.library.noaa.gov/view/noaa/17026
Summer Steelhead	CESA Endangered	Eel River	**Title**: California Fish and Game Commission NOTICE OF FINDINGS Northern California Summer Steelhead (Oncorhynchus mykiss) **Publish Date:** 2021 **URL**: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=198910&inline
Pacific Lamprey	CA State Species of Special Concern USFWS Species of Concern	Eel River, Russian River	**Title**: Pacific Lamprey **Publish Date:** 2019 **URL**: https://wildlife.ca.gov/Conservation/Fishes/Pacific-Lamprey

Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Attachment E: Letters of Support

- Congressman Huffman
- Congressman Thompson
- NOAA's National Marine Fisheries Service (NMFS)
- County Humboldt
- Mendocino County Russian River Flood Control & Water Conservation Improvement District
- Mendocino County Farm Bureau
- County of Mendocino
- Mendocino County Inland Water and Power Commission
- County of Marin Agricultural Commissioner
- Marin Municipal Water District
- Valley of the Moon Water District
- County of Sonoma
- Sonoma County Regional Parks
- Sonoma County Farm Bureau
- Sonoma Resource Conservation District
- Santa Rosa Plain Groundwater Sustainability Agency
- Ukiah Valley Basin Groundwater Sustainability Agency
- City of Cloverdale
- City of Healdsburg
- City of Petaluma
- City of Santa Rosa
- Town of Windsor
- Jackson Family Wines
- Russian River Property Owners Association

JARED HUFFMAN
2ND DISTRICT, CALIFORNIA

COMMITTEE ON
NATURAL RESOURCES
WATER, POWER, AND OCEANS – RANKING MEMBER
FEDERAL LANDS

COMMITTEE ON TRANSPORTATION
AND INFRASTRUCTURE
HIGHWAYS AND TRANSIT
WATER RESOURCES AND ENVIRONMENT

Congress of the United States
House of Representatives
Washington, DC 20515–0502

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PHONE: (202) 225-5161
FAX: (202) 225-5163

WEBSITE: huffman.house.gov

May 31, 2023

Avra Morgan
U.S. Bureau Of Reclamation
Water Resources and Planning Office
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

Dear Ms. Morgan:

I am writing in support of the Sonoma County Water Agency's (Sonoma Water) application to BOR's Ecosystem Restoration Grant Program for its Eel River at Cape Horn Dam Fish Passage Improvement Project. This effort will build on state-funded studies that examine alternatives for improving fish passage for federally protected salmonids on the Eel River while maintaining the ability to divert water from the Eel River to the Russian River. These preliminary studies have identified three alternatives involving the removal or substantial modification of Cape Horn Dam. The current application proposes to use BOR Ecosystem Restoration Grant funding to facilitate selection of a single alternative and to advance design work on that project to the 60% level.

The Potter Valley Project owned by Pacific Gas and Electric Co. (PG&E) is in the process of being decommissioned through the Federal Energy Regulatory Commission process. PG&E intends to remove the hydropower project's two dams, Scott, and Cape Horn, which block or restrict fish passage to hundreds of miles of habitat upstream. Cape Horn Dam, however, currently serves an important water supply function by directing water into a diversion tunnel that is part of PG&E's hydropower system and ultimately into the east branch of the Russian River, where it has helped meet water supply needs in Mendocino, Sonoma, and Marin County for many decades.

In 2017, as the FERC process regarding the Potter Valley Project was getting underway, I convened an ad hoc group of key stakeholders from both the Eel and Russian River basins to explore what came to be known as the Two-Basin Solution: reestablishing volitional fish passage on the Eel River while maintaining vital water supply diversions for the Russian River basin. Working together with representatives from tribes, local governments, and state and federal agencies, the ad hoc group undertook technical studies, held numerous facilitated meetings, and developed conceptual alternatives to meet the co-equal goals of restoring volitional fish passage while maintaining essential water diversions. By developing principles, technical information, and stakeholder consensus for a Two- Basin Solution, the ad hoc group established the foundation on which Sonoma Water and its technical advisory partners are seeking to build with the current grant application.

SAN RAFAEL
999 FIFTH AVENUE, SUITE 290
SAN RAFAEL, CA 94901
PHONE: (415) 258-9657
FAX: (415) 258-9913

PETALUMA
206 G STREET, #3
PETALUMA, CA 94952
PHONE: (707) 981-8967
FAX: (415) 258-9913

UKIAH
559 LOW GAP ROAD
UKIAH, CA 95482
PHONE & FAX: (707) 671-7449

FORT BRAGG
430 NORTH FRANKLIN STREET
P.O. BOX 2208
FORT BRAGG, CA 95437
PHONE: (707) 962-0933
FAX: (707) 962-0905

EUREKA
317 THIRD STREET, SUITE 1
EUREKA, CA 95501
PHONE: (707) 407-3585
FAX: (707) 407-3559

When I proposed and spearheaded through Congress the establishment of BOR's Ecosystem Restoration Program, I viewed the Two-Basin Solution as the model for the kind of collaboratively developed, multi-benefit restoration project that this program should support. I am pleased that Sonoma Water's grant application would identify and analyze at the 60% design level a single project for removing or substantially removing Cape Horn Dam in conjunction with a run-of-the-river diversion. It is my expectation that the project selected and analyzed under this grant would be fully protective of salmonids in the Eel River, and supported by both Eel and Russian river interests, tribes, and state and federal agencies. Completing the design work for this project and advancing it to the construction phase would be a major step toward achieving the far-reaching benefits of the Two-Basin Solution, especially if this work is expedited to better align with PG&E's decommissioning process.

For all of these reasons, I urge you to give Sonoma Water's Eel River and Cape Horn Dam Improvement Project your full and fair consideration, and hopefully your enthusiastic support. If you have any questions or if my office can be of any further assistance, please do not hesitate to call my Senior District Representative John Driscoll at (707) 407-3585.

Sincerely,

JARED HUFFMAN
Member of Congress

MIKE THOMPSON
4TH DISTRICT, CALIFORNIA

COMMITTEE ON WAYS AND MEANS
SUBCOMMITTEE ON TAX POLICY
RANKING MEMBER
SUBCOMMITTEE ON HEALTH

CONGRESS OF THE UNITED STATES
HOUSE OF REPRESENTATIVES
WASHINGTON, DC 20515

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(202) 225-3311
WEB: http://mikethompson.house.gov

Tuesday May 23, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

Re: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee:

I am writing to request full and fair consideration of the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

The 110-mile Russian River is the backbone of Sonoma and Mendocino county's fisheries, agricultural economy and a source of water supply for more than 650,000 people. The river provides a place for people to cool down on hot days, swim, canoe, kayak and float. As we adapt to a changing climate – which will include more frequent droughts and higher temperatures – our region must maintain our diverse water portfolio, including diversions from the Eel River to the Russian River Watershed via the Potter Valley Project.

