Via eFiling

December 1, 2025

FERC Docket No. P-77-332

Debbie-Anne A. Reese
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Re: Application for surrender of license and non-project use of project lands (Pacific Gas & Electric Co.; Potter Valley Hydroelectric Project No. P-77): Comments of Friends of the Eel River, Sierra Club, Native Fish Society, Save California Salmon, California Sportfishing Protection Alliance, and Northern California Council, Fly Fishers International

Introduction

PG&E's Application for surrender of license and non-project use of project lands for the Potter Valley Project[1] ("License Surrender Application" or "LSA") marks a watershed in the

[1] See FERC, Notice of Application for Surrender of License and Non-Project Use of Project Lands, FERC Docket No. 77-332 (Oct. 31, 2025), Doc. Accession No. 20251031-3014; PG&E, Final Application for Surrender of

modern history of the Eel River. A century after Cape Horn and Scott Dams were built, PG&E has concluded they are no longer economically practicable to operate as a hydroelectric project or sustainable as a water supply project. Having declined the opportunity to relicense the Potter Valley Project ("Project" or "PVP"), PG&E now proposes to remove Scott and Cape Horn Dams and decommission the Project.

Dam removal is clearly in the broad public interest. Dam removal will end the range of harms the Project causes fisheries, allowing salmon and steelhead back into high-quality habitat above Scott Dam. The LSA includes provisions for the New Eel Russian Facility, a run of the river diversion that will allow a continued, low-impact diversion to the Russian without significant harm to the Eel River. The "rapid dam removal" approach PG&E proposes in the LSA is appropriate under the circumstances presented by the Project. The LSA outlines a program of measures to minimize and mitigate where possible the harms that dam removal is likely to entail.

We respectfully encourage the Commission to approve the LSA generally as proposed, and to issue a Surrender Order and conditions consistent with the LSA, except to the extent we request otherwise in our comments below.

Comments

PG&E's final License Surrender Application to decommission and remove the Potter Valley Project dams begins the process of license surrender before the Commission. We appreciate the opportunity to offer comments on the LSA, and we look forward to engaging with

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License; Final Application for Non-Project Use of Project Lands, FERC Docket No. P-77-332 (July 25, 2025), Doc. Accession No. 20250725-5175.

many of the issues raised below in the National Environmental Policy Act (NEPA) process to follow. We also look forward to providing further comments on forthcoming management plans and other documents relevant to this proceeding.

General Comments

Broad Public Interest Standard

In evaluating a proposed decommissioning like PG&E's LSA, FERC does not apply the "comprehensive development / public interest" standard set out by the Federal Power Act §§ 4(e) and 10(a) for proposed licensing actions. Rather, a "broad" public interest rule applies.[2] As the following comments detail, the proposed rapid decommissioning and removal of Scott and Cape Horn Dams clearly serves this broad public interest. Indeed, much of the prospective benefit to the public interest depend on dam removal being completed as soon as reasonably possible.

License Surrender

FERC's approval of a surrender request is a "federal action" that triggers a suite of ancillary processes which contribute to the Commission's oversight of decommissioning. Under the National Environmental Policy Act ("NEPA"), an environmental analysis of the proposed action must be prepared. The Endangered Species Act ("ESA") § 7 requires consultation regarding potential effects on listed species and their designated critical habitat. Consultation regarding cultural resources is required under § 106 of the National Historic Preservation Act

[2] *Pacific Gas & Elec. Co.*, 189 FERC ¶ 61,032, 2024 WL 4580915 at *9, n.49 (Oct. 17, 2024), *modified on denial of rh'g*, 190 FERC ¶ 61,165 (March 20, 2025); see also *Duke Energy Carolinas*, LLC, 123 FERC ¶ 61,069, 61,583 (2008).

("NHPA"). The Clean Water Act's § 401 provides for water quality certification by California's State Water Resources Control Board ("Water Board").

FERC may not deny an application to surrender a hydropower license.[3] However, the Commission generally does impose conditions on license surrenders "to ensure public safety and to provide for the environmental restoration of project lands and the mothballing or removal of some or all of the project works as appropriate."[4] FERC will not impose conditions requiring long-term regulatory oversight after the Commission's jurisdiction over a project has ended.[5]

PG&E is required by FERC regulations to fulfill "such conditions with respect to the disposition of such works as may be determined by the Commission."[6] Until such surrender conditions are fulfilled, FERC retains jurisdiction over the project.[7] Such conditions may vary significantly, depending on project-specific considerations:

> *Depending on the circumstances, it could mean simply ceasing to operate a project, without physically removing any project facilities. At the opposite end of the spectrum would be removing a dam and dredging out the accumulated silt in the reservoir, a potentially complex and costly process that could involve serious environmental impacts of its own.*[8]

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[3] *FPL Energy Maine Hydro, LLC* (2004) 107 FERC ¶ 61,120, 61,404 (May 6, 2004), aff'd sub nom *Save our Sebasticook v. FERC*, 431 F.3d 379 (D.C. Cir. 2005); see also *FPL Energy*, 106 FERC ¶ 61,038, 61,143.
[4] See *City of Port Angeles*, 167 FERC ¶ 61,048, 61,237 (2019).
[5] "Our responsibilities in authorizing a surrender of a license are limited to ensuring that the licensee take appropriate steps to leave the former project property in an appropriate condition." *FPL Energy*, 106 FERC ¶ 61,038, 61,147-48. FERC will not impose encumbrances on the licensee's lands, "such as preservation covenants, designed to limit [the licensee's] options for utilization of such lands long after the Commission's jurisdiction over the site has ended." *Niagara Mohawk Power Corp.*, 98 FERC ¶ 61,227, 61,902-03 (2002)."Given that we will have no jurisdiction over any project recreation facilities after surrender, we see no need to perform an inventory." *Boyce Hydro Power, LLC*, 175 FERC ¶ 61,143, 61,921 n.50 (2021).
[6] 18 C.F.R. § 6.2.
[7] See *Portland Gen. Elec. Co.*, 107 FERC ¶ 61,158 (2004) and *Niagara Mohawk Power Corp.*, 89 FERC ¶ 61,003 (1999).
[8] Project Decommissioning at Relicensing; Policy Statement, 60 Fed. Reg. 339, 348 (Jan. 4, 1995), incorporated into FERC regulations at 18 C.F.R. § 2.24.

As we detail in the following comments, PG&E's LSA clearly falls at "the opposite end of the spectrum," as PG&E seeks to remove two dams and accumulated sediments. The accompanying environmental impacts will indeed be serious. Of particular concern are water quality impacts on the Eel River. The Water Board's water quality certification will provide important guidance for the Commission's Surrender Order conditions.

Restoration of Federal Public Lands

FERC's regulations provide that "(w)here project works have been constructed on lands of the United States the licensee will be required to restore the lands to a condition satisfactory to the Department having supervision over such lands federal lands."[9] Here, where Project works including the Lake Pillsbury reservoir were constructed on lands of the Mendocino National Forest, PG&E should be required to restore those lands. Dam removal is a prerequisite to restoration of the reservoir footprint.

Consistency with Federal Law

Continued operations of the PVP entail continuing violations of the ESA, which reflect substantial threats of harm to individual Chinook salmon and steelhead as well as threats to the viability of their upper mainstem Eel River runs. Dam removal will serve the broad public interest in securing the survival and recovery of these keystone species. Similarly, continued operation of the PVP results in chronic violations of the Clean Water Act, including for temperature, sediment, and mercury. Dam removal will address these problems, thus helping to

[9] 18 C.F.R. § 6.2.

secure the broad public interest in protecting the waters of the United States as "fishable and swimmable" in accordance with the goals of the CWA.[10]

Dam removal as PG&E proposes here is consistent with the Federal Power Act and FERC's regulations for relicensing and decommissioning. It is in the broad public interest that electric utilities be allowed to divest themselves of unproductive, deteriorating, and/or hazardous facilities. Indeed, FERC's regulations do not contemplate rejection of a license surrender, nor can PG&E be justly compelled to continue to operate the PVP indefinitely.[11] Similarly, it is in the broad public interest that hydroelectric facilities developed on federal public lands be removed and the lands restored such that they can continue to serve public purposes. This requires dam removal. Dam removal will serve the public interests expressed in each of these statutes.

The Commission Should Approve the LSA

PG&E's proposed LSA demonstrates in detail that, across the wide range of issues presented by the Project, dam removal is in the broad public interest. The Draft LSA made a strong case for rapid dam removal and outlined a comprehensive program of Environmental Measures and Management Plans to implement dam removal with minimized environmental impacts. In the following comments, we highlight some important changes to the final document from the draft. These are almost entirely improvements, which increases our confidence that PG&E is on the right track with its LSA.

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[10] See Clean Water Act § 101(a)(2) and (3), 33 U.S.C. § 1251 (a)(2) and (3) (stating goal of attaining water quality that "provides for the protection and propagation of fish, shellfish and wildlife and provides for recreation in and on the water" and stating national policy that "the discharge of toxic pollutants in toxic amounts be prohibited").
[11] See *FPL Energy*, footnote 3 supra.

Perhaps the most significant change from the Draft to the final LSA is removal of discussion of alternative methods of dam removal. We support PG&E's decision to move forward with the proposed rapid dam removal framework, as it is evident that approach will best allow PG&E and the Commission to reduce and mitigate the harms that dam removal will entail. All alternatives were clearly worse.[12] The LSA provides a more than adequate basis for the Commission to move forward with the Surrender process.

The Commission's Surrender Order and Conditions Should Reflect the Following Comments as Well

On the whole, the undersigned organizations strongly support PG&E's proposal for rapid removal of the Eel River dams. We urge the Commission to approve PG&E's LSA and move forward with a Surrender Order and conditions. Given the circumstances of the PVP, FERC conditions are clearly appropriate and necessary here to ensure public safety, to provide for removal of project works and restoration of project lands with the least harm and greatest public benefit. In general, we concur with PG&E's assessments of the resource issues in the LSA. In some areas, however, we urge the Commission to consider adopting conditions that would go beyond PG&E's proposals in the LSA.

Specific comments

The Final Surrender Application we address here was previously issued in draft form by PG&E in early 2025. We submitted extensive comments on the Draft Surrender Application.

[12] See PG&E's Draft Application for Surrender of License and Application for Non-Project Use of Project Lands, Volume 1 p.5-11 and 5-12.

Because the Final Surrender Application we address here is very similar in substance to the Draft, our comments on the Draft remain relevant to the Final now before the Commission. Thus, we specifically incorporate by reference our previous comments to PG&E on the draft License Surrender Application, attached as Exhibit A hereto.[13]

Our comments generally track the organization of PG&E's LSA. However, in some cases we have combined notes from various parts of the LSA into a single, more focused discussion.

Existing Project Operations

Existing operations of the Potter Valley Project are substantially different today compared to two decades ago, primarily because of reduced reservoir storage capacity. They cannot be sustained for long. Nor should they be.

The Potter Valley Project Violates Federal Law

PG&E's operation of the Project is contrary to the Endangered Species Act because it causes unpermitted take of ESA-listed species. Coho and Chinook salmon and steelhead trout in the Eel River are each listed as Threatened under the federal ESA.[14] As the National Marine Fisheries Service ("NMFS") advised the Commission on March 16, 2022, NMFS' 2003 Biological Opinion for the Project "provided incidental take authorization for implementing the

[13] Comments of the Free the Eel Coalition on the Draft Application for Surrender of License and Application for Non-Project Use of Project Lands, March 3, 2025 ("FTEC 2025") (attached as Exhibit A).
[14] Chinook salmon and steelhead populations in the Upper Eel River are listed as "threatened" under the federal Endangered Species Act. See 65 Fed. Reg. 36,074 (August 7, 2000) (listing Northern California steelhead); 64 Fed. Reg. 50,394 (Sept. 16, 1999) (listing California Coastal Chinook). Southern Oregon Northern California Coho are listed as "threatened" under the federal Endangered Species Act. See 62 Fed. Reg. 24,588 (May 6, 1997) and 70 Fed. Reg. 37,159 (June 28, 2005).

[RPA[15] flows] for a 20-year period, which elapse[d] on April 14, 2022."[16] The Commission's responsibility for ESA-listed species affected by the Project only increased when the Biological Opinion's incidental take statement expired.

In the same letter, NMFS also concluded that "the Project is causing take of ESA-listed salmonids in a manner not anticipated in the Opinion and from activities not described in the Opinion."[17] Thus, even if the incidental take statement had not expired, unauthorized take would still be occurring. In particular, "elevated temperature of water released from Lake Pillsbury" has exacerbated inter-species competition and predation, threatening production of juvenile steelhead below Scott Dam.[18] PG&E and the Commission must avoid unpermitted take of ESA-listed species.

Because PG&E abandoned its efforts to relicense the Project, the Project license has expired, and the Project is now operating under an Annual License.[19] Under the current Annual License, the Commission has violated and continues to violate Sections 7 and 9 of the ESA. Allowing the Project to continue operating under the terms of the Annual License without additional protections for listed Eel River fish is likely to jeopardize their continued existence

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[15] NMFS' 2002 Biological Opinion included a Reasonable and Prudent Alternative to avoid jeopardy to listed species in the Eel River, including a flow schedule that was then adopted by FERC. NMFS, *Biological Opinion for the Proposed License Amendment for the Potter Valley Project, Project No. 77-110* (Nov. 29, 2002), Doc. Accession No. 20021202-0257 ("Biological Opinion").

[16] See NMFS, Endangered Species Act and Magnuson-Stevens Fishery Conservation and Management Act Consultations on the Potter Valley Project (P-77) on the Eel River, California (March 16, 2022), Doc. Accession No. 20220317-5064 ("NMFS 3/16/22 Letter") at 1.

[17] Ibid.

[18] *Id*. at 2-3.

[19] FERC, *Notice of Authorization for Continued Project Operation* (April 21, 2022), Doc. Accession No. 20220421-3034 (hereinafter "Annual License").

and adversely modify their designated critical habitat.[20] In its concurrent application for a non-capacity license amendment, PG&E correctly stated that "the current flow regime under Article 52 does not provide adequate resource protection."[21]

The Project and its operation pursuant to the terms and conditions of the Annual License adversely impact ESA-listed Eel River salmonids in several ways. The Commission has failed and is failing to ensure that continued operation of the Project is consistent with conservation of listed species and is not likely to jeopardize their continued existence or destroy or adversely modify their designated critical habitat. To remedy these failures, Scott Dam must be removed to restore access to the cool headwaters of the mainstream Eel River, which will help restore severely depleted runs of mainstem Eel River salmon and steelhead. Cape Horn Dam also must be removed due to its impacts on fish passage.

Operation of the Potter Valley Project also violates the Clean Water Act. As detailed below, the Project's operations routinely lead to water temperatures dangerous or even lethal to native fish species. In addition, fish in the Lake Pillsbury reservoir bioaccumulate mercury at levels hazardous to human consumers.[22] The Eel River is listed pursuant to § 303(d) of the CWA as impaired for temperature and mercury, among other pollutants.[23]

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[20] FERC's issuance of the Annual License and denial of Movant-Intervenors' Request for Rehearing are at issue in petitions for review currently pending before the Ninth Circuit U.S. Court of Appeals. *Friends of the Eel River, et al. v. FERC* (Ninth Circuit Nos. 22-70182, 22-1589).
[21] PG&E, Application for Non-Capacity License Amendment and Response to Additional Information Request, vol. II at 5 (PDF 25) (Jan. 30, 2025) ("LAA"), Doc. Accession No. 20250130-5282.
[22] See LSA, vol. II at 2.2.3.2-36, 2.2.3.2-37, as discussed below.
[23] See LSA, vol. II at 2.2.3.2-7.

Further, it is increasingly clear that the operations of the project cannot physically be sustained. The Project stopped generating hydroelectric power in 2021.[24] PG&E has flatly stated that "current license-prescribed flows will be unobtainable in nearly all years."[25] The increasing limitations on reservoir storage reflect underlying weaknesses in Project infrastructure — especially the needle valve that is the only remaining low-level outlet from Scott Dam — that cannot practicably be repaired. Sediment continues to accumulate. Landslides, earthquakes, and big storms are all facts of life in the California Coast Range. Any could mobilize existing sediments and impinge the needle valve to the extent it ceases to function. Without the needle valve, the Project immediately ceases to function, leaving downstream fish and farmers equally out of luck.

Thus, because existing Project operations entail violations of federal law due to unpermitted environmental impacts, and because Project operations cannot practicably be sustained, dam removal as PG&E proposes in the LSA is clearly in the public interest.

Unavoidable Adverse Effects of Surrender of License

The LSA properly discloses that dam removal will result in unavoidable adverse effects. The Surrender Order should include conditions that best mitigate those effects in view of the circumstances at hand. Among the most serious unavoidable adverse effects will be those to aquatic life in the Eel River caused by flushing downriver sediments now trapped behind the

[24] PG&E, Letter to Frank L. Blackett, FERC, Re: Potter Valley Powerhouse Transformer Replacement – Follow Up (March 22, 2023), Doc. Accession No. 20230323-5013 (explaining that Potter Valley transformer failed in 2021 and that PG&E no longer intends to replace it).
[25] PG&E, 2024 Minimum Instream Flow Variance Request Due to Restricted Storage Capacity at 2 (PDF 14) (Feb. 21, 2024), Doc. Accession No. 20240222-5015.

dams. PG&E has clearly outlined the reality that flushing the sediments following dam removal will result in lethal conditions for aquatic life through much of the mainstem Eel River:

> *Short-term unavoidable adverse effect on suspended sediment and turbidity in the Eel River from removal of the dams for a period of several days up to several months for which no mitigation is possible …*
> *– This effect is likely to extend along the entire length of the Eel River, including the estuary and the nearshore ocean environment.*
> *– This action would also have a smaller long-term effect of increased turbidity during high-flow events as the remainder of the sediments are remobilized and carried out to the ocean potentially for 1 to 3 years.*
> *Short-term unavoidable adverse effect on dissolved oxygen in the Eel River from Scott Dam removal for a period of several days and as far as 40–50+ mi. downstream from Scott Dam for which no mitigation is possible.*[26]

In virtually any other circumstance, we would oppose any action that might cause such a result. But as PG&E has shown, the only real alternative to flushing all the sediment at once would be to flush it in two or three separate tranches – each of which would be just as deadly as flushing the sediments all at once.[27] The sediments will inevitably come downstream. Rapid dam removal is the responsible choice. Careful and judicious management should result in most of it coming down in as brief a period as possible.

The sediment trapped by Scott and Cape Horn dams is truly an unavoidable adverse effect of dam construction. By interrupting the upper mainstem Eel River's sediment transport mechanisms, the dams have guaranteed that at some point their impounded sediments will move downstream together in much greater aggregate volume. The proposed rapid dam removal process will allow the trapped sediment to move as quickly and completely as possible in a single event, minimizing the duration of the unavoidable effects. Similarly, the LSA proposes to

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[26] LSA, vol. IA at 6-2.
[27] See PG&E's Draft Application for Surrender of License and Application for Non-Project Use of Project Lands, Volume 1 p.5-11 and 5-12.

minimize unavoidable effects to other resources where possible. The Surrender Order should include conditions which reflect and guide these efforts.

Existing Project Facilities

Several footnotes on page 2-9 of Volume II of the LSA were not included in the Draft Surrender Application. These notes summarize information about the Lake Pillsbury reservoir that is fundamental to understanding and evaluating existing PVP operations. Footnote three describes the decline in the storage capacity of the Lake Pillsbury reservoir over time "due to an accumulation of silt and sediment loads," such that PG&E's 2023 bathymetry survey of the reservoir found that its gross storage capacity had been reduced to just under 70,000 acre-feet.[28] For context, in its 2017 Pre-Application Document, PG&E cited bathymetry from 2015-2016 and a gross storage capacity of 76,876 ac-ft.[29]

As footnote four clarifies, gross storage capacity is not usable storage capacity.[30] Per footnote five, the Lake Pillsbury reservoir's usable storage capacity is limited, again, by "accumulation of silt and sediment loads," such that PG&E "can maintain a minimum of 10,000 acre-feet of storage (unusable storage) in the reservoir but strives to maintain no less than 12,000 acre-feet."[31] Again, the purpose of these restrictions is to protect the needle valve.[32]

Footnote six summarizes PG&E's response to new seismic risk analysis for Scott Dam; having "discontinued closing the gates on Scott Dam" in 2023, PG&E now maintains the water

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[28] LSA, vol. II at 2-9. n.3.
[29] See PG&E, Notice of Intent to File Application for New License and Pre-Application *Document*, at 4-31 (gross storage capacity) and 4-13 (usable storage capacity) (April 6, 2017), Doc. Accession No. 20170406-5314 (hereafter "PAD").
[30] See LSA, vol. II at 2-9, n.4.
[31] See LSA, vol. II at 2-9, n.5.
[32] See, e.g., PAD at 5-93.

level in the reservoir "at or below the spillway crest elevation," ten feet lower than with the gates closed.[33] Footnotes seven and eight do the math: "(u)nder current operations" while "the reservoir's gross storage capacity is approximately 53,248 ac-ft," "the reservoir's usable storage capacity is approximately 43,248 ac-ft."[34] Current storage capacity is thus about 23,000 ac-ft less than the 66,876 ac-ft of usable storage capacity PGE reported in 2017.[35]

Put differently, Lake Pillsbury reservoir's usable storage capacity is now only about two-thirds what it was just a decade ago. Because sedimentation is an unstoppable natural process, these reductions in capacity will continue. Similarly, the seismic threat to Scott Dam is unlikely to diminish such that the radial gates can again be safely closed.

These facts are repeated in the description of the Lake Pillsbury reservoir at page 2-32 of the LSA. Together, these dramatic reductions in the Project's usable storage capacity substantially constrain PG&E's operations and options with respect to meeting scheduled flows and maintaining habitat and water quality. The facts of these capacity reductions, and their causes, do a great deal to explain why PG&E seeks to surrender its license to operate the PVP, and they provide substantial justification for the Commission to approve the present Application and issue a Surrender Order as soon as practicable.

Footnote two on page 2-32 of the LSA summarizes the decision to leave the spillway gates open to reduce seismic risks. We respectfully repeat that the California Division of Dam Safety has also ordered PG&E not to close the gates again without its permission.[36]

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[33] LSA, vol. II at 2-9, n.6.
[34] *Id*., n. 7-8
[35] See PAD at 4-13.
[36] Sharon K. Tapia, P.E. Division Manager, Division of Safety of Dams, California Department of Water Resources, letter to Jan Nimick, Vice President of Power Generation at PG&E and David Ritzman, Chief Dam Safety Engineer, dated April 12, 2023.

2.1.2.1 Surrender of License / 2.1.2.1.1 Decommissioning Plan

Decommissioning of Project Facilities and Features

Removal of both PVP dams in a single year is the centerpiece of PG&E's LSA. PG&E summarizes the basic plan:

> *Under the Proposed Action, PG&E would initiate removal of Scott Dam and Cape Horn Dam during the same low-flow season. During the first high-flow season after the initial removal, the adit plug at Scott Dam and the cofferdams at Cape Horn Dam would be removed simultaneously or in close sequence to flush sediment from the reservoirs. Final dam removal activities at the Scott Dam site would occur during the second low-flow season (the first low-flow season after sediment flushing). The majority of removal activities at Cape Horn Dam would occur during the first initial low-flow season.*[37]

We strongly support PG&E's Proposed Action; indeed, we see dam removal in the near term as an urgent measure to prevent potentially catastrophic harms to Eel River salmon and steelhead and as the key to salmonid recovery in the upper Eel River watershed. Given that the dams must be removed, PG&E's plan to remove both Scott and Cape Horn dams during the same season is clearly preferable to the possible alternatives, which would increase impacts without corresponding benefits.[38]

We appreciate the detailed explanations of specific steps outlined in the Decommissioning Plan, as well as the clear illustrations of planned changes overlaid on existing project facilities. These details help us to support PG&E's proposed action as well-considered and likely to be carefully implemented. The Decommissioning Plan is a sufficient framework for FERC's Surrender Order, and should be approved largely as drafted.

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[37] LSA, vol. II at 2-46.
[38] See PG&E's Draft Application for Surrender of License and Application for Non-Project Use of Project Lands, Volume 1 p.5-11 and 5-12.

Recreation Facility Removal

PG&E's proposed Decommissioning Plan notes specific exceptions to the Draft LSA's proposal to remove and restore all Project recreation facilities:

> *All Project recreation facilities (i.e., campgrounds and day-use areas) will be removed and the sites will be restored (with the exception of Pogie Point Campground, Sunset Campground, Oak Flat Campground, and Navy Camp Campground).*[39]

Later in the document, PG&E notes with respect to all of its campgrounds: "Pogie Point, Sunset, Oak Flat, Navy Camp, and Trout Creek campgrounds are not proposed to be removed. They will be left in place or removed and restored."[40] We encourage the Commission to require that those sites be transferred to agencies which will assume responsibility for their maintenance and supervision. We also encourage PG&E to consider improvements to those facilities to enhance visitors' experience of the restored, post-dam removal landscape.

Removal of NERF Facilities and Lands from FERC License

During the same summer that Scott and Cape Horn dams are removed, the LSA provides for construction of the New Eel-Russian Facility ("NERF"), a new diversion works that will allow wet season diversions from the upper Eel to the East Branch Russian River through the existing tunnel and penstock infrastructure of the PVP. After the NERF is built, and consistent with the expressed wishes of the parties involved in the NERF, the LSA proposes to remove it and the appurtenant water transfer facilities from the FERC license prior to the conclusion of the surrender process:

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[39] LSA, vol. II at 2-60.
[40] LSA, vol. II at 2.2.4.9-6

> *As part of the Surrender Application, PG&E is requesting that FERC include a condition in the Surrender Order to remove Project lands and facilities occupied by the NERF from the FERC license once (1) PG&E has completed decommissioning work at Cape Horn Dam and other project works necessary for the NERF, (2) the NERF has been constructed, and (3) PG&E has filed a completion report to FERC on these actions.*[41]

We support PG&E's request for such a condition in the Surrender Order, subject to the suggested provisions. The NERF will not be a hydroelectric project subject to FERC jurisdiction. The settlement parties seek removal of the NERF facilities from the Project license prior to the completion of license surrender to reduce uncertainty regarding the effect of dam removal and license surrender on continued diversions to the East Branch Russian River.

Decommissioning and Restoration Sequencing

We can only underscore the importance of FERC's conditions for the successful implementation of the project. The Environmental Measures, as implemented in the various management plans, will be essential to the broader success of the dam removal project, both in achieving its restoration goals and in avoiding potential harms. We encourage PG&E and FERC to develop and approve those plans, with appropriate consultation, as expeditiously as feasible. As PG&E writes, "decommissioning and restoration schedule is contingent on FERC's order approving PG&E's decommissioning plan and final engineering designs, and associated conditions of the Surrender Order."[42]

[41] LSA, vol. II at 2-76.
[42] LSA, vol. II at 2-79.

2.2.3.1 Water Use and Hydrology

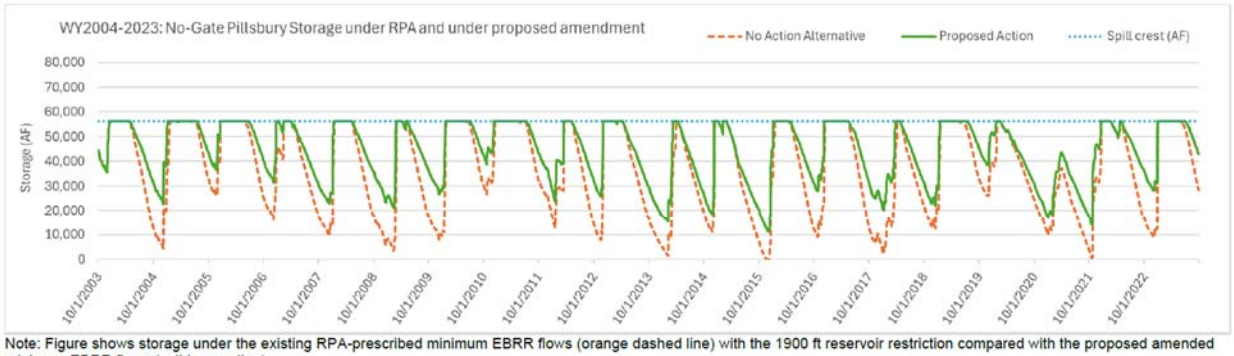
As noted, PG&E's operation of the PVP is substantially constrained by the recent reductions in Lake Pillsbury reservoir storage. The LSA explains that:

> *PG&E must comply with RPA flow requirements as described in NMFS's 2002 biological opinion (NMFS 2002). However, since 2013, PG&E has been requesting and receiving temporary reduced flow variances from FERC due to droughts, cold-water pool concerns, and, as of 2023, seismic restrictions at Lake Pillsbury reservoir that implement a 10-ft. reservoir restriction. PG&E submitted a non-capacity license amendment that includes reduced flows similar to the most recent variance requests.*[43]

The annual variances and the Non-Capacity License Amendments are necessary, as PG&E has explained, because it cannot meet the RPA flow requirements in most years and avoid endangering ESA-listed steelhead. Figure 1 is from PG&E's January 2025 *Application for Non-Capacity License Amendment* submission to FERC, where it appeared as Fig 3-1.[44] The green line is the flows proposed under the license amendment. The dashed orange line shows the flows now required under the RPA.

[43] LSA, vol. II at 2.2.3.1-4.
[44] PG&E, Potter Valley Hydroelectric Project (FERC Project No. 77-318) *Application for Non-Capacity License Amendment and Response to Additional Information Request*, Jan. 30, 2025, vol. III at 3-14.

Figure 1



Note: Figure shows storage under the existing RPA-prescribed minimum EBRR flows (orange dashed line) with the 1900 ft reservoir restriction compared with the proposed amended minimum EBRR flows (solid green line).

Figure 3-1. Modeled Lake Pillsbury storage from water year 2004 through 2023 with the spillway gates open.

The graphic shows that reduced Lake Pillsbury reservoir storage increases the risk of irreparable damage to PVP infrastructure. With current usable storage levels, the PVP could not have met RPA flows in thirteen of the last twenty years without dropping the reservoir below PG&E's 12,000 acre foot "warning" level. In six years, the 5,000 acre foot "critical" level would have been exceeded.

