



COUNTY OF HUMBOLDT

For the meeting of: 2/11/2025

File #: 25-255

To: Board of Supervisors

From: Public Works

Agenda Section: Time Certain Matter

Vote Requirement: Majority

SUBJECT:

10:30 AM - Approval of Memorandum of Understanding to Advance a Water Diversion Agreement associated with PG&E's Decommissioning of the Potter Valley Project on the Eel River and a New Eel-Russian Diversion Facility

RECOMMENDATION(S):

That the Board of Supervisors:

1. Receive a staff report regarding the proposed Memorandum of Understanding (MOU) to Advance a Water Diversion Agreement for a new Eel-Russian Facility; and
2. Receive a presentation from Scott McBain with Applied River Sciences; and
3. Receive comments from representatives of California Trout, Trout Unlimited, and Friends of the Eel River; and
4. Receive comments from the public; and
5. Approve, and authorize the Public Works Deputy-Director for Environmental Services to sign the attached MOU (Attachment 2); and
6. Authorize the Public Works Deputy-Director for Environmental Services to approve written public statements regarding the MOU on behalf of Humboldt County after consultation with the Board's Eel-Russian River ad hoc committee and approval from County Counsel; and
7. Direct staff to bring the Water Diversion Agreement when it is completed back to the Board for consideration.

STRATEGIC PLAN:

This action supports the following areas of your Board's Strategic Plan.

Area of Focus: Sustainable Natural Resources & Infrastructure Stewardship

Strategic Plan Category: 5001 - Enhance climate adaptation landscapes and communities

DISCUSSION:

Overview

Pacific Gas & Electric Company (PG&E) is preparing to decommission the Potter Valley Hydroelectric Project on the upper Eel River which includes removing Scott Dam and Cape Horn Dam to restore a free-flowing Eel River and re-establish fish passage to upstream habitat. On Jan. 31, 2025, PG&E released a draft plan for public review. PG&E's draft plan included a proposal to use a portion of PG&E's lands and facilities for construction of a new water diversion facility (the New Eel-Russian Facility). PG&E is expected to file its final license surrender application and decommissioning plan to the Federal Energy Regulatory Commission by July 29, 2025. Attachment 1 contains maps of the Eel and Russian River watersheds and identifies the location of the Potter Valley Project.

Since mid-2023, Humboldt County has engaged in negotiations with a variety of parties in the Eel and Russian River Basins to

develop consensus on a Water Diversion Agreement (Agreement) to allow continued diversions with appropriate protections and benefits for the Eel River and its fisheries. The parties include Sonoma Water, Mendocino Inland Water and Power Commission, Round Valley Indian Tribes, California Trout, Trout Unlimited, and the California Department of Fish & Wildlife. Humboldt County's position in these negotiations has been that our strong preference would be for Eel River water to stay in the Eel River watershed, but we would consider an Agreement if it contains necessary protections for the Eel River and its fisheries and provides a strategic opportunity to accelerate restoration of the watershed and recovery of fish populations.

Attachment 2 contains the MOU developed by the parties to describe the essential terms of a proposed Agreement. This MOU is being considered concurrently today (Feb. 11, 2025) by the Humboldt County Board of Supervisors, the Sonoma County Board of Supervisors (as the Board of Directors for Sonoma Water), and the Round Valley Indian Tribes tribal council. The MOU will be considered by the Mendocino Inland Water and Power Commission on Feb. 13, 2025. If the MOU is approved by the parties, the intent is to develop the full Agreement and bring that Agreement back to the respective boards and councils for review and approval before July 29, 2025.

Attachment 3 contains background materials from previous Board actions related to the Potter Valley Project.