The Pacific Gas & Electric Company notified the Federal Energy Regulatory Commission with its intent to decommission Cape Horn Dam. I believe that the Potter Valley Project diversions should continue, as well as a complete restoration of the headwaters of Lake County, in a form that addresses both the needs of the people of Lake County and the salmonids in the Eel River and which recognizes the importance of diversions to the health, economy and environment of the wider region.

The proposed Project will ensure that stakeholders have a voice in determining which of the three Cape Horn fish passage designs is further developed, will provide for review by technical experts and will advance the fish passage design from 30 percent to 60 percent. This facilitated work is critical in helping farmers in our region that face the damaging effects of a changing climate.

For these reasons, I request full and fair consideration of the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding for this important project. Please feel free to contact me if you have any questions at (202)225-3311.

Sincerely,

Mike Thompson

MIKE THOMPSON
Member of Congress

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
777 Sonoma Avenue, Room 325
Santa Rosa, California 95404-4731

May 26, 2023 **In response, refer to:** WCRO-2023-00596

Bureau of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, Colorado 80225-0007

Re: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design Proposal from Sonoma County Water Agency

Dear Ecosystem Restoration Grant Program Review Committee:

NOAA's National Marine Fisheries Service (NMFS) hereby provides our support for the subject application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design Proposal (Proposal).

The Eel River watershed supports Northern California steelhead (*Oncorhynchus mykiss*), Southern Oregon Northern California Coast coho salmon (*O. kisutch*), and California Coastal Chinook salmon (*O. tshawytscha*), all of which are protected as threatened under the Federal Endangered Species Act (ESA). Scott Dam completely blocks fish passage to hundreds of miles of high-value aquatic habitat, while the current Cape Horn Dam Fish Passage Facility is non-compliant with current fish passage standards. Complete removal of both Scott and Cape Horn Dams would likely substantially improve the recovery potential of ESA-listed salmonids in the upper Eel River. We also recognize the historical significance of Eel River water diverted to the East Branch Russian River towards Lake Mendocino's water supply reliability, and the benefits cold water releases provide to ESA-listed salmonids in the upper Russian River.

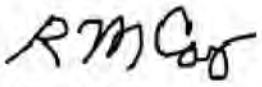
We understand that the current Potter Valley Project infrastructure configuration and associated operations are no longer viable and that Pacific Gas and Electric intends to apply to the Federal Energy Regulatory Commission to surrender the project's license and pursue its decommissioning. We also understand the specific request for our support is to further fund a facilities assessment. Sonoma Water (funded by the California Department of Water Resources) has already begun this assessment, which will advance one of three fish passage design concepts from 30% to 60%, all of which would include continued water diversions from the Eel River to the Russian River.

Going forward, we understand that stakeholders will have the opportunity to review the three proposed fish passage design concepts as they develop. At this point in the process, we do not support a particular design concept. We do, however, strongly support a thorough technical evaluation process that would identify a suite of feasible alternatives that would both achieve

volitional fish passage and avoid delays in migration to the upper Eel River watershed. Importantly, our support is contingent upon a process that involves the natural resource agency and tribal technical experts (*i.e.*, NMFS, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and the Round Valley Indian Tribes) in the development, review, and selection process prior to advancing a fish passage design concept from 30% to 60%. Finally, design considerations for fish passage and water diversion would also need to meet NMFS' fish passage and diversion/screening guidelines: https://www.fisheries.noaa.gov/west-coast/habitat-conservation/west-coast-fish-passage-guidelines.

Thank you for considering our input. Please direct questions regarding our support for this Proposal t to Joshua Fuller via email Joshua.Fuller@noaa.gov or by phone at 707-575-6096.

Sincerely,



Robert Coey
North Coast Branch Chief
North-Central Coastal Office

DEPARTMENT OF PUBLIC WORKS
COUNTY OF HUMBOLDT
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Second & L St., Eureka
Fax 445-7409

Administration	445-7491	Natural Resources	445-7741
Business	445-7652	Natural Resource Planning	267-9542
Engineering	445-7377	Parks	445-7651
Facility Management	445-7621	Roads	445-7421

Clark Complex
Harris & H St., Eureka
Fax 445-7388

Land Use	445-7205

May 30, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

Subject: **Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design Ecosystem Restoration Grant Program**

Dear Review Committee:

The Eel River in Northern California flows through Humboldt County for nearly 81 miles before discharging into the Pacific Ocean. The residents and communities within Humboldt County depend on the Eel River for water supply, fishing, recreation, and many other uses. The ecosystem services and beneficial uses of the Eel River are a vital part of Humboldt County's core community values. Humboldt County is a principal party in the regional discussions regarding the future of PG&E's Potter Valley Project, which has diverted water from the Eel River to the Russian River since 1908. We support Congressman Huffman's Two-Basin Solution collaborative framework and the co-equal goals of addressing the needs and concerns of the Eel River and Russian River watersheds in determining the future of the Potter Valley Project.

PG&E is working steadily through the FERC process for license surrender and facility decommissioning of the Potter Valley Project. We expect PG&E to release an initial draft application in November 2023 that includes removal of Scott Dam and Cape Horn Dam and restoration of the project footprint.

Humboldt County can envision supporting a scenario in which PG&E removes Scott Dam and Cape Horn Dam and leaves portions of the Van Arsdale Diversion to provide seasonal water diversions to the Russian River watershed, provided that: (1) a diversion facility can be developed that allows a free-flowing river with no impact to fish passage or geomorphic conditions, and (2) efforts to maintain continued water diversions do not delay removal of Scott and Cape Horn Dams. The specific timing of water diversions would need to be carefully planned based on hydrologic conditions and water year type. For example, diversions could likely begin in November but would need to be curtailed by March under drier conditions and by late April or early May under wetter conditions.

In the last few years, Humboldt County collaborated with Sonoma County Water Agency, Round Valley Indian Tribes, Mendocino County Inland Water and Power Commission, and California Trout to develop several technical studies related to the Potter Valley Project, including a report analyzing options to address the fish passage problems at Cape Horn Dam.[1] This November 2021 McMillen Jacobs study determined that lowering Cape Horn Dam to establish a control section and installing a new pump station

[1] McMillen Jacobs Associates. 2021. Cape Horn Dam Fish Passage Improvements. Prepared for Two-Basin Solution Partners. Draft Technical Memorandum, November.

(Alternative 2) is technically feasible and would likely provide acceptable performance for biological efficiency and environmental considerations. Humboldt County can envision supporting this dam-removal alternative, pending further design efforts and consultation with permitting agencies. Humboldt County cannot envision supporting Alternative 1 which would involve leaving Cape Horn Dam in place and replacing the fish ladder. Based on the analyses conducted to date we believe there is substantial evidence to conclude that replacing the fish ladder alone is not a feasible solution and would clearly be unacceptable as a proposed action.