Similarly, Figure 1 illuminates the problem PG&E confronts in managing the Lake Pillsbury reservoir to protect a cold water pool through the summer, a critical measure to avoid harm to ESA-listed steelhead. By contrast to the flows proposed in the Non-Capacity License Amendment, the RPA flows occur earlier in the season and take a larger portion of storage. Both factors reduce and mix the cold water component of the reservoir pool, resulting in high temperatures in both the reservoir and the upper mainstem below Scott Dam.

The proposed Non-Capacity License Amendment must be approved as soon as possible. The flow schedule proposed in the amendment, and detailed in the LSA here at ***Proposed***

License Amendment Flow Requirements should be the baseline for the Commission's analysis of future Project operations.[45]

PG&E's reporting and analysis of water use and hydrology in the LSA is accurate as to current conditions. The document does not, however, fully address the impact of climate change on future water use and hydrology in the PVP area. The LSA does note that "(d)ue to the effects of ongoing climate change, future hydrologic patterns may differ from the hydrology described by the existing hydrologic record/data."[46] We can be a bit more specific about the probable direction of those differences. The elevated temperatures, earlier snowmelt, and increased variability in precipitation forecast in climate models are already visible in the last decade's actual records. Available evidence strongly suggests that these changes, especially increasing temperatures and more frequent dry years, will only exacerbate the difficulty PG&E now faces in continuing to operate the PVP.

Figure 2.2.3.1-23 ("Potter Valley Powerhouse monthly generation, 2007–2023") provides a useful historical context for PVP operations over the last two decades in particular.[47] The PVP produced relatively regular annual peaks of power generation in most years with normal or high flows prior to the 1990s. Following the listing of Eel River Chinook and steelhead, and the adoption of the RPA flow prescriptions in the mid-2000s, PVP power production fell dramatically. The practicability of the PVP as a hydroelectric project depended on PG&E's ability to operate without regard for impacts on Eel River fisheries. Once Eel River Chinook and steelhead were listed under the federal ESA and basic protective flows were adopted, the PVP

[45] LSA, vol. II at 2.2.3.1-10 et seq.
[46] LSA, vol. II at 2.2.3.1-14.
[47] LSA, vol. II at 2.2.3.1-35.

became an expensive, and increasingly unsustainable and unreliable, water supply system with a hydroelectric license.

Adoption of the proposed Non-Capacity License Amendment will relieve PG&E and the Commission of the burden of annual requests for flow variances. But it will not solve the fundamental problems of reduced storage, unpermitted and potentially catastrophic effects on ESA-listed species, and failing, seismically vulnerable infrastructure, which only compound the fact that the PVP has long ceased to be an economically valuable asset. Dam removal, as proposed in the LSA, does address those fundamental issues. The sooner dam removal can be accomplished, the sooner the harms associated with PVP operations will cease, and the sooner the benefits of dam removal can begin to be realized.

2.2.3.2 Water Quality / 2.2.3.2.4 Existing Water Quality Data

Water Temperature / Eel River

The LSA provides a generally accurate picture of water quality issues in and around the PVP. However, on two important notes, we disagree with PG&E regarding water temperatures in the Eel River. The first has to do with how PVP operations affect water temperature below Scott Dam, in the habitat now available to salmon and steelhead. The second has to do with water temperatures in the basin above Scott Dam, in the habitat the fish cannot now reach.

Reservoir Temperatures and the Interdam Reach

PG&E describes PVP operations as lowering water temperatures in the reach between Scott and Cape Horn Dams. “Summer water temperatures in the Eel River between Scott Dam and Van Arsdale Reservoir are colder during the late spring and summer than would occur under

unimpaired conditions."[48] The LSA explains that these cooler temperatures are both beneficial and detrimental to juvenile salmonid production:

> *The cold water released during summer provides rearing habitat for juvenile steelhead. This, along with nutrients released from the reservoir, promotes rapid fish growth. However, cold water temperatures in the spring can delay the outmigration of juvenile salmonids from the upper watershed, which can result in migration through downstream reaches when water temperatures are inhospitable. Warm surface water releases from Lake Pillsbury reservoir combined with pulse flow releases have been used to encourage timely outmigration (i.e., the use of "block" water, which is reserved for release at the discretion of resource agencies to enhance aquatic habitat as specified by NMFS's RPA). Downstream of Van Arsdale Reservoir, summer water temperatures in the Eel River warm rapidly to equilibrium levels, which results in habitat conditions that are marginal to lethal for juvenile steelhead below the reservoir and would be lethal for coho salmon if they were present in the river.*[49]

The problem is that PVP operations don't always lower water temperatures in the interdam reach. The unfortunate reality is that, largely because of delays in variance approval, PVP operations in recent summers have led to dangerously high water temperatures in the Lake Pillsbury reservoir itself and thus in the reach below Scott Dam as well.

High water temperatures alone reduce the survival and growth of juvenile steelhead. But as PG&E has explained, in the inter-dam reach of the Eel River, high water temperatures are especially dangerous for juvenile steelhead because Sacramento pikeminnow introduced to the Eel River via the Project facilities "outcompete juvenile steelhead at temperatures [between] 20-23°C."[50] Thus, it is necessary to "manage withdrawals from the reservoir to minimize the

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[48] LSA, vol. II at 2.2.3.3-9.
[49] LSA, vo. II at 2.2.3.3-9.
[50] PG&E, Potter Valley Hydroelectric Project, FERC No. 77-CA 2024 *Minimum Instream Flow Variance Request Due to Restricted Storage Capacity* (FERC Docket No. P-77) (February 21, 2024), p. 10.

duration juvenile steelhead trout are exposed to pikeminnow at temperatures above 18°C in late summer."[51]

However, as PG&E wrote in its 2025 flow variance request:

> *The conclusion of the PG&E water temperature analysis was that there are limited options for mitigating high water temperature in the release from Lake Pillsbury in the late-summer and early-fall months. The limited options are caused by the relatively shallow reservoir (small, deep-water volume), minimal spring/summer reservoir inflow that is typically warm, and summer withdrawals that are made from a low-level outlet that mixes the warm, upper layers of the reservoir throughout the water column.*[52]

That water temperature analysis concluded that "managing releases was **the only tool available** to moderate water temperature releases from the reservoir."[53] (emphasis added) Those releases are also a key driver of water temperature increases downstream of Scott Dam, because high diversion volumes speed the mixing of cold and warm water in the reservoir. As PG&E explained in 2022:

> *The small storage volume present in the deeper portions of the reservoir means that there is a limited supply of cooler water that is continuously being mixed with warmer surface water via discharges from the low-level outlet. This results in gradually warming discharges (as measured at gage E-2), especially during periods of high-volume releases.*[54]

In its March 25, 2025, letter of support for the proposed 2025 temporary flow variance, the California Department of Fish and Wildlife emphasized the urgency of the matter, writing:

> *The delayed implementation of the 2023 variance contributed to a 2.5°C warmer maximum release temperature than in 2022, despite 2023 being a much wetter year, indicating early season management of Lake Pillsbury's cold-water storage is critical to meeting salmonid temperature requirements in the Eel River later in the*

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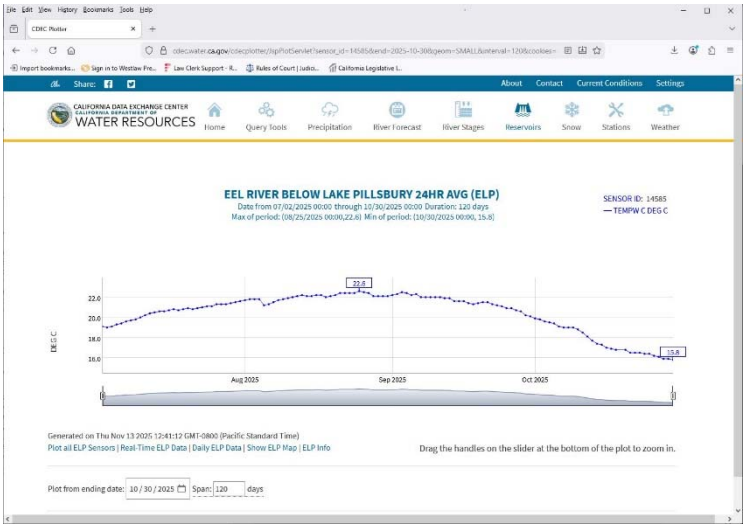
[51] Ibid.
[52] PG&E, Potter Valley Hydroelectric Project, FERC No. 77-CA 2025 *Minimum Instream Temporary Flow Amendment Request* (FERC Docket Nos. P-77-323, 331) (February 14, 2025), p 3.
[53] PG&E, Potter Valley Hydroelectric Project, FERC No. 77-CA 2023 *Flow Variance Request Due to Limited Storage Capacity* (May 22, 2023), p 7.
[54] Ibid.

season. Water temperatures in August and September of 2023 were very close to the lethal threshold for rearing steelhead trout of 23°C, with an observed peak of 22.6°C. A rapid approval of the 2025 Temporary Amendment is necessary to avoid water temperatures approaching, meeting, or exceeding this lethal threshold again.[55]

Despite these entreaties, PG&E's 2025 flow variance request was again not approved until the reservoir's cold water pool had already been diverted down the East Branch Russian River to meet RPA requirements, leaving a mixed, rapidly heating reservoir. According to temperature data maintained by the California Department of Water Resources,[56] in the summer of 2025, releases from Scott Dam measured at or above 20°C for more than 80 days, from early July to late September, topping out above 22°C twice.



[55] Tina Bartlett, California Department of Fish and Wildlife, March 25, 2025 letter to FERC, Subject: *Request for the Federal Energy Regulatory Commission to Approve Pacific Gas and Electric Company's February 14, 2025, 2025 Minimum Instream Temporary Flow Amendment Request* (Project no. 77-214). Document Accession no. 20250326-5090.

[56] California Department of Water Resources, Eel River Below Lake Pillsbury 24hr Average (ELP), 07/02/2025 through 10/30/2025, at https://cdec.water.ca.gov/cdecplotter/JspPlotServlet?sensor_id=14585&end=2025-10-30&geom=SMALL&interval=120&cookies= (visited Nov. 13, 2025).

Approval of the proposed Non-Capacity License Amendment is a matter of urgent necessity simply to reduce these continuing harms. However, fully resolving these problems will require dam removal, as proposed in the LSA.

Water Temperature In Upper Basin Potential Habitat

As well, we are concerned that the LSA does not present adequate information reflecting the abundance of high quality salmonid habitat above Scott Dam. While PG&E presents detailed water temperature data for a series of stations in the Eel River below Scott Dam, it includes just one data point above Scott Dam (Bloody Rock on the upper mainstem).[57]

In counterpoint, a recent peer-reviewed study of salmonid habitat potential (including temperature) in the Upper Eel River basin above Scott Dam found that:

> *(T)he currently inaccessible Upper Mainstem had the second highest proportion of cool-water refugia and suitable channel type of the Eel's subbasins. We found that the Upper Mainstem harbors a significant amount of suitable habitat and could likely sustain anadromous populations of winter-run steelhead trout, summer-run steelhead trout, and fall-run Chinook salmon, even during a warm year. …Based on our thermal and geomorphic habitat assessments,* ***the blocked Upper Mainstem generally contains a higher proportion of suitable habitat for all freshwater salmonid life stages than much of the rest of the Eel River Basin****.*[58] *(emphasis added)*

The researchers noted that the cool upper basin may provide a refuge in warm years:

> *Relative to much of the rest of the Eel River Basin, the blocked Upper Mainstem has a greater proportion of thermally suitable habitat that could be readily exploited, even in summer during a warm year, by both steelhead trout and Chinook salmon.*

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[57] See LSA, vol. II at 2.2.3.2-11 (Table 2.2.3.2-3) (Maximum weekly average temperature (MWAT) summary for Eel River and tributary locations included in PG&E's Annual Summer Water Temperature Monitoring Program, 2005–2015).

[58] Fitzgerald, A.M., D.A. Boughton, J. Fuller, S.N. John, B.T. Martin, L.R. Harrison, and N.J. Mantua. 2022. Physical and biological constraints on the capacity for life-history expression of anadromous salmonids: an Eel River, California, case study. *Canadian Journal of Fisheries and Aquatic Sciences* 79:1023–1041. Source: https://www.researchgate.net/publication/356798071_Physical_and_biological_constraints_on_the_capacity_for_life-history_expression_of_anadromous_salmonids_an_Eel_River_California_case_study.

> *This indicates that the Upper Mainstem could be an important and productive subbasin for the Eel River Basin during abnormally warm years, which are expected to increase in frequency with anthropogenic climate change.*[59] *(emphasis added)*

Thus, PG&E's estimate of potential and suitable fisheries habitat in the upper basin above Scott Dam may be too cautious. We note that Klamath dam removal has resulted in more rapid reductions in stream temperatures, and faster and more substantial returns of salmon runs to the reaches above the former dam sites, than projected in dam removal planning. We encourage PG&E and FERC to prepare to be surprised by the fisheries response to dam removal on the Eel River. As we noted in our comments to the Water Board regarding CWA § 401 certification of the proposed dam removal project (attached as Exhibit B hereto and incorporated by reference):

> *Overall, the SWRCB's 401 certification clearly helped guide Klamath dam removal to successful outcomes. Recent reports indicate that water temperatures have dramatically improved for salmon at the former Klamath dam sites, while dissolved oxygen levels have stabilized.*[60] *Most importantly, salmon are returning farther upstream above the former dams and in greater numbers than projected. As one representative report quoted the Yurok Tribal Fisheries Director, "(t)he speed and scale of the river's recovery has exceeded our expectations and even the most optimistic scientific modeling, proving that when the barriers fall, nature has an incredible power to heal itself," said Barry McCovey Jr. … "Biologists were expecting it to take several years for sediment to clear out of the system, but the river has rebounded much faster than expected."*[61] *We are confident the Board's experience with the Klamath process has left Water Quality Certification staff better placed to evaluate the removal of the Eel River dams. The greatest lesson may be not to underestimate the potential for rapid recovery.*[62]

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[59] Ibid.
[60] J. Burns. 2025. Klamath River temperatures changed dramatically after dam removal. That's helping salmon swim farther upstream. *Oregon Public Broadcasting:* Oct 28, 2025. Source: https://www.opb.org/article/2025/10/28/klamath-river-temperatures-dam-removal-salmon-upstream/
[61] R. Dzombak. 2025. A river restoration in Oregon gets fast results: The salmon swam right back. New York Times: Oct. 29, 2025. Source: https://www.nytimes.com/2025/10/29/climate/klamath-salmon-recovery.html
[62] Friends of the Eel River, et al., Letter to Wilhelmina Chon, State Water Resources Control Board, Re: Potter Valley NOP Comments at 6 (Oct. 31, 2025).

The California Department of Fish and Wildlife reports that "scientists are seeing salmon reoccupying just about every corner of their historic habitat" above the former Klamath dams.[63] The Oregon Department of Fish and Wildlife and Klamath Tribes have reported seeing widespread salmon spawning within the Oregon portion of the Klamath River, including within multiple tributaries upstream of Klamath Lake where salmon haven't been seen in more than century.[64]

While the upper Eel River in the PVP area now suffers from quite severe, if seasonal, high temperature issues due to PVP operations, those impairments can be permanently removed with Scott and Cape Horn dams. Dam removal will allow passage above Scott Dam to habitat that has been inaccessible to migrating fish for a century. That habitat compares favorably to other parts of the Eel River watershed where Chinook and steelhead populations are apparently holding steady or recovering. Both by addressing present problems, and by opening the way to future success, dam removal as proposed in the LSA will clearly serve the broad public interest.

Water Quality Impaired Water Bodies

The LSA adds significant discussion of the Clean Water Act § 303(d) listing status of sections of the Eel River and the pollutants impairing those segments. Of particular note, PG&E writes that "Though the NCRWQCB has not completed a TMDL addressing the mercury

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[63] See California Department of Fish and Wildlife, 'Salmon Everywhere' One Year After Klamath Dam Removal November 19, 2025. https://mavensnotebook.com/2025/11/19/cdfw-salmon-everywhere-one-year-after-klamath-dam-removal/ "The speed at which salmon are repopulating every nook and cranny of suitable habitat upstream of the dams in the Klamath Basin is both remarkable and thrilling," said Michael Harris, Environmental Program Manager of CDFW's Klamath Watershed Program. "There are salmon everywhere on the landscape right now, and it's invigorating our work."

[64] See Oregon Department of Fish and Wildlife, *Salmon hit more milestones in the Klamath River: Chinook reach areas above Upper Klamath Lake,* October 17, 2025 https://myodfw.com/news/salmon-hit-more-milestones-klamath-river-chinook-reach-areas-above-upper-klamath-lake

impairment in Lake Pillsbury, there are draft work products characterizing the impairment and identified sources."[65] The LSA adds discussion of California Office of Environmental Health Hazard Assessment (OEHHA) fish consumption advisories issued for the Lake Pillsbury and Lake Mendocino reservoirs. The LSA does not state that those advisories were mercury related, but at least the Lake Pillsbury reservoir advisory was.[66]

Fish Tissue Mercury Sampling

The LSA provides additional discussion of mercury in this section, including a helpful statement of the relevant human health standard: "An approximate numeric target to protect human health is 0.2 mg/kg methylmercury per kg fish tissue, average wet weight, in fillets of commonly consumed fish."[67] The LSA provides additional detailed data regarding mercury levels in Lake Pillsbury reservoir sportfish. These results show those fish **usually contain unsafe levels of methylmercury**, as PG&E concedes: "Total mercury concentrations in Lake Pillsbury reservoir sportfish tissue were generally greater than 0.2 µg/g (0.2 mg/kg) wet weight (Table 2.2.3.2-10, PG&E 2019a)."[68] Dam removal should substantially resolve these threats to public and environmental health.

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[65] LSA, vol. II at 2.2.3.2-7.
[66] Ibid.
[67] Id. at 2.2.3.2-36
[68] Id. at 2.2.3.2-37. The subject sentence is footnoted in the LSA as follows: "California statewide water quality objective for methylmercury in sportfish is 0.2 mg/kg, wet weight (SWRCB 2017). State Water Resources Control Board (SWRCB). 2017. Final part 2 of the water quality control plan for inland surface waters, enclosed bays, and estuaries of California-Tribal and subsistence fishing beneficial uses and mercury provisions. Source: https://waterboards.ca.gov/water_issues/programs/mercury/docs/hg_prov_final.pdf."

Potential Harm to Salmonids from 6PPD-Q

The LSA does not address the rising evidence of the harm to salmonids resulting from runoff to aquatic systems containing tire particles and the breakdown products of the tire preservative compound 6PPD-Quinone.[69] We are particularly concerned that heavy equipment may produce even larger volumes of tire particles given their weight. Thus, we urge FERC to consider conditions which will minimize and mitigate the addition of tire particles to Eel River waters.

2.2.3.3 Fish and Aquatic Resources

The LSA provides a detailed description of Eel River aquatic resources that should assist the Commission in verifying the substantial public benefits that dam removal will secure in improved conditions and increased access to habitat for Eel River fisheries. The LSA broadens its description of these resources from the Draft LSA's "...fish and aquatic resources in the vicinity of PGE's PV Hydroelectric project" to "...fish and aquatic resources in the vicinity of PGE's PV Hydroelectric project, which includes the Eel River from upstream of Lake Pillsbury reservoir downstream to the ocean, including the East Branch Russian River of Lake Mendocino."[70] This change appropriately reflects potential for dam removal to alter the aquatic environment from the Project area to the Pacific.

[69] See e.g. NFMS Roadway Runoff Known to Kill Coho Salmon also Affects Steelhead, Chinook Salmon, Aug 24, 2025. See https://www.fisheries.noaa.gov/feature-story/roadway-runoff-known-kill-coho-salmon-also-affects-steelhead-chinook-salmon.
[70] LSA, vol. II at 2.2.3.3-1.

The Eel River basin is a critically important area for ESA-listed coho salmon, Chinook salmon, and steelhead. None of these species can recover and be delisted without basin wide recovery.[71]

Potential habitat above Scott Dam

PG&E's assessment of the extent of suitable habitat accessible to salmonids in the upper basin may also be too cautious. Fish passage barriers noted in Maps 2.2.3.3-1 to 2.2.3.3-4 are based on relicensing surveys conducted by PG&E in 2018, according to the map titles.[72] According to text in the final LSA, these surveys were done by helicopter, with "targeted ground-based field surveys for barrier data collection."[73]

Analysis of each barrier in CDFW's publicly available habitat survey database by TRIB Research calls into question whether many of these identified barriers actually impede fish passage. TRIB Research combined CDFW's extensive habitat surveys with field observations to assess each of the barriers shown on maps in the Draft LSA. This analysis adds a significant amount of habitat beyond PG&E's estimate.

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[71] See Nat'l Marine Fisheries Svc., Final recovery plan for the Southern Oregon/Northern California Coast evolutionarily significant unit of coho salmon (Oncorhynchus kisutch) (Jan. 1, 2014), at https://repository.library.noaa.gov/view/noaa/15985 (accessed Nov. 25, 2025) ("NMFS 2014"); Nat'l Marine Fisheries Svc., Final Coastal Multispecies Recovery Plan for California Coastal Chinook Salmon, Northern California Steelhead and Central California Coast Steelhead (Oct. 1, 2016), at https://www.fisheries.noaa.gov/resource/document/final-coastal-multispecies-recovery-plan-california-coastal-chinook-salmon (accessed Nov. 25, 2025) ("NMFS 2016"). As described in NMFS' recovery plans for SONCC coho salmon (NMFS 2014) and CC Chinook salmon and NC Steelhead (NMFS 2016), each listed ESU or DPS is composed of multiple groups of populations, or "diversity strata." No ESU or DPS can be viable (at low risk of extinction) and thus eligible for delisting unless all of its diversity strata are viable. No diversity stratum can be viable unless enough of its component independent populations are viable. Populations in the Eel River are key components of diversity strata for each of these species; therefore, no ESU or DPS can be viable and delisted without viability of those key Eel River populations. For example, three of the five diversity strata of NC steelhead are made up entirely of Eel River populations (NMFS 2016).

[72] LSA, vol. II at 2.2.3.3-15, 2.2.3.3-21.

[73] Id. at 2.2.3.3-11.

CDFW's habitat survey reports are based on field evaluation of habitat in each creek. They describe any barriers encountered. These surveys constitute the best available scientific information on the current status of each barrier: conditions observed in the field by trained fish biologists. When a barrier shown on one of PG&E's maps is not mentioned in the habitat survey report for that tributary, the absence of a barrier has been field verified.

In the comments on the Draft LSA attached as Exhibit A, the Free The Eel Coalition included two maps (modifications of PG&E's maps from the Draft LSA) that summarize the available information about the accessibility of habitat, especially for steelhead, above Scott Dam.[74] Fisheries experts[75] have concurred, based on their assessment of Bloody Rock Roughs, and observations of anadromous steelhead upstream of far more significant barriers in similar watersheds (Van Duzen, Middle Fork Eel, Mad River), that Bloody Rock Roughs is most likely passable at flows that would occur on an annual basis. Designation of Bloody Rock Roughs as an impassible barrier in the draft and final LSAs is based on quantitative model results, according to the legend on Map 2.2.3.3-3,[76] and there appears to have been no ground-truthing of this finding.

These assessments primarily matter to the extent they are accurate estimates of the potential for salmonid recovery. More miles of suitable stream habitat suggests greater productive potential, and the ability to support a larger population. Again, PG&E's LSA tends to underestimate the potential for salmon and steelhead recovery following dam removal.

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[74] See Ex. A at 32-33 (FTEC 2025) (comments of Free The Eel Coalition on the Draft LSA)
[75] Thompson, Shaun, CDFW retired Fisheries Biologist; Cooper et al., 2020, assessed barrier in winter and spring flows and determined it would only potentially be a barrier during abnormally dry years. See Cooper, E. J., A.P. O'Dowd, J.J. Graham, D.W. Mierau, W.J. Trush, R. Taylor, 2020*, Salmonid Habitat and Population Capacity Estimates for Steelhead Trout and Chinook Salmon Upstream of Scott Dam in the Eel River, California, Northwest Science, Vol. 94, No. 1,*
[76] LSA, vol. II at 2.2.3.3-19.

Nonetheless, even PG&E's perhaps overly conservative projections of potential habitat provide ample support for a Commission finding that dam removal is clearly in the broad public interest based on the benefits to Eel River fisheries alone.

2.2.3.3.2 Overview of Fish and Aquatic Resources / 2.2.3.3.3. Eel River Fish Passage Barriers

The LSA adds to its discussion of "critical riffles," which it describes as shallow riffles that are "the most significant obstacles to adult passage in the Eel River downstream of Cape Horn Dam." PG&E notes that:

> *NMFS in their April 9, 2025, comments on the draft Surrender Application noted that "the primary impediments are likely now the critical riffles in the Lower Eel River (near Van Duzen River). Most spawning individuals suffer from extended periods of delayed migration in this area until rising flows allow for upstream passage."*[77]

The LSA also updates its description of temporary seasonal barriers that DFW had installed near the mouth of the Van Duzen in an attempt to mitigate fish passage issues caused by gravel mining. We take NMFS' statement to mean that riffles in the reaches below Cape Horn dam no longer present important passage impediments. We urge the Commission and PG&E to study this question further in preparation for dam removal.

2.2.3.3.5 Lake Pillsbury Reservoir

PG&E provides additional facts in the LSA about the Lake Pillsbury reservoir.[78] Of particular note, the LSA adds discussion of PGE's recent pikeminnow suppression efforts.[79]

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[77] LSA, vol. II at 2.2.3.3-30.
[78] Id. at 2.2.3.3-95 et. seq.
[79] Id. at 2.2.3.3-98.

Sacramento pikeminnow are invasive to the Eel River. PG&E reports in the LSA that "pikeminnow were introduced in approximately 1979," and provides population data consistent with that date.[80] Pikeminnow both compete with and predate on native fish, but also thrive in the warmer waters created by the reservoir environment. As PG&E notes, the impacts of pikeminnow introduction on juvenile steelhead were quickly apparent. "A decline in juvenile steelhead and a rapid increase in Sacramento pikeminnow populations beginning in the early 1980s are seen in the historical sampling data."[81] Later in the LSA, PG&E notes "the growth of juvenile steelhead decreases and stream positioning (i.e., proximity to food resources) diminishes in warmer water (20–23°C) containing juvenile Sacramento pikeminnow."[82]

This point underscores the importance of dam removal in restoring access to the upstream reaches above Scott Dam where pikeminnow will be disfavored. It also strongly suggests that suppressing populations of pikeminnow before and after dam removal will be necessary for restoration of robust native fish populations in the Eel River.

2.2.3.3.10 Special Status Species / Steelhead

The LSA adds discussion of the historic presence of winter and summer steelhead in the upper Eel River to what is now a good summary of steelhead runs, diversity strata, and status in the Eel River:

> *Steelhead (winter-run and summer-run) in the Eel River are considered part of the Northern California Coast DPS, and the species is listed as threatened under the ESA. This DPS is also listed as a CDFW SSC (CNDDB 2024). The Northern California DPS summer-run steelhead is also listed as endangered under the CESA. Steelhead in the upper Eel River are considered part of the Lower Interior Diversity*

[80] See LSA, vol. II at 2.2.3.3-48, see also Tables 2.2.3.3-8, 3-9 and 3-10; and Figure .2.3.3-8.
[81] Id. at 2.2.3.3-48.
[82] Id. at 2.2.4.4-5.

> *Stratum, which includes populations spawning in tributaries between Dos Rios and Scott Dam. Upstream of Scott Dam, steelhead are part of the North Mountain Interior Diversity Stratum, which includes the upper mainstem Eel River population (NMFS 2016a). This species is confirmed to be found throughout the Project vicinity downstream of Scott Dam (see Table 2.2.3.3-3). Historically, winter-run and summer-run steelhead were found in the upper Eel River Watershed; however, construction of Scott Dam restricted steelhead access from the upper reaches of the watershed and high-quality riverine habitat (NMFS 2016). Kannry et al. (2020) demonstrated through genotyping that an anadromous strain of O. mykiss exists upstream of the dam in the resident form of rainbow trout.*[83]

The LSA's deeper discussion of steelhead touches on Kannry et. al. (2020)'s work on the upper basin population of rainbow trout at several points,[84] including a note that "the resident trout population above Scott Dam has genetic diversity and that it would likely be a suitable source for recolonization of the upper basin by anadromous summer-run steelhead if Scott Dam were removed."[85] It bears emphasis that Kannry et. al. (2020) found both markers of the genetic capacity for migration (anadromy), and specific markers associated with the summer steelhead life history, in rainbow trout populations above Scott Dam.[86] Thus, removal of Scott Dam could make possible the recovery of the southernmost run of summer steelhead on the planet, which has not been seen in the Eel River for the century that Scott Dam has stood.

Note that steelhead (*O. mykiss*) are the anadromous form of fish we call rainbow trout when they stay in freshwater. Winter and summer steelhead are listed together under the federal

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[83] LSA, vol. II at 2.2.3.3-113.
[84] See, e.g., id. at 2.2.3.3-4; 2.2.4.4-24, 4-25.
[85] Id. at 2.2.3.3-11.
[86] Kannry, Samantha H., Sean M. O'Rourke, Suzanne J. Kelson, and Michael R. Miller, *On the Ecology and Distribution of Steelhead (*Oncorhynchus mykiss*) in California's Eel River*, Journal of Heredity, 2020, 548–563, doi:10.1093/jhered/esaa043

Endangered Species Act.[87] Northern California Summer steelhead, including Eel River summer steelhead, are listed as Endangered under the California Endangered Species Act.[88]

The LSA's assessment of Fish Passage, Anadromous Fish Migrations, and Access to Historical Habitat concludes that:

> *Therefore, the Proposed Action would benefit special-status species (Chinook salmon, steelhead, Pacific lamprey) populations by improving fish passage and access to habitat in the upper Eel River (upstream of Cape Horn and Scott dams).*[89]

We strongly agree, and we find it challenging to describe the magnitude of the benefits of protecting and restoring species of such profound ecological and cultural importance. We urge FERC to understand how much the fish mean to the people of the North Coast and the Eel River watershed, and to approve a Surrender Order with conditions that will best minimize the impacts of dam removal to provide the best chance for post-dam recovery.