Background

The Potter Valley Hydroelectric Project includes Scott Dam, which forms a storage reservoir (Lake Pillsbury) in Lake County and Cape Horn Dam, which forms Van Arsdale reservoir in Mendocino County, where water is diverted through a mile-long tunnel to an electricity-generating powerhouse in Potter Valley. Releases from the powerhouse are a source of water for irrigation in Potter Valley and also discharge into the East Branch Russian River, which flows into Lake Mendocino near Ukiah. (Although the powerhouse has not generated power since 2021 due to an equipment failure, PG&E continues to divert water in order to meet minimum instream flow requirements in the East Branch Russian River and to meet water delivery contracts in Potter Valley.)

Within the Potter Valley Irrigation District, approximately 4,728 acres of agricultural land are irrigated and the district has a population of approximately 1,700 people. Water from Lake Mendocino is used in Mendocino, Sonoma, and Marin counties for irrigation, municipal and domestic water supply, and meeting instream flow requirements in the Russian River. The Mendocino Inland Water and Power Commission is a joint powers authority formed by Mendocino County, City of Ukiah, Redwood Valley County Water District, Potter Valley Irrigation District, and the Mendocino County Russian River Flood Control and Water Conservation Improvement District. Lake Mendocino is operated by the U.S. Army Corps of Engineers in coordination with Sonoma Water and the Mendocino County Russian River Flood Control and Water Conservation Improvement District. The Corps of Engineers and Sonoma Water also coordinate releases into the Russian River from Lake Sonoma, which is formed by Warm Springs Dam on Dry Creek. Sonoma Water provides wholesale drinking water to nine water contractors (five cities, three water districts, one town) which collectively serve over 600,000 people in Sonoma and Marin counties.

The Eel River is a major river on the North Coast of California with a biologically rich watershed that spans five counties. The Eel River watershed comprises 33% of Humboldt County, more than any other watershed. The Eel River is highly valued for providing fish and wildlife habitat, water supply, recreation, scenic beauty, and other ecosystem services. Eel River fish populations are currently substantially reduced from historical levels, causing significant cultural, social, and economic impacts. Interest is extremely high in working to restore habitat and recover fish populations, especially for salmon, steelhead, and lamprey, because the watershed has a relatively low level of development and the historical population levels indicate the strong potential for vibrant fisheries. For example, information on the Eel River Watershed Restoration and Conservation Program, which outlines a science-based approach for prioritizing restoration and conservation actions across the basin, is available here:

<https://caltrout.org/eel-river-watershed-program>

The lower Eel River flows through Humboldt County for 81 miles before entering the Pacific Ocean through the Eel River Delta near Ferndale and Fortuna (Attachment 1). The Eel River watershed also encompasses portions of Trinity, Mendocino, Lake, and Glenn counties. Major tributaries include the Van Duzen River, South Fork Eel River, North Fork Eel River, and Middle Fork Eel River. The Round Valley Reservation of the Round Valley Indian Tribes, based in Covelo (Mendocino County), is situated adjacent to portions of the mainstem Eel River, North Fork Eel River, and Middle Fork Eel River. The Round Valley Indian Tribes have unadjudicated federal reserved water and fishing rights in the Eel River resulting from the creation of their Reservation in 1858 and modifications in 1873. Cape Horn Dam is located 157 river miles from the Pacific Ocean; the total length of the mainstem Eel River is approximately 197 river miles.

Cape Horn Dam, the diversion tunnel, and the initial powerhouse were constructed from 1905 to 1908. Scott Dam was constructed to form Lake Pillsbury from 1920 to 1922. In 1922, the project received a 50-year federal operating license. In October and December 1922, the Humboldt County Board of Supervisors issued resolutions opposing applications for state water diversion permits, which were ultimately issued. The Potter Valley Irrigation District was formed in 1924 and PG&E acquired the facility with transfer of the federal license in 1930. Potter Valley Irrigation District entered into a contract with PG&E to receive water deliveries from the powerhouse. Lake Pillsbury, surrounded by Mendocino National Forest in Lake County, became a recreational destination.