Humboldt County continues to believe that consideration of Russian River water users' interests is essential to achieving Congressman Huffman's Two-Basin Solution vision and we are actively participating in the recently convened Russian River Water Forum. Dam removal is urgently needed to protect and restore Eel River fisheries and alleviate the major adverse impacts from the Potter Valley Project on the Eel River. Humboldt County recognizes the urgency of Russian River water users developing a specific proposal to maintain the Van Arsdale Diversion as PG&E moves forward with license surrender and decommissioning of their hydroelectric project. Moving quickly to select Alternative 2 (control section and pump station) as the proposed action that would be advanced from 30% design to 60% design under the proposed grant from the Bureau of Reclamation's WaterSMART Aquatic Ecosystem Restoration is critical to success.

With the provisions stated herein, Humboldt County supports Sonoma Water's grant application for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design Project and we hope that the Bureau can expedite issuance of the grant to enable the work to be performed as soon as possible.

Sincerely,

Hank Seemann

Hank Seemann
Public Work Deputy-Director (Environmental Services)
hseemann@co.humboldt.ca.us

Mendocino County

Russian River Flood Control & Water Conservation Improvement District

304 N. State Street #2, Ukiah, CA 95482 707.462.5278 www.RRFC.net DistrictManager@rrfc.net

May 19, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

RE: Support for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee,

The Mendocino County Russian River Flood Control & Water Conservation Improvement District (District) fully supports the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

The Mendocino District is an Independent Special District that represents constituents along the Russian River corridor from Lake Mendocino to the County line. The District holds a surface water right for nearly 8,000 acre feet of water from the East Fork Russian River, supplied both from the Russian River watershed and water abandoned from the Potter Valley Project. Along with Sonoma Water Agency, the District has the right to store water in Lake Mendocino for later rediversion. Within the District are 12,500 acres of agricultural lands, and District customers include agriculture, commerce, and multiple water retailers serving the greater Ukiah Valley, Hopland, and Redwood Valley.

It is clear the trans-basin diversion from the Eel to the Russian River is destined for major change. The District sees itself as a vital member in the collaborative development of solutions to restore regional ecosystems while continuing to provide community water resources. The District relies heavily on its reservoir, Lake Mendocino, and is deeply concerned about the trans-basin diversion changes on the resiliency of the Russian River system.

The District appreciates and supports Sonoma Water's work to address the future through projects such as the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design project. The proposed Project will ensure that stakeholders have a voice in determining the critical transition from the current operations to a modified diversion design that will address regional concerns of ecosystem and community vitality in an uncertain future.

Thank you for considering funding this vital project and please contact the District with any questions.

Sincerely,

Elizabeth Salomone

General Manager

Mendocino County Farm Bureau

303-C Talmage Road • Ukiah, CA. 95482 • (707) 462-6664 • Fax (707) 462-6681 • Email: admin@mendofb.org

Affiliated with the California Farm Bureau and the American Farm Bureau Federation

May 19, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

RE: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee:

The Mendocino County Farm Bureau (MCFB) is a non-governmental, nonprofit, voluntary membership advocacy group whose purpose is to protect and promote agricultural interests throughout Mendocino County and to find solutions to the problems facing agricultural businesses in our rural community. MCFB has a vested interest in the future of the Potter Valley Project and the related water supply that sustains inland Mendocino County farmers and ranchers. Due to the unknowns related to the infrastructure of the Potter Valley Project and the need to sustain the water supply, MCFB is supporting the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

Agriculture along the Russian River within Mendocino County from Potter Valley to the county line has evolved because of the year-round water supply provided by the Potter Valley Project over the last 100+ years. Seasonal, dry farmed crops were able to be replaced by permanent crops and irrigated pasture which not only allowed agriculture to be more productive, but also more economically viable. This evolution did not only benefit farmers and ranchers, but also all the local communities that benefit from a strong agricultural economy.

Now that the current water supply from the Potter Valley Project has been threatened, it is critical that proactive and collaborative solutions are brought forward to sustain some form of water diversion into the future. MCFB believes that diversions can and should continue in a way that recognizes the needs of all beneficial uses including farms, fish and people.

As fish passage designs are considered for Cape Horn Dam and the Van Arsdale diversion, it is necessary that stakeholders, including agriculture, have a voice in determining which design is further developed. This Project will ensure that stakeholders have a voice in the process while also providing for review by technical experts to advance the fish passage design from 30 percent to 60 percent.

This facilitated work will be critical to providing water security for all water users in the region, including agriculture. Farmers and ranchers are used to adapting to change, but agriculture cannot exist without water!

For these reasons, MCFB supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design project. Your consideration of funding for this important project is appreciated. If MCFB can address any questions, please feel free to contact the MCFB office.

Sincerely,

George Hollister
President

COUNTY OF MENDOCINO
Executive Office

DARCIE ANTLE
CHIEF EXECUTIVE OFFICER
CLERK OF THE BOARD

501 Low Gap Rd. Room 1010
Ukiah, CA 95482

Email: ceo@mendocinocounty.org
Website: www.mendocinocounty.org

Office: (707) 463-4441
Fax: (707) 463-5649

May 17, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

SUBJECT: Eel River at Cape Horn Dam Fish Passage Improvement Planning & Design – PROJECT SUPPORT

Dear USBR Ecosystem Restoration Grant Program Review Committee:

The County of Mendocino supports the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

The 110-mile Russian River is the backbone of Mendocino County's fisheries, agricultural economy, and a source of water supply for more than thousands of people. The river provides a place for people to cool down on hot days, swim, canoe, kayak, and float. As we adapt to a changing climate – which will include more frequent droughts and higher temperatures – our region should maintain a diverse water portfolio, which historically includes diversions from the Eel River to the Russian River Watershed via the Potter Valley Project (PVP).

The PVP in its current configuration has viability issues: PG&E's recent decision to lower storage in Lake Pillsbury due to seismic concerns with Scott Dam is an indication of the project's infrastructure issues. However, we believe that diversions can and should continue in some form that is both protective of salmonids in the Eel River and Russian River watersheds and that recognizes the critical importance of the agriculture to the entire region.

The proposed Project will ensure that stakeholders have a voice in determining which of the three fish passage designs is further developed, will provide for review by technical experts and will advance the fish passage design from 30 percent to 60 percent. This facilitated work is critical in helping farmers in our region transition from the current PVP to a future, reduced diversion that will continue to provide water security as we face a changing climate.

For these reasons, the County of Mendocino supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding for this important project. Please feel free to contact me if you have any questions, at 707-463-4441.