Coho Salmon

Scott Dam keeps Southern Oregon/Northern California Coast (SONCC) Coho Salmon from accessing 80% of their historic habitat in the upper Eel River.[90] Coho have only rarely been observed in the upper Eel River since construction of the dams.[91] However, removal of the PVP dams as proposed in the LSA may result in lowering stream temperatures in the Project area such that coho could return to the upper Eel River. The LSA adds discussion of critical habitat for coho, and potential presence of coho in Outlet Creek and other tributaries to the upper Eel

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[87] See 71 Fed. Reg. 833 (January 5, 2006).
[88] Effective May 3, 2022, Section 670.5, Title 14, CCR was amended to add northern California summer steelhead to the list of endangered species. Office of Administrative Law's File ID: #2022-0427-02FP.
[89] LSA, vol. II at 2.2.4.4-25.
[90] NMFS. Final Recovery Plan for the Southern Oregon/Northern California Coast Evolutionarily Significant Unit of Coho Salmon (Oncorhynchus kisutch). 2014. https://repository.library.noaa.gov/view/noaa/15985.
[91] LSA, vol. II at 2.2.3.3-73.

River.[92] In a note on Chinook and steelhead spawning "in larger tributaries to the Eel River" below the Project, the LSA includes the observation that "(p)otential coho spawning habitat is also present."[93] The LSA notes the results of VAFS counts and summer rearing monitoring surveys upstream and downstream of Cape Horn Dam (no coho).[94]

The habitat above Scott Dam has been recently assessed and quantified by scientists, including those from NMFS, and large amounts of habitat suitable for salmonids have been documented there, including suitable habitat for all life stages of coho salmon.[95] Restoration of that habitat should explicitly address coho salmon as well as other salmonids, fishes, and wildlife. Even if Upper Mainstem Eel River temperatures around the current location of Scott Dam remain hot in the summers following dam removal, by the time fall rains attract adult coho salmon to the area, air and water temperatures there will be cool enough to prevent any thermal stress. Juvenile coho salmon born in the Upper Mainstem Eel River will remain in their natal tributary habitat throughout summer, or seek out non-natal rearing habitat elsewhere in the basin, moving in spring, when water is still abundant and water temperatures not yet prohibitive.

SONCC coho salmon must therefore be explicitly considered when designing habitat restoration for the area above Scott Dam. This area will function as a climate stronghold and refuge in the hottest of years that will allow persistence of coho salmon, possibly more successfully than they persist in other parts of the basin in hot, dry years. Note also that beavers create habitat ideal for juvenile coho salmon. Given the importance of the Upper Mainstem Eel

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[92] LSA, vol. II at 2.2.3.3-73.
[93] Id. at 2.2.3.3-6.
[94] Id. at 2.2.3.3-117.
[95] Fitzgerald, A.M., D.A. Boughton, J. Fuller, S.N. John, B.T. Martin, L.R. Harrison, and N.J. Mantua. 2022. Physical and biological constraints on the capacity for life-history expression of anadromous salmonids: an Eel River, California, case study. Can. J. Fish. Aquat. Sci. 79: 1023–1041.

River for recovery of SONCC coho salmon, beaver presence should be encouraged in this area and throughout the Eel River watershed.

We urge the Commission to craft conditions to its Surrender Order to support re-establishment of a robust population of Southern Oregon/Northern California Coast (SONCC) coho salmon in the Upper Mainstem Eel River after the dams are removed.

2.2.3.4 Botanical Resources

We provided detailed comments on Botanical Resources in our comments on the Draft LSA attached as Exhibit A; those comments remain relevant and are incorporated by reference.[96]

2.2.3.5 Wildlife Resources / Beaver

The historic and current presence of the North American beaver (*Castor canadensis*) in the Project area is well documented, but the species is not fully considered in the LSA. Lanman et al. (2013) details three documented geographic place names in the Eel River basin that include the word "beaver."[97] In addition, the authors tabulate the word for beaver in four Native American tribes inhabiting the Eel River, including two in the Round Valley area.[98] Keter (2016) provides further documentation for beaver place names in the Yolla Bolly Mountains (Middle Fork Eel River watershed).[99]

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[96] See Ex. A at 12, 13, 28 (FTEC 2025) (comments of Free The Eel Coalition on the Draft LSA).
[97] Lanman, C.W., K. Lundquist, H. Perryman, J.E. Asarian, B. Dolman, R.B. Lanman, and M.M. Pollock. 2013. The historical range of beaver (*Castor canadensis*) in coastal California: an updated review of the evidence. California Fish and Game 99(4):193-221. See Figure 1. Accessed 11-13-2025 from: https://www.webapps.nwfsc.noaa.gov/assets/2/7449_05182016_102036_Lanman.et.al.2013-Pollock-Calif-Fish-Game-99-4.pdf.
[98] Lanman et al. 2013, Table 2 .
[99] "The following information comes from former Forest Service employee Floyd Barney who was born on a homestead in the 1930s near Hulls Valley in the North Fork Eel River Watershed--located just to the west of the high peaks region of the Yolla Bolly Mountains. In a book published in 1997; Families: A Pictorial History of Round Valley 1864 to 1938 Barney along with Eric Bauer (Bauer and Barney 1997: 153-154) provided significant

The range map maintained on CDFW's Beaver website shows beaver presence in the Corbin Creek HUC10 of the Upper Eel River, which contains Lake Pillsbury, as well as numerous HUC10s in the mainstem and tributaries downstream of Scott Dam.[100] A photographic report of beaver activity in 2023 in the Eel River above the Lake Pillsbury reservoir is documented as a research grade observation in iNaturalist.[101] Additionally, beaver activity has been observed in the Upper Mainstem Eel River above the Lake Pillsbury reservoir in the Rice Fork, immediately below Scott Dam, and further downstream at Hearst.

In 2023, the California Department of Fish and Wildlife established a Beaver Restoration Program in recognition of the role of beavers as ecosystem engineers in creating and maintaining diverse habitats, and as a keystone species that maintains the ecosystem for other species that depend on it.[102] Beaver presence is important for the recovery of ESA-listed salmonids in the Eel River, particularly coho salmon and steelhead. The influence of this species on the formation and maintenance of aquatic habitat used by numerous other species is profound.[103] Beavers create

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new information--quoted in its entirety below--related to the existence of beaver in the Yolla Bolly Mountains during the historic period. Beaver Creek. Walter James, an old time hunter and trapper in this locality, is said to have caught beaver along what is now known as Beaver Creek in the late 1860s and early 1870s and there was a local belief that he did so. William and James Foster--uncles of Walter, who lives in Barney Meadows--said that during the 1870s they found remains of beaver dams and stumps of beaver-cut trees along the creek." Thomas S. Keter, Beavers in the Yolla Bolly Mountains? Unpub'd paper. Feb. 2013; updated May 2016. Accessed 11-13-25 from: https://solararch.org/wp-content/uploads/2021/02/Beavers-in-the-Yolla-Bolly-Mountains-Updated-2016.pdf.

[100] Accessed 11-13-25: https://wildlife.ca.gov/Conservation/Mammals/Beaver#574424067-range

[101] Accessed 11-13-25: https://www.inaturalist.org/observations/183152545

[102] Accessed 11-13-25 from: https://wildlife.ca.gov/Conservation/Mammals/Beaver

[103] As explained on CDFW's beaver habitat site, Accessed 11-14-25: https://wildlife.ca.gov/Conservation/Mammals/Beaver#574423460-habitat

"Beavers are commonly known for their ability to build dams and change waterways – but the ecosystem benefits provided to other native species in the process may be less recognized. Through the process of ecosystem engineering, beavers can expand wetland, riparian, and wet meadow habitats and increase wildfire resiliency in areas with known beaver activity. Specifically, beavers can:

- Improve water quality and control water downstream,
- Repair eroded channels,
- Reconnect streams to their floodplains,
- Provide perennial flow to streams that would otherwise run dry, and

varied types of aquatic habitat, including beaver ponds, beaver wetlands, and beaver bank lodges and associated backwater areas.

Recently, Parish (2016) documented beaver bank lodges in the Smith River plain (including on the mainstem Smith River as well as on tributaries) and the use of associated aquatic habitat by juvenile coho salmon.[104] In fact, the distribution of beavers overlapped almost entirely with the current coho salmon distribution in the Smith River. This study demonstrated the importance of beaver in a large river system where beavers are unable to create channel-spanning dams. The presence of such beaver bank lodges in the mainstem Eel River has not been documented to our knowledge, but the possibility should inform restoration plans. Beaver bank lodges could create suitable non-natal rearing habitat in the mainstem Eel River.

We urge the Commission to ensure beaver are integrated into the Surrender Order and relevant management and restoration plans.

2.2.3.9 Recreation Resources

PG&E made significant improvements to this section. The LSA now appropriately includes American Whitewater's detailed comments on the Draft LSA as an information source.[105] It adds a reference to hunting, a key aspect of recreation in the PVP area and basin above.[106]

This section also now addresses mercury issues, including the Clean Water Act § 303(d) listing, impairment in the Lake Pillsbury reservoir and elevated mercury in fish, as well as

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- Create beneficial habitats as refugia to drought, wildfire, and climate change."

[104] Accessed 11-16-2025: https://scholarworks.calstate.edu/concern/theses/6w924d89s
[105] LSA, vol II at 2.2.3.9-1.
[106] LSA, vol II at 2.2.3.9-5.

OEHHA advisories from 2025 discussed above.[107] The discussion further notes the lack of mercury in sediment coring samples. These changes improve the LSA's coverage of this important aspect of recreational use of the Lake Pillsbury reservoir.

The routine levels of mercury contamination in fish found in the Lake Pillsbury reservoir diminish its value as a recreational resource, and are to some degree a threat to public health. Removal of Scott and Cape Horn dams as proposed is likely to significantly reduce the potential for additional mercury bioaccumulation in the upper Eel River. The removal of toxic, bioaccumulating mercury from the Eel River watershed should be weighed a significant public benefit of dam removal.

The section also adds discussion of the upper Eel upstream of the project, as well as discussion of boatable runs on the upper Eel and Rice Fork. These runs have been added to the whitewater boating table, which shows how many days meet flow criteria for each of seven whitewater sections of the upper Eel River under various water year types.[108] These help to demonstrate the potential for increased recreation in the PVP area following, and facilitated by, dam removal.

Dam removal as proposed in the LSA will remove some water-based recreational opportunities on the reservoir. However, as American Whitewater points out, there are already whitewater boating opportunities in the watershed above Scott Dam. Clearly, dam removal will include broad public benefits even in the category where the loss of a present resource, i.e. boating on the reservoir, due to dam removal can be most clearly demonstrated.

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[107] LSA, vol. II at 2.2.3.9-5.
[108] Id. at 2.2.3.9-17, 18.

In summary, the existence and operation of the PVP has resulted in past, present, and continuing impacts across the suite of resources reviewed in the LSA. Some of these are quite serious. In evaluating the LSA and preparing its Surrender Order, the Commission should give these impacts the weight they merit. It is clear to communities on the Eel River that dam removal will offer broad public benefits.

2.2.4 Environmental Effects

The LSA's summary Table 2.2.4.1-1, listing Management Plans to address and reduce potential effects to environmental and cultural resources, is a valuable cross-reference.[109] PG&E appears to be proposing an appropriate range of Management Plans to address the suite of potential impacts the Project may cause. In addition to the plans listed in the Table, a Management Plan should be prepared for American Beaver to address the impacts of the Project on this ecologically important species.

2.2.4.2 Water Use and Hydrology

The proposed Project will result in dramatic changes to water use and hydrology now affected by the PVP. We support the proposal to replace the existing diversion works and summer diversion framework with the proposed NERF and a wet-season, run of the river diversion as agreed to by stakeholders from both basins.

The greatest significance for the LSA of the agreement between, and continuing cooperation of, stakeholders from both the Eel and Russian River basins toward the construction and operation of the NERF, are as an additional, and again sufficient, foundation for a

[109] LSA, vol. II at 2.2.4.1-7.

Commission finding that dam removal as proposed in the LSA is in the broad public interest. No better demonstration of that broad public interest could exist than the agreement, across the affected communities of the Russian and Eel Rivers, to move forward with dam removal and a better diversion.

2.2.4.3 Water Quality

Water quality is the key consideration in the evaluation of the effects of dam removal, both positive and negative. Dam removal as proposed in the LSA will result, as noted, in catastrophic levels of sediment and dissolved oxygen when the sediment trapped behind the dams is released downstream. After dam removal, the Eel River can reasonably be expected to resume its ancient habit of regularly moving staggering volumes of sediment downstream:

> *The Eel River draining the Coast Range of northwestern California has the highest recorded average suspended sediment yield per drainage area of any river of its size or larger unaffected by volcanic eruptions or active glaciers in the conterminous United States.*[110]

We can also reasonably expect dam removal to lead to dramatic improvements in other water quality problems, especially but not limited to temperature.

All of these issues are now being reviewed by the California State Water Quality Control Board (Water Board) under its certification process pursuant to the Clean Water Act's § 401. Having reviewed the Water Quality Certification[111] prepared by the Water Board for the Lower

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[110] Lisle, Thomas E. The Eel River, *Northwestern California; High Sediment Yields from a Dynamic Landscape*, In: M.G. Wolman and H.C. Riggs (ed.), Surface Water Hydrology, v. O-1, The Geology of North America, Geological Society of America. p. 311-314, citing Brown and Ritter, Sediment Transport and Turbidity in the Eel River Basin, California. USGS-DWR 1971. Geological Survey Water-Supply Paper 1986, US Gov't Printing Office, Washington, DC.

[111] See State of California State Water Resources Control Board, *In the Matter of Water Quality Certification for Klamath River Renewal Corporation Lower Klamath Project License Surrender,* FERC Project No. 14803. April 2020. (See /waterrights/water_issues/programs/water_quality_cert/docs/401_cert/lkp_wqc.pdf)

Klamath Project License Surrender, we are satisfied that the combination of measures outlined and proposed in this LSA, combined with the conditions that the Water Board will issue with its certification, will suffice to minimize critical harms and protect aquatic resources. Not only are the Klamath assessments clear and comprehensive: they clearly worked. The Klamath dams have been removed without disastrous impacts from sediment release. Water quality, including temperature, has improved dramatically.[112] The fish are coming back, quickly and in great numbers.[113] The broad public benefit of dam removal is very clear on the Klamath.

Direct Loss or Disturbance of Fish and Aquatic Species

In addition to the well-described potential impacts of sediment release, the LSA now includes discussion of potential sublethal effects from dam deconstruction. "If flow disruptions at the dam occurred, they could strand fish and result in mortality of threatened Chinook salmon or steelhead."[114] The text here also notes "Implementation of fish rescue and relocation efforts prior to dewatering and dam removal would reduce the effects of the Proposed Action on Chinook salmon and steelhead designated as threatened under the ESA; however, some injury or mortality of individual Chinook salmon or steelhead could occur during those rescue efforts."[115]

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[112] J. Burns. 2025. Klamath River temperatures changed dramatically after dam removal. That's helping salmon swim farther upstream. *Oregon Public Broadcasting:* Oct 28, 2025. Source: https://www.opb.org/article/2025/10/28/klamath-river-temperatures-dam-removal-salmon-upstream/

[113] California Department of Fish and Wildlife, 'Salmon Everywhere' One Year After Klamath Dam Removal November 19, 2025 November 19, 2025. https://mavensnotebook.com/2025/11/19/cdfw-salmon-everywhere-one-year-after-klamath-dam-removal/ "The speed at which salmon are repopulating every nook and cranny of suitable habitat upstream of the dams in the Klamath Basin is both remarkable and thrilling," said Michael Harris, Environmental Program Manager of CDFW's Klamath Watershed Program. "There are salmon everywhere on the landscape right now, and it's invigorating our work."

[114] LSA, vol. II at 2.2.4.4-7.

[115] Ibid.

Release of Non-native Aquatic Species from Lake Pillsbury Reservoir

The LSA states that:

> *PG&E would implement the Construction Non-native Invasive Aquatic Species Management Plan, which would evaluate potential options to minimize the spread of non-native species. Elements of the plan may be implemented prior to construction activities to minimize the spread of non-native invasive aquatic species. It is not, however, anticipated that the plan would include an option to reduce the effect of release of non-native aquatic species to less than adverse. Release of non-native aquatic species due to Proposed Action construction would have an unavoidable adverse effect on aquatic species in the Eel River.*[116]

We appreciate PG&E's efforts to minimize the spread of non-native species, aquatic and otherwise, and encourage the utility and FERC to expedite measures to do so. We also appreciate the reality that invasive species in the Lake Pillsbury reservoir have already populated much of the Eel River watershed downstream, and that they cannot be entirely prevented from moving downstream with dam removal. As noted elsewhere in these comments, pikeminnow suppression will continue to be necessary to provide for salmonid recovery, and this will be especially important in the years immediately following dam removal, in part because of the releases noted above. We understand that FERC will not require conditions that persist beyond license surrender and the end of its jurisdiction over the Project. Continued funding for pikeminnow suppression following dam removal may be an appropriate mitigation measure to be considered in the course of further review under CEQA, CESA, the ESA, and other provisions of law.

However, we also share PG&E's desire that the golden mussel not be allowed to join the list of invasive species present in the Eel River. We encourage FERC to adopt such conditions on

[116] Id. at 2.2.4.4-9.

the Surrender Order as are appropriate to minimize the spread of present invasives and prevent the entry of those not yet present.

Direct Loss or Disturbance of Fish and Aquatic Species

PG&E advises FERC that:

> *PG&E would implement a Construction Site Water Diversion, Dewatering, and Drawdown Plan to ensure continued bypass of flows downstream of the construction site. Implementation of these measures during Proposed Action construction activities would reduce the direct effects on Chinook salmon, steelhead, and other special-status/native aquatic species to the extent possible; however, construction activities are expected to have an unavoidable adverse effect on fish and aquatic species, due to relocation of ESA-listed salmonids prior to dewatering as well as potential harm/death from stranding.*[117]

We concur with PG&E's evaluation of the potential for some harm, but we are relatively confident that timely implementation of the Diversion, Dewatering, and Drawdown plan, along with other measures set forth in the LSA, will limit the harm to individual fish, protecting a population which can recover in the newly restored river habitat following dam removal. Our confidence springs in part from the documented success for fisheries recovery of previous dam removal efforts. We encourage the Commission and PG&E to continue to study these questions as the Diversion Plan is developed.

2.2.4.4 Environmental Effects: Fish and Aquatic Resources

Please refer to our previous comments on the Draft License Surrender Agreement, attached as Exhibit A.[118] While we are still concerned with some of the proposed actions, we appreciate the updated information on anticipated sediment loads and timing, and the dissolved

[117] LSA, vol. II at 2.2.4.4-12.
[118] Ex. A at 26-28 (FTEC 2025) (comments of Free The Eel Coalition on the Draft LSA).

oxygen ("DO") scenarios. We recognize that there will always be significant unknowns with regard to hydrologic events during and after dam removal and the resulting sediment plumes.

Under Environmental Effects: Fish and Aquatic Resources, 2.2.4.4-10, the LSA states that:

> *The Aquatic Species Management and Monitoring Plan would be implemented prior to release of sediment from Scott Dam and would include measures to implement fish salvage, capture, relocation, or potential broodstock rescue.*[119]

We remain concerned by the proposal to carry out pre-emptive salvage, capture and relocation. The modeled high sediment loads will be lethal to some fish for some distance and duration, and it is unknown how many fish will perish in the plume. However, it is critical to acknowledge and consider that capturing and relocating fish does not guarantee reproductive success or even survival. Numerous studies have shown mortality rates from the transportation of adult salmonids can be quite high, from 20 to 100%, depending on condition, sex, time, and distance of transport.[120]

Without active relocation, adult Chinook salmon in the Klamath made it through surprisingly high sediment loads and are spreading throughout the newly accessible habitat.[121] Their rapid recolonization has exceeded the expectations of those managing dam removal. There is no reason to think Chinook salmon and steelhead on the Eel will not also exceed our expectations, once we get the barriers out of the way.

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[119] LSA, vol. II at 2.2.4.4-10.
[120] Robert A. Lusardi & Peter B. Moyle (2017) Two-Way Trap and Haul as a Conservation Strategy for Anadromous Salmonids, Fisheries, 42:9, 478-487.
[121] E. Fournier. 2025. Salmon are recolonizing Klamath River after dam removals. *Meateater*: Oct. 21, 2025. (See https://www.themeateater.com/conservation/wildlife-management/salmon-are-recolonizing-klamath-river-after-dam-removals).

Further, adult fish preparing to spawn are the most reproductively valuable life stage; they are the few that have survived potential mortality at all their prior life stages, and they can potentially create thousands of offspring. This life stage should be protected from disturbance at all cost, so that it can reproduce successfully, in habitat that will best support its offspring.

Regarding "potential broodstock rescue," based on CDFW's mainstem sonar site data (not including South Fork and Van Duzen numbers) from water year 2025, the Chinook salmon run was estimated at 9,500 and the steelhead run was estimated between 8-10,000.[122] While these are orders of magnitude fewer fish than existed pre-contact, neither Chinook nor steelhead are verging on extirpation in the basin. There is no reason to rescue the broodstock. Broodstock rescue, and hatchery operations, are only consistently successful in preventing extirpation.

We note that the LSA removed a sentence that said "broodstock rescue and relocation would be an essential component" of its Dissolved Oxygen plan, as well as similar language under *Sediment and Turbidity*. We support these changes. While we are willing to support rescue and relocation in certain circumstances, we have yet to be convinced of the conservation value and efficacy of broodstock propagation, and we do not see it as essential to the success of the proposed action.

The goal for salmonid (and all other native fish) recovery on the Eel River should be robust, self-sustaining, wild populations, as is described in state and federal salmonid recovery plans. There is no evidence that broodstock rescue or any other hatchery scenario would support that outcome. A synthesis study on reintroduction planning for long-term viability concluded that, "(d)espite the increased risks of methods such as transplanting adults and hatchery releases,

[122] Personal communication, Dave Kajtaniak, CDFW.

we found no direct evidence that these approaches have established a demographically independent, self-sustaining natural population."[123]

Further, there is ample peer-reviewed literature showing that hatcheries do not successfully mitigate for the fish production of the habitat lost from dam construction, and that they usually have adverse effects on wild fish.[124] With no current hatchery influence to contend with, the Eel River provides a rare opportunity to promote natural recolonization, and the resulting benefits from natural selection and the evolution of local adaptations that such natural recolonization allows. The potential for natural recovery is greater than what could be expected from hatcheries which present a variety of issues including sourcing fertilized eggs from a depleted population of native fish, identifying a source of cold water, and long-term funding to construct and manage such a facility.

2.2.4.5 Botanical Resources

No additional comments, see our previous extensive comments on the Draft LSA.[125]

2.2.4.6 Wildlife Resources

The current LSA does not reflect our comments on the Draft LSA regarding the presence of yellow warbler, short eared owl, and northern harrier.[126] These species are known to occur in the affected area, so the phrase "may potentially occur" is inaccurate. In addition, we note the

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[123] Joseph H. Anderson, George R. Pess, Richard W. Carmichael, Michael J. Ford, Thomas D. Cooney, Casey M. Baldwin & Michelle M. McClure (2014) *Planning Pacific Salmon and Steelhead Reintroductions Aimed at Long-Term Viability and Recovery*, North American Journal of Fisheries Management, 34:1, 72-93.
[124] Ex. A at 26, fn. 24, 25 (FTEC 2025) (comments of Free The Eel Coalition on the Draft LSA)
[125] Id. at 12, 13, 28.
[126] Id. at 22-23.

publication of a paper detailing the best available information regarding yellow-billed cuckoo in the Eel River watershed.[127]

Beaver

Beavers are not mentioned in the Environmental Effects section of the license surrender application. While the beaver is not a special status species, its importance for habitat creation and function is clear. From a practical standpoint, without a plan for how to interact with any beavers encountered during Project activities, beaver colonies may be harmed, killed, or driven away from their existing lodges. A Beaver Management Plan should be developed in coordination with CDFW Fish Biologists and the CDFW Beaver Restoration Program that includes: 1) methods for determining where beavers are already established in the area affected by the project; 2) measures to ensure these established beavers are minimally disturbed by the Project, including trap and relocation to elsewhere within the Eel River basin as needed. 3) description of how to identify whether beaver introduction to areas where they do not currently occur is warranted, and the process for sourcing beavers for relocation from other watersheds as needed. The Surrender Order and Management Plans should explicitly include measures to be followed to reduce the impacts of dam removal on beaver.

2.2.4.7 Geology and Soils

The analysis of geologic hazards around the Project as reported in the LSA remains at best incomplete. It is nonetheless more than sufficient to support PG&E's proposed LSA.

[127] See Falxa, G., & McAllister, S. (2025). The Yellow-billed Cuckoo in Northwestern California. Western Birds. https://doi.org/10.21199/WB56.2.2

The California Division of Safety of Dams has issued a "high hazard" rating for Scott Dam, meaning that fatalities are likely in the event of dam failure when the reservoir is full.[128]

Section 2.2.4.7.1 identifies potential reactivation of the landslide on the southern end of Scott Dam as a potentially significant impact, but states that the implementation of measures in a currently unavailable *Scott Dam Slope Stability Monitoring Plan* will reduce this concern to "negligible levels."[129] Given that the content of such a plan is currently unknown, this assertion may be subject to question. While activation of the landslide during or following dam removal would indeed be unfortunate, and a potentially significant impact, activation prior to dam removal could be much worse.

Similarly, the assessment identifies increased sedimentation into the Eel River resulting from Scott Dam's removal as an adverse impact, but claims that monitoring by PG&E and the development and implementation of a *Construction Erosion Prevention Plan* and a *Restoration Plan* will reduce these concerns to "negligible levels."[130] As well, the LSA identifies sedimentation from removing Cape Horn Dam as a significant effect, reduced to "negligible levels" by the implementation of a *Construction Erosion Prevention Plan.*[131] Neither plan yet exists. Accordingly, reviewers cannot verify or comment meaningfully on these assertions.

The LSA asserts that the water releases from dewatering Scott and Cape Horn dams will not likely erode landslides or streambanks below these dams.[132] This is likely correct, because

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[128] California DSOD, Annual Data Release 2025. (See https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/Division-of-Safety-of-Dams/Files/Publications/Annual-Data-Release/2025/DAMS-WITHIN-JURISDICTION-OF-THE-STATE-OF-CALIFORNIA-DAMS-LISTED-ALPHABETICALLY-BY-COUNTY-SEPT-2025.pdf; p. 29)
[129] LSA, vol. II at 2.2.4.7-3 and 7-4.
[130] Id. at 2.2.4.7-6.
[131] Id. at 2.2.4.7-6.
[132] Id. at 2.2.4.7-7 and 7-9.

the dewatering flow magnitudes are less than some streamflows that result from current meteorologically driven flows.

The LSA states that dewatering Lake Pillsbury will result in an unavoidable adverse effect on local groundwater levels.[133] There seems to be no clear evidence that dewatering the reservoir will have a substantial effect on actual groundwater availability in the dewatered Gravelly Valley. The LSA states:

> *Potential Groundwater Level Effects*
> *The connectivity between groundwater and Lake Pillsbury reservoir is currently unknown. Given the absence of information, it is assumed that groundwater in the vicinity of Lake Pillsbury reservoir is charged and supported by water contained in Lake Pillsbury reservoir. Assuming this connectivity, groundwater levels may decline after the removal of Scott Dam. … Therefore, the potential effect on groundwater due to the dewatering of Lake Pillsbury reservoir is considered an unavoidable adverse impact.*[134]

The stated conclusion, that effects on groundwater in Gravelly valley are an unavoidable adverse impact, appears entirely speculative. The most appropriate conclusion is that "groundwater levels **may** decline" (emphasis added).

While there could be reductions in groundwater levels that adversely affect wells in the Lake Pillsbury footprint, potential future groundwater levels in the basin depend on conditions that are not yet known. Future conditions in Gravelly Valley might include meandering stream channels, oxbow lakes, multiple beaver dams, numerous wet meadows, and largely saturated soils in most of the restored valley bottom. Such conditions very likely would have fairly direct and abundant interconnections with groundwater throughout the basin. This question should be addressed in the restoration plans developed following license surrender.

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[133] LSA, vol. II at at 2.2.4.7-10.
[134] Id. at 2.2.4.7-10.

The assessment characterizes the risk of seismic effects (strong shaking and surface rupture) on Scott Dam from the nearby Bartlett Springs Fault as a significant adverse effect, potentially jeopardizing Scott Dam.[135] The assessment concludes:

> *Removal of Scott Dam would alleviate the potential seismic risks associated with movement on the Bartlett Springs fault. Therefore, the removal of Scott Dam and its impoundment (Lake Pillsbury reservoir) under the Proposed Action are considered a beneficial effect compared to existing conditions.*[136]

This conclusion is generally consistent with geological evidence available from the project area, although the actual risk of dam failure involves results of engineering assessments not presented in the LSA.

The assessment cites a PG&E report from 2016 that is not included in the assessment. A 2016 document addressing regional geology with respect to PG&E facilities exists within the FERC files for this project, but that document is classified and public access to it is limited.[137] This document, as well as other sources of information on which the assessment is based, should be provided for review by the affected public and by other agencies, as they would provide the rationale and geological evidence on which PG&E's conclusion above is based.

In a general sense, the project's geological setting is still in development. Assessment section 2.2.3.6 provides a general summary of current conditions, incorporating much of the geological information developed for the Bartlett Springs Fault Zone in the past couple decades, although at least one additional summary report from the US Geological Survey should be

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[135] LSA, vol. II at 2.2.4.7-10, 7-11.
[136] Ibid.
[137] *Geology and seismicity*. Chapter 5, Scott Dam Part 12 Safety Review, Potter Valley Project, FERC Project No. 77; accession # 20160901-5140.

included.[138] The McLaughlin et al. (2018) report is a useful synthesis of decades of geological investigations in northwestern California geology.

The LSA does not adequately describe or assess the significance of the geological/seismic/tectonic circumstances to which Project infrastructure are currently exposed, or the consequences of future events in that geological setting. This is a serious shortcoming, given that the Project is already uneconomical, and the consequences of unmanaged failure of PVP infrastructure would only exacerbate the impacts to the public customers of this major California utility, and to ratepayer costs.

PG&E is clear in the LSA that removing Scott Dam serves the public interest. The utility emphasizes that:

> *The Bartlett Springs fault is considered active by the California Geological Survey and has the potential to cause significant ground shaking and surface rupture in the vicinity of Scott Dam. Significant ground shaking and surface rupture could jeopardize Scott Dam.*
>
> ***Removal of Scott Dam would alleviate the potential seismic risks associated with movement on the Bartlett Springs fault.*** *Therefore, the removal of Scott Dam and its impoundment (Lake Pillsbury reservoir) under the Proposed Action are considered a beneficial effect compared to existing conditions.*[139] *(emphasis added)*

The serious seismic vulnerability of Scott Dam provides sufficient independent basis for the Commission to find that dam removal as proposed in the LSA is clearly in the broad public interest. The more expeditiously this removal occurs, the more positive the benefits to PG&E, to California consumers, and to the environmental resources that have been affected by the PVP for the past century.