The Potter Valley Project was one of the major causes and/or contributing factors to the degradation of the Eel River watershed and reductions in fish populations in the 20th century. Impacts from the Potter Valley Project include: blocking important headwaters habitat above Scott Dam; reducing flows downstream of the point of diversion; disrupting sediment transport processes; altering water temperatures which disrupts the environmental cues for fish migration; and creating conditions that supported the invasion of the Sacramento pikeminnow, an invasive species that preys on juvenile salmon.

In 1970, PG&E applied to the Federal Energy Regulatory Commission (“FERC”) for re-licensing of the Potter Valley Project. In 1972, Humboldt County filed a motion to intervene in the re-licensing proceeding and passed Resolution 72-60 calling for consideration of fisheries and ecological standards. Humboldt County continued to be active advocating for the County’s interests in the re-licensing proceedings which continued until a contested settlement agreement was signed in 1983. The new license required PG&E to conduct multi-year studies and make modifications to both facilities and operations.

Discussions in the early and mid-1970s regarding the relicensing of the project led to an awareness of the need for regional coordination and cooperation. In 1978, the counties of Humboldt, Lake, Mendocino, and Sonoma formed the Eel-Russian River Commission as a joint-powers authority through execution of a joint-powers agreement. This commission served as a regional forum to share information and discuss the operations and impacts of the Potter Valley Project until 2019, when it became inactive.

In the late 1990s, the volume and timing of water diversions from the Potter Valley Project became a renewed point of focus with studies and regulatory actions, driven largely by a Biological Opinion issued by National Marine Fisheries Service (“NMFS”). Starting in 2007, water diversions to the Russian River were significantly reduced due to requirements from NMFS and FERC to protect Eel River salmon from extinction. Prior to 2007, the average volume of diverted water was approximately 150,000 acre-feet per year. Following implementation of the Biological Opinion from NMFS, the average diversions from 2007 through 2020 were approximately 60,000 acre-feet per year. For the last few years, the annual volume of diverted water has been reduced further to around 40,000 acre-feet per year due to safety and operational constraints.

In 2017, Congressman Jared Huffman convened an ad hoc committee of agencies and organizations to discuss the impending re-licensing of the Project based on goals and principles for a “Two Basin Solution” that would address the needs of both the Russian and Eel River basins. On June 5, 2018, the Humboldt County Board of Supervisors adopted Resolution 18-56 which presented Humboldt County’s position regarding re-licensing.

In January 2019, PG&E announced that it did not intend to apply for re-licensing the Project. From 2019 through 2022, five parties (Sonoma Water, Mendocino Inland Water and Power Commission, Humboldt County, Round Valley Indian Tribes, and California Trout) explored the feasibility of forming a partnership for regional ownership and operation of the Project. The Humboldt County Board of Supervisors adopted Resolution 19-47 and Resolution 19-53 to support this initiative. Ongoing funding could not be secured and the collaborative effort became inactive in 2022.

In August 2023, Sonoma Water, Mendocino Inland Water and Power Commission, and Round Valley Indian Tribes submitted a concept proposal to PG&E requesting that PG&E include elements of a proposed new water diversion facility (called the New Eel-Russian Facility, or NERF) in PG&E’s license surrender application and decommissioning plan. In September 2023, the director of the California Department of Fish & Wildlife and the president of Round Valley Indian Tribes invited Humboldt County, California Trout, and Trout Unlimited to join the negotiations for a proposed Water Diversion Agreement. In November 2023, the group submitted a revised concept proposal to PG&E and the Humboldt County Board of Supervisors issued a statement of conditional support for the revised proposal. In December 2023, Sonoma Water, Sonoma County, and Mendocino Inland Water and Power Commission formed the Eel-Russian Project Authority (ERPA) as a joint powers authority. Round Valley Indian Tribes subsequently joined ERPA’s board of directors.

In January 2024, ERPA, with input from a technical advisory group comprised of public agency staff and non-governmental

organization representatives, selected a pumping system configuration as the alternative to move forward with engineering design to a 65% level of completion. This alternative was selected because it was the lower-risk alternative for water supply reliability and the superior alternative for fish passage. Also in January 2024, the Humboldt County Board of Supervisors formed an Eel-Russian River ad hoc committee, comprised of Supervisor Bushnell and Supervisor Wilson. Negotiations on the proposed Agreement continued through 2024 and early 2025.