Sincerely,

Darcie Antle

Darcie Antle
Chief Executive Officer
County of Mendocino

MENDOCINO COUNTY INLAND WATER & POWER COMMISSION
P.O. Box 1247, Ukiah CA 95482 ● mciwpc@mendoiwpc.com ● www.oursharedwater.com

May 11, 2023

Bureau of Reclamation
Water Resources and Planning Office
Attn: Ms. Avro Morgan
Mail Code:86-6300
P.O. Box 25007
Denver, Co 80225-0007

SUBJECT: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee,

The Mendocino County Inland Water and Power Commission (MCIWPC), a Joint Powers Authority whose member agencies include the Mendocino County Water Agency, City of Ukiah, Potter Valley Irrigation District, Redwood Valley County Water District and the Mendocino County Russian River Flood Control and Water Conservation Improvement District, wishes to strongly support the grant application submitted by Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

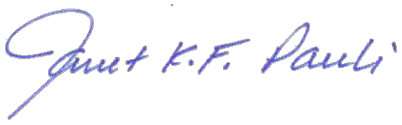
The member agencies of MCIWPC have been dependent upon water diverted from the Eel River via the Potter Valley Project (PVP) for domestic, municipal, industrial and agricultural beneficial uses for over 100 years. The community of Potter Valley, upstream of Lake Mendocino, is totally dependent upon the diverted water which supports a thriving agricultural economy. Our other member agencies are dependent upon the diverted water after it flows downstream and is stored in Lake Mendocino. The economy and quality of life of communities all along the Russian River corridor from Potter Valley south to the Mendocino County line are supported by the PVP water supply.

Pacific Gas and Electric Company (PG&E) owns and operates the PVP. In its current configuration the PVP is no longer viable. A facilities assessment, funded by the California Department of Water Resources (based on work prepared for the California Department of Fish and Wildlife), is currently underway by Sonoma Water. The assessment assumes significant modifications will need to be made to PVP infrastructure including the removal of Scott Dam and modification, or removal, of Cape Horn Dam. The assessment will include the initial development of three fish passage designs, with the goal of continuing water diversions while ensuring improved fish passage in the Eel River,

Because of the importance of this water supply to our region, and the threat of its reduction, it is necessary for stakeholders to have a voice in determining which of the three fish passage designs is further developed. The Project will provide review by technical experts to advance the chosen fish passage design from 30 percent to 60 percent.

MCIWPC believes that the Project is critical in helping affected communities in Mendocino County react to changes we are facing to the existing PVP. For this reason, MCIWPC strongly supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design.

Respectfully,



Janet K. F. Pauli, Chair

COUNTY OF MARIN

DEPARTMENT OF
AGRICULTURE, WEIGHTS AND MEASURES
Promoting and protecting agriculture, environmental quality, and ensuring equity in the marketplace.

Stefan P. Parnay
AGRICULTURAL COMMISSIONER
DIRECTOR OF WEIGHTS
AND MEASURES

1682 Novato Boulevard
Suite 150-A
Novato, CA 94947
415 473 6700 T
415 473 7543 F
CRS Dial 711
www.marincounty.org/ag

May 8, 2023

Bureau of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

SUBJECT: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee:

As Marin County's Agricultural Commissioner, Director of Weights and Measures, I am writing to express my support of the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

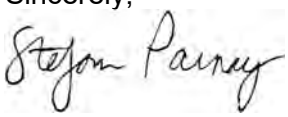
Marin County receives water diverted from the Eel River through the Potter Valley Project (PVP) and into Lake Mendocino in the Russian River watershed is a key component of meeting future climate challenges for water supply, fisheries and agriculture in Mendocino, Sonoma and Marin counties.

I understand that PVP in its current configuration is no longer viable: A facilities assessment currently underway by Sonoma Water (funded by the California Department of Water Resources and based on work prepared for the California Department of Fish and Wildlife) assumes significant modifications to PVP, including the removal of Scott Dam and the possible modification or removal of Cape Horn Dam. The assessment also includes the initial development of three fish passage designs, with the goal of continuing water diversions while ensuring improved fish passage in the Eel River.

The proposed Project will ensure that stakeholders have a voice in determining which of the three fish passage designs is further developed, will provide for review by technical experts and will advance the fish passage design from 30 percent to 60 percent. This facilitated work is critical in helping the water suppliers in our region transition from the current PVP to a future diversion design that will continue to provide water "insurance" as we face a changing climate.

For these reasons, I support the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding for this important project. Please feel free to contact me if you have any questions, at sparnay@marincounty.org or 415-473-6700.

Sincerely,



Stefan Parnay
Agricultural Commissioner
Director of Weights and Measures

MARIN WATER

May 22, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

SUBJECT: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee:

As General Manager of the Marin Municipal Water District (Marin Water), I am writing to express the Marin Water's support of the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

Marin Water delivers drinking water to more than 190,000 customers in Marin County and relies on water provided by Sonoma Water to help meet the needs of our community. Marin Water is currently participating in a forward-looking study of the resilience of the regional water system. While the study is still underway, we know that water diverted from the Eel River through the Potter Valley Project (PVP) and into Lake Mendocino in the Russian River watershed is a key component of meeting future climate challenges for water supply, fisheries and agriculture in Mendocino, Sonoma and Marin Counties.

That being said, Marin Water understands that PVP in its current configuration may no longer be viable. A facilities assessment currently underway by Sonoma Water (funded by the California Department of Water Resources and based on work prepared for the California Department of Fish and Wildlife) assumes significant modifications to PVP, including the removal of Scott Dam and the possible modification or removal of Cape Horn Dam. The assessment also includes the initial development of three fish passage designs, with the goal of continuing water diversions while ensuring improved fish passage in the Eel River.

The proposed Project will ensure that stakeholders have a voice in determining which of the three fish passage designs is further developed, will provide for review by technical experts and will advance the fish passage design from 30 percent to 60 percent complete. This facilitated work is critical in helping the water suppliers in our region transition from the current PVP to a future diversion design that will continue to provide water "insurance" as we face a changing climate.

For these reasons, Marin Water supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding for this important project. Please feel free to contact me if you have any questions, at bhorenstein@marinwater.org or 415-945-1460.

Sincerely,

Ben Horenstein
General Manager

cc: Grant Davis, General Manager, Sonoma Water grant.davis@scwa.ca.gov

VALLEY OF THE MOON WATER DISTRICT
A Public Agency Established in 1962
19039 Bay Street · P.O. Box 280
El Verano, CA 95433-0280
Phone: (707) 996-1037
Fax: (707) 996-7615

May 3, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

SUBJECT: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee:

Valley of the Moon Water District (District) is writing to express its support of the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

The Disrict delivers drinking water to more than 23,000 customers and relys primarily on surface water provided by Sonoma Water to meet the needs of our community (about 80%). The District is currently participating in a forward-looking study of the resilience of the regional water system. While the study is still underway, we know that water diverted from the Eel River through the Potter Valley Project (PVP) and into Lake Mendocino in the Russian River watershed is a key component of meeting future climate challenges for water supply, fisheries and agriculture in Mendocino, Sonoma and Marin counties.