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[138] McLaughlin et al. 2018: Framework geologic map and structure sections along the Bartlett Springs Fault Zone and adjacent area from Round Valley to Wilbur Springs, northern Coast Ranges, California (ver. 1.1, September 2018). U.S. Geological Survey Scientific Investigations Map 3395, 60 p. https://doi.org/10.3133/sim3395).
[139] LSA, vol. II at 2.2.4.7.

2.2.4.9 Land Use

The LSA adds discussion of the "potential effects on fire suppression in Potter Valley from the loss of water diversions from the Eel River."[140] It is clear that there has been an increase in large, extreme fires across the American West in recent decades. Indeed, Potter Valley itself, as well as portions of the Lake Pillsbury reservoir area, have suffered impacts from such 'megafire' events in the past decade while diversions continued.[141] There may indeed be potential effects on fire suppression in Potter Valley due to the shift in the season of water diversion from current summer diversions to the planned NERF wet-season schedule. Those impacts may be mitigated by the provision of additional water storage in Potter Valley.

PG&E notes as well "potential changes in agricultural practices in the Russian River Watershed from the loss of water diversions from the Eel River."[142] Crops in the Russian River watershed have shifted more than a few times in response to market changes, and they are now shifting in response to climate changes as well.[143] Potter Valley, the area most dependent on and thus most likely to be affected by the shift in Eel River diversions, is particularly well placed to shift its water intensive hay cultivation to other crops, and to upgrade its water distribution and storage.[144]

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[140] LSA, vol. II at 2.2.4.9-4.
[141] The 2018 Mendocino Complex fires were at the time the largest wildfires in California history. (See https://en.wikipedia.org/wiki/Mendocino_Complex_Fire).
[142] LSA, vol. II at 2.2.4.9-4.
[143] See, e.g. Escriva-Bou, Alvar, et al. (2022) Policy Brief: Drought and California's Agriculture. Public Policy Institute of California. "In the Russian River Basin, where wine grapes are a major crop, yield declines from drought—along with crop damage from wildfire smoke—decreased revenues by $148 million (almost 24%)." (See https://www.ppic.org/publication/policy-brief-drought-and-californias-agriculture/)
[144] McMillen Jacobs Associates. 2021. Potter Valley Irrigation District Water Supply Alternatives. Prepared for Two-Basin Solution Partners. Technical Memorandum, November 2021. (See https://freetheeel.org/wp-content/uploads/2022/07/Appendix-G-McMillen-Jacobs-Assoc-PVP-Modif-Feas-Report.pdf)

Loss of Lake Pillsbury Reservoir Water Source for Fire Suppression

As PG&E summarizes:

> *In general, fire prevention and fuels management in the Project vicinity are the responsibility of USFS, the California Department of Forestry and Fire Protection (CAL FIRE), and Lake and Mendocino counties. The MNF (Mendocino national forest) will continue wildfire risk reduction projects in the area, including prescribed fire when conditions permit.*[145]

As PG&E writes, "while Lake Pillsbury reservoir water used for fire suppression would be lost, it would be substituted with other sources of water such as Clear Lake or Lake Mendocino, located about 20 miles from Lake Pillsbury reservoir."[146] PG&E notes as well that the "restored Eel River also could potentially be a viable local source of water."[147] We agree with PG&E on both points. Fire fighting and fire policy are the proper province of expert state and federal agencies. Clear Lake can easily substitute for the Lake Pillsbury reservoir as a water supply for aerial firefighting.

East Branch Russian River Watershed

Potential Effects of Fire Suppression from the Loss of Diversion from the Eel River

PG&E notes that the City of Cloverdale has identified water diverted from the Eel into the East Branch Russian River as "an important water source for fire suppression."[148] However, as PG&E points out,

> *as described in section 2.2.5 Cumulative Effects, operation of the NERF would divert water to the EBRR for use by ERPA. Once completed, operation of the NERF will result in the long-term diversion of water from the Eel River into the EBRR.* ***If the***

[145] LSA, vol. II at 2.2.4.9-5.
[146] Id. at 2.2.4.9-5.
[147] Id. at 2.2.4.9-5.
[148] Id. at 2.2.4.9-9.

interbasin transfer of water occurred and/or alternative water strategies can be achieved, this effect would be negligible.[149] *(emphasis added)*

In summary, while dam removal as proposed in the LSA will entail some changes in local land use, most of these impacts can be mitigated. In general, objections to dam removal focused on water supply for fire suppression fail to reflect the availability of alternate supplies and mitigation strategies. As one element in such mitigation strategies, we strongly support provision of additional firefighting infrastructure to the local community PVP area, as Klamath dam removal provided for,[150] as well as the provision of offstream storage as appropriate for water drafting. We encourage FERC to craft a Surrender Order and conditions accordingly, to limit the impacts of decommissioning on local community resilience. Even in the absence of mitigations, however, the changes in local land use occasioned by PVP dam removal do not equal the likely benefits of dam removal to the Eel River and its communities.

2.2.4.10 Recreation resources

Potential Increase in Uncontrolled OHV Use in Lake Pillsbury Reservoir

PG&E addresses concerns regarding off highway vehicle ("OHV") use in the PVP area:

The Proposed Action, with the removal of Scott Dam and loss of Lake Pillsbury reservoir, could potentially lead to an increase in uncontrolled OHV use in the newly exposed land areas after the dam is removed, including the former reservoir footprint. During restoration, PG&E would implement the Restoration Plan. This plan will include measures to restrict access during active restoration activities as well as while the area is revegetating. ***With implementation of access restrictions in***

[149] LSA, vol. II at 2.2.4.9-9.

[150] The Klamath River Renewal Corporation's "Fire Management Plan (fire plan) was developed to ensure that removal of four lower Klamath River dams – and their reservoirs – will not reduce the ability to effectively fight wildfires in the region. The fire plan, which has been endorsed by California and Oregon fire agencies, lays out new capabilities for early fire detection and firefighting that are not currently available in the Basin." (See https://klamathrenewal.org/fire-management-plan/)

> ***the Restoration Plan, the potential for increased OHV use would be reduced to negligible.***[151] *(emphasis added)*

It is essential that FERC's Surrender Order provide for robust physical and regulatory restrictions on OHV use in the PVP area as part of its conditions.

East Branch Russian River Watershed — Change in Angling, Swimming, and Recreation Watercraft Opportunities in the East Branch Russian River

The LSA notes that the change in seasonality of diversions from the Eel River to the East Branch Russian River will "have an adverse effect on existing aquatic habitat and some river-based recreation activities."[152] However, "(a)ccording to American Whitewater, the new boating opportunities that would be created on the Eel River both upstream and downstream of Scott Dam outweigh any lost boating opportunities on the Russian River (American Whitewater 2025)."[153]

In summary, while dam removal will have some effects on recreation resources in the PVP area, including unavoidable adverse effects, the net result of dam removal may in fact be the replacement of reservoir-based recreation with river-based forms of recreation. The recreational improvements accompanying dam removal should be included in FERC's reckoning of the broad public benefits of dam removal.

2.2.4.13 Tribal Resources

The plants and fisheries of the Eel River have been identified as the most important cultural resources to the Tribes of the Eel River. While specific water bodies have not been

[151] LSA, vol. II at 2.2.4.10-6.
[152] Id. at 2.2.4.10-15.
[153] Id. at 2.2.4.10-15.

designated through the California State Water Resources Control Board's Tribal Beneficial Use (TBU) process for the Eel River, it is very likely that Tribes will ask for the entire water body to be designated, as they have done with other nearby watersheds. Despite the SWB listing process being incomplete, the Water Board has acknowledged Tribal beneficial uses in the Eel River watershed are rooted in subsistence fishing, traditional and cultural practices, and ceremonial significance for the tribes. Salmon also have been acknowledged to be a sacred resource for Tribes in the Eel River.

Dam removal will greatly improve water quality in the Eel River and is key to once again protecting these cultural and subsistence uses of the Eel River. That said, short term mitigation should be identified to protect TBUs and cultural resources during the dam removal process. Lake Pillsbury reservoir sits on an ancient Yuki Site. The Round Valley Indian Tribes is the only federally recognized tribe where the Yuki Tribe is recognized, and must be included in the protection of this area.

2.2.4.14 Socioeconomic Resources

Removal of the Scott and Cape Horn dams would create short term disturbances to communities who rely on the Eel River, but dam removal also will provide a multitude of long benefits including, but not limited to, improved safety, improved recreation opportunities, and healthier river conditions for both fisheries and communities. We agree with PG&E's assessment that "...there would be effects on economic activity due to the change from a lacustrine to riverine environment and the return to unimpaired hydrology in the Eel River and East Branch

Russian River."[154] Improved conditions for the Eel River fishery are critical to support California's commercial fishing industry, which is presently closed for the third year in a row due to low numbers of returning salmon. Improved fisheries would also benefit economies along the Eel River, creating more stable opportunities for recreational guides.[155]

Water Rights

FERC's July 28, 2025 *Request for Additional Information – Amendment of Minimum Flow Requirements* reflects a curious solicitude for state water rights from a federal agency.[156] The Commission lacks authority in the disposition of water rights, which must be adjudicated by the State of California. Section 27 of the FPA expressly prohibits the Commission from adjudicating water rights or interfering with the state laws "relating to control, appropriation, use, or distribution of water used in irrigation or for municipal or other uses, or any vested rights acquired therein."[157] California's State Water Resources Control Board has jurisdiction to regulate and adjudicate water rights related to and affected by the Project.[158] The State Board will continue to exercise this authority after the license is surrendered and FERC's jurisdiction over the Project terminates.

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[154] LSA, vol. II at 2.2.4.14-16.
[155] https://wildlife.ca.gov/News/Archive/pacific-fishery-management-council-recommends-limited-recreational-ocean-salmon-season-continued-closure-for-commercial-salmon-fishing-off-california
[156] FERC letter to Stephanie Maggard, PG&E, July 28, 2025. *Request for Additional Information – Amendment of Minimum Flow Requirements*. Accession no. 20250728-3049.
[157] 16 U.S.C. § 821.
[158] *See* Cal. Water Code §§ 174, 179.

2.2.4.15 Air Quality

The LSA adds discussion of naturally occurring asbestos. PG&E reports that sediment from the Lake Pillsbury reservoir does not appear to contain asbestos.[159] We urge PG&E to continue to coordinate on these issues with the Mendocino National Forest, which has had to address asbestos issues on some of its upland OHV routes.

2.2.5 Cumulative Effects

Taken together, the LSA demonstrates that while some effects of dam removal on the environment will be serious, there are many well understood measures which can be taken to minimize and mitigate those harms. On the whole, the broad public benefit of dam removal clearly outweighs the unavoidable adverse effects.

Application for Non-Project Use of Project Lands

As noted, we support the proposed Non-Project Use of Project Lands (NPUPL) as a reasonable accommodation to Russian River water users. The NPUPL will allow public agencies and public water providers to efficiently construct and operate the new wet-season diversion through the proposed NERF. We acknowledge that this is a novel approach and encourage the Commission to appropriately focus on expedited dam removal. If the NPUPL does not seem the best option for transferring facilities necessary for the NERF, we support FERC ordering that transfer as a step in decommissioning. This will accomplish the same public interest goals as the NPUPL.

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[159] LSA, vol. II at 2.2.4.15-10, 11 (Air Quality); see also id. at 2.2.4.7-2 (Geology and Soils).

Other changes to the Final LSA

An important change in the LSA comes in PG&E's summary of the Applicant's Proposal, which now explicitly includes "adjacent riparian, wetlands, and upland areas affected by the decommissioning" as part of "(r)estoration of the remnant inundation zone of Lake Pillsbury reservoir and Van Arsdale reservoir."[160] This change reflects the importance of restoration in these zones to the success of the overall restoration effort. Our previous comments emphasized the need to address existing and potential invasive species populations, as well as the importance of replanting with native plant species.[161]

PG&E made a number of specific improvements to the Protection, Mitigation, and Enhancement Measures set forth under Proposed Environmental Measures. In general, we appreciate the clarifications. We appreciate changes to the Pre-Construction Nest Survey provisions, the addition of a Monarch Butterfly Construction Measure, and clarification regarding a Sediment Disposal Plan and Scott Dam Slope Stability Monitoring Plan.

The LSA properly adds Round Valley Tribes' water temperature and turbidity data to its listed information sources.[162] The LSA adds information about DIDSON results and Cape Horn Dam fish counts.[163] A new bar chart shows sonar escapement estimates for Chinook in the lower Eel River compared to counts at VAFS, i.e. Cape Horn dam.[164] The LSA adds useful detail on the location of adult salmonid holding areas in the lower river from the estuary upstream to the Van Duzen confluence.

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[160] LSA, vol. II at 2-44.
[161] Ex. A (FTEC 2025) at 6, 13-14, 21 (Invasive species populations); 7, 18 (Sacramento pikeminnow); and 5, 6, 28, 29 (replanting with native plant species).
[162] LSA, vol. II at 2.2.3.1-1.
[163] Id. at 2.2.3.3-64.
[164] Id. at 2.2.3.3-66.

The LSA adds a paragraph about effects of construction explosives to remove the adit plug.[165] We concur with PG&E's assessment that their use would be unlikely to affect fish or other aquatic organisms, which tend not to be found at the bottom of the reservoir.

Finally, we offer our own correction, for a mistaken citation in our comments on the Draft LSA's coverage of socioeconomic issues.[166]

Conclusion

Operation of the Potter Valley Project has caused and continues to cause unlawful harm to salmon and steelhead listed under the Endangered Species Act. The Project regularly causes impairment of the Eel River due to mercury, sediment, and temperature impacts.

Removal of the Eel River dams is the most significant action known that can advance recovery of all three of the ESA-listed salmon and steelhead species native to the Eel River watershed. Dam removal will restore natural habitat forming-and retaining-processes by restoring natural flow regimes and sediment delivery mechanisms, and by converting stream habitat currently underwater in reservoirs into suitable rearing and spawning habitat. Restoring the populations in the upper Eel River, along with improving river conditions for its entire length, will be critical to the recovery of these species in the Eel River basin. From our perspectives as advocates for Eel River fisheries, these facts alone are enough to merit moving forward with dam removal as PG&E proposes.

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[165] LSA, vol. II at 2.2.4.4-23.
[166] Ex. A at 9 (FTEC 2025); Our footnote number 4 had an incorrect URL to the online source. Please replace it with this link to the correct paper: https://doi.org/10.1111/j.1465-7287.2008.00107.x

The Commission may not agree with us that concern for the survival of Eel River fisheries would alone suffice to issue a Surrender Order. But it need not. The PVP presents a list of sufficient causes: the economic infeasibility of the Project; the seismic vulnerability of Scott Dam; the sediment flow into the reservoir that cannot be stopped. Taken together, these issues present powerful arguments not only for dam removal as PG&E has proposed, but for the proposition that the sooner dam removal can be accomplished, the greater the public benefits will be.

Thank you for your careful consideration.

Alicia Hamann
Friends of the Eel River

Alicia Bales
Sierra Club

Mark Sherwood
Native Fish Society

Chris Shutes
California Sportfishing Protection Alliance

Regina Chichizola
Save California Salmon

Mark Rockwell
VP Conservation, Northern California Council
Fly Fishers International

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EXHIBIT A

Monday, March 3, 2025

PG&E
via email to PVSurrender@pge.com

Potter Valley Hydroelectric Project, FERC Project No. 77

Draft Application for Surrender of License and Application for Non-Project Use of Project Lands

Dear PG&E,

The undersigned organizations share concerns for the health of the Eel River, its ecosystem and its fisheries. PG&E's Potter Valley Project (Project) has significantly affected the Eel River and its fisheries, even as the Project declined in economic utility and ceased entirely to produce electricity in recent years.

We appreciate the draft license surrender application's detail and direction. We write in large measure to support PG&E's proposed action, including:

1. Decommissioning and removal of Scott Dam;
2. Decommissioning and removal of Cape Horn Dam;
3. Removal of the New Eel-Russian Facility from the FERC license; and
4. Restoration of Project facilities and sites.

In comments below, we note areas of concern, needs for clarification, and various suggestions offered in the hope of improving the final license surrender application and the expeditious removal of Scott and Cape Horn Dams and restoration of areas altered by the Potter Valley Project. These comments are consolidated from a variety of experts from across the undersigned organizations to provide constructive and succinct feedback on PG&E's Draft Application for Surrender of License and Application for Non-Project Use of

Project Lands. Each organization may provide additional detailed comments individually and, in general, each organization's comments are limited to those subjects that affect their particular public interest subject area and expertise.

The Draft Application for Surrender of License and Application for Non-Project Use of Project Lands (Draft Surrender Application) makes several important choices. These include the rapid removal plan to remove Scott Dam over two years, as well as the decision to remove Cape Horn Dam and to build the New Eel-Russian Facility during the same period. We support these decisions as the best available options for the Eel River ecosystem and fish that are the primary locus of our concern given the existing information.

The Draft Surrender Application includes an Application for Non-Project Use of Project Lands by which FERC can authorize the Eel-Russian Project Authority (ERPA) to construct the NERF while PG&E's license for the PVP remains in effect. Given the parties' announced agreements on a flow schedule protective of Eel River fisheries and funding for Eel River restoration and tribal compensation, we also support this framework. To the extent practical, it minimizes impacts to both Eel River fisheries and to Russian River water users during the dam removal and NERF construction process. As well, it properly limits the facilities and operations subject to FERC's jurisdiction to the soon to be removed Potter Valley Project.

We note and appreciate PG&E's willingness to accommodate the efforts of the Two Basin Partnership. Although that effort did not come to fruition, it grew into PG&E's agreement with proponents of the NERF, reflected in the recently announced MOU between Eel and Russian River parties to manage future diversions. The Draft Surrender Application allows the agreement reflected in the MOU to go forward.

However, we also understand that PG&E's plan for dam removal and license surrender does not depend on NERF approval or completion. Removal of Scott and Cape Horn Dams need not be delayed should NERF be abandoned or delayed, and we see nothing in the Draft Surrender Application assessment of potential impacts that would be invalidated by such a future decision. Here, too, we support PG&E's direction, to move forward with removal of Scott and Cape Horn Dams as expeditiously as possible, whether NERF is built or not.

Specific comments

The following comments follow the organization of the Draft License Surrender Application. We provide no comments on the Non-Project Use of Project Lands at this time.

1.1 Background

Eight years ago, PG&E initiated the process to relicense the Potter Valley Project (PVP), later attempting to sell what has since been revealed as a hazardous liability. Over the past decade, the Project's inability to meet scheduled flows without severe harm to listed

species has become evident. As noted in the Draft Surrender Application (p. 3.3.3-4), PG&E sought flow variances in 7 of the last 10 years due to inadequate water supply, and in 2023–2024, requested additional variances to manage cooler water releases from Lake Pillsbury.

By opting to surrender the license, PG&E has committed to decommissioning the PVP. FERC's subsequent auction process confirmed that no other qualified entity was willing to take over the Project. As a result, the PVP will be decommissioned, and once completed to FERC's satisfaction, PG&E's license will be surrendered, and FERC jurisdiction will cease.

1.2 Project Location and Overview

For more than a century, the Project has operated to the detriment of salmonids in the Eel River by blocking access to essential habitat and disrupting natural flows. Although it is technically true that "releases made at Scott Dam and Cape Horn Dam support salmon and steelhead populations in the Eel River watershed," the watershed was supporting much larger salmonid populations prior to the construction of the dams. Our central argument for the removal of the Eel River dams is the need for access to the high-quality spawning and rearing habitat above Scott Dam. The unreliable and often unsuitable flows provided below the dams are a poor and entirely inadequate mitigation for the loss of access to that habitat. Eel River communities rely on a healthy watershed and harvestable salmon populations to support tribal lifeways, recreation opportunities that also provide economic benefits, and commercial and recreation fishing industries.

PG&E's decision not to replace the failed Potter Valley Powerhouse transformer highlights two key points. First, the Project has long been economically unviable, costing far more to operate than it generates—a central reason for PG&E's move toward decommissioning. Second, while originally licensed as a hydroelectric project, its primary significance now lies in supplying water to the Russian River, even as wind and solar have outpaced hydropower in cost and viability.

2.0 Purpose of Action

This section explains the relationship between decommissioning and removal of most of the Project infrastructure prior to license surrender, and the transfer of some Project facilities to the ERPA to construct the NERF outside the FERC license. We support this Application for Non-Project Use of Project Lands as an integral part of the resolution of competing interests embodied in the recently approved Memorandum of Understanding.

We note that PG&E "requests the Commission in the License Surrender Order to remove lands and works associated with the NERF from the license after specific milestones are met." We note as well that ERPA will complete separate environmental analyses and permitting as necessary for the NERF. Thus, we support PG&E's request that "FERC evaluate the NERF as a related project and analyze the cumulative effects of construction and operations," as well as the request that the Commission review and approve the proposed construction plan as detailed.

3.1.2 Section 18 Fishway Prescriptions

The Draft LSA notes that the Cape Horn fish ladder was "constructed as prescribed by USFWS under Section 18 of the FPA." Given both the oversight NMFS staff have exercised with respect to the Project and the California Department of Fish and Wildlife's history of operations at Van Arsdale, we would appreciate it if the final LSA would clarify, as appropriate, the relevant roles and responsibilities over time of the state and federal agencies with respect to what we have become accustomed to calling the Van Arsdale Fisheries Station, including what the present document describes as the Cape Horn Dam Fish Ladder.

3.1.9 FERC Dam Safety

PG&E and FERC should inform the public as to the seismic risks at Scott Dam. It is not appropriate, and indeed counterproductive in terms of public safety, for natural hazard risks such as these to be treated as confidential simply because Scott Dam is part of a (no longer functional) generation system. Although the CEII regulations allow utilities to keep information confidential for a range of reasons, including "national security, economic security, public health or safety, or any combination of such matters,"[1] here the potential risk to the public from a seismic event can only be increased by maintaining confidentiality.

Scott Dam's failure would have posed little risk to the electric grid, even when the Potter Valley Powerhouse was operational. However, PG&E's lack of transparency on seismic risks has left some local communities in denial, with some still pushing to keep the dams. We support PG&E's efforts to remove Scott Dam promptly because: (1) delays are costly to PG&E and its ratepayers, and (2) given its location on the Bartlett Springs Fault, the risk of a catastrophic event on downstream communities cannot be ignored.

4.0 Consultation

The Draft Surrender Application states that FERC has granted PG&E's request to act as FERC's "non-federal representative" for purposes of consultation under the Endangered Species Act, Magnuson-Stevens Act, and National Historic Preservation Act. Draft LSA at 4-5. However, PG&E's role as designated non-federal representative under each of these statutes is not entirely clear. For example, under the Endangered Species Act, a non-federal representative may engage in informal consultation and may prepare a biological assessment, but the federal agency remains responsible for compliance with Section 7 of the Act. *See* 50 C.F.R. § 402.08. Similarly, as the Draft Surrender Application acknowledges, FERC cannot delegate to PG&E its responsibility for government-to-government consultation with Tribes. Draft LSA at 4-6; *see also* 36 C.F.R. § 800.2(c)(4) (federal agency may allow license applicant to "initiate" consultation, but agency "remains legally responsible for all findings and determinations charged to the agency official," including "government-to-government relationships with Indian tribes"). The Final Surrender

[1] See 18 CFR 388.113 and especially 18 CFR 388.113(c)(3), (4).

Application should explain the exact extent of PG&E's consultation authority and anticipated consultation actions under each of these statues.

5 Proposed Action and Alternatives

5.1.2 Existing Project Operations

On page 5-5, the Draft Surrender Application states that "the Project is operated in compliance with existing regulatory requirements, agreements, and water rights to generate power and deliver consumptive water to local water users." This statement would be more complete if it noted that the Project is constrained in its operations by seismic threats, sediment buildup, and the breakdown of Project facilities over time; that NMFS found that the Project's ordinary operations, as reflected in the 1983 FERC license, jeopardized the survival of Chinook salmon and steelhead listed under the Federal Endangered Species Act, resulting in the 2004 license amendments requiring Project flows to substantially follow a natural flow regime and cease diversion of "excess" flows to the Russian River; and most importantly, that over the following two decades PG&E has not generally been able to supply the prescribed diversions to the Russian River without risking catastrophic harm to listed species. Finally, the Project has not generated electric power since the Potter Valley powerhouse transformer failed in 2021, and PG&E has declined to replace that expensive equipment for a project that costs millions of dollars a year more to operate than it produces in revenue. Thus, the Project has not been able to fully satisfy any of its purposes for decades.

What the LSA at page 5-5 describes as "a 2007 operational 'reinterpretation' of the terms of the 2002 RPA" is a creative reinterpretation of the actual story: that PG&E and Russian River interests tried to read the 2002 RPA to say that they could continue to divert all unspecified flows to the Russian River, as they had under the license to date. That was, however, not what NMFS meant in defining permissible diversions to the Russian. It took some sorting out, such that an official statement acknowledging NMFS's original interpretation as correct was finally issued in 2007.

As noted, we generally support PG&E's decision to use the Rapid Removal approach to taking out Scott Dam. We understand that removing the dam will necessarily entail significant risks of harm to the Eel River and its fisheries. We agree with PG&E's assessment that delaying the removal of Scott Dam or using a phased approach to removal would extend its impacts, while a rapid removal approach would significantly shorten the duration of negative impacts to the aquatic ecosystem.

5.2.1.2 Conceptual Restoration Plan

We support and reiterate the comments offered by the California Native Plant Society on the basis of their deep collective expertise in restoration ecology:

> For the revegetation of the area, we would recommend that the taxa selected for revegetation be based on information from the preconstruction surveys. This would

ensure that the species composition matches the existing vegetation specific to the area being revegetated. Surveys should also be used to identify potential sources for revegetation materials, including populations or individuals that could be targeted for seed collection. All seeds used for revegetation should be collected as locally as possible to the restoration site, and any transplants, whether grown from seed or cuttings, should be propagated from individuals in or adjacent to restoration sites.

Revegetation should not only focus on more common species, but in areas where special-status species are adjacent to restoration work, or where previously inundated suitable habitat is present, revegetation should include these less common species.

To further ensure revegetation success, we also recommend multiple years of invasive species control prior to construction and restoration. Invasive species distribution information can also be included in preconstruction surveys to strategically treat invasive species based on the risk of dispersing into revegetation areas. Invasive species control following seeding and planting should also be incorporated into restoration plans to ensure revegetation success.

Additionally, given the current 10ft reservoir restriction at Scott Dam, PG&E is currently implementing a convenient experiment whereby a portion of the reservoir footprint will remain exposed for the remainder of the Project's life. This "bathtub ring" area should be used to learn about invasive species densities and distribution and should serve as a test site for replanting. Restoration in this area could start immediately and inform future efforts.

Section 6 Conclusions and Recommendations

6.3 Unavoidable Adverse Impacts

The Draft Surrender Application notes that, even after proposed environmental mitigation measures are implemented, some unavoidable adverse effects will nonetheless result from removal of Scott and Cape Horn Dams. We concur, and agree that in light of those effects PG&E is making the choices that overall, best protect Eel River fisheries and their hopes of recovery. We look forward to commenting on future management plans that will seek to mitigate these impacts.

6.3.1.1 Water Use and Hydrology

The Draft Surrender Application notes unavoidable adverse effects on the Potter Valley Irrigation District (PVID) water supply and "existing condition hydrology" in the East Branch Russian River. Like many tributaries of the Eel and Russian Rivers, the East Branch Russian River has a natural dry season in the summer/early fall. After diversions began, the East Branch Russian River became in essence an irrigation canal. Reducing flows in the East Branch Russian River will return it to a more natural condition. Thus, neither reductions in PVID's diversions nor reductions in EBRR flows actually constitute adverse effects in the ecological sense.

6.3.1.2. Water Quality

The short-term water quality effects of Eel River dam removal will be very serious. This is an inevitable consequence of the dams' existence. Scott Dam was built because Cape Horn's small reservoir filled so quickly with sediment. Neither Cape Horn nor Scott Dam will stand forever. When the structures fail or are removed, the sediment trapped behind them will be carried downstream. We believe releasing this sediment as soon as possible, in a planned and controlled manner is the best option to manage a problematic situation created by dam construction.

As the Draft Surrender Application notes, the result of sediment release will be severe turbidity, very high levels of suspended sediment, depleted dissolved oxygen (DO) levels, and high nutrient levels which are likely to drive production of algal toxins, all of which is likely to affect much of the Eel River downstream. This will have serious short term negative impacts on aquatic life, including sensitive and imperiled species.

Given those realities, we understand and appreciate the decision to proceed with removal of both Scott and Cape Horn Dams in a way that minimizes the extent and especially the duration of these effects. We very much agree that the removal of the Eel River dams is likely to result in dramatically improved conditions for native fisheries and species, especially in the upper mainstem Eel River. To minimize and mitigate potential impacts , we encourage continued consultation with Tribes and resource agencies while developing management and construction plans that will result in sediment release.

We note that the Draft Surrender Application's description of "long-term unavoidable adverse effect on existing cold-water conditions in the Eel River from below Scott Dam to below Cape Horn Dam" is not an accurate description of the result of dam removal that will allow Eel River salmon and steelhead renewed access to a larger area of lower temperature waters. Nor is it accurate to describe the EBRR as suffering "long-term unavoidable adverse effect on existing water temperature conditions" from what is essentially a return to natural conditions altered by Project operations for the last century. Similarly, it makes little sense to describe the entirely artificial habitat conditions in the EBRR, including riparian vegetation, as suffering long-term unavoidable effects when those effects consist of nothing more than returning to the stream's natural hydrology.

We understand it is likely that many of the nonnative fish in the Lake Pillsbury reservoir will perish from the effects of sediment flushing noted above. We encourage the Final Surrender Application and other relevant planning documents to address the potential to amplify this effect through additional measures to reduce pikeminnow and other non-native species populations. Non-native species should be monitored and managed for several years after construction is completed.

The Draft Surrender Application notes "short-term unavoidable adverse effects to fish and aquatic resources resulting from sediment deposition in channel pools and spawning habitats in the Eel River." We would appreciate an analysis of the hydrologic conditions

necessary to reduce and eliminate those effects, both as to deep pools and as to spawning gravels.