Elements of the Water Diversion Agreement

The attached MOU describes key elements of the proposed Agreement that would be completed by July 2025. The Agreement would represent a negotiated settlement in lieu of a contested FERC proceeding. The Agreement would be brought back to the Board for review and consideration. The sections of the MOU are described below:

Section 1 provides background information and states the intentions of the Agreement, which include the following:

- Advance the timely removal of Scott Dam and Cape Horn Dam through a cooperative approach with PG&E and interested parties from Eel and Russian River watersheds;
- Develop criteria for water diversions based on the best available scientific information to ensure that water diversions will be consistent with the recovery of Eel River fisheries and a functioning ecosystem;
- Secure equitable state and federal funding for substantial investments in water infrastructure within the Russian River basin and ecosystem restoration within the Eel River basin;
- Take a significant step toward restorative justice for Round Valley Indian Tribes and reconciliation with the history of adverse impacts on Eel River communities associated with out-of-basin diversions; and
- Establish a durable and mutually supportive relationship between the Eel and Russian Rivers basins and provide a strong foundation for continued regional collaboration based on incentives and mutual benefit.

Section 2 states the purpose of the MOU, which is to reflect the essential terms of the Agreement that would be finalized before July 29, 2025.

Section 3 commits the parties of the Agreement to support dam removal and to support PG&E undertaking this work as expeditiously as practicable, targeting 2028 for commencement. The parties agree that construction of NERF will not interfere with or delay dam removal. The parties agree to support FERC's authorization of NERF construction on lands and facilities associated with the Potter Valley Project in the vicinity of Cape Horn Dam.

Section 4 supports the transfer of PG&E's appropriative water rights to ERPA, which in turn would immediately transfer them to the Round Valley Indian Tribes. This provision would provide ownership of PG&E's water rights on the Eel River to a tribal nation based in the Eel River watershed. Round Valley Indian Tribes would enter into a lease with ERPA to allow ERPA to divert water for the NERF pursuant to the terms of a lease agreement and the Water Diversion Agreement.

Section 5 supports the transfer from PG&E to ERPA of PG&E's lands and facilities that are necessary for construction and operation of NERF.

Section 6 supports a design for NERF that would involve a pumping system for water diversion along the left bank of the Eel River near the existing Cape Horn Dam site. A portion of the existing dam would be incorporated into a grade control structure to maintain a minimum bed elevation near the pump station intake screens. The proposed design is described as Alternative E-2 in "Potter Valley Project Diversion Facilities Assessment - Preliminary Engineering Report" (McMillen Inc., May 25, 2024), available here: https://www.sonomawater.org/media/PDF/Water%20Resources/Potter%20Valley%20-%20ERPA/Final%20Preliminary%20Engineering%20Report%20with%20Appendices_v.pdf

Section 7.1 specifies the diversion schedule, which provides the proposed rules and criteria for allowing water diversions. A draft summary document of the diversion schedule is attached to the MOU. The lead developer of the diversion schedule was Applied River Sciences, a consultant for the Round Valley Indian Tribes. The framework for the diversion schedule is based on determining

what flows are needed for key river processes to recover fisheries in the Eel River, rather than the amount of water desired by out-of-basin water users. The criteria are based on maintaining the key elements of the natural flow regime that native species are adapted to. The primary components of the criteria establish protective minimum flows for diversions (“floors”) and limits on the percent-of-flow modifications to maintain the natural variability in flows that support ecological processes. The criteria vary by season based on the life history needs of the target fish species and ecological function. The bulk of the water diversions would occur in winter and early spring. The diversion schedule may continue to be refined and will not be final until ERPA completes the permitting and compliance process for NERF. With these criteria, the average annual diversion volume is estimated to be approximately 32,500 acre-feet. Scott McBain with Applied River Sciences will provide a presentation describing the diversion criteria at the February 11, 2025 Board meeting.