That being said, we understand that PVP in its current configuration is no longer viable: A facilities assessment currently underway by Sonoma Water (funded by the California Department of Water Resources and based on work prepared for the California Department of Fish and Wildlife) assumes significant modifications to PVP, including the removal of Scott Dam and the possible modification or removal of Cape Horn Dam. The assessment also includes the initial development of three fish passage designs, with the goal of continuing water diversions while ensuring improved fish passage in the Eel River.

The proposed Project will ensure that stakeholders have a voice in determining which of the three fish passage designs is further developed, will provide for review by technical experts and will advance the fish passage

design from 30 percent to 60 percent. This facilitated work is critical in helping the water suppliers in our region transition from the current PVP to a future diversion design that will continue to provide water "insurance" as we face a changing climate.

For these reasons, the District supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding for this important project. Please feel free to contact our General Manager, Matt Fullner, by email at mfullner@vomwd.org or by phone at 707-996-1037.

Sincerely,

Jon Foreman
President of the Board

OFFICE OF THE COUNTY ADMINISTRATOR

COUNTY OF SONOMA

575 ADMINISTRATION DRIVE – ROOM 104A
SANTA ROSA, CALIFORNIA 95403-2888
TELEPHONE (707) 565-2431
FAX (707) 565-3778

M. CHRISTINA RIVERA
COUNTY ADMINISTRATOR

PETER BRULAND
DEPUTY COUNTY ADMINISTRATOR

BARBARA LEE
DEPUTY COUNTY ADMINISTRATOR

CHRISTEL QUERIJERO
DEPUTY COUNTY ADMINISTRATOR

PAUL GULLIXSON
COMMUNICATIONS MANAGER

May 11, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

SUBJECT: **Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design**

Dear USBR Ecosystem Restoration Grant Program Review Committee:

The County of Sonoma supports the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

The 110-mile Russian River is the backbone of Sonoma County's fisheries, agricultural economy and a source of water supply for more than 600,000 people. The river provides a place for people to cool down on hot days, swim, canoe, kayak and float. As we adapt to a changing climate – which will include more frequent droughts and higher temperatures – our region must maintain our diverse water portfolio, including diversions from the Eel River to the Russian River Watershed via the Potter Valley Project (PVP).

We acknowledge that the PVP in its current configuration is no longer viable: PG&E's recent decision to lower storage in Lake Pillsbury due to seismic concerns with Scott Dam is an indication of the project's infrastructure issues. However, we believe that diversions can and should continue in some form that is both protective of salmonids in the Eel River and Russian River watersheds and that recognizes the critical importance of the agriculture to the entire region.

The proposed Project will ensure that stakeholders have a voice in determining which of the three fish passage designs is further developed, will provide for review by technical experts and will advance the fish passage design from 30 percent to 60 percent. This facilitated work is

critical in helping farmers in our region transition from the current PVP to a future, reduced diversion that will continue to provide water security as we face a changing climate.
For these reasons, the County of Sonoma supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding for this important project.

Sincerely,

M. Christina Rivera
County Administrator

SONOMA
COUNTY
REGIONAL
PARKS

BERT WHITAKER
DIRECTOR

2300
County Center Drive
Suite 120A
Santa Rosa
CA 95403
Tel: 707 565-2041
Fax: 707 579-8247
sonomacountyparks.org

May 5, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

SUBJECT: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee:
As the Director of Sonoma County Regional Parks, I am writing to express my support of the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

The Russian River provides recreation opportunities to hundreds of thousands of people annually. People visit the river to swim, canoe, kayak, fish, and hike. The numerous river parks and public access points provide opportunities for individuals of all income levels to escape the heat of cities and to enjoy nature. Sonoma County Regional Parks is working to meet the ongoing high demand for summer recreation in the Russian River. We are also developing new facilities on the river to formalize existing high levels of public use while enhancing river health with ecological restorations, managed parking areas, restrooms, and other visitor services. The Russian River is a critical part of the local outdoor recreation economy.

As the climate changes and we face longer, more frequent droughts, water stored and released from Lake Mendocino has played an increasingly important role in river flows. For the same reasons, Lake Mendocino (especially during dry years) relies heavily on diversions from the Potter Valley Project (PVP) to maintain adequate storage to meet minimum stream flows in the Russian River. Without continued diversions, summer recreation opportunities on the Russian River will be extremely limited.

We understand that PVP in its current configuration is no longer viable: A facilities assessment currently underway by Sonoma Water (funded by the California Department of Water Resources and based on work prepared for the California Department of Fish and Wildlife) assumes significant modifications to PVP, including the removal of Scott Dam and the possible modification or removal of Cape Horn Dam. The assessment also includes the initial development of three fish passage designs, with the goal of continuing water diversions while ensuring improved fish passage in the Eel River.

The proposed Project will ensure that stakeholders have a voice in determining which of the three fish passage designs is further developed, will provide for review by technical experts and will advance the fish passage design from 30 percent to 60 percent. This facilitated work is critical in helping the water suppliers in our region transition from the current PVP to a future diversion design that will continue to provide water as we face a changing climate.

For these reasons, the Sonoma County Regional Parks supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding

for this important project. Please feel free to contact me if you have any questions, at bert.whitaker@sonoma-county.org .

Sincerely,

Bert Whitaker
Director

SONOMA COUNTY FARM BUREAU

Affiliated with California Farm Bureau and American Farm Bureau Federation

May 15, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

Re: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee:

As Executive Director of the Sonoma County Farm Bureau, I am writing to express my support of the application submitted by the Sonoma County Water Agency (Sonoma Water) to convene a facilitated stakeholder process and technical advisory committee for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

Sonoma County Farm Bureau, a general farm organization representing nearly 2,000 family farmers, ranchers, rural landowners, and agricultural businesses in Sonoma County, works to promote and protect policies that provide a prosperous local economy while preserving natural resources and a longstanding county agricultural heritage.

Agriculture is the backbone of the Sonoma County economy, producing more than $811 million in crops in 2021, and intrinsically linked to tourism, which generates about $2 billion for the local economy annually.
Sonoma County farmers and growers understand the importance of water conservation. Nearly 100 percent of the county's vineyards have been certified sustainable, which includes water-wise approaches to irrigation and frost protection. Our agricultural community takes pride in our careful and conscientious stewardship of the land and the Russian River watershed. But crops can't grow, and animals can't survive without some water, and as we adapt to a changing climate our region must maintain our diverse water portfolio, including diversions from the Eel River to the Russian River Watershed via the Potter Valley Project (PVP).
We believe that diversions can and should continue in some form that is both protective of salmonids in the Eel River and Russian River watersheds and that recognizes the critical importance of agriculture to the entire region.