6.3.1.6. Geology and Soils

The elimination of the Lake Pillsbury reservoir could reduce the groundwater table, affecting nearby wells used primarily for recreation sites and residences. PG&E should develop mitigation strategies to support affected landowners.

A pertinent example is the Klamath River dam removal project, where the Klamath River Renewal Corporation established the Klamath Mitigation Fund to address similar concerns. This voluntary, claims-based program was designed to compensate property owners for specific physical impacts resulting from dam removal, such as changes in groundwater wells. The Fund is administered independently, ensuring fair evaluation and compensation for demonstrated damages.

We recommend that PG&E consider a similar approach by establishing an independently managed mitigation fund to address potential adverse effects on groundwater levels resulting from the PVP decommissioning.

6.3.1.7. Geomorphology

Given the potential noted for "temporary unavoidable alteration of the Eel River channel or floodplain morphology from sediment deposition after removal of the dams until subsequent high-flow events can resuspend the sediment and transport it farther downstream," we encourage PG&E to partner with the fisheries agencies, tribal nations, and resource agencies to mobilize equipment as necessary to address severe sediment issues that may arise downstream in the days after dam breach, especially those that may impact tributary access and refugia.

6.3.1.8 Land Use

The Draft Surrender Application notes "potential unavoidable adverse effects to local fire suppression to properties near Lake Pillsbury due to the Lake Pillsbury with the Eel River or other sources as a water source, resulting in potentially longer fire response times."

The Klamath River Renewal Corporation (KRRC) developed a comprehensive Fire Management Plan to address wildfire risks associated with dam removal.[2] This plan, created in collaboration with state and local fire agencies, was designed to ensure that decommissioning activities do not compromise fire response capabilities in the region. Key components of the plan include fire prevention and suppression strategies, the implementation of early fire detection systems, and coordinated efforts with emergency responders to strengthen regional wildfire preparedness. KRRC also identified ways to enhance local firefighting resources, ensuring that the transition from reservoir-backed

[2] See https://klamathrenewal.org/fire-management-plan/

water supplies to a free-flowing river would not leave communities more vulnerable to fire risks.

6.3.1.12 Socioeconomics

The Draft Surrender Application notes:

> The removal of Scott Dam would result in a change from a lacustrine to riverine environment at Lake Pillsbury and a return to unimpaired Eel River flows that may result in changes in and could have unavoidable effects on recreation value, community way of life, and population and housing in the Scott Dam area. These effects may be offset by restoration (Phase 2).

We note that restoring the Eel River in the Project area may result in beneficial outcomes.

A study analyzing the effects of the Edwards Dam removal on Maine's Kennebec River discovered that properties near the former dam site experienced an increase in value post-removal, attributed to enhanced fisheries and recreational opportunities.[3] Provencher et al. examined the impact of small dam removals on property values and found that in many cases, property values remain stable or increase following dam removal, particularly as environmental and recreational conditions improve.[4]

A comprehensive review by Perera and North highlighted that while some communities fear property devaluation post-dam removal, the literature generally suggests that property values are unlikely to drop and may even improve when rivers are restored to their natural state.[5] This improvement is often attributed to enhanced water quality and ecosystem health, which can increase the attractiveness of riverfront properties.

The Draft Summary also notes:

> In the Russian River Watershed, there may be unavoidable adverse impacts to water reliability and cost, economic opportunity (particularly farming and ranching), recreation value in the Russian River Watershed, and community way of life because diversions to the East Branch Russian River would no longer occur under the Proposed Action (Phases 1 and 2).

We understand the above passage to be referring to the phases of dam removal during which diversions to the East Branch Russian River would be impossible or impracticable

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[3] Lewis, L. Y., Bohlen, C., & Wilson, S. (2008). Dams, dam removal, and river restoration: A hedonic property value analysis. *Contemporary Economic Policy*, *26*(2), 175-186.

[4] Provencher, B., Sarakinos, H., & Meyer, T. (2008). Does small dam removal affect local property values? An empirical analysis. Contemporary Economic Policy, 26(2), 187–197. https://doi.org/10.1111/j.1465-7287.2007.00068.x

[5] Perera, D. and North, T. (2021) The Socio-Economic Impacts of Aged-Dam Removal: A Review. Journal of Geoscience and Environment Protection, 9, 62-78. doi: 10.4236/gep.2021.910005.

because the Eel River will be diverted away from the existing diversion works while they are removed and replaced with the NERF. If the NERF and MOU are constructed and implemented, continuing diversions to the Russian River will ameliorate much of this impact.

6.3.2.2 Fish and Aquatic Resources

The Draft Surrender Application notes "permanent unavoidable adverse effect on critical habitat and essential fish habitat for Endangered Species Act threatened California Coastal Evolutionarily Significant Unit Chinook salmon and Northern California Distinct Population Segment steelhead within Van Arsdale Reservoir due to the placement of fill."

This refers to the construction of the New Eel-Russian Facility's diversion structure. It is technically accurate that the project will include the additional placement of fill to build the control section. However, on the whole there will be orders of magnitude more fill removed both at Cape Horn Dam and at Scott Dam than will be added at the NERF. We are satisfied that by removing Cape Horn and providing run of the river volitional fish passage to all stages and life histories, the project will provide net benefits for listed Chinook and steelhead, including CESA-listed summer steelhead. NERF impacts will be further evaluated as the facility undergoes its own permitting process.

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2.1.1.7 Project Recreation Facilities

As noted, we support removal of PG&E-owned recreational facilities except for the Trout Creek campground. We recommend PG&E conduct a Request for Proposals to transfer Trout Creek Campground prior to decommissioning the campground to seek a subsequent owner. This campground is located on the Eel River and is unlikely to be substantially impacted by dam removal, making it a viable, and worthy candidate for a subsequent owner. We support removal of facilities on USFS lands as the Mendocino National Forest determines appropriate. In general, we support establishment of new facilities appropriate to the restored river environment, and not only in the Project area to support regional recreation.

2.1.3. Existing Environmental Measures

The license was amended in 2004 to incorporate the Reasonable and Prudent Alternative presented by NMFS following that agencies' finding that operation of the Project under the 1983 license was likely to jeopardize the continued existence of Chinook salmon and steelhead listed under the federal Endangered Species Act.

As noted above, we disagree with PG&E's description of the 2007 resolution of its previous misinterpretation of the 2002 RPA. We further note that PG&E's water supply agreement with PVID is contractual and may be terminated by the utility.

2.1.3.2 Water Rights

We appreciate the steps PG&E is taking to remove the Eel River Dams. However, we would be remiss if we did not point out that the dams were built despite the protests of downstream water users and communities on the Eel River. We appreciate PG&E's inclusion of the Non-Project Use of Projects Lands component, which will lead to the transfer of water rights to Round Valley Indian Tribes. We request all water rights not transferred to successor owners to meet the needs of the Non-Project Use of Projects Lands be dedicated to instream flow in the Eel River.

2.2.1.1 Conceptual Decommissioning Plan

Again, we generally support PG&E's proposed action. Clearly there are areas where additional information will need to be developed to finalize plans that accomplish the proposed decommissioning efficiently while minimizing environmental effects.

Most significantly, the decommissioning plan and subsequent management plans should reflect better analyses and modeling of the composition and extent of the sediment to be removed, especially from the Lake Pillsbury reservoir. The relative composition and approximate volumes of coarse materials, gravels, silt, and sand remain poorly understood, resulting in uncertainty about how the sediment plume is likely to affect the Eel River and the species in it. This will be the largest ecological impact of the proposed project and will likely require detailed planning and mitigation measures See p. 3.3.7-6:

> Importantly, Stillwater Sciences (2021b) also stated that inadequate information exists to reasonably understand the volume and grain size distribution of gravel deposited in Lake Pillsbury because neither USGS nor Geosyntec collected samples from the upper reservoir gravel deposits (top-set deposit) (Figure 3.3.7-2).

We encourage PG&E to collaborate and consult with downstream affected parties including Tribes, resource agencies, NGOs and local government to manage and mitigate the anticipated impacts of sediment release.

Decommissioning and Restoration Schedule
PG&E notes, appropriately, that "the decommissioning and restoration schedule is contingent on issuance of a Surrender Order and associated conditions for the Project."

2.2.2 Non-Project Use of Project Lands

We support PG&E's request that FERC authorize PG&E to allow ERPA to construct the NERF on lands within the FERC Project boundary as described. In conjunction with removing the Project works associated with the Russian River side of the diversion from the FERC license and transferring them to ERPA to operate with the NERF, a FERC authorization for NERF construction will allow the new diversion to go forward as a non-hydropower project outside FERC's jurisdiction. As noted, "Other construction activities

associated with the NERF and future operation of the facility by ERPA will require separate environmental analysis and permits/approvals to be completed by ERPA."

2.2.3 Proposed Environmental Measures

We support and reiterate the comments offered here by the California Native Plant Society:

> The following comments apply to avoidance and protection measures and best management practices to address and reduce potential effects to environmental and cultural resources during decommissioning of the Potter Valley Hydroelectric Project, avoidance and protection measures and best management practices to address and reduce potential effects to environmental and cultural resources during NERF construction, and avoidance and protection measures and best management practices to address and reduce potential effects to environmental and cultural resources during Phase 2.
>
> **Special-status Plant Construction Measures - Pre-construction Surveys:** We would recommend that the surveys be comprehensive in documenting not just the special status species, but all species found during the surveys. This will help to inform the composition of species that would be used for restoration and revegetation throughout the project area. We appreciate the intent to follow the guidelines laid out in the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (Protocols). Several of the recommendations in the Protocols are essential to ensuring the effectiveness of the surveys. The timing of the surveys and the use of reference sites is essential to ensuring that target species would be identifiable during the survey efforts. This may require that multiple surveys take place over the course of a year to have the best chance of capturing the full botanical diversity of the project area, based on the species with the potential to occur we would recommend that at least four surveys be conducted at appropriate times to capture the blooming period of all special status species with the potential to occur. Given that some annual and herbaceous perennial species may only be present in the seed bank or below ground as bulbs or other dormant structures, surveys may need to assume presence of these taxa in suitable habitat in years with low rainfall or when reference sites show that a taxon is not detectable. The Protocols state that "Habitats, such as grasslands or desert plant communities that have annual and short-lived perennial plants as major floristic components, may require multiple annual surveys to fully capture baseline conditions." The survey report should include the names and qualifications of surveyors, the survey dates (including surveyor names, area surveyed, and man hours spent), survey methodology, description of reference sites and phenology of plants at those sites, identification of taxa to the level necessary to determine if it is special status (if the surveyors are unable to determine a taxa beyond the genus or species level, and there is a special status species or subspecies in that grouping with the potential to occur in the project area, it should be assumed to be the special status taxa), discussion of climatic conditions and how these may have affected survey results, discussion of survey timing and how this may have influenced survey results, and a discussion of a false negative survey. These recommendations from the Protocols should be included as survey requirements in the Revised Draft Final Application. Survey results should be made publicly available and easily accessible.

Special-status Plant Construction Measures - Special-status Plant Protection: Species specific buffers and measures considering the life history of each special status plant should be included in the Revised Final Draft Application. While dormant season work may be effective at reducing impacts to some taxon of deciduous herbaceous perennials, other perennial life forms including evergreen perennials, shrubs, subshrubs and trees would need to be avoided at any time of the year. Where measures recommend dormant season work the language should clarify that this would only be effective at reducing impacts to deciduous herbaceous perennials.

Avoidance of impacts should be prioritized over any form of compensatory mitigation. The transplanting and/or creation of new populations has been shown to be ineffective in most cases. A review of mitigation-related transplantation, relocation, and reintroduction attempts showed that only 8% of these attempts were successful (Fiedler, 1991). Any attempts at compensatory mitigation through transplantation, relocation, or seeding of special status species should occur at a minimum of a 2:1 ratio and follow these requirements:

- The mitigation plan will be prepared by a qualified biologist and include at a minimum: (1) seed/propagule collection sites and methods, (2) identification of receiver sites or locations for relocated or propagated plants and rationale for their selection, and environmental analysis of the receiver site to ensure that mitigation activities would not impact existing resources (3) success criteria for population establishment, including a not-to-exceed threshold for invasive species cover, (4) a minimum of 5 years of maintenance and monitoring, followed by 5 years of monitoring to ensure that populations meeting success criteria without maintenance, returning to 5 years of maintenance and monitoring if monitoring shows that populations are not meeting success criteria without maintenance, mitigation requirements would be met when populations are shown to be stable for five consecutive years post maintenance, (5) the adaptive management approaches that would be used to evaluate monitoring results and adjust management actions, if necessary, and (6) financial assurances for the funding of special-status plant mitigation.

Invasive Weed Measures: We recommend incorporating pre- and post-work invasive weed treatment into the conceptual restoration plans as well as a preventative measure to avoid further spread due to construction. We also recommend stronger equipment cleaning measures to include all equipment - on and off road and within and outside of watershed - to avoid further spread of invasive species due to construction by incorporating the following measures:

- Clean clothing, footwear, and equipment used during treatments of soil, seeds, vegetative matter, or other debris or seed-bearing material, before entering the treatment area or when leaving an area with infestations of invasive plants, noxious weeds, or invasive wildlife;
- For all heavy equipment and vehicles traveling on and off road, pressure wash, if feasible, or otherwise appropriately decontaminate equipment at a designated weed-cleaning station prior to entering the project area, or when leaving an area with infestations of native plants. Anti-fungal wash agents will be specified if the equipment has been exposed to any pathogen that could affect native species;
- Track/document decontamination efforts for each piece of equipment or vehicle using a wash log with the date and service type (e.g., pressure wash, anti-fungal wash, other decontamination solutions); the log will be stored in said vehicle or equipment and may

be inspected by the qualified biologist, or biological technician prior to entering the project area;
- Inspect all heavy equipment, vehicles, tools, or other treatment-related materials for sand, mud, or other signs that weed seeds or propagules could be present prior to use in the work area. If the equipment is not clean, the equipment shall be denied entry to the treatment area;
- Stage equipment in areas free of invasive plant infestations**,** if there are no uninfested areas present within a reasonable proximity to the treatment area an area shall be cleared of invasive propagules to the extent feasible prior to staging equipment, these areas shall be prioritized for post implementation monitoring and management;
- In project areas with known populations of invasive species implement pre-work weed abatement measures to reduce the risk of spreading propagules withing the work site or to other areas of the project,
- Implement applicable BMPs outlined in the most current version of Cal-IPC's Preventing the Spread of Invasive Plants: Best Management Practices for Land Managers.
- Post implementation monitoring shall occur at the soonest appropriate time of year to identify any new populations of non-native species, any newly identified populations of non-native species shall be actively managed and monitored until they are eliminated.

References -

Fiedler, P.L., 1991. Mitigation-related transplantation, relocation and reintroduction projects involving endangered and threatened, and rare plant species in California. Final report submitted to Department of Fish & Game Endangered Plant Program.

Section 3 Environmental Analysis

3.3.1.15 Hydrology

This section in the Final Surrender Application should include a statement/disclaimer that, due to the effects of ongoing climate change, future hydrologic patterns will likely differ from the hydrology as described by the existing hydrologic record/data. For example, more of the precipitation will fall as rain and less as snow, resulting in changed timing and magnitude of flows, reduced snowmelt, and increased stream temperatures.

3.3.2.3 Existing Water Quality Data
Analytical and In Situ Water Quality Data — *Lake Pillsbury*

The Draft Surrender Application notes that the Lake Pillsbury reservoir has characteristics which tend to drive poor water quality, i.e. "eutrophic with diminished hypolimnetic DO levels during summer stratification." It further suggests that the water quality has obvious deleterious effects, noting "an observed algal bloom in the Rice Fork Arm of the reservoir in March and included a personal communication citation stating that fish kills were reported to be a problem in the lake."

PG&E describes its recent study of the reservoir, conducted in anticipation of relicensing:

> The main conclusions of this study were as follows:
> Seasonal thermal stratification and hypoxia occurred in the Lake Pillsbury Arm (Site LP1) and Lake Pillsbury near Scott Dam (Site LP3) (PG&E 2019a: Table AQ 3-5 and Attachment A). This may have implications for the production of hydrogen sulfide, internal cycling of algal nutrients, as well as the production of trace metals affected by oxidation-reduction conditions.
>
> … Nutrient concentrations (i.e., ammonia, total Kjeldahl nitrogen, orthophosphate, and total phosphorus) were generally highest in the bottom waters at Lake Pillsbury near Scott Dam (Site LP3)(PG&E 2019a: Table AQ3-7).
>
> Low levels of mercury and methylmercury concentrations were detected in all samples collected during seasonal and monthly sampling efforts. Concentrations were highest during October in the bottom waters at Lake Pillsbury near Scott Dam (Site LP3) (PG&E 2019a: Table AQ3-8).

This is describing a eutrophic reservoir, with hypoxic conditions producing hydrogen sulfide. Those are conditions conducive to the anaerobic organisms that methylate elemental mercury. In summary, then, Scott Dam and the Lake Pillsbury reservoir were constructed and have been managed such that methylmercury concentrations normally occur in its bottom waters. It is no accident that PG&E reports that "Sampling of tissue taken from Lake Pillsbury fish detected high concentrations of mercury, averaging 1.31 µg/g in 350 millimeter (mm) largemouth bass (*Micropterus salmoides*), and the highest concentration for an individual fish (4.08 µg/g in a 559 mm largemouth bass) in statewide sampling (Davis et al. 2009)." (see p. 3.32-34)

Notably, these samples contrast with the absence of high mercury levels in sediments. Sampling in the Lake Pillsbury reservoir has shown relatively low levels of mercury in the sediments.[6] The Final Surrender Application should, if possible, explain the mechanisms by which mercury and especially methylmercury levels get so high in large predatory fish in the Lake Pillsbury reservoir without significant mercury contamination in reservoir sediments.

To the extent mercury accumulation has yet to significantly contaminate Lake Pillsbury reservoir sediments, we are hopeful that removal of Scott Dam will largely ameliorate the production and accumulation of methylmercury in the Project area by restoring natural fluvial processes that mix and oxygenate water.

Fish Tissue Mercury Sampling

This section should note the facts established by PG&E's study above regarding the production and concentration of methylmercury in the Lake Pillsbury reservoir. It should also explain what the reported numbers mean with respect to food webs and human health, the latter of which greatly reduces the value of the Lake Pillsbury fishery for subsistence purposes.

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[6] See Geosyntec Consultants letter to California State Coastal Conservancy, *Lake Pillsbury and Van Arsdale Reservoir Sediment Characterization,* April 1, 2020

For example, the Draft Surrender Application notes that "Total mercury concentrations in Lake Pillsbury sportfish tissue were generally greater than 0.2 µg/g (0.2 mg/kg) wet weight (Table 3.3.2-10, PG&E 2019a)," with a footnote stating that the "California statewide water quality objective for methylmercury in sportfish is 0.2 mg/kg, wet weight."[7] The final LSA should state clearly that mercury levels in Lake Pillsbury sportfish generally exceed the California water quality objective for methylmercury.

But the final LSA should further explain that the levels of mercury reported for several species in the Lake Pillsbury reservoir do not just exceed California water quality standards: they are so hazardous that they should not be consumed, especially by children or women of reproductive age.

The California Office of Environmental Health Hazard Assessment (California OEHHA) advisory tissue levels for children and women younger than 45 state that fish with mercury levels above 0.44 ppm are not safe to consume, while men and older women could safely consume a single serving a week at levels between 0.44 and 1.31 ppm. See Table 1, Updated OEHHA Advisory Tissue Levels.[8] (Note that the "do not consume" levels of mercury reported in parts per billion in Table 1, at > 440 ppb for children and younger women and >1310 ppb for men and older women, correspond to levels of 0.44 ppm and 1.31 ppm.)

But as Table 3.3.2-10, Lake Pillsbury sportfish tissue mercury results, shows, four of the ten Bluegill sampled had mercury levels in excess of 0.44 ppm. Only one of the 12 largemouth bass sampled had a mercury level lower than 0.44 ppm. Seven of ten pikeminnow captured exceeded the 1.31 ppm "do not consume" level even for men and older women.

In general, the data presented suggest that larger, older fish are more likely to accumulate dangerously high levels of mercury. That is consistent with the observation that "Sampling of tissue taken from Lake Pillsbury fish detected high concentrations of mercury, averaging 1.31 µg/g in 350 millimeter (mm) largemouth bass (*Micropterus salmoides*), and the highest concentration for an individual fish (4.08 µg/g in a 559 mm largemouth bass) in statewide sampling (Davis et al. 2009)."

It is notable that the 2000 sampling found even higher concentrations of mercury than reported in PG&E's more recent effort, and that even in smaller bass mercury levels reached the 1.31 ppm level at which OEHHA recommends fish not be consumed at all.

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[7] Final Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions.

[8] Klasing, S. and R. Brodberg. 2018 (Updated ATL Table November, 2017). Development of Fish Contaminant Goals and Advisory Tissue Levels for Common Contaminants in California Sport Fish: Chlordane, DDTs, Dieldrin, Methylmercury, PCBs, Selenium, and Toxaphene. California Office of Environmental Health Hazard Assessment. California Environmental Protection Agency, Sacramento, CA.

Note that OEHHA has issued an advisory for fish caught in the Lake Pillsbury reservoir. Even the planted rainbow trout are so high in mercury that children and younger women should only eat a single serving a week.

3.3.3 Fish and Aquatic Resources
3.3.3-2

The list of databases consulted does not explain how the sources were used. It is essential to follow standard CDFW methods when querying these databases. For example, a nine-quad search of the California Natural Diversity Database (CNDDB) should be conducted for a project of this scale. Since CNDDB is an observation-only database, a broader search is necessary to generate a more comprehensive list of potentially present species and habitats.

3.3.3.3 Overview of Fish and Aquatic Resources

The text notes among "other species of concern" summer steelhead, listed as Endangered under the California Endangered Species Act. The Draft Surrender Application fails to convey the Project's central role in the demise of Eel River summer steelhead. Construction of Scott Dam closed off access to nearly all of the upper mainstem Eel River, leading to the effective extinction of what had been the southernmost summer steelhead run on Earth.

But because steelhead are the anadromous form of rainbow trout (*O. mykiss*), those vanished summer steelhead left relatives behind in the watershed above Scott Dam. As Kannry has shown, rainbow trout populations above Scott Dam still retain the genetic markers associated with anadromy as well as those associated with the now-rare summer steelhead life history.[9] It is reasonable to project that those upper basin rainbow trout populations will produce summer steelhead in relatively short order following dam removal. Thus, while construction of Scott Dam caused very significant harm to these extraordinary fish, dam removal may see their resurrection.

Above Lake Pillsbury, the Eel River and Rice Fork also provide habitat for native rainbow trout (*O. mykiss*). Review of available habitat should reference and include a summary of Fitzgerald et at. 2022.[10]

CalTrout has additional fisheries information not included in the LSA. We understand this effort to be a summary, however, we encourage PG&E and their consultants to reach out with questions or needs for information sources.

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[9] Kannry, S. H., O'Rourke, S. M., Kelson, S. J., & Miller, M. R. (2020). On the ecology and distribution of steelhead (Oncorhynchus mykiss) in California's Eel River. Journal of Heredity, 111(6), 548-563.

[10] FitzGerald, Alyssa M., David A. Boughton, Joshua Fuller, Sara N. John, Benjamin T. Martin, Lee R. Harrison, and Nathan J. Mantua. (2022) "Physical and biological constraints on the capacity for life-history expression of anadromous salmonids: an Eel River, California, case study." Canadian Journal of Fisheries and Aquatic Sciences. 99(999), 1-19

3.3.3-5

Where agriculture is listed as one of the many additional causes of fisheries decline, the final draft should specify "and associated water diversions, legal and illegal."

This section also notes the invasion of Sacramento pikeminnow out of the Lake Pillsbury reservoir and throughout most of the Eel River watershed. The subject is further addressed at pp 3.3.3-73 et seq. and again at 3.3.396, where the text notes that:

> Introduction of pikeminnow into the Eel River Watershed likely occurred because of a "bait bucket" introduction in Lake Pillsbury in the late 1970s (SEC 1998). Largemouth bass were stocked in Lake Pillsbury from Clear Lake in 1986 to potentially assist in controlling pikeminnow numbers."

Pikeminnow are not native to the Eel River and have likely become a significant limiting factor in salmon and steelhead survival and population recovery. Because PG&E failed to prevent the establishment of pikeminnow in its reservoir, and then failed to control its transmission downstream, most of the Eel River watershed is now significantly less productive habitat for salmon and steelhead than it was before 1980.

As the text notes, there is reason to believe that pikeminnow are an especially serious threat to steelhead reproduction in the Project area. Dam removal is likely to reduce those effects, and will allow native salmon and steelhead access to higher-gradient, cooler waters higher in the watershed where they will have a competitive advantage over pikeminnow, reversing the advantage pikeminnow enjoy in the warmer waters downstream.

We urge PG&E to propose, and the Commission to accept, significant continuing support for pikeminnow suppression and eradication efforts in the Eel River as long as pikeminnow remain a problem.

3.3.3.4 Eel River
3.3.3-8 Physical Environment — *Aquatic Habitat*

The text notes that

> Two large tributaries, Tomki Creek (RM 153.0, 3.8 mi. downstream of Cape Horn Dam) and Outlet Creek (RM 126.0, 31 mi. downstream of Cape Horn Dam), provide a significant amount of spawning and rearing habitat for anadromous salmonids (SEC 1998).

This may be true in the abstract, but more recent information discussed at and around pp 3.3.3-60 suggests that neither Outlet Creek nor Tomki Creek have been productive of salmon and steelhead in recent decades. While causes are uncertain, land use in Tomki Creek and land use and water pollution in Outlet Creek seem likely contributors. In any case, what had seemed in past decades to be areas capable of returning to high

productivity remain frustratingly free of fish today. By contrast, assessments of the upper basin above Scott Dam have found no significant water quality or habitat issues for salmonids; instead, they indicate favorable conditions.[11]

3.3.3-9 Fish Passage Barriers — Scott Dam

The barriers noted in the maps at 3.3.3-17 and 3.3.3-19 do not appear to reflect actual conditions as assessed in the watershed by fisheries biologists. While the recent work by Cooper et al. did not consider barriers, the VTN study mentioned here to calculate potential habitat has been repeatedly shown to be inaccurate.

We have combined personal observations with CDFW's extensive survey reports to catalog **actual** barriers and included additional habitat (not above barriers) from Cooper et al.'s IP model. This adds a significant amount of habitat beyond PG&E's estimate.

Map 1 and Map 2 (see pp 31-32) are modifications of PG&E's maps that summarize the available information about the accessibility of habitat, especially for steelhead, above Scott Dam. Pink circles denote putative barriers that are identified in the Draft Surrender Application, but which are not reflected in CDFW reports, and should not be used to determine the extent of potential habitat. The purple ovals denote stream reaches with suitable habitat above those putative barriers which should be included in the assessment of total available habitat.

We also would like it noted that numerous fisheries experts have concurred, based on their assessment of Bloody Rock Roughs and observations of anadromous steelhead upstream of far more significant barriers in similar watersheds (Van Duzen, Middle Fork Eel, Mad River), that Bloody Rock Roughs should not be referred to as "impassable barrier," as it is most likely passable at flows that would occur on an annual basis.

Downstream Passage

The Project's impacts on fish passage are generally understood to be severe, given that Scott Dam blocks the Eel River entirely, and that Cape Horn Dam's antiquated fish ladder, longest and highest in California, has continued to suffer severe problems into recent years. Downstream passage at Cape Horn Dam has received the least attention.

The text acknowledges "structural" passage issues at Cape Horn Dam at low and intermediate flows. The 26.6 foot drop from the center of the dam is indeed "a significant drop," worsened by the fact that at "intermediate flows, water depth over the downstream steps of the dam is likely insufficient to cushion fish." This will harm or kill juvenile Chinook, juvenile steelhead, and outmigrating steelhead kelts.

[11] See FitzGerald et al.

As PG&E knows, NMFS stated in a March 16, 2022 letter to FERC that the Biological Opinion for the Project expired with the Project license in April of that year. NMFS also explained that, based

> on information currently available, we conclude that the Project is causing take of ESA-listed salmonids in a manner not anticipated in the Opinion and from activities not described in the Opinion.

Specifically, NMFS states that

> Cape Horn Dam, the associated infrastructure, fishway maintenance, and flow operations to achieve fish passage at the passage facility are neither described within the *Description of the Proposed Action*, nor are their effects to listed species assessed within the Opinion. Consequently, **we did not authorize incidental take resulting from these effects** (e.g., delayed or blocked migration and predation of ESA-listed salmonids caused by the configuration and full operation of the Cape Horn Dam fish passage facility). (emphasis added)

NMFS' warning regarding the impacts on upstream migrants applies equally to impacts on downstream migrants: at Cape Horn Dam, none of these forms of take are presently authorized by incidental take permits. This contributes to our sense of urgency in seeking removal of both Cape Horn and Scott Dams.

3.3.3-30

The text notes that

> Sedimentation and connectivity issues caused by dry reaches in the Eel River create additional fish passage barriers. In the lower mainstem Eel River, stranding of Chinook salmon has been observed at the Van Duzen River confluence of the Eel River. Gravel extraction altered the channel of the Van Duzen River until 1996, widening the channels and creating a shallow, braided reach unsuitable for fish passage (CDFG 2010). **The lower 4 mi. of the Van Duzen River have purposefully been blocked to salmonids since 2003 to prevent stranding**. Seasonal high-gradient "barrier" culverts are installed to ensure migrating adult salmonids are not stranded in the shallow waters that occur before sufficient flows allow for upstream passage. (emphasis added)

DFW staff report that the Van Duzen barriers were operated from the early 2000s to approximately 2012, and that no strandings have been reported in that area since.[12]

3.3.3-31 Benthic Macroinvertebrates

The text notes that "Benthic macroinvertebrate (BMI) sampling has not been historically conducted in the Eel River below Scott Dam." Cal Poly Humboldt's Dr. Alison O'Dowd, a benthic macroinvertebrate expert, has done some limited sampling in the Emmendal reach

[12] A. Renger, personal communication 2025

of the upper mainstem. Of note, Dr O'Dowd reports that efforts to sample for benthic macroinvertebrates following Klamath Dam removal have been unsuccessful, apparently due to sediment impacts. (O'Dowd, personal communication 2025) It would thus seem especially important to have a profile of benthic macroinvertebrate populations in the Eel River prior to dam removal.