Section 7.2 contains provisions for ERPA to conduct monitoring for performance metrics. A draft summary document of the performance metrics is attached to the MOU. The parties would meet and confer every five years, at a minimum, to review the monitoring results. Section 7.2 also contains a provision for adaptive management, where the diversion schedule will be changed on recommendations of a technical committee if monitoring results demonstrate that NERF operations have caused environmental impacts on the Eel River that are materially different than expected in the performance metrics.

Section 7.3 specifies that ERPA will provide two annual payments, a use charge and a restoration payment. ERPA will pay Round Valley Indian Tribes a use charge of \$1 million per year for the use of Round Valley Indian Tribes’ water rights for the operation of NERF. In addition, ERPA will pay Round Valley Indian Tribes a separate restoration payment of \$750,000 to \$1 million per year in recognition of the Round Valley Indian Tribes forbearing to assert their federally reserved water and fishing rights against ERPA during the term of the lease. Round Valley Indian Tribes will transfer the restoration payment to an Eel River Restoration Fund that would be administered by the parties to the Agreement and potentially other parties. The annual restoration payment will be a minimum of \$750,000 and could increase if certain thresholds for public funding for NERF are achieved. The amounts indicated are in 2025 dollars and will be adjusted over time based on the California consumer price index. \$750,000 represents approximately 21% of the estimated operating costs of NERF. Payments would begin the first full year of operation of NERF.

Establishment of a payment mechanism through this Agreement to benefit the Eel River watershed would be a major change from the past, when water users downstream of Potter Valley in Mendocino and Sonoma Counties did not pay for the Eel River water diverted through the Potter Valley Project. Options for administering and managing the Eel River Restoration Fund are still being developed. The restoration payments are intended to improve the environmental conditions that currently impair Eel River fisheries. One of the uses of the committed annual funds would likely be to leverage other state, federal, and philanthropic funding sources to implement large restoration and conservation projects in the Eel River watershed.

Section 8 specifies the term, or duration, of the Agreement. The Agreement will have an initial term of 30 years, beginning on the date NERF begins operation. The Agreement has a conditional renewal term for an additional 20 years, if five specified conditions are met. These conditions include: (1) the Eel River Restoration Fund has received at least \$25 million in funds, not including the annual restoration payment; (2) ERPA substantially complies with the payment and water diversion provisions of the Agreement; (3) ERPA demonstrates that continued diversion is not expected to adversely affect recovery of Eel River fisheries during the renewal term; (4) ERPA demonstrates continued need for diversion from the Eel River for water supply reliability, fisheries, and water quality in the Russian River basin; and (5) ERPA demonstrates that its members and other water users in the Russian River basin have made substantial efforts during the initial term to achieve self-reliance at the conclusion of the renewal term, anticipating that the diversion from the Eel River basin will terminate if subsequent renewal does not occur. After the initial term (30 years) and renewal term (20 years), either operations of NERF will terminate and NERF will be removed by ERPA, or the parties of the Agreement may decide to negotiate a successor agreement regarding continued operation. It is expected that the Agreement will require all signatories to agree to a successor agreement, otherwise operations would cease and NERF would be removed.

Section 9 sets goals for raising federal, state, and private funds to support Eel River restoration and NERF and commits the parties to seek equitable funding for both causes. The parties of the Agreement are expected to work together, to the greatest extent possible, for funding awards that are split equally between the basins.

Section 10 contains provisions for dispute resolution and enforceability. Section 11 specifies that signing the MOU is not a pre-decisional determination to sign a subsequent Water Diversion Agreement or any other agreement.