It is imperative that stakeholders have a voice in determining potential fish passage designs that are reviewed by technical experts and will advance a thoughtful and all-considering fish passage design. Therefore, the Sonoma County Farm Bureau supports the Sonoma County Water Agency's desire to accommodate this effort. Thank you in advance for considering funding for this important project. Please feel free to contact me if you have any questions, at Dayna@sonomafb.org.

Respectfully,

Dayna Ghirardelli
Executive Director

SONOMA
RESOURCE CONSERVATION DISTRICT

1221 Farmers Lane, Suite F
Santa Rosa, CA 95405

707.569.1448
SonomaRCD.org

May 4th, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

SUBJECT: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee:

As Executive Director of the Sonoma Resource Conservation District, I am writing to express my support of the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

Established in 1946, the Sonoma RCD is a non-regulatory, local government entity empowered to manage soil, water, fish and wildlife resources for conservation in partnership with voluntary land managers. The RCD covers 85% of Sonoma County, including a significant portion of the Russian River Watershed. The RCD employs nineteen people, with expertise in a wide variety of natural resource and agricultural disciplines, engineering, forestry, education and outreach, policy, fundraising, and administration, and is governed by a board of directors that are local landowners in the District. We actively collaborate with land managers and agency partners to develop landscape scale management plans and on-the-ground projects to conserve water resources throughout the Russian River Watershed.

Agriculture is the backbone of the Sonoma County economy, producing more than $811 million in crops in 2021, and intrinsically linked to tourism, which generates about $2 billion for the local economy annually.

Sonoma County farmers and growers understand the importance of water conservation. Nearly 100 percent of the county's vineyards have been certified sustainable, which include water-wise approaches to irrigation and frost protection. Our agricultural community takes pride in our careful and conscientious stewardship of the land and the Russian River watershed. But crops can't grow and animals can't survive without some water, and as we adapt to a changing climate – which will include more frequent droughts and higher temperatures – our region must maintain our diverse water portfolio, including diversions from the Eel River to the Russian River Watershed via the Potter Valley Project (PVP).

We acknowledge that the PVP in its current configuration is no longer viable: PG&E's recent decision to lower storage in Lake Pillsbury due to seismic concerns with Scott Dam is an indication of the project's infrastructure issues. However, we believe that diversions can and should continue in some form that is

both protective of salmonids in the Eel River and Russian River watersheds and that recognizes the critical importance of the agriculture to the entire region.

The proposed Project will ensure that stakeholders have a voice in determining which of the three fish passage designs is further developed, will provide for review by technical experts and will advance the fish passage design from 30 percent to 60 percent. This facilitated work is critical in helping farmers in our region transition from the current PVP to a future, reduced diversion that will continue to provide water security as we face a changing climate.

For these reasons, the Sonoma Resource Conservation District supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding for this important project. Please feel free to contact me if you have any questions at the contacts listed below.

Sincerely,

Che Casul
Executive Director
Sonoma Resource Conservation District
1221 Farmers Lane, Suite F
Santa Rosa, CA 95405
707.569.1448 x102

SONOMA
RESOURCE CONSERVATION DISTRICT

SANTA ROSA PLAIN
GROUNDWATER
SUSTAINABILITY AGENCY

May 18, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

RE: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee:

As Administrator of the Santa Rosa Plain GSA, I am writing to express my support of the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

The GSA manages groundwater in the Santa Rosa Plain. Surface water from the Russian River is the primary source of water supply in our basin, with groundwater playing an important role as the sole source for many rural residents and in meeting urban needs during droughts and emergencies. For more than 100 years, Potter Valley diversions have supported summer and fall flows in the Russian River. Without these diversions, our community will rely much more heavily on limited groundwater resources.

That being said, we understand that the Potter Valley Project (PVP) in its current configuration is no longer viable: A facilities assessment currently underway by Sonoma Water (funded by the California Department of Water Resources and based on work prepared for the California Department of Fish and Wildlife) assumes significant modifications to PVP, including the removal of Scott Dam and

the possible modification or removal of Cape Horn Dam. The assessment also includes the initial development of three fish passage designs, with the goal of continuing water diversions while ensuring improved fish passage in the Eel River.

The proposed Project will ensure that stakeholders have a voice in determining which of the three fish passage designs is further developed, will provide for review by technical experts and will advance the fish passage design from 30 percent to 60 percent. This facilitated work is critical in helping the water suppliers in our region transition from the current PVP to a future diversion design that will continue to provide water "insurance" as we face a changing climate.

For these reasons, the GSA supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding for this important project. Please feel free to contact me if you have any questions, at arodgers@santarosaplaingroundwater.org or 707-508-3672.

Sincerely,

Andy Rodgers, Administrator
Santa Rosa Plain Groundwater Sustainability Agency

2020 Research Park Drive
Suite 100
Davis, CA 95618

530-322-5553
www.ukiahvalleygroundwater.org

May 10, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

SUBJECT: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee:

As the Chair of the Ukiah Valley Basin GSA Board, I am writing to express my support for the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

The GSA manages groundwater in the Ukiah Valley Basin which is home to Lake Mendocino that receives diversions from the Eel River via the Potter Valley Project. Surface water from the Russian River is the primary source of water supply in our basin, with groundwater playing an important role as the sole source for many rural residents and in meeting urban needs during droughts and emergencies. For more than 100 years, Potter Valley diversions have supported summer and fall flows in the Russian River. Without these diversions, our community will rely much more heavily on limited groundwater resources.

We understand that the PVP in its current configuration is no longer viable. A facilities assessment is currently underway by Sonoma Water (funded by the California Department of Water Resources and based on work prepared for the California Department of Fish and Wildlife) and the assessment assumes significant modifications to the PVP, including the removal of Scott Dam and the possible modification or removal of Cape Horn Dam. The assessment also includes the initial development of three fish passage designs that would allow water diversions to continue while ensuring improved fish passage in the Eel River.

The proposed Project will ensure that stakeholders have a voice in determining which of the three fish passage designs is further developed, and review by technical experts, and will advance the fish passage design from 30 percent to 60 percent. This facilitated work is critical in helping the water suppliers in our region transition from the current PVP to a future diversion design that will continue to provide water “insurance” as we face an ever-changing climate accompanied by extreme divergencies of weather patterns.

For these reasons, the GSA supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding for this important project. Please feel free to

contact me at mcgourtyg@mendocinocounty.org or the GSA General Manager, Erik Cadaret, at admin@ukiahvalleygroundwater.org if you have any questions.

Sincerely,

Ukiah Valley Basin GSA
Glenn McGourty
GSA Board Chair

CITY OF
CLOVERDALE

April 24, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

SUBJECT: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee:

As Mayor of the City of Cloverdale, I am writing to express my support for the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

The City of Cloverdale delivers drinking water to more than 3,300 customers. We rely primarily on wells located near the Russian River to meet the needs of our community. Our water systems and the communities that we support were developed assuming that releases from Lake Mendocino would supplement natural flows in the river. As the climate changes and we face longer, more frequent droughts, water stored and released from Lake Mendocino has played an increasingly important role in the resiliency of our systems. For the same reasons, Lake Mendocino (especially during dry years) relies heavily on diversions from the Potter Valley Project (PVP) to maintain adequate storage to meet minimum stream flows in the Russian River.