3.3.3-32 *Aquatic Molluscs*

The text notes observations of invasive Asian clam (*Corbicula fluminea*) in the upper Eel River below the Project. The Final Surrender Application should discuss the potential for sediment discharge and associated dam removal impacts to suppress this population, as well as any potential for the clam to grow in habitats affected by dam removal.

3.3.3-35 ***Salmonids*** — *Steelhead – Lower Eel River*

The text states that summer steelhead "are primarily found in the Lower Eel River Watershed in the Van Duzen River and Middle Fork Eel River." This is currently the case. But summer steelhead were very much present in the upper Eel River prior to the construction of Scott Dam. There is every reason to believe that they will quickly return when the dams are removed. [13][14]As NMFS has noted in its Multi Species Recovery Plan, additional independent summer steelhead populations like the Upper Eel are necessary to recover steelhead in the region now listed as Threatened under the federal Endangered Species Act.

The text states that "the estuary serves as a holding area for adult steelhead during upstream spawning migrations (late fall into early summer)." Please clarify this statement in the Final Surrender Application. It is our understanding that it is in fact the lower Eel River – above the estuary but below the Van Duzen confluence – that provides key holding areas for upstream migrating salmonids. Certainly, that is the case for Chinook, which hold from early August until the rains come.

3.3.3-71

The text notes "Western brook lamprey are also present in the study area." A 2023 paper proposed renaming Pacific Coast lamprey species as a new genus, *Occidentis* to mark their difference from their Atlantic basin relatives. [15] Then a 2024 paper showed that Western brook lamprey and Western river lamprey are "best categorized as life history variants of a

[13] Munsch SH, McHenry M, Liermann MC, Bennett TR, McMillan J, Moses R and Pess GR (2023) Dam removal enables diverse juvenile life histories to emerge in threatened salmonids repopulating a heterogeneous landscape. Front. Ecol. Evol. 11:1188921. doi: 10.3389/fevo.2023.1188921

[14] Brewitt, P. K. (2016). Do the fish return? A qualitative assessment of anadromous Pacific salmonids' upstream movement after dam removal. Northwest Science, 90(4), 433-449.

[15] Carim, K.J., Larson, D.C., Helstab, J.M. et al. A revised taxonomy and estimate of species diversity for western North American Lampetra. Environ Biol Fish 106, 817–836 (2023). https://doi.org/10.1007/s10641-023-01397-y

single species."[16] Thus, the Final Surrender Application need only note the presence of *Occidentis ayersii* to be accurate.

3.3.5 Wildlife Resources: Information Sources

Our comments on this section were principally authored by wildlife biologist Gary Falxa, PhD, USFWS (ret.).[17]

The list of information sources doesn't include classic public references on CA wildlife (e.g. *Distribution of the Birds of California by Grinnell and Miller* 1944, *Atlas of the Breeding Birds of Humboldt County* by Hunter et al 2005), nor modern digital resources such as eBird and iNaturalist.

Table 3.3.5-3 Special status terrestrial wildlife species

Western Yellow-billed Cuckoo

Black Cottonwood (*Populus balsamifera*) is the dominant cottonwood species along the lower Eel River, where Western Yellow-billed Cuckoos have been documented. Regarding historical nesting sites, Falxa notes that "There are actually more than 20 breeding season records along the lower Eel, mostly from the estuary but also upstream as far as Holmes Flat." These records highlight the species' historical and potential contemporary use of the Eel River corridor as breeding habitat.

Yellow Warbler

The phrase "may potentially occur" should be corrected to "known to occur." The Atlas of Breeding Birds of Humboldt County (Hunter et al. 2005) documents a confirmed nesting record at the confluence of the Van Duzen and Eel Rivers. Additionally, multiple breeding season records from eBird provide further evidence of this species' presence and reproductive activity in the area.

Monarch Butterfly

The text should specify that the Monarch (*Danaus plexippus*) is a widespread migratory species, occurring in the area at a minimum during migration. Given the declining populations of the western monarch and its reliance on suitable nectar sources and roosting sites along migration routes, recognizing its occurrence in the project area is important.

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[16] Carim KJ, Auringer G, Docker MF, Renaud CB, Clemens BJ, Blanchard MR, et al. (2024) Species diversity in the new lamprey genus Occidentis, formerly classified as western North American 'Lampetra'. PLoS ONE 19(12): e0313911. https://doi.org/10.1371/journal.pone.0313911

[17] See https://www.researchgate.net/profile/Gary-Falxa

Short-eared Owl

The phrase "may potentially occur" should be changed to "known to occur." Multiple records from eBird confirm the presence of Short-eared Owls (*Asio flammeus*) in the area, suggesting that it is a regular winter visitor and possibly an occasional breeder in suitable open wetland and grassland habitats.

Northern Harrier

The Northern Harrier (*Circus hudsonius*) should be classified as "known to occur" rather than "may potentially occur." Numerous eBird records document the species in the region year-round, with individuals frequently observed hunting over open habitats along the Eel River.

Purple Martin

Habitat descriptions should be expanded beyond redwood forests to include other forest types, such as mature Douglas-fir, mixed conifer-hardwood stands, and riparian forest edges. Purple Martins (*Progne subis*) are known to utilize cavities in large trees and snags for nesting and may also take advantage of artificial structures.

Willow Flycatcher

The designation "unlikely to occur" should be revised to "known to occur." Records from Hunter et al. (2005), eBird, and personal observations by Falxa indicate that Willow Flycatchers (*Empidonax traillii*) have been observed around Cock Robin Island during the breeding season. These records suggest the species may use the Eel River corridor for breeding or stopover habitat during migration.

Bald Eagle

In addition to wintering records, Bald Eagles (*Haliaeetus leucocephalus*) also occur during the breeding season along the Eel River between Island Mountain and the confluence with the South Fork Eel River. Given the presence of nesting habitat and increasing regional populations, it is likely that the species breeds in this section of the river. eBird records further support consistent seasonal use of the area.

3.3.5-11 Beaver

We are disappointed to note that the Draft Surrender Application merely notes beaver (*Castor canadensis*) as a species of common wildlife, without addressing its presence in the Project area. Beaver play a central role in river and stream ecology, and can have benefits to streamflow, and other fish and wildlife, including salmonids. From a utilitarian perspective, beaver will interact with revegetation and restoration efforts in the project area. The Final Surrender Application should consider how to work with beaver to improve

restoration outcomes and include beaver in the Restoration Plan. PG&E should consult CDFW's recently created Beaver Restoration Program for best management practices.

Beaver play a crucial role in shaping stream ecosystems by constructing dams that create ponds and wetlands, altering hydrology and geomorphology in ways that enhance habitat for fish and wildlife. Research by Pollock et al. highlights that beaver dams improve groundwater recharge, regulate stream discharge, retain sediment, and enhance stream habitat quality for fish.[18] Historically widespread, beaver have been severely reduced across much of their range, and their absence has likely contributed to stream incision, lower groundwater levels, and the drying of waterways.[19] Restoring beaver populations in mountain meadows can create climate refugia for sensitive species and increase carbon sequestration.

Beaver ponds also provide critical protection for riparian corridors during wildfires. Fairfax and Whittle (2020) found that beaver-dammed areas remained relatively unaffected compared to similar corridors without beavers, highlighting their role in fire resistance and habitat refugia.[20]

Salmon and steelhead benefit significantly from beaver activity. Beaver ponds create slow-moving water with abundant food and cooler temperatures, ideal for juvenile salmonids. Pollock et al. note that these ponds provide extensive cover, productive vegetation, and rich invertebrate populations, offering fish foraging opportunities not found in free-flowing streams.

Beyond fish, beaver-created wetlands support diverse wildlife, including waterfowl, muskrats, mink, deer, and elk. Several species described in the Draft Surrender Application rely on beaver ponds as preferred habitat.[21]

Following near-extermination across the American West, beavers are gradually recovering in some areas. Restoration efforts have provided valuable insights, as detailed in *The Beaver Restoration Guidebook: Working with Beaver to Restore Streams, Wetlands, and*

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[18] Pollock, Michael & Heim, Morgan & Werner, Danielle. (2003). *Hydrologic and Geomorphic Effects of Beaver Dams and Their Influence on Fishes,* American Fisheries Society Symposium *37*

[19] Lanman, C. W., Lundquist, K., Perryman, H., Asarian, J. E., Dolman, B., Lanman, R. B., & Pollock, M. M. (2013). The historical range of beaver (Castor canadensis) in coastal California: an updated review of the evidence. California Fish and Game, 99(4), 193-221.

[20] Fairfax, Emily, and Andrew Whittle, (2020) Smokey the Beaver: beaver-dammed riparian corridors stay green during wildfire throughout the western United States, Ecological Applications Vol 30 Issue 8, https://doi.org/10.1002/eap.2225

[21] See Yarnell, Sarah, UC Davis Center for Watershed Sciences, Beavers, Meadows and Climate Change, https://watershed.ucdavis.edu/project/beavers-meadows-and-climate-change

Floodplains, published by the U.S. Fish and Wildlife Service.[22] We encourage PG&E to incorporate relevant beaver restoration into the Final Surrender Application.

Given the well-documented benefits of beavers to salmonid recovery and ecosystem resilience and their known presence, restoration efforts in the Project area should include a thorough analysis of beaver restoration as part of long-term planning.

Beaver presence in the planning area

There is at least one photographic report of beaver activity in the Eel River above the Lake Pillsbury reservoir in February 2023, near the Bloody Rock area.[23] Additionally, beaver activity has been observed in the Upper Mainstem Eel River about the Lake Pillsbury reservoir in the Rice Fork, immediately below Scott Dam and further downstream at Hearst.

3.3.7-13 Recent Restoration Projects

The text cites the Russ Creek-Centerville Slough project as a restoration project. We wish we could agree.

However, as the Coastal Commission staff report on the proposed Consistency Determination for the project notes, "(a)lthough the Project would likely provide substantial restoration benefits to the area," it ultimately concludes that the project is, rather, a reclamation effort. It recommends the Coastal Commission object to the Consistency Determination, noting that

> the Commission has long considered "restoration" to be generally defined as taking actions to return an area to a prior, relatively unimpaired, pre-disturbance natural condition, while "reclamation" is generally defined as changing an area so that it improved for agricultural purposes.

The report concludes on this issue that:

> In sum, the Project does not meet [Public Resources Code] Section 30233(a)'s allowable use test because the majority of its proposed wetland dredge and fill activities in support of creating or enhancing agricultural pasturelands do not result in a "prior, relatively unimpaired, and natural condition" or an "indigenous, historical ecosystem," and do not otherwise fit within the definitions of 30233(a)'s allowable "restoration" use. Instead, the Project's creation and enhancement of agricultural pasturelands fall within the generally recognized definitions of "reclamation," which is not an allowable use.

Finally, we note that the proposed project would include pre-permitting for up to an additional 100,000 cubic yards of dredge and fill as necessary to address storm damage.

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[22] Pollock, M.M., G.M. Lewallen, K. Woodruff, C.E. Jordan and J.M. Castro (Editors) 2023. The Beaver Restoration Guidebook: Working with Beaver to Restore Streams, Wetlands, and Floodplains. Version 2.02. United States Fish Service, Portland, Oregon. 189 pp. Online at: https://www.fws.gov/media/beaver-restoration-guidebook

[23] See INaturalist https://www.inaturalist.org/observations/147865065

That is not a self-sustaining project. PG&E may wish to reconsider the description of the Russ Creek project as a restoration project.

3.4.1.4. Environmental Effects: Fish and Aquatic Resources

A primary concern of the undersigned organizations is the health and recovery of Eel River salmon, steelhead, and lamprey that support tribal communities, recreational and commercial fisheries, local economies, and the broader ecosystem via the transport of marine-derived nutrients. Of significant concern are the short-term impacts on those fisheries from dam removal and in river construction, most notably sediment release.

PG&E intends to develop "The Post-dam Removal Aquatics Species Management and Monitoring Plan would include measures to capture/salvage, relocate, and implement broodstock rescue of aquatic species." Given these risks to aquatic species, we request more detailed information on sediment management strategies, including anticipated sediment loads, timing, a mitigation measure alternative analysis, and monitoring efforts. Our overall intent is to help PG&E, in consultation with resources agencies and Tribes, to reduce negative impacts to the greatest extent possible.

We recognize the potential need for short-term mitigation measures, but these measures need to be implemented and balanced with long-term recovery goals in mind. Based on the existing information, we are not convinced that capture, salvage, and relocation are necessary, however we do note that salmon populations in the Upper Eel River are depressed, and every effort should be made to protect individuals. If capture, salvage, and relocation are deemed necessary due to the severity and duration of sediment loads, the process should have clearly defined goals, specific start and completion dates, thorough monitoring, and be implemented for the shortest duration possible.

We do not see a likely scenario under which broodstock rescue and rearing for either steelhead or Chinook, would ultimately benefit wild salmonids in the Eel River long term. Hatcheries have been used extensively as mitigation for habitat lost from dam construction. There is ample published literature showing that they are unsuccessful in that role and usually have adverse effects on wild fish. In a synthesis of 207 studies on impacts of hatcheries, McMillan et al. found that 83% of the studies examined had negative impacts, and only 3% had positive impacts, with negative genetic impacts being the most frequently observed.[24] These included reduced genetic diversity, changes in population structure, and decreased effective population size. Hatchery fish, even those used in "broodstock rescue" i.e., the first generation bred from wild broodstock, have significantly lower fitness than wild offspring of wild fish.[25] If hatcheries were able to rebuild or even maintain healthy populations of wild fish, then close to half of California's Evolutionarily

[24] McMillan, J. R., Morrison, B., Chambers, N., Ruggerone, G., Bernatchez, L., Stanford, J., & Neville, H. (2023). A global synthesis of peer-reviewed research on the effects of hatchery salmonids on wild salmonids. Fisheries Management and Ecology, 30(5), 446-463.

[25] Chilcote, M. W. (2003). Relationship between natural productivity and the frequency of wild fish in mixed spawning populations of wild and hatchery steelhead (Oncorhynchus mykiss). Canadian Journal of Fisheries and Aquatic Sciences, 60(9), 1057-1067.

Significant Units of salmonids wouldn't be listed under the Federal Endangered Species Act. [26]

There are prominent examples of wild fish rebounding after severe disturbance, akin to what will occur when the Eel River dams are removed. Seven years after Mount Saint Helens erupted and buried the Toutle River in superheated ash and sediment, wild steelhead runs exceeded carrying capacity.[27] Wild summer-run steelhead numbers increased from less than ten to hundreds of individuals six years after dam removal was completed on the Elwha River.[28] In most other cases we have been unable to observe what the response of wild fish would be due to the pre-emptive construction of hatcheries as mitigation for the disturbance.

Genetic diversity in the resident *O. mykiss* population above Scott Dam has been maintained up to the present. From Kannry et al., 2020 "Our results suggest that, considering their present state of run-timing genotypes, the potential to exhibit migratory behavior, and overall genetic diversity, the resident trout population above Scott Dam would be primed for reestablishment of steelhead post dam removal. Given the results of our study and the potential negative consequences and costs of hatchery fish, it seems prudent to give the native *O. mykiss* the opportunity to autonomously reestablish anadromy in the upper watershed upon dam removal."[29]

All Chinook hatchery operation in the California Coastal ESU ended in 2007, as it was recognized that Chinook numbers were still declining and the hatcheries, even though they were small, localized efforts, were likely contributing to the decline. [30] Chinook salmon have a higher rate of straying than other salmonids so are well positioned to make use of newly accessible above dam habitat.[31] The idea of "broodstock rescue" is usually reserved for instances in which a population is either extirpated or so depressed, that they have no chance of rebounding. That is not the situation on the Eel for Chinook or steelhead. Precise population estimates are not available, but over 1000 Chinook were observed at Van Arsdale and in Tomki Creek this year. CDFW has operated a Sonar "camera" to enumerate adult and jack salmon escapement into the lower mainstem Eel River above the confluence with the South Fork Eel River during the fall and winter since 2018. Chinook Salmon

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[26] Moyle, P. B., Lusardi, R. A., Samuel, P. J., & Katz, J. V. (2017). State of the Salmonids.

[27] Bisson, P.A., Crisafulli, C.M., Fransen, B.R., Lucas, R.E., Hawkins, C.P. (2005). Responses of Fish to the 1980 Eruption of Mount St. Helens. In: Dale, V.H., Swanson, F.J., Crisafulli, C.M. (eds) Ecological Responses to the 1980 Eruption of Mount St. Helens. Springer, New York, NY. https://doi.org/10.1007/0-387-28150-9_12

[28] Duda, J. J., Torgersen, C. E., Brenkman, S. J., Peters, R. J., Sutton, K. T., Connor, H. A., & Pess, G. R. (2021). Reconnecting the Elwha River: spatial patterns of fish response to dam removal. Frontiers in Ecology and Evolution, 9, 765488.

[29] Kannry, S. H., O'Rourke, S. M., Kelson, S. J., & Miller, M. R. (2020). On the ecology and distribution of steelhead (Oncorhynchus mykiss) in California's Eel River. Journal of Heredity, 111(6), 548-563.

[30] Moyle, P. B., Lusardi, R. A., Samuel, P. J., & Katz, J. V. (2017). State of the Salmonids.

[31] Westley, Peter AH, Thomas P. Quinn, and Andrew H. Dittman. "Rates of straying by hatchery-produced Pacific salmon (Oncorhynchus spp.) and steelhead (Oncorhynchus mykiss) differ among species, life history types, and populations." Canadian Journal of Fisheries and Aquatic Sciences 70.5 (2013): 735-746.

returning to the mainstem Eel River above the confluence of the South Fork Eel River has averaged around 5,000 fish annually since 2018.[32] These numbers are fractions of what existed historically, but not a population on the verge of imminent collapse. From Chilcote (2003), "For natural populations, removal rather than addition of hatchery fish may be the most effective strategy to improve productivity and resilience."

3.4.4.3 Botanical Resources

We support and reiterate the comments offered here by the expert California Native Plant Society:

> Table 3.3.4-2: We would recommend that in addition to taxa that are 'known to occur' and taxa that 'may potentially occur' taxa that are described as 'unlikely to occur' be evaluated for potential impacts and targeted in preconstruction surveys. Many of these species have historic occurrences or historic ranges within the study area and should be considered in analysis despite the lack of recent data, noting that these data sources are positive occurrence databases, and the lack of data does not indicate that a taxon is not present. The California Natural Diversity Database Management Framework (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=181808&inline) states that "The CNDDB is a positive sighting database. Information on negative sightings is only included when it pertains to previously documented occurrences. It is important to emphasize that absence of data is not proof of absence. There may be areas of the state that have not been surveyed or where data have not been submitted to the CNDDB program. Just because a species has not been documented in the CNDDB at a given location does not necessarily mean the species does not occur there. The absence of data in the CNDDB is NOT proof of absence and does not constitute the basis for a negative declaration."
>
> Land Use and Non-Vegetated Areas: While barrens do not have dense vegetation cover, the description that they are devoid of vegetation is misleading, there are many species that have adapted to the challenging conditions present on bedrock, rock outcroppings and cliff faces. Many of these taxa are rare and we would strongly recommend avoidance of any serpentine and calcareous soils, alpine fell fields, barrens, biological soil crusts, and other sensitive soil types that are easily eroded or degraded, as determined by a qualified biologist and licensed geologist for staging areas, road construction or any other project activities.

3.4.1.6-4 Wildlife Resources — Scott Dam Area Direct Effects to special status invertebrates

Given the wide distribution of these species (monarch butterfly and western bumble bee) and the relatively small area impacted, we expect impacts to be limited; however, any such

[32] Kajtaniak, D., K. Roberts. 2022. Lower Mainstem Eel River Chinook Salmon Monitoring Project, Sonar Estimation of California Coastal (CC) Chinook Salmon (*Oncorhynchus tshawytscha*) And Steelhead (*O. mykiss*) Abundance in The Lower Mainstem Eel River, Humboldt County, California 2021-2022- Final Report. And Kajtaniak, D Pers. Coms. 2025

impact could be mitigated by plantings of native local nectar species as part of revegetation of disturbed areas.

3.4.1.6-10

Best Management Practices: to avoid impacts, include specific BMPs that prohibit refueling within 100 ft of wetlands, streams, or waterways. It is a violation of FGC 5650 to place pollutants where they may enter waters of the state, thus BMPs need to be specific to the activity, clear, and able to be easily implemented. The buffer to aquatic resources should be a minimum of 100 ft. If there are slopes toward a waterway, larger buffers must be used. There must be spill and containment measures onsite to contain spills if they happen. Equipment must be parked outside these areas with absorbent materials under them.

3.4.1.6-15

Scott Dam Area Direct Effects on Northern Spotted Owl: Please clarify the specific avoidance measures that will be implemented, under what jurisdiction, and at whose direction. Mitigation measures should be determined in consultation with CDFW and USFWS to ensure appropriate actions are taken. We have concerns regarding the language used, as mitigation measures that are only implemented to the extent "possible" or "feasible" are legally insufficient under CEQA (King and Gardiner Farms, LLC v. County of Kern (2020) 45 Cal.App.5th 814, 857-58).

3.4.1.6-19

Northern (American) Goshawk, Golden Eagle, and Other Raptors:
Given the stated sensitivity of golden eagles and goshawks to disturbance, is 500 ft adequate for surveys for active nests?

3.4.1.6-24

Cape Horn Area Direct Effects on Osprey:
Same as above re: “to the extent possible.”

3.4.1.6-25

Scott Dam Area Direct Effects on Other Special Status Birds, last paragraph:
Please note that FGC 3503 prohibits take of active bird nests.

3.4.1.6-31

Cape Horn Area Direct Effects of special status bats:
Pre-construction surveys should include surveys during the maternity season of the prior year. Where maternity roosts are found, exclusion devices should be installed prior to the maternity season of the construction year.

3.4.1.6-42

Potential effects to bald eagle phase 2b:
While phase 2b is most likely a long-term net benefit for bald eagles, for the purposes of disclosure, phase 2b impacts should include the loss of lacustrine foraging habitat due to the draining of the Lake Pillsbury and Van Arsdale reservoirs.

3.4.1.6-53

Scott Dam Area Indirect Effects on bald eagles: This discussion is good. Negative impacts should be acknowledged in the summary as well.

3.5.1.6-1 Wildlife Resources - Potential Effects

Special status invertebrate species: Direct effects should also include potential effects to eggs and larvae.

3.5.1.6-10

Because golden eagle and peregrine falcons are fully protected, PG&E should avoid any take. To ensure none are nesting in the area, please survey before operations commence.

3.5.1.6-21

Unavoidable adverse effects to bald eagle:
We assume PG&E will consult with CDFW on this potential take.

Conclusion

As noted, we broadly support PG&E's proposed action. In addition, we applaud PG&E's efforts to move expeditiously to decommissioning and dam removal while incorporating broad stakeholder agreement that should form the basis for a continuing and constructive relationship between the Russian and the Eel River watersheds long after PG&E's dams have been removed and its FERC license surrendered.

Please consider the corrections and additions we suggest above. Please do not hesitate to reach out for clarification of any point. We look forward to working with PG&E during the License Surrender and Decommissioning process to ensure the health of the Eel River is adequately considered and protected.

Thank you for your time and consideration.

Alicia Hamann
Executive Director
Friends of the Eel River

Redgie Collins
Legal and Policy Director
California Trout

Matt Clifford
California Director
Trout Unlimited

Mark Rockwell
Vice President of Conservation
Northern California Council Fly Fishers International

Chris Shutes
Executive Director
California Sportfishing Protection Alliance

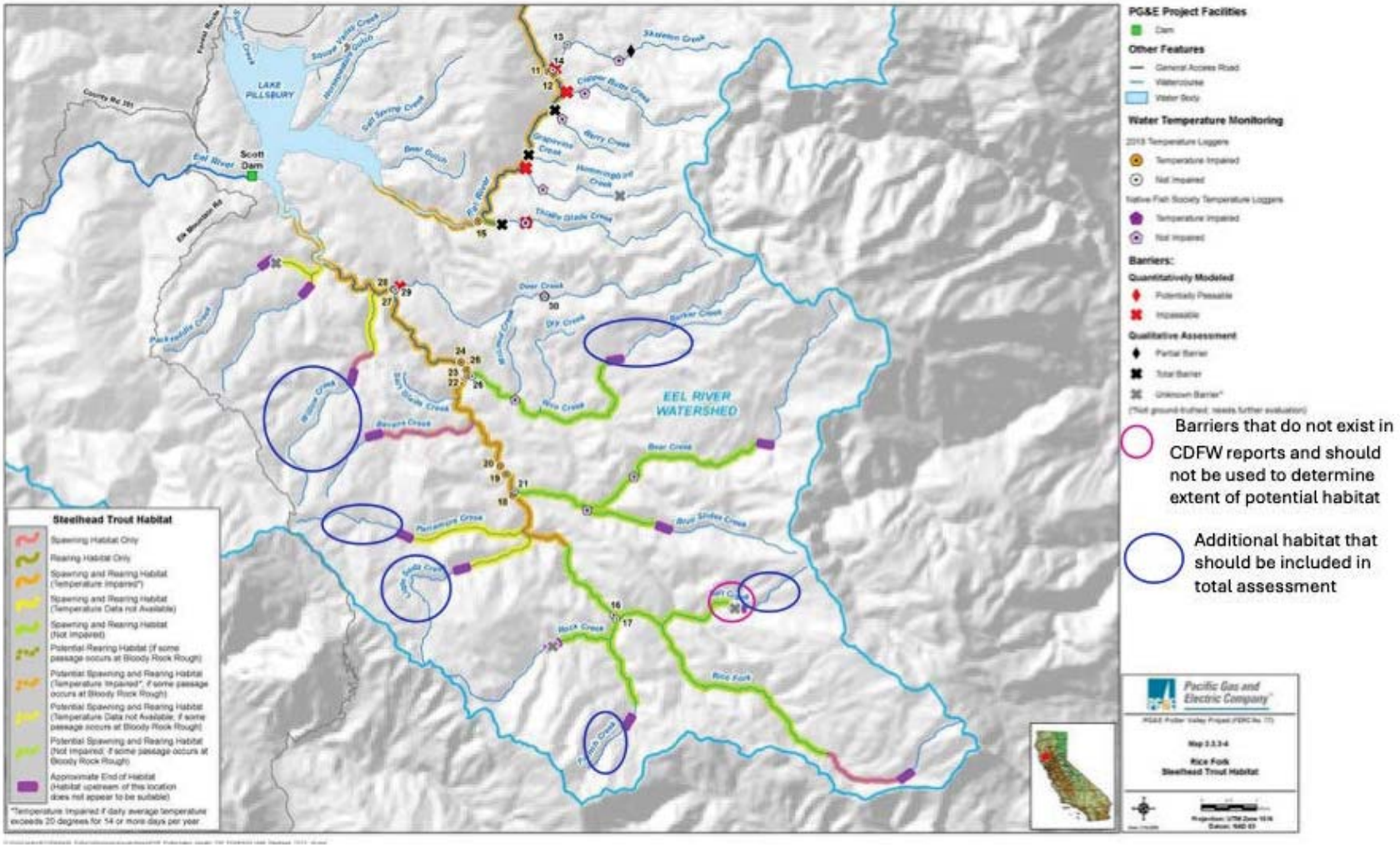
Theresa Ryan
Chair
Redwood Chapter of the Sierra Club Water Committee

Scott Harding
Stewardship Associate
American Whitewater

Regina Chichizola
Executive Director
Save California Salmon

Mark Sherwood
Executive Director
Native Fish Society

Map 1 – Potential barriers and additional habitat in the Rice Fork



Map 2 – Potential barriers and additional habitat in the mainstem Eel River drainage.

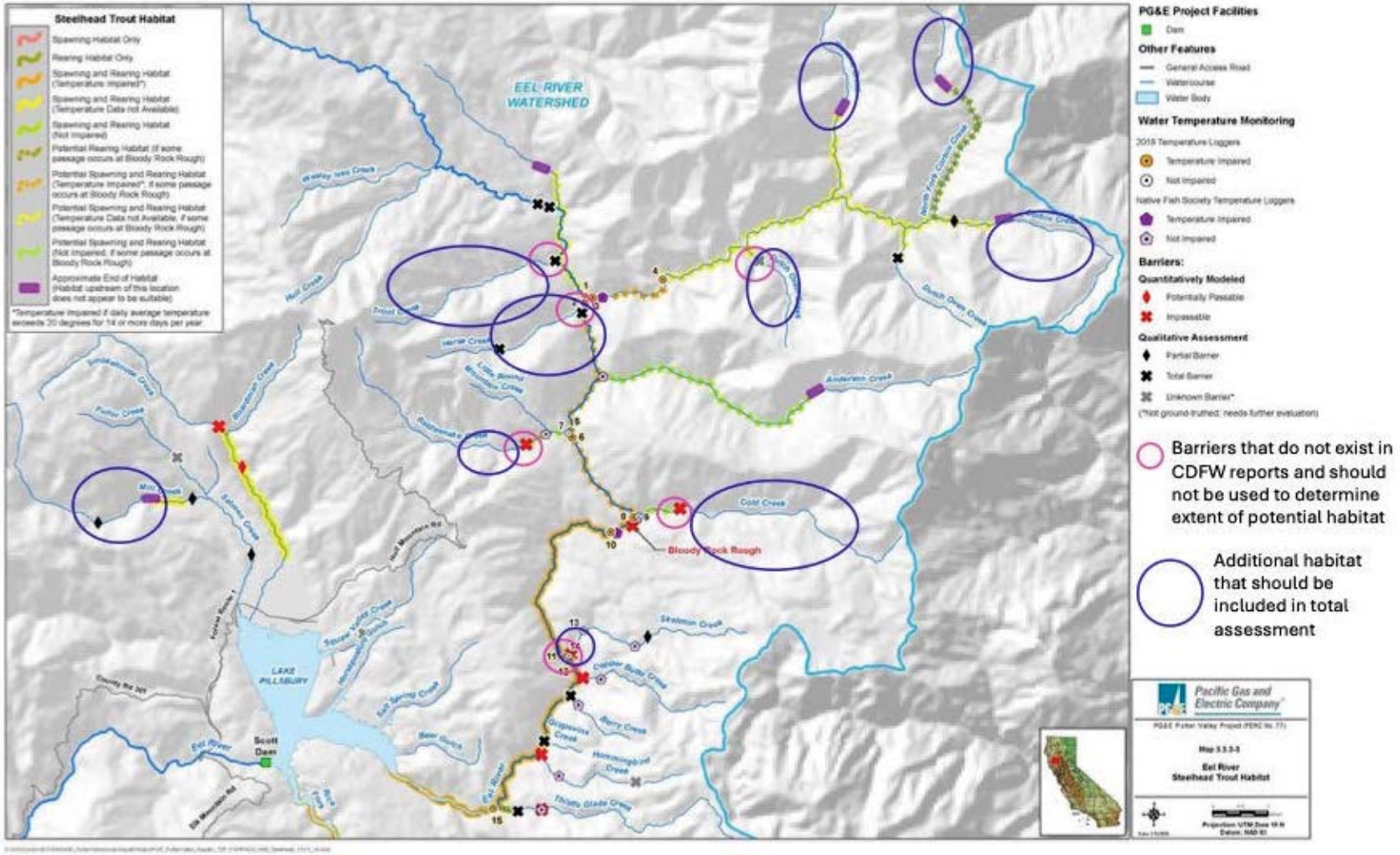


EXHIBIT B

Friday October 31, 2025

Wilhelmina Chon
State Water Resources Control Board
Division of Water Rights – Water Quality Certification Program
Via email to Wr401program@waterboards.ca.gov

RE: Potter Valley NOP Comments

As advocates for removal of the Eel River dams, the undersigned organizations respectfully offer the following comments in response to the Sept 22, 2025 Notice of Preparation ("NOP") issued by the State Water Resources Control Board ("SWRCB" or "Board") for your pending Environmental Impact Report ("EIR") regarding the Potter Valley Hydroelectric Project Surrender and Decommissioning ("Proposed Project"). Our suggestions with respect to the scope and content of the environmental information to be included in the Board's EIR are informed by decades of focus on the complex issues presented by Pacific Gas and Electric's Potter Valley Project ("PVP"), including the Eel River dams whose removal is the subject of the Proposed Project.