In summary, the key protections for the Eel River in the MOU include: P&E’s Eel River water rights owned by an entity based in the

Eel River watershed; limited water diversions based on the needs of Eel River fisheries; a facility design that allows a free-flowing river; performance metrics and adaptive management; initial 30-year term with a conditional 20-year renewal term; and the principle of a future phase-out of diversions when the Russian River basin becomes self-reliant for water and not dependent on Eel River diversions. Key benefits for the Eel River in the MOU include: committing the major Russian River water users to support PG&E's dam removal without delay; securing an annual restoration payment providing unrestricted funds to support locally-guided, high-priority restoration work; providing a catalyst for attracting new federal, state, and philanthropic funding to support restoration; maintaining influence on facility operations through the meet-and-confer and conditional renewal processes; and demonstrating the ability of regional interests to work together to resolve a difficult, long-standing natural resource conflict on the North Coast.

Public Works believes that a Water Diversion Agreement based on the terms established in the proposed MOU would protect the health and resilience of the Eel River and provide substantial benefits for the people and communities connected to the Eel River. Based on these considerations, Public Works recommends that the Board approve, and authorize the Public Works Deputy-Director for Environmental Services to sign, the attached MOU. Signing the MOU indicates a commitment to continue efforts to finalize an Agreement consistent with the terms outlined in the MOU. Public Works recommends that the Board direct staff to bring the Water Diversion Agreement when it is completed back to the Board for consideration. In addition, if the MOU is approved, Public Works recommends that the Board authorize the Public Works Deputy-Director for Environmental Services to approve written public statements regarding the MOU after consultation with the Board's Eel-Russian River ad hoc committee and approval from County Counsel.

SOURCE OF FUNDING:

1100251 (Water Management)

FINANCIAL IMPACT:

Narrative Explanation of Financial Impact:

The proposed action, if approved by the Board, will require additional time for Public Works, County Counsel, and the Board members of the Eel-Russian ad hoc committee to participate in meetings, travel when needed, and contribute to the development of the Water Diversion Agreement and other documents. These costs will be paid for by the Humboldt County General Fund. Costs for Public Works will be paid under the existing approved fiscal year 2024-25 Water Management budget, 1100251.

STAFFING IMPACT:

Narrative Explanation of Staffing Impact:

Involvement in this matter has required a significant commitment of staff time from Public Works and County Counsel since 2023. Approval of the proposed actions will not require creation of new staff positions but will continue to encumber a significant portion of the affected staff's workload.

OTHER AGENCY INVOLVEMENT:

California Department of Fish & Wildlife, Sonoma Water, Mendocino Inland Water and Power Commission, Round Valley Indian Tribes, Wiyot Tribe, Federal Energy Regulatory Commission, National Marine Fisheries Service.

ALTERNATIVES TO STAFF RECOMMENDATIONS:

The Board of Supervisors could choose not to approve the proposed MOU to advance a Water Diversion Agreement associated with PG&E's decommissioning of the Potter Valley Project on the Eel River and a new Eel-Russian Diversion Facility. This alternative is not recommended because Humboldt County has worked successfully with its partners to negotiate for important protections and benefits for the Eel River in the MOU. If the Board chooses not to approve the MOU, other parties could move forward to develop a Water Diversion Agreement without the involvement of Humboldt County and the County would lose the opportunity to have influence and represent the interests of the Eel River. Or, in the absence of a Water Diversion Agreement, the timeframe for dam removal could be at risk for substantial delays due to the acts of entities who prefer the status quo, and prospective funding for future restoration could be significantly diminished. For these reasons, staff recommend that the Board approve the MOU and continue to stay actively engaged with the other parties in developing the Agreement.

ATTACHMENTS:

- 1 - Maps of the Eel and Russian River Watersheds
- 2 - Memorandum of Understanding to Advance a Water Diversion Agreement associated with PG&E's Decommissioning of the Potter

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Valley Project on the Eel River and a New Eel-Russian Diversion Facility

3 - Background Information from previous Humboldt County Board of Supervisors Actions related to the Potter Valley Project

PREVIOUS ACTION/REFERRAL:

Meeting of: January 30, 2024

File No.: 24-148