We understand that PVP in its current configuration is no longer viable: A facilities assessment currently underway by Sonoma Water (funded by the California Department of Water Resources and based on work prepared for the California Department of Fish and Wildlife) assumes significant modifications to PVP, including the removal of Scott Dam and the possible modification or removal of Cape Horn Dam. The assessment also includes the initial development of three fish passage designs, with the goal of continuing water diversions while ensuring improved fish passage in the Eel River.

The proposed Project will ensure that stakeholders have a voice in determining which of the three fish passage designs is further developed, will provide for review by technical experts and will advance the fish passage design from 30 percent to 60 percent. This facilitated work is critical in helping the water suppliers in our region transition from the current PVP to a future diversion design that will continue to provide water "insurance" as we face a changing climate.

For these reasons, the City of Cloverdale supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding for this important project. Please feel free to contact me if you have any questions, at tlands@ci.cloverldale.ca.us.

Sincerely,

Todd Lands
Mayor

C: Cloverdale City Council

City of Healdsburg
Municipal Utility Department
401 Grove Street
Healdsburg, CA 95448-4723
Phone (707) 431-3346
www.ci.healdsburg.ca.us

May 9, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

SUBJECT: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee:

As the Utility Director for the City of Healdsburg, I am writing to express my support for the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

The City of Healdsburg delivers drinking water to a population of more than 11,000 customers. We rely primarily on surface water from the Russian River to meet the needs of our community. Our water systems and the communities that we support were developed assuming that releases from Lake Mendocino would supplement natural flows in the river. As the climate changes and we face longer, more frequent droughts, water stored and released from Lake Mendocino has played an increasingly significant role in the resiliency of our systems and support of the natural habitat. For the same reasons, Lake Mendocino (especially during dry years) relies heavily on water diversions through the Potter Valley Project (PVP) to maintain adequate storage for minimum instream flows in the Russian River.

We understand that PVP in its current configuration is no longer viable: A facilities assessment currently underway by Sonoma Water (funded by the California Department of Water Resources and based on work prepared for the California Department of Fish and Wildlife) assumes significant modifications to PVP, including the removal of Scott Dam and the possible modification or removal of Cape Horn Dam. The assessment also includes the initial development of three fish passage designs, with the goal of continuing water diversions while ensuring improved fish passage in the Eel River.

The proposed Project will ensure that stakeholders have a voice in determining which of the three fish passage designs is further developed, will provide for review by technical experts and will

advance the fish passage design from 30 percent to 60 percent. This facilitated work is critical in helping the water suppliers in our region transition from the current PVP to a future diversion design that will continue to provide water "insurance" as we face a changing climate.

For these reasons, Healdsburg supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding for this important project.

Please feel free to contact me if you have any questions, at tcrowley@healdsburg.gov or (707) 431-3340.

Regards,

Terry Crowley P.E.
Healdsburg Municipal Utility Director

CITY OF PETALUMA

POST OFFICE BOX 61
PETALUMA, CA 94953-0061

May 1, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

SUBJECT: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee:

As City of Petaluma City Manager, I am writing to express my support of the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

The City of Petaluma delivers drinking water to more than 20,000 customers. We rely primarily on surface water provided by Sonoma Water to meet the needs of our community. Our city is currently participating in a forward-looking study of the resilience of the regional water system. While the study is still underway, we know that water diverted from the Eel River through the Potter Valley Project (PVP) and into Lake Mendocino in the Russian River watershed is a key component of meeting future climate challenges for water supply, fisheries and agriculture in Mendocino, Sonoma, and Marin counties.

We understand that PVP in its current configuration is no longer viable. A facilities assessment currently underway by Sonoma Water (funded by the California Department of Water Resources and based on work prepared for the California Department of Fish and Wildlife) assumes significant modifications to PVP, including the removal of Scott Dam and the possible modification or removal of Cape Horn Dam. The assessment also includes the initial development of three fish passage designs, with the goal of continuing water diversions while ensuring improved fish passage in the Eel River.

City Manager's Office
11 English Street
Petaluma, CA 94952

Phone (707) 778-4345

E-Mail:
citymgr@cityofpetaluma.org

Economic Development
Phone (707) 778-4549
Fax (707) 778-4586

Housing Division
Phone (707) 778-4555

Information Technology Division
Phone (707) 778-4417
Fax (707) 776-3623

The proposed Project will ensure that stakeholders have a voice in determining which of the three fish passage designs is further developed, will provide for review by technical experts and will advance the fish passage design from 30 percent to 60 percent. This facilitated work is critical in helping the water suppliers in our region transition from the current PVP to a future diversion design that will continue to provide water "insurance" as we face a changing climate.

For these reasons, the city supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding for this important project. Please feel free to contact Christopher J. Bolt, Director of Public Works & Utilities at 707-778-4474 if you have any questions.

Sincerely,

DocuSigned by:
Peggy Flynn
03D99C70B34748C...

Peggy Flynn
City Manager

City of Santa Rosa

May 10, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

SUBJECT: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee:

On behalf of the City of Santa Rosa, I am writing to express my support of the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

Santa Rosa Water delivers approximately six billion gallons of drinking water annually, to over 54,000 customer accounts, and operates the sanitary sewer system, serving over 49,000 customer accounts, for a population of over 178,000. The system includes roughly 1,200 miles of water and sewer pipelines. We rely primarily on surface water provided by Sonoma Water to meet the needs of our community.

Santa Rosa is currently participating in a forward-looking study of the resilience of the regional water system. While the study is still underway, we know that water diverted from the Eel River through the Potter Valley Project (PVP) and into Lake Mendocino in the Russian River watershed is a key component of meeting future climate challenges for water supply, fisheries and agriculture in Mendocino, Sonoma and Marin counties.

That being said, we understand that PVP in its current configuration is no longer viable: A facilities assessment currently underway by Sonoma Water (funded by the California Department of Water Resources and based on work prepared for the California Department of Fish and Wildlife) assumes significant modifications to PVP, including the removal of Scott Dam and the possible modification or removal of Cape Horn Dam. The assessment also includes the initial development of three fish passage designs, with the goal of continuing water diversions while ensuring improved fish passage in the Eel River.

The proposed Project will ensure that stakeholders have a voice in determining which of the three fish passage designs is further developed, will provide for review by technical experts and will advance the fish passage design from 30 percent to 60 percent. This facilitated work is critical in helping the water suppliers in our region transition from the current PVP to a future diversion design that will continue to provide water "insurance" as we face a changing climate.