The Native Fish Society uses the best available science to advocate for the recovery of wild, native fish and promotes the stewardship of riverine habitat throughout the Pacific Northwest.

Fly Fishers International is the voice of fly fishing in America. FFI supports conservation efforts to protect fisheries and watersheds in America, and in Northern California, it engages our 28 fly fishing clubs and their more than 10,000 members to improve watersheds like the Klamath and Eel Rivers.

American Whitewater is a national non-profit river conservation organization, representing whitewater enthusiasts across the nation. American Whitewater's mission is to protect and restore America's whitewater rivers and to enhance opportunities to enjoy them safely.

The Sierra Club is the oldest and largest environmental organization in the US, with almost 4 million members nationwide advocating for wildlands preservation and equitable access to nature. The Redwood Chapter spans from Napa and Solano Counties to

the Oregon border, encompassing a diverse range of landscapes and communities with a proud history of outspoken grassroots advocacy in defense of our native ecosystems.

Friends of the Eel River is a nonprofit citizens' group that advocates for policies and practices consistent with the protection and recovery of the Wild and Scenic Eel River's outstanding resource values, particularly salmonid species protected under federal and California Endangered Species Acts.

I. Overview

We emphasize that Pacific Gas and Electric ("PG&E") is in the process of surrendering its hydroelectric license with the Federal Energy Regulatory Commission ("FERC") to operate the Potter Valley Project. The Proposed Project — to remove the PVP's Scott and Cape Horn Dams on the upper mainstem Eel River — is PG&E's proposal to FERC to decommission PVP facilities as part of that license surrender process. PG&E is surrendering its license and decommissioning the Eel River dams for its own reasons, which it has repeatedly stated are economic. At this stage in the license surrender process, neither PG&E nor any other entity can obtain a new FERC license to operate the PVP and its dams.

As we detail below, to the extent the PVP still functions, there are reasons for concern it may be subject to sudden failure, entailing very serious water quality impacts. However, while the PVP does continue to operate, significant and potentially disastrous temperature impacts on Eel River steelhead are likely to continue, at a minimum until FERC completes its approval of a proposed amendment to the PVP annual license.[1]

Because our support for dam removal springs from our goals of fisheries and river restoration, we particularly appreciate the Board's role in protecting water quality under its certification authority pursuant to Section 401 of the Clean Water Act. The Section 401 process is California's strongest tool to ensure PG&E's dam removal project improves water quality, restores habitat, and protects downstream communities and Tribal resources in the Eel River watershed.

As PG&E has documented in its *Final Application for Surrender of License and Application for Non-Project Use of Project Lands* ("License Surrender Application"), the Proposed Project will result in a number of unavoidable adverse effects, including discharges into the Eel River which clearly trigger the present review. PG&E writes that "Rapid Dam Removal would result in the flushing of a large volume of sediment (approximately 12 million cubic yards …) downstream of the remnant reservoir into the Eel River."[2] Because of the scope and nature of the Proposed Project, the SWRCB's

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[1] See PG&E, *Potter Valley Hydroelectric Project (FERC Project No. 77-318) Application for Non-Capacity License Amendment and Response to Additional Information Request*, Jan. 30, 2025; FERC's approval does not appear likely prior to Summer 2026; see FERC, *Notice of Reasonable Period of Time for Water Quality Certification Application*, April 10, 2025), stating "Reasonable Period of Time to Act on the Certification Request: One year, February 20, 2026. If California State Water Resources Control Board fails or refuses to act on the water quality certification request on or before the above date, then the certifying authority is deemed waived pursuant to section 401(a)(1) of the Clean Water Act, 33 U.S.C. § 1341(a)(1)."

[2] PG&E, *Potter Valley Hydroelectric Project (FERC Project No. 77) Final Application for Surrender of License and Application for Non-Project Use of Project Lands,* July 2025. Vol IA p 5-7

conditions of certification will provide essential sideboards to minimize water quality and other harms and secure the benefits of dam removal.

A. The Affected Area Includes the Entire Mainstem Eel River, Estuary, and Nearshore Marine Area

The affected area of the Proposed Project in the Eel River extends far beyond Project footprint. It ranges from the streams feeding the Lake Pillsbury reservoir, downstream the entire length of the mainstem Eel River, through the Eel River estuary, and into adjacent nearshore marine habitat. This point is not explicit in the NOP, but it is critically important to the SWRCB's planned California Environmental Quality Act ("CEQA") analysis. The broad extent of the affected area in the Eel River is due to the high volume of impounded sediment that will be released when dams are removed, which will affect all the described habitat in the Eel River watershed, including the estuary and nearshore ocean areas.

In addition, beneficial impacts of the dam removal will extend to the entire affected area. The existing streams feeding into the Lake Pillsbury reservoir will connect with the stream channels that have been buried for over 100 years under the lake, and the health of this entire stream network in the Upper Eel River will improve. The natural rate of sediment delivery will be restored throughout the basin, replenishing areas that have been starved of sediment for over 100 years. Similarly, the hydrologic function of the Eel River will no longer be impaired, and the natural hydrograph will be allowed to run through the entire mainstem Eel River, rather than impounded and released at times to best suit our society. For these reasons, the affected area analyzed in the EIR should include the entire mainstem Eel River, starting with the headwaters feeding into the Lake Pillsbury reservoir, the estuary, and the adjacent nearshore marine area.

B. Current Conditions are the Appropriate Environmental Baseline

Establishing the appropriate environmental baseline is critically important to an accurate analysis of the effects of the Proposed Project. The Project has been in place for over 100 years, and over that time dam infrastructure has aged, two reservoirs have partly filled with sediment, and different managed flow regimes have been implemented. It is not feasible to return to a prior flow regime such as that in place before Eel River salmonids were listed under the Endangered Species Act, before NMFS's Biological Opinion changed flows in the Eel and Russian Rivers, or before PG&E decided to limit the capacity of Lake Pillsbury to protect the dam.

The ESA, as well as state laws, remain in place, and the current flow management and dam storage reflect resource agency's analysis of the best available scientific information and PG&E's assessment of risk, respectively. Further, the Project infrastructure has aged and degraded, and it cannot be restored to previous conditions without being entirely removed and rebuilt. Finally, the volume of water that can be stored in the Lake Pillsbury reservoir has been irrevocably reduced due to sediment accumulation in the reservoir and the seismic instability which led PG&E to stop closing the radial gates. For these reasons, SWRCB should use current conditions as their environmental baseline for CEQA analysis.

C. The SWRCB's Restoration Policy is Appropriately Applied Here

We strongly support the SWRCB's stated intention to apply your Restoration Policy to this review. As we understand it, the SWRCB's policy recognizes that the long term benefits from aquatic ecosystem restoration can outweigh even very serious short term adverse effects of restoration actions. Here, on the upper Eel River, significant long term water quality benefits can only be feasibly secured by removal of Scott and Cape Horn Dams, through a process that will inevitably include temporary but quite significant water quality impacts. Because dam removal is key to watershed restoration, we urge the Board to frame the water quality certification for the PVP as a watershed restoration tool, not merely a construction permit. The Section 401 process should ensure the Eel River dam removals deliver on the promise of cleaner water, thriving salmon, steelhead, and lamprey populations, restored Tribal fisheries, and a resilient watershed for future generations.

D. This Certification, Like the Proposed Project, is Urgently Needed

We also wish to underscore the urgency completion of the SWRCB's certification of the Proposed Project. Eel River communities have borne the impacts of the dams for a century. The infrastructure of the PVP is in a more precarious condition than many appreciate. A big storm, a landslide, or an earthquake could curtail operations with no recourse. Climate change is pushing the PVP out of even minimal viability as a water supply system.

There does not appear to be any feasible means of securing the long term benefits of dam removal without short term impacts. Nor can dam removal be indefinitely postponed. Scott and Cape Horn Dams and their supporting infrastructure are vulnerable to irreparable damage from natural processes. Moving forward with dam removal, allowing for a far more resilient and sustainable potential diversion, is the most practical way to protect both Eel River fisheries and Russian River water users in the decades ahead.

E. Eel River Fisheries Need Immediate Relief

Finally, and from our perspective, above all, the fisheries of the upper Eel River face dire threats to their continued existence as long as the Eel River dams remain. The sooner this EIR is completed and conditions set, the better for progress toward dam removal , more certain water supplies for current PG&E customers, and a free-flowing river with its natural processes restored.

Chinook and steelhead returns on the Eel River have marked heartening upward trends over the last decade. However, it is important to note that those improvements come from disastrously low levels. For Chinook in particular, recent years of closure of ocean fishing for salmon has helped increase returns to the Eel River.

Fish populations which remain at chronically low numbers, e.g. which fail to recover, can be subject to various destructive effects specific to smaller populations, including depensation, and are less resilient to stochastic impacts. Today, we must reckon the increasing temperatures and more variable hydrologic regime associated with climate change. As well, Eel River fisheries are subject to actions by a host of governmental bodies, few of which manifest consistent power or will to assist salmon recovery.

With respect to the PVP itself, NMFS notified FERC and PG&E in March of 2022 that "NMFS' 2002 Opinion on the amendment to the Project license identified RPAs and provided incidental take authorization for implementing the proposed action for a 20-year period, which elapses on April 14, 2022."[3] Thus, the PVP does not presently have incidental take coverage as required by the federal Endangered Species Act. Further, NMFS wrote that "(b)ased on information currently available, we conclude that the Project is causing take of ESA-listed salmonids in a manner not anticipated in the Opinion and from activities not described in the Opinion."[4] These violations of the ESA include water quality issues relevant to the Board's certification process here.

Among the specific issues NMFS detailed in that letter is the impact of PVP operations on juvenile steelhead:

> *"… juvenile steelhead trout have continued to experience reduced production below Scott Dam despite implementation of the RPA. Reduced overall steelhead trout production below Scott Dam is primarily due to unfavorable summer habitat conditions caused by elevated temperature of water released from Lake Pillsbury in some years, further exacerbating inter-specific competition between juvenile steelhead trout and Sacramento pikeminnow (*Ptychocheilus grandis*) and increasing predation risk by invasive fish species (i.e., Sacramento pikeminnow and black bass species (*Micropterus *spp.)). Therefore, we have concluded that the RPA summer flow component is not providing the anticipated benefits to ESA-listed salmonids. Changes in flows are also necessary to promote suitable water temperatures for juvenile salmonids during the dry season in order to improve their ability to survive, grow, and outcompete warmer-water invasive fish species."*[5]

NMFS further emphasizes that it never authorized any of the take (harms) ongoing at Cape Horn Dam and its fish ladder:

> *"Cape Horn Dam, the associated infrastructure, fishway maintenance, and flow operations to achieve fish passage at the passage facility are neither described within the Description of the Proposed Action, nor are their effects to listed species assessed within the Opinion. Consequently, we did not authorize incidental take resulting from these effects (e.g., delayed or blocked migration and predation of ESA-listed salmonids caused by the configuration and full operation of the Cape Horn Dam fish passage facility)."*[6]

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[3] NMFS letter to FERC, *Endangered Species Act and Magnuson-Stevens Fishery Conservation and Management Act Consultations on the Potter Valley Project (P-77) on the Eel River, California*. March 22, 2022. p 1.

[4] Ibid.

[5] Ibid. pp 2-3.

[6] Ibid. p 3.

In summary, Eel River Chinook and steelhead are put at increasing risk by the continued operations of the Eel River dams. To attain recovery targets set by NMFS, Eel River Chinook and steelhead will have to overcome a host of continuing threats and rebuild regional populations. But the removal of Scott and Cape Horn Dams is arguably the biggest step we can take today toward recovery in the Eel River watershed. The Proposed Project will both reduce or eliminate chronic harms to Eel River Chinook and steelhead and provide enormous benefits by restoring access to a large area of habitat.

F. The Klamath Dam Removal Process Is A Useful Guide

Thus, in addition to the comments offered below, we also urge the SWRCB to inform this review with the recent lessons of the Klamath dam removal project. The SWRCB's April 2020 certification for Klamath dam removals offers many instructive parallels, as well as some important differences, to the situation we find on the upper mainstem Eel River. Overall, the SWRCB's 401 certification clearly helped guide Klamath dam removal to successful outcomes. Recent reports indicate that water temperatures have dramatically improved for salmon at the former Klamath dam sites, while dissolved oxygen levels have stabilized.[7] Most importantly, salmon are returning farther upstream above the former dams and in greater numbers than projected. As one representative report quoted the Yurok Tribal Fisheries Director, "(t)he speed and scale of the river's recovery has exceeded our expectations and even the most optimistic scientific modeling, proving that when the barriers fall, nature has an incredible power to heal itself," said Barry McCovey Jr. … "Biologists were expecting it to take several years for sediment to clear out of the system, but the river has rebounded much faster than expected."[8] We are confident the Board's experience with the Klamath process has left Water Quality Certification staff better placed to evaluate the removal of the Eel River dams. The greatest lesson may be not to underestimate the potential for rapid recovery.

G. We support analyzing impacts of a new diversion works separately

We understand that the Proposed Project for the purposes of this review does not include the New Eel Russian Facility (NERF), the proposed new diversion works that will allow future wet-season diversions from the upper Eel River to continue through the existing tunnel and penstock configuration to the East Branch Russian River at the head of

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[7] Oregon Public Broadcasting (OPB) *Klamath River temperatures changed dramatically after dam removal. That's helping salmon swim farther upstream.* Oct 28, 2025 See https://www.opb.org/article/2025/10/28/klamath-river-temperatures-dam-removal-salmon-upstream/?utm_campaign=Klamath%2BNews&utm_medium=email&utm_source=Klamath_News_48

[8] Eli Fournier, Salmon Are Recolonizing Klamath River After Dam Removals, Meateater, Oct. 21, 2025 https://www.themeateater.com/conservation/wildlife-management/salmon-are-recolonizing-klamath-river-after-dam-removals?utm_campaign=Klamath%2BNews&utm_medium=email&utm_source=Klamath_News_48

The rapid return of Klamath salmon has attracted wide attention. See also Rebecca Dzombak, *A River Restoration in Oregon Gets Fast Results: The Salmon Swam Right Back.* New York Times, Oct. 29 2025. **See** https://www.nytimes.com/2025/10/29/climate/klamath-salmon-recovery.html?utm_campaign=Klamath%2BNews&utm_medium=email&utm_source=Klamath_News_48

Potter Valley. As much as many of us would in fact have preferred to end the interbasin transfer to the Russian River, we support continuing it through the NERF as long as dam removal is completed quickly and effectively. We support analyzing the potential impacts of the diversion separately.

II. General Comments on Potentially Affected Environmental Factors

A. Aesthetics

The project area is currently marred by the presence of century-old concrete structures in visible decay. From our perspective, their removal will improve the view in several river reaches. Similarly, the project area is now dominated by a reservoir ringed by mudflats. Dam deconstruction work will very likely create some temporary ugliness. Over the long term, however, the Project will improve the aesthetics of the area.

B. Air Quality

The air quality of the Project Area is generally quite good absent wildfires etc. Dam removal operations will entail local air pollution given the scale of the structures to be removed and material to be removed. Vehicle traffic alone will cause some level of air quality impairment. The SWRCB's conditions should include appropriate mitigation and minimization measures.

C. Biological Resources

In general, dam removal will benefit the biological resources of the project area in the long term pretty substantially. Because the PVP dams and reservoirs already exist, the impacts to local biological resources of the Proposed Project are likely to be primarily limited to the direct footprint of the dam removal operations. We expect the detrimental impacts of the Proposed Project on local biological resources to be short-term and that these effects will be minimized to the maximum extent practicable, because the Proposed Project will be carried out consistent with direction from state and federal resource agencies. Dewatering of portions of the river (and relocation of fish present, including salmonids) will be necessary to enable in-channel work to remove dam infrastructure. Removal of both dams, including dewatering and fish relocation, will occur over one summer, if possible, to limit the effect of these short-term impacts to a single cohort of salmonids.

The unavoidable, short-term impacts to biological resources from the Proposed Project are far outweighed by the benefits of dam removal for all terrestrial and aquatic species. The benefits of dam removal for fisheries are the best documented, and most argued, aspect of the Proposed Project. Scott Dam keeps Southern Oregon/Northern California Coast (SONCC) Coho Salmon from accessing 80% of their historic habitat in the upper Eel River.[9] The habitat above Scott Dam has been recently assessed and enumerated by NMFS

[9] NMFS. *Final Recovery Plan for the Southern Oregon/Northern California Coast Evolutionarily Significant Unit of Coho Salmon (*Oncorhynchus kisutch*).* 2014. https://repository.library.noaa.gov/view/noaa/15985

and other scientists, and large amounts of habitat suitable for salmonids have been documented there.[10]

Recovery of salmonid habitat is a predictor of benefits to suites of other aquatic and terrestrial species, from aquatic invertebrates whose entire aquatic habitat overlaps with salmon, to every animal that eats a spawned-out salmon. By reconnecting habitats now divided by the dams and their reservoirs, the Project will reconnect populations of the very wide range of species that use river and riparian habitat, whose habitat is currently degraded or completely eliminated by the Project. Fisheries recovery supports ecological recovery, renewing the transport of marine nutrients essential to our inland forests.

Please ensure that the short-term, detrimental effects of dam removal are evaluated for the entire area of impact of the Proposed Project from the tributaries to the mainstem Eel River currently draining to the Lake Pillsbury reservoir, to the entire mainstem Eel River, the estuary, and adjacent nearshore ocean habitat.

D. Cultural Resources

Cultural resources may be present in the Project area. For example, the village of Hullville once stood in what is now the footprint of the Lake Pillsbury Reservoir. Protocols for how construction activities will change if cultural resources are uncovered should be in place, to avoid unintentionally harming those resources. If cultural resources currently exist under the lake, draining Lake Pillsbury as part of the Proposed Project will allow for their identification and protection.

E. Geology and Soils

1. Seismicity

Research by the USGS over the last twenty year has detailed the traces of a major fault beneath the Lake Pillsbury Reservoir and Scott Dam. The Bartlett Springs Fault, the easternmost extension of the Hayward Fault complex, has been estimated to be capable of producing tremors of up to magnitude 7.2.[11]

[10] Fitzgerald, A.M., D.A. Boughton, J. Fuller, S.N. John, B.T. Martin, L.R. Harrison, and N.J. Mantua. 2022. *Physical and biological constraints on the capacity for life-history expression of anadromous salmonids: an Eel River, California, case study*. Can. J. Fish. Aquat. Sci. 79: 1023–1041.

[11] See V.E. Langenheim, R.J. McLaughlin, and B.L. Melosh, *Integrated geologic and geophysical modeling across the Bartlett Springs fault zone, northern California (USA): Implications for fault creep and regional structure Geosphere* (2024) 20 (1): 129–151. https://doi.org/10.1130/GES02684.1, contrasting different estimates of maximum earthquake magnitude produced by two models of the Bartlett Springs Fault: "… the Murray et al. (2014) model yielding a maximum earthquake magnitude and horizontal slip of M 6.5–6.7 and ~1.6 m, respectively, as contrasted with the Lienkaemper et al. (2014) model predicting a maximum earthquake magnitude of M 7–7.2 and horizontal slip of 5.6–5.8 m."

A preliminary assessment of the potential vulnerability of Scott Dam to seismic shock moved PG&E to immediately lower the radial gates on the reservoir.[12] California's Division of Safety of Dams subsequently ordered that the gates not be raised again without regulators' approval.[13] The seismic assessment itself has been filed confidentially under FERC's CEII rules, but the SWRCB could access that information as necessary.

What seem most relevant to the SWRCB's analysis are two facts. First, with the gates permanently down, PG&E is operating a project with approximately 20,000 AF less storage. This sharply restricts operational options, impairs project management, and increases the risk that project operations will result in water temperatures that are dangerously high for ESA-listed salmonids in late summer. The second fact is that even a relatively small tremor could easily shift sediment behind Scott Dam such that the needle valve becomes inoperable and irreparable. In a larger quake, the sediment accumulated against Scott Dam's inner face increases the risk to the dam structure. Alternatively, a tremor could release the landslide perched above Scott Dam's south abutment. While there is no way to predict when an earthquake will occur on the Bartlett Springs Fault, the fact that an earthquake will occur at some point, combined with the evident concern on the part of the dam owner and state and federal regulators regarding the safe operation of Scott Dam underscores the urgency of dam removal.

F. Greenhouse Gases

Implementation of the proposed dam removal project will entail greenhouse gas emissions associated with the industrial equipment, trucks, and other transport used in the course of the Project. Thus, an as yet unknown quantity of carbon (and other greenhouse gasses) will be emitted into the atmosphere in the course of the project.

Reservoirs are generally known to generate methane, a potent greenhouse gas, due to the breakdown of organic material in anaerobic conditions often created by reservoirs. While we are not aware of any studies of the Lake Pillsbury reservoir's greenhouse gas generation, it is unlikely to have been zero. The SWRCB should attempt to establish a reliable estimate of the PVP's greenhouse gas emissions as part of this EIR.[14]

G. Hydrology and Water Quality

PG&E has clearly outlined in its August 2025 License Surrender Application the reality that flushing the sediments following dam removal will result in lethal conditions for

[12] PG&E, *Potter Valley Hydroelectric Project, FERC No. 77-Cam Scott Dam, NATDAM No. CA00398, Results of Simplified Seismic Stability Analysis and Proposed Interim Risk-Reduction Measure* March 17, 2023.

[13] Sharon K. Tapia, Division of Safety of Dams, April 12, 2023 letter to PG&E Vice President Jan Nimick, attention Mr. David Ritzman, Chief Dam Safety Engineer.

[14] Note that the US Department of Energy's website, at this writing, still states that "recent data has shown that current methods used to quantify the carbon footprint of hydropower facilities may be insufficient." See https://www.energy.gov/eere/water/tracking-carbon-footprint-hydropower

aquatic life through much of the mainstem Eel River. As the document summarizes, these can be expected to include:

> *Short-term unavoidable adverse effect on suspended sediment and turbidity in the Eel River from removal of the dams for a period of several days up to several months for which no mitigation is possible …*
>
> *– This effect is likely to extend along the entire length of the Eel River, including the estuary and the nearshore ocean environment.*
>
> *– This action would also have a smaller long-term effect of increased turbidity during high-flow events as the remainder of the sediments are remobilized and carried out to the ocean potentially for 1 to 3 years.*
>
> *Short-term unavoidable adverse effect on dissolved oxygen in the Eel River from Scott Dam removal for a period of several days and as far as 40–50+ mi. downstream from Scott Dam for which no mitigation is possible.*[15]

In virtually any other circumstance, we would oppose any action that might cause such a result. But as PG&E has shown, the only real alternative to flushing all the sediment at once would be to flush it in two or three separate tranches – each of which would be just as deadly as doing it all at once. The sediments will inevitably come downstream. Careful and judicious management should result in most of it coming down in as brief a period as possible. Again, this seems a straightforward instance of short term impairment which should only ever be justified by resulting long term benefits, as the SWRCB's Restoration Policy provides.

The rapid return of relatively robust numbers of Klamath salmon provides important evidence that despite the similarly high-impact release of sediment that accompanied those dam removals, salmonids can to a significant extent be shielded from those impacts (i.e. by timing of the pulse such that few fish are actually in the river, or by the fish finding refuge in less affected tributaries).

1. Flows

Because PVP flows have varied substantially from scheduled flows over the last two decades, it would not be appropriate to evaluate the Proposed Project on the basis of scheduled flows. Storage limitations now make it impossible for PG&E to meet the PVP's flow schedule under most circumstances. As PG&E summarizes the situation, "current license-prescribed flows will be unobtainable in nearly all years."[16] Rather, the Board's analysis should take as the baseline the flow schedule set forth by PG&E in its proposed annual license amendment, which reflects contemporary constraints on PVP operations.

[15] PG&E, License Surrender Application, Vol II p 6-2.

[16] Ibid.

2. Temperature

As long as the PVP dams remain in place, temperature is, and will remain, the central water quality issue for the Eel River in the upper Eel River. High water temperatures reduce the survival and growth of juvenile steelhead. But in the inter-dam reach of the Eel River, high water temperatures are especially dangerous for juvenile steelhead because Sacramento pikeminnow introduced to the Eel River via the Project facilities "outcompete juvenile steelhead at temperatures [between] 20-23°C."[17] Thus, it is necessary to "manage withdrawals from the reservoir to minimize the duration juvenile steelhead trout are exposed to pikeminnow at temperatures above 18°C. in late summer."[18] However, as PG&E wrote in its 2025 flow variance request:

> *The conclusion of the PG&E water temperature analysis was that there are limited options for mitigating high water temperature in the release from Lake Pillsbury in the late-summer and early-fall months. The limited options are caused by the relatively shallow reservoir (small, deep-water volume), minimal spring/summer reservoir inflow that is typically warm, and summer withdrawals that are made from a low-level outlet that mixes the warm, upper layers of the reservoir throughout the water column.*[19]

Indeed, the conclusion of the PG&E water temperature analysis was that "managing releases was the only tool available to moderate water temperature releases from the reservoir."[20] Those releases are also a key driver of water temperature increases downstream of the dam because high diversion volumes speed the mixing of cold and warm water in the reservoir, as PG&E explained in 2022:

> *The small storage volume present in the deeper portions of the reservoir means that there is a limited supply of cooler water that is continuously being mixed with warmer surface water via discharges from the low-level outlet. This results in gradually warming discharges (as measured at gage E-2), especially during periods of high-volume releases.*[21]

While PG&E has developed flow schedules and procedures to reduce the risk to steelhead, FERC has repeatedly failed to timely approve implementation of those

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[17] PG&E, *Potter Valley Hydroelectric Project, FERC No. 77-CA 2024 Minimum Instream Flow Variance Request Due to Restricted Storage Capacity* (FERC Docket No. P-77) (February 21, 2024), p. 10.

[18] Ibid.

[19] PG&E, Potter Valley Hydroelectric Project, FERC No. 77-CA 2025 Minimum Instream Temporary Flow Amendment Request (FERC Docket No. P-77) (February 14, 2025), p 3.

[20] PG&E, Potter Valley Hydroelectric Project, FERC No. 77-CA 2023 Flow Variance Request Due to Limited Storage Capacity (May 22, 2023), p 7.

[21] Ibid.

measures.[22] Opposition to variance requests, e.g. from the City of Ukiah,[23] appears to be contributing to delays in FERC review, to the detriment of Eel River fisheries.[24] PG&E's 2025 flow variance request was again not approved until it was too late to prevent high temperatures. Releases from Scott Dam measured at or above 20°C for more than 80 days, from early July to late September, topping out above 22°C twice.[25]

In its March 25, 2025, letter of support for the proposed 2025 temporary flow variance, the California Department of Fish and Wildlife emphasized the urgency of the matter, writing:

> *The delayed implementation of the 2023 variance contributed to a 2.5°C warmer maximum release temperature than in 2022, despite 2023 being a much wetter year, indicating early season management of Lake Pillsbury's cold-water storage is critical to meeting salmonid temperature requirements in the Eel River later in the season. Water temperatures in August and September of 2023 were very close to the lethal threshold for rearing steelhead trout of 23°C, with an observed peak of 22.6°C. A rapid approval of the 2025 Temporary Amendment is necessary to avoid water temperatures approaching, meeting, or exceeding this lethal threshold again.*[26]

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[22] See e.g. Friends of the Eel River, Pac. Coast Fed'n of Fishermen's Ass'ns, Inst. of Fisheries Res., Trout Unlimited, Cal. Trout, Motion to Intervene and Request and Petition for Rehearing, Reconsideration, and/or Discretionary Action (May 20, 2022); Friends of the Eel River, Pac. Coast Fed'n of Fishermen's Ass'ns, Inst. of Fisheries Res., Trout Unlimited, Cal. Trout, *Motion to Intervene and Comments by Friends of the Eel River, Trout Unlimited, California Trout, Pacific Coast Federation of Fishermen's Associations, and Institute for Fisheries Resources Regarding Pacific Gas and Electric Company's Application for Temporary Variance of Flow Requirements*, FERC Project No. 77-313 (July 28, 2023); Friends of the Eel River, Pac. Coast Fed'n of Fishermen's Ass'ns, Inst. of Fisheries Res., Trout Unlimited, Cal. Trout, *Motion to Intervene and Comments by Friends of the Eel River, Trout Unlimited, California Trout, Pacific Coast Federation of Fishermen's Associations, and Institute for Fisheries Resources Regarding Pacific Gas and Electric Company's Application for Temporary Variance of Flow Requirements*, FERC Project No. 77-313, (April 1, 2024); Friends of the Eel River, Trout Unlimited, Cal. Trout, *Motion to Intervene and Comments by Friends of the Eel River, Trout Unlimited, and California Trout*, FERC Docket No. 77-323 (May 13, 2025)

[23] See e.g. City of Ukiah, *Request for Rehearing by the City of Ukiah of the Federal Energy Regulatory Commission's Order Approving Temporary Variance of Flow Requirements*, (Potter Valley Project NO. 77-320), July 29. 2024; City of Ukiah, *Sixty-day Notice of Violation of the Endangered Species Act*, August 22, 2024; City of Ukiah, *Motion to Intervene by the City of Ukiah in Pacific Gas and Electric Company's Application for Temporary Flow Modification* (Potter Valley Project No. 77-323) May 16, 2025.