Office of the Mayor
100 Santa Rosa Avenue - Room 10 • Santa Rosa, CA 95404
Phone: (707) 543-3010 • Fax: (707) 543-3030
www.srcity.org

City of Santa Rosa

For these reasons, the City supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding for this important project.

Sincerely,

Natalie Rogers, Mayor

Office of the Mayor
100 Santa Rosa Avenue - Room 10 • Santa Rosa, CA 95404
Phone: (707) 543-3010 • Fax: (707) 543-3030
www.srcity.org

TOWN OF WINDSOR

Town of Windsor
9291 Old Redwood Highway
P.O. Box 100
Windsor, CA 95492-0100
Phone: (707) 838-1000
Fax: (707) 838-7349
www.townofwindsor.com

April 24, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

SUBJECT: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee:

As Public Works Director of the Town of Windsor, I am writing to express my support of the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

The Town of Windsor delivers drinking water to more than 8,000 residential and commercial customers. We rely primarily on surface water provided by Sonoma Water to meet the needs of our community. Our Town is currently participating in a forward-looking study of the resilience of the regional water system. While the study is still underway, we know that water diverted from the Eel River through the Potter Valley Project (PVP) and into Lake Mendocino in the Russian River watershed is a key component of meeting future climate challenges for water supply, fisheries and agriculture in Mendocino, Sonoma and Marin counties.

That being said, we understand that PVP in its current configuration is no longer viable: A facilities assessment currently underway by Sonoma Water (funded by the California Department of Water Resources and based on work prepared for the California Department of Fish and Wildlife) assumes significant modifications to PVP, including the removal of Scott Dam and the possible modification or removal of Cape Horn Dam. The assessment also includes the initial development of three fish passage designs, with the goal of continuing water diversions while ensuring improved fish passage in the Eel River.

The proposed Project will ensure that stakeholders have a voice in determining which of the three fish passage designs is further developed, will provide for review by technical experts and will advance the fish passage design from 30 percent to 60 percent. This facilitated work is critical in helping the water suppliers in our region transition from the current PVP to a future diversion design that will continue to provide water “insurance” as we face a changing climate.

For these reasons, the Town of Windsor supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding for this important project. Please feel free to contact me if you have any questions, at scotulla@townofwindsor.com or 707-838-5978.

Sincerely,

Shannon Cotulla
Public Works Director/Town Engineer

i:\63 - engineering dept\caf\shannon\2023\ltr_water suppliers_bor_pvp project los_v2 4.24.23.docx

Jackson
FAMILY WINES

May 19, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

SUBJECT: **Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design**

Dear USBR Ecosystem Restoration Grant Program Review Committee:

As Senior Vice President of Jackson Family Wines, I am writing to express my support of the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

Jackson Family Wines is a family-owned, vineyard-based company with a penchant for exploration. The Jackson family's collection of 40 wineries spans significant winegrowing regions globally. We farm more than 4,000 acres in both Sonoma and Mendocino counties and employ 1,150 people in Northern California. We rely on several resources for water supply including surface water from the Russian River for irrigation.

Jackson Family Wines is committed to sustainable water management in our vineyards and wineries. Our key initiatives in the vineyards include investing in new technologies to ensure precision deficit irrigation, exploring innovative water evaporation reduction techniques in reservoirs, and continuing to collaborate on groundwater recharge and watershed restoration projects that protect and enhance local ecosystems and fish habitats.

Our ability to secure water is critical to our long-term vision for a sustainable future. We acknowledge that the PVP in its current configuration is no longer viable: PG&E's recent decision to lower storage in Lake Pillsbury due to seismic concerns with Scott Dam is an indication of the project's infrastructure issues. However, we believe that diversions can and should continue in some form that is both protective of salmonids in the Eel River and Russian River watersheds and that recognizes the critical importance of the agriculture to the entire region.

The proposed Project will ensure that stakeholders have a voice in determining which of the three fish passage designs is further developed, will provide for review by technical experts and will advance the fish passage design from 30 percent to 60 percent. This facilitated work is critical in helping farmers in our region transition from the current PVP to a future, reduced diversion that will continue to provide water security as we face a changing climate.

For these reasons, Jackson Family Wines supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding for this important project. Please feel free to contact me if you have any questions, at Carolyn.Wasem@jfwmail.com.

Sincerely,

Carolyn Wasem
SVP, External Affairs & Government Relations

RUSSIAN RIVER PROPERTY OWNERS ASSOCIATION

May 16, 2023

Bureau Of Reclamation
Water Resources and Planning Office
Attn: Ms. Avra Morgan
Mail Code: 86-6300
P.O. Box 25007
Denver, CO 80225-0007

SUBJECT: Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design

Dear USBR Ecosystem Restoration Grant Program Review Committee:

As president of the Russian River Property Owners Association (Association), I am writing to express my support of the application submitted by the Sonoma County Water Agency (Sonoma Water) for the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design (Project).

Since 1982, the Association has advocated for property owners in the Russian River valley. Through the Association, we've developed sustainable farming practices, restored riparian habitat, enhanced erosion control, implemented fish habitat programs and collaborated with state and federal agencies on development of a fisheries management program. Many landowners in Alexander Valley rely on water from the Russian River as a primary source of water.

As the climate changes and we face longer, more frequent droughts, water stored and released from Lake Mendocino has played an increasingly important role in river flows. For the same reasons, Lake Mendocino (especially during dry years) relies heavily on diversions from the Potter Valley Project (PVP) to maintain adequate storage to meet minimum stream flows in the Russian River.

We understand the owners of the PVP, PG&E, have decided that in its current configuration the PVP is no longer viable. A facilities assessment currently underway by Sonoma Water (funded by the California Department of Water Resources and based on work prepared for the California Department of Fish and Wildlife) assumes significant modifications to PVP will be necessary to support future diversions. The assessment also includes the initial development of three fish passage designs, with the goal of continuing water diversions while ensuring improved fish passage in the Eel River.

The proposed Project will ensure that stakeholders have a voice in determining which of the three fish passage designs is further developed, will provide for review by technical experts and will advance the fish passage design from 30 percent to 60 percent. This facilitated work is critical in helping the water

suppliers in our region transition from the current PVP to a future diversion design that will continue to provide water as we face a changing climate.

For these reasons, the Association supports the Eel River at Cape Horn Dam Fish Passage Improvement Planning and Design. Thank you in advance for considering funding for this important project. Please feel free to contact me if you have any questions, at president@rrpoa.org or 1 (707) 592-9492.

Sincerely,

Brad Petersen
President, Russian River Property Owners Association
P.O. Box 2124
Healdsburg, CA 95448

Our Mission

The Russian River Property Owners, a 501(c)4, encourages responsible stewardship of the Russian River Watershed in order to protect and enhance its integrity; while respecting private property rights.