[24] See PG&E, *Potter Valley Hydroelectric Project, FERC No. 77-CA 2025 Temporary Minimum Instream Flow Amendment August Storage and Temperature Report*, Sept 11, 2025.

[25] See PVP data via CDEC at https://cdec.water.ca.gov/cdecplotter/JspPlotServlet?sensor_id=14585&end=2025-09-29&geom=SMALL&interval=80&cookies=

[26] Tina Bartlett, California Department of Fish and Wildlife, March 25, 2025 letter to FERC, Subject: Request for the Federal Energy Regulatory Commission to Approve Pacific Gas and Electric Company's February 14, 2025, 2025 Minimum Instream Temporary Flow Amendment Request (Project no. 77-214). Document Accession no. 20250326-5090

Despite these warnings, PG&E's August 2025 report to FERC shows that once again, early diversions mandated by the current flow schedule resulted in irreversible temperature increases throughout the reservoir by July.[27] Again, we note that the temperature improvements seen following Klamath dam removal are exactly what Eel River fisheries, especially steelhead, require. The Proposed Project is urgently necessary to provide for the protection and recovery of fisheries put at needless risk as much by outdated requirements and inflexible rules as by obsolete dams and outmoded practices.

3. Sediment

Dam removal will address the upper Eel's chronic temperature problem, but will create an acute sediment problem in the process. Scott Dam's accumulated sediment problems will become, as noted, a plume likely to cause lethal effects to aquatic organisms for much of the length of the Eel River, and to generate persistent sediment impacts in succeeding high flow years.

Sediment has accumulated behind Scott Dam and Cape Horn Dam for over 100 years, and large amounts of sediment are currently impounded behind each dam. This sediment will be mobilized when the dams are removed, and the free-flowing river will carry it downstream. Short-term adverse impacts of the movement of the impounded sediment through the river, including increased turbidity, decreased dissolved oxygen, blanketing existing aquatic habitat when sediment falls out of solution, and accumulations large enough to affect the location of the river channel, are unavoidable and a direct result of the Potter Valley Project. In some areas, the amount of sediment deposited will be small and may improve any sediment-starved habitat. Effects of this sediment on water quality are by nature short-term, but the detrimental effects of deposited sediment on existing habitat are not, because sediment may remain where it falls absent restoration efforts.

The delivery of sediment to streams and mainstems during the historic Eel River floods in 1955 and 1964 has been well-documented. This excess sediment remains in many areas, where it continues to impair natural habitat forming- and maintaining-processes 50-60 years later. It will be important to understand, through studies, the volume of sediment expected to fall out of solution at every part of the mainstem Eel River, estuary, and nearshore marine environment, and to what extent subsequent winter flows may eventually scour out some of these deposits and carry them to the ocean.

These studies, combined with a comprehensive restoration plan fully funded by PG&E that does not assume winter flows will remove all the sediment leaving restored habitat behind, will provide certainty that these detrimental effects will only be short-term. If the studies, planning and restoration are not reasonably certain to occur and to be effective (e.g., because they are not articulated in enough detail, rely on future flows to correct sediment accumulation without solid basis, or don't have documented monetary resources sufficient to implement), effects of deposited sediment on terrestrial and aquatic habitat must instead be considered long-term.

[27] PG&E letter to FERC, Potter Valley Hydroelectric Project, FERC No. 77-CA 2025 Temporary Minimum Instream Flow Amendment August Storage and Temperature Report, September 11, 2025, see p 11.

However, we ecourage the Board to place its analysis of the issues the sediment flush presents in the context of the Eel River's extraordinary background sediment transport rate. While other rivers may exceed it, "(t)he Eel River draining the Coast Range of northwestern California has the highest recorded average suspended sediment yield per drainage area of any river of its size or larger unaffected by volcanic eruptions or active glaciers in the conterminous United States."[28] This is due to the highly erosive geology of the Eel River basin, as well as high rates of seismic activity and precipitation.

Although most of the Eel's overall sediment discharge happens in the canyon of the mainstem Eel well downstream of the Proposed Project, the volume of sediment accumulated behind Scott Dam over the last century, as well as the speed with which the Van Arsdale reservoir behind Cape Horn Dam filled with sediment after it was built, are among many facts which support the view that the Upper Eel River can and does routinely transport meaningful volumes of sediment.[29]

The fact that the Eel River has carried not only its naturally extraordinary levels of sediment, but also additional amounts discharged due to roads, development, and other actions across the landscape, over the course of the last century should also inform the SWRCB's analysis of how sediment transport in the Eel is likely to proceed following dam removal. Numerous TMDLs written for the Eel River watershed demonstrate the Board's experience in using the abundant information sources regarding sediment in the Eel River watershed. Please do not hesitate to ask if we can be of any assistance.

While the Eel River as a whole appears to be slowly recovering from excess sediment, obvious problems remain, including significant aggradation in the South Fork Eel and Van Duzen Rivers. Additionally, while many of the practices which led to the very high levels of sediment discharge in the second half of the 20th century have been substantially reformed, hard use of inadequate rural roads and mass wasting events remain significant contributors to the Eel's sediment load, and impacts to water quality, in every big storm.

It is our understanding that the precise composition of the sediment behind Scott Dam is still to be determined, and that to some extent PG&E's sediment management plan will need to be adjusted to reflect that information as it is developed. However, our overall sense is that the key question for PG&E and the SWRCB is timing the sediment release from Scott Dam after the dam is lowered. We will need good planning, but we will also need good luck to bring significant rain in the winter following summer dam removal and sediment release. As PG&E has noted, while the sediment plume in the river below the project area will be fatal to aquatic life under the best circumstances, spreading that same sediment out over years will only result in successive years of fatal impacts. It is far better to do it as quickly as possible.

We urge the SWRCB to develop conditions that will best insure the impacts of sediment transport are minimized and mitigated to the extent feasible. These should require

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[28] Lisle, Thomas E. *The Eel River, Northwestern California; High Sediment Yields from a Dynamic Landscape*, citing Brown and Ritter, *Sediment Transport and Turbidity in the Eel River Basin, California*. USGS-DWR 1971.

[29] See e.g. NASA's Dec. 9, 2012 image of the Eel River's sediment plume following storms. https://earthobservatory.nasa.gov/images/79965/sediment-on-the-eel-river

articulation of the process to be followed to determine whether any given year is suitable for dam removal. This process should rely upon the best available scientific information on the predicted volume of winter flows immediately following removal, and be applied under guidance of a team including experts from state and federal resource agencies and Tribal Nations. In addition, SWRCB's conditions should include provisions for measures to be taken if dry years follow dam removal, either immediately after or in subsequent years.

H. Land Use

The proposed Project would in all likelihood entail some changes in local land use, including to existing private resort properties on the Lake Pillsbury reservoir, as well as to recreational facilities around the reservoir. However, those limited changes will not prevent the existing residences around the Project area from continuing to be used especially as summer resort properties.

I. Noise and Vibration

Dam deconstruction and removal will certainly entail significant noise and vibration in the immediate vicinity of the dams. However, the remote location of both dams is such that very few people will be exposed to this noise and vibration who do not seek it out. Impacts on wildlife will at least be temporary.

J. Recreation

Removal of the dams and loss of the reservoirs will reduce opportunities for some kinds of recreation, but it will create chances for other kinds. With dam removal, seasonal kayaking and whitewater rafting is likely to become feasible in the Project area. The Project should include provisions for appropriate river access points to allow and encourage safe recreational boating, fishing, and other recreation on, in, and around the renewed Eel River. Most of the current campgrounds, situated as they are around the reservoir footprint, should be removed. Future facilities should be more conveniently and appropriately located for the new configuration of the river.

Off road vehicle use is pervasive in the area. Thus, it is very important that the restored reservoir be effectively kept off limits to OHVs. OHV use in the reservoir footprint, riparian area, and river would be severely detrimental to restoration and the achievement of desired water quality and ecological benefits. We encourage the SWRCB to work with the Mendocino NF and PG&E to develop appropriate conditions and agreements sufficient to protect these important areas.

K. Population and Housing

We are not aware of any reason to believe that the proposed project will affect the local population, or that of Lake County, in any appreciable respect.

L. Transportation/ Traffic

During Project implementation, the long roads into the area will certainly see additional traffic, large loads, and other impediments to rapid travel. However, these are extremely remote and otherwise low traffic roads, so impacts on traffic are unlikely to be significant. We support measures to improve roads, bridges, and other infrastructure as necessary to support safe dam removal, anticipating such improvements will result in safer and more sustainable transportation systems in the area following dam removal.

As the SWRCB is no doubt aware, scientists have identified a preservative compound in tires as a key driver of mortality in salmonid populations.[30] While, as noted, the Project area is unlikely to host coho salmon (the species most vulnerable to water contaminated by 6ppd and its byproducts) in the near future, steelhead and Chinook salmon that are and will be present can clearly be harmed by these chemicals. It will thus be important to provide mitigation measures for Project transportation that minimize the use of tired (as opposed to tracked) vehicles in and around the future river channel. Note that we understand CalTrans routinely uses recycled tires in its asphalt mixes unless otherwise specified; please insure any road construction associated with this Project avoids that potential vector for contamination of salmon-bearing waters.

M. Tribal Cultural Resources

The Project will certainly entail some impacts on Tribal cultural resources, particularly those beneath the Lake Pillsbury reservoir. We have no specific information about what or where these may be located, but the name Smokehouse Creek is at minimum suggestive of local uses before dam construction. The SWRCB should specify mitigation measures that will conserve to the extent possible such resources, consistent with the wishes of the affected tribal peoples. We encourage the SWRCB and PG&E to undertake all appropriate measures, including providing for cultural resource monitors during Project implementation, to minimize the impacts and best secure the benefits of dam removal on tribal cultural resources.

N. Utilities/ Public Services

We generally support upgrading the infrastructure of the local area both to support dam removal and to provide lasting benefits to residents and visitors. These should include upgraded communications, including cell service, as well as improved and better maintained roadways. We would also construction of a local solar microgrid to support local communications and emergency services.

[30] See e.g. NFMS *Roadway Runoff Known to Kill Coho Salmon also Affects Steelhead, Chinook Salmon,* Aug 24, 2025. See https://www.fisheries.noaa.gov/feature-story/roadway-runoff-known-kill-coho-salmon-also-affects-steelhead-chinook-salmon

O. Wildfire

Dam removal opponents have claimed, without evidence, that removal of the project dams will increase wildfire risk. Overall, wildfire science is increasingly clear that the drivers of increases in both the scale and intensity of wildfires are the increasing temperatures and shifting hydrology associated with climate change. While removal of the project dams may slightly alter fire management in the area around the current reservoirs, there is no reason to believe that removing the Project dams will significantly alter the area's exposure to extreme wildfire risks in the coming decades. The then-record Mendocino Complex fires burned over the area despite the presence of the reservoirs.

While the details of fire management are beyond the scope of these comments, we generally understand two things to be true at this point. Extreme wildfires threaten human communities, and can cause damage to natural resources, including harm to watercourses as a result of post-fire runoff (and removal of too many downed and damaged riparian trees). At the same time, there is no path to a more sustainable future through fire suppression alone. That's the road that brought us to this impasse.

Rather, we must seek to create and maintain forest conditions that allow for healthy fire and the benefits it brings, most importantly forest stands more resistant to the effects of extreme fire. Restoring the natural hydrograph of the Eel River (by removing its mainstem dams, improving roads and using habitat restoration to increase the proportion of winter rains that soak into the soil instead of running off), and managing forests for late seral conditions are two components of a fire-safe landscape the EIR should address.

We encourage the Board to specify conditions that will help to minimize any risks of fire to human communities associated with dam removal. There are practical, feasible options to support local fire management needs after dam removal, e.g., by supplying rotary wing aircraft with water via specific drafting areas, and by sending larger firefighting aircraft several minutes away to draft from the vast surface of Clear Lake. We generally support measures to increase the defensibility and resilience of the human communities in the project area, including improvements to communications and road networks and to firefighting infrastructure. The recent Klamath dam removals provide a good example.

III. Specific comments

A. Mercury

Mercury presents a particular analytic challenge. As PG&E noted in its 2017 Pre-Application Document submitted to FERC,

> *Sampling of fish tissue taken from Lake Pillsbury fish has detected high concentrations of mercury, averaging 1.31 parts per million (ppm) in 350 millimeter (mm) largemouth bass (*Micropterus salmoides*), and the highest concentration for an individual fish (4.08 ppm in a 559 mm largemouth*

> *bass) in statewide sampling (Davis et al. 2009). Consequently, Lake Pillsbury is designated as impaired for mercury on the California 303(d) list.*[31]

This level of contamination appears to violate the SWRCB's Mercury water quality objectives. Compare, for example, to the Sport Fish Water Quality Objective, which the SWRCB stated as "(t)he average methylmercury concentrations shall not exceed 0.2 milligrams per kilogram (mg/kg) fish tissue within a calendar year."[32]

However, PG&E reports that its 2018 water sampling efforts found "Low concentrations of mercury and methyl mercury were detected in all samples."[33] Similarly, preliminary investigations of Pillsbury Reservoir sediments has not revealed a corresponding accumulation of mercury in those sediments.[34] Accordingly, it appears that on that front at least those sediments can be released down the Eel River without leaving a toxic legacy.[35]

The Eel River is listed for mercury under Section 303(d) of the Clean Water Act.[36] We are not aware of definitive evidence of mercury in the local geology. The more probable source for the high levels of mercury found in Pillsbury Reservoir fish is the familiar process by which reservoirs that are regularly filled and drained accumulate mercury from atmospheric sources, while also creating anoxic conditions that allow methylmercury fixation by anaerobic microbes. Thus, removal of the dams per the Project is likely to remove much of the cause of mercury pollution in the upper Eel River.

B. Impacts of Project construction and operations

From its initial construction, the Potter Valley Project has had serious and significant impacts on the Eel River, and particularly on its water quality. While the dam was being constructed, high flows in the winter of 1922-23 wrapped around the incomplete southern side of the dam, undermining and ultimately dislodging what dam builders had thought was an outcropping of bedrock to which they could anchor the dam's southern end. Instead, the boulder fell down into the path of the dam, which was then altered to pass in front of the huge rock. Similarly, both dams' construction and operations have had unanticipated impacts on the Eel River over the entire course of their existence.

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[31] PG&E, Notice of Intent to File Application for New License and Pre-Application Document, 2017, p 5-34.

[32] SWRCB. *Final Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions*, Undated. p. A-5

[33] PG&E License Surrender Application Vol II, p 2.2.3.2-22

[34] See GeoSyntec letter to California State Coastal Conservancy, April 1, 2020, *Lake Pillsbury and Van Arsdale Reservoir Sediment CharacterizationGeosyntec Project Number: WR2625*

[35] Note that while the Eel River is also listed under 303(d) for Aluminum, there is no indication that the metal is not a natural component of the regional rock formations, nor that release of the Project sediments is likely to increase the Eel River's background levels of aluminum. By contrast to the Klamath, there does not appear any indication that chromium is present to a significant degree in the Eel River.

[36] https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2024-integrated-report.html; 303(d) list listed under Reports and Downloads.

During most of the 20th century, the most important alteration caused by the PVP was to reduce flows in the upper mainstem Eel to only the water that PG&E did not divert. That set of practices only ceased after Eel River Chinook salmon and steelhead were listed under the federal Endangered Species Act,[37] when the National Marine Fisheries Service found that continued operations of the PVP under the then-established FERC license would be likely to jeopardize the existence of those ESA-listed fisheries.[38] A substantially revised set of flows was prescribed for the PVP as a result,[39] limiting harms to Eel River salmon and steelhead but ending the era in which the PVP was profitable for PG&E to operate.

The combination of warming temperatures and declining precipitation that climate change bring have made it increasingly difficult for PG&E to meet that flow schedule. Restrictions on reservoir operations due to sediment accumulation and seismic concerns has substantially increased the difficulty PG&E faces, with the Lake Pillsbury reservoir starting every year in what amounts to a "dry year" storage condition. Implementing the Proposed Project will prevent these impacts from continuing indefinitely.

C. Landslide information

Friends of the Eel River commissioned a detailed 2018 study by Miller Pacific Engineering Group of an ancient but active landslide above Scott Dam's southern abutment. Miller Pacific's results suggest that the landslide mass, which measures approximately 500 feet in length and 160 feet in width, extends to potential depths of as much as 110 feet. The landslide appears to contain more than eight million cubic feet of material estimated at approximately 120 pounds per cubic foot. During a seismic event, the force at the toe of the landslide could be as high as 125 million pounds.[40] The firm's conclusion:

> *"it is our professional opinion that the large landslide complex adjacent to, and possibly below, the left abutment presents a significant geological hazard to the dam that requires further investigation. Since the dam acts as a strut across the Eel River, the landslide mass may be applying a significant soil pressure to the dam. In addition, the preliminary calculated seismic displacements are enough to cause concern about uplift or damage to the dam from landslide movement during a strong seismic event."*[41]

There does not appear to be any feasible means of preventing the movement of this landslide. Thus, it should be incorporated into the calculus of potential failure for the PVP, and added to the reasons to proceed expeditiously toward dam removal. The SWRCB

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[37] See 65 FR 36 074 (August 7, 2000) (listing Northern California steelhead); 64 FR 50, 394 (Sept. 16, 1999) (listing California Coastal Chinook).

[38] NMFS, *Biological Opinion for the Proposed License Amendment for the Potter Valley Project, Project No. 77-110* (Nov. 29, 2002).

[39] *Order Amending License*, Project No. 77-110, 106 F.E.R.C. ¶ 61,065 (2004)

[40] Miller Pacific Engineering Group, Scott Dam Slope Stability Analysis Technical Memorandum, Sept. 16, 2018. See https://eelriver.org/wp-content/uploads/2018/09/Miller-Pacific-Technical-Memo-re-Scott-Dam.pdf

[41] Ibid, p 2.

should take into consideration the possibility that this landslide could release prior to or during dam removal and prescribe appropriate measures to minimize those risks.

D. Fisheries specifics

Because the Eel River's spectacular native salmonid fisheries are the heart of our hopes for restoration of the watershed following dam removal, they are the focus of our concern with how the Proposed Project is carried out. In the Project Area – the upper mainstem Eel River – evidence indicates that Chinook salmon and steelhead can and do still depend on habitat in the upper mainstem Eel River, up to the full barrier to upstream passage that Scott Dam has presented for the last century.

While habitat above Scott Dam was determined to be physically suitable for coho salmon, and the species likely utilized the Project area before the dams were built, current evidence suggests that the project area is now too warm for those cold-water dependent fish. However, once the dams are removed, the natural flow regime is reestablished, and habitat restoration is underway, water temperatures should fall, making the area again potentially suitable for coho salmon to transit. Adults may move upstream to spawn in flatter areas of the extensive stream network that was once beneath Lake Pillsbury, and the area could support coho salmon juveniles.

Chinook salmon in the Eel River today are fall-run. They are listed as Threatened under the federal ESA as part of the Central California Coast ESU.[42] While Eel River steelhead are also listed as Threatened under the federal ESA, they otherwise present a more complicated picture. Steelhead (*Oncorhynchus mykiss*) are the anadromous form of rainbow trout (also *O. mykiss*), resident throughout the Eel River watershed, including above Scott Dam. Where rainbow trout possess the genes for anadromy and encounter appropriate environmental cues, they will migrate to the Pacific and become steelhead. However, rainbow trout are neither ESA-listed, nor subject to the jurisdiction of NMFS like their steelhead siblings, but are rather the responsibility of the US Fish and Wildlife Service.[43]

As well, the Eel still hosts native runs of summer-run steelhead, in addition to the now-dominant winter runs. NMFS has to date listed winter and summer steelhead together in the Eel River as Northern California steelhead.[44] The state of California, however, has recognized Northern California Summer Steelhead as distinct from winter-run steelhead, listing them as Endangered under the California Endangered Species Act.[45]

We urge the SWRCB to recognize the significance of the Project for the recovery, not only for salmonids generally and steelhead in particular, but especially for what was the southernmost run of summer steelhead on Earth until Scott Dam was built. As Kannry et. al.

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[42] 64 FR 50, 394 (Sept. 16, 1999)

[43] See 71 FR 834

[44] 65 FR 36 074 (August 7, 2000)

[45] See California Natural Diversity Database (CNDDB). October 2025. *State and Federally Listed Endangered and Threatened Animals of California.* California Department of Fish and Wildlife. Sacramento, CA. p 9. pdf at http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109405&inline

have demonstrated, rainbow trout populations above Scott Dam still retain the genetic capacity for both anadromy and for the summer steelhead life history.[46] Thus, a likely result of removal of the project dams will be the restoration and recovery of a population of extraordinary significance that is now functionally extinct. It seems difficult to exaggerate the importance of that kind of benefit of dam removal.

The Eel River is also home to other anadromous species that, while not listed in the Eel, are the focus of significant conservation concern, and which should be considered as carefully in water quality analyses as the salmonids. These include lamprey, the Eel's namesake species, including both Pacific lamprey and brook lamprey, and white and green sturgeon. Restoration of the Eel River requires restoring populations of these once-abundant fish, for their ecological functions as well as their importance to tribal peoples.

Because lamprey ammocoetes embed in the river bottom for years, it seems probable that the sediment flush following dam removal could impact multiple year-classes of lamprey in that vulnerable life stage. With sturgeon, we are concerned that with relatively few sturgeon known to be in the Eel River at any given point, the sediment flush could significantly affect the population that is still present. As well, we understand sturgeon to preferentially use the deeper holes in the river. To the extent feasible, the EIR should assess the potential for the sediment plume to result in the loss of lamprey, sturgeon and sturgeon habitat downriver of the Project area. We are not aware of information regarding patterns of sturgeon use in the Eel River. If, for example, DIDSON and ARIS monitoring stations on the lower mainstem[47] have captured sturgeon movement, that may be helpful in assessing impacts and planning mitigations.

Finally, we note that the Lake Pillsbury reservoir is an ongoing source of invasive Sacramento pikeminnow, which now permeate the Eel River watershed, significantly dampening salmonid recovery by their voracious predation of juvenile salmonids and displacement from habitat. Pikeminnow benefit from the warm, slack water conditions that are physiologically stressful to salmonids, but which predominate in much of the Eel watershed during the dry seasons now.

Reduction in these conditions, and of pikeminnow populations, is a key goal of restoration in the Eel River. If the sediment flush could be configured to maximize harm to pikeminnow while minimizing harm to salmonids, that would be ideal. That seems unlikely. However, there may be ways to amplify the impacts of the sediment flush on the Eel's current population of pikeminnow. Consideration should be given to reducing pikeminnow populations and reproduction, as well as to restricting their distribution in portions of the watershed. To the extent pikeminnow populations can be reduced, that will assist salmon and especially steelhead populations to recover more quickly from dam removal and to reestablish new populations above the present dam sites.

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[46] Kannry, Samantha H., Sean M. O'Rourke, Suzanne J. Kelson, and Michael R. Miller, *On the Ecology and Distribution of Steelhead (*Oncorhynchus mykiss*) in California's Eel River*, Journal of Heredity, 2020, 548–563, doi:10.1093/jhered/esaa043

[47] CalTrout and the California Department of Fish and Wildlife have lead teams operating those stations and are your best source for the associated reports.

E. Significant Suitable Fisheries Habitat Is Available Above Scott Dam

Among the most conspicuous benefits of dam removal will be removal of the barrier Scott Dam has presented to salmon and steelhead migration for the last century. As an important NMFS peer-reviewed scientific analysis of the habitat in the Eel watershed above Scott Dam concluded in 2022, the habitat now out of reach to salmonids above Scott Dam is indeed potentially significant for salmon population recovery in the Eel River:

> *… we conclude that the Upper Mainstem could likely support populations of winter-run steelhead, summer-run steelhead, and fall-run Chinook salmon based on the amount of thermally and geomorphically suitable habitat for multiple freshwater life stages during warm months and during drought. But a potentially more important question is: if access was provided to the Upper Mainstem, would these populations rebound? In a similar system, multiple anadromous salmonid populations have recolonized – both naturally and with human assistance – the Elwha River in Washington since the removal of the Elwha Dam, which had been in place for over 100 years (Bellmore et al. 2019, McMillan et al. 2019). In the Eel River Basin, a recent steelhead genetic study showed that fish with summer-run and winter-run alleles still reside upstream of Scott Dam after 100 years of isolation from other anadromous populations (Kannry et al. 2020). If downstream access was provided to the Upper Mainstem, these fish have to potential to "restart" the anadromous populations, potentially without additional reintroductions, recolonizations, or translocations from other subbasins (Kannry et al. 2020). Based on our evaluation of the quality and quantity of suitable habitat and potential capacity, enabling access to the blocked Upper Mainstem subbasin would be comparable to adding another Van Duzen subbasin to the Eel River Basin.*[48]

The Eel River basin is a critically important area for the ESA-listed coho salmon, Chinook salmon, and steelhead found there. None of these species can recover and be delisted without basin wide recovery.[49] Removal of the Eel River dams is the most significant action known that can advance recovery of all three of the ESA-listed salmon and steelhead species native to the Eel River watershed. Dam removal will restore natural habitat forming-and retaining-processes by restoring natural flow regimes and sediment

[48] Fitzgerald, A.M., D.A. Boughton, J. Fuller, S.N. John, B.T. Martin, L.R. Harrison, and N.J. Mantua. 2022. Physical and biological constraints on the capacity for life-history expression of anadromous salmonids: an Eel River, California, case study. Can. J. Fish. Aquat. Sci. 79: 1023–1041.

[49] As described in NMFS' recovery plans for SONCC coho salmon (NMFS 2014) and CC Chinook salmon and NC Steelhead (NMFS 2016), each listed ESU or DPS is composed of multiple groups of populations, or "diversity strata." No ESU or DPS can be viable (at low risk of extinction) and thus eligible for delisting unless all of its diversity strata are viable. No diversity stratum can be viable unless enough of its component independent populations are viable. Populations in the Eel River are key components of diversity strata for each of these species; therefore, no ESU or DPS can be viable and delisted without viability of those key Eel River populations. For example, three of the five diversity strata of NC steelhead are made up entirely of Eel River populations (NMFS 2016).

delivery mechanisms, and by converting stream habitat currently underwater in reservoirs into suitable rearing and spawning habitat. Restoring the populations in the upper Eel River, along with improving river conditions for its entire length, will be critical to the recovery of these species in the Eel River basin.

Removal of the two mainstem Eel River dams is necessary for the recovery of all Eel River salmonid populations, not only those in the footprint of the Project. This is because all of these salmonids must pass through the lower Eel River and estuary twice: first as smolts when they travel from their natal streams to the ocean to grow, then as adults when they journey from the ocean back upstream to their natal streams to spawn.

The altered flow regimes currently in place contribute to poor habitat for the adult Chinook salmon that arrive before the fall rains and hold in the lower Eel River waiting for higher flows. Altered sediment regimes and a managed hydrograph degrade habitat in the mainstem Eel River and the estuary. Finally, the Lake Pillsbury reservoir is a continuous source of invasive Sacramento pikeminnow, which consume and displace juvenile salmon and steelhead.

Removal of the Eel River dams will contribute to recovery of salmon and steelhead populations in the upper mainstem Eel River, especially in reaches above Scott Dam's present location. Restoring these populations are indispensable to the recovery of the species at regional levels.[50]

F. Wildlife impacts

Similar to impacts on fish, wildlife impacts will be felt short-term, in exchange for long-term benefits following dam removal. While bald eagle and other raptors enjoy the fishing and hunting opportunities the reservoir provides, those species are also commonly observed along the length of the Eel River, like the elk that currently resident in the Lake Pillsbury reservoir area. Like humans, these raptors are likely to significantly benefit from dam removal reducing the mercury they ingest from reservoir-caught fish.

One of the most important species for river function and water quality across the American West is the beaver. PG&E has downplayed the presence of beaver in the project area because they seek diligently to dam even the utility's diversion works. Once dam removal has been accomplished, these instinctive engineers will be free to contribute again to river health. Beaver dams slow floodwaters, increase infiltration, promote landscapes more resilient to wildfire, and provide habitat for many other species, including salmonids. By allowing beaver recovery, dam removal will accelerate nature's own restoration systems. The SWRCB should note opportunities and prescribe measures to provide for beaver recovery following dam removal.

G. Project Breakdown

As noted above, the PVP as it presently operates is a system on the brink of irrecoverable failure. The PVP no longer functions as a hydroelectric producer. At one level,

[50] Ibid.

this is because an expensive transformer failed. But at another, it has apparently been the case for at least a decade that PG&E could not recover its costs to generate power from the PVP, but can easily secure far less expensive supplies from solar, wind, and other renewable sources.

More seriously, while the PVP still stores water behind Scott Dam and diverts it to the East Branch Russian River via the Cape Horn Dam, the system's ability to do so has been significantly impaired by storage reductions and is increasingly at risk of a permanent failure. Because Scott Dam's only remaining low level outlet, the needle valve, is at risk of being impinged by sediment accumulated behind Scott Dam, PG&E has adopted limitations on both the minimum storage levels in the Lake Pillsbury reservoir and on the rate at which it can be drawn down. Both measures are intended to reduce the likelihood that rapid drying of the sediments steeply stacked around the margins of the reservoir would lead to spalling and settling of additional sediment around the needle valve's intake.

With every year, more sediment flows into the reservoir and accumulates atop the rest. PG&E has no practicable means to remove the sediment. Nor is there any feasible way to replace the needle valve once it becomes clogged. If the needle valve fails, water could only escape Scott Dam by overtopping the dam. Water could not be released to the East Branch Russian River or to the Eel River unless the reservoir were full. Such an outcome would be disastrous for virtually all stakeholders and interests. Eel River fisheries would be trapped below Scott Dam with no hope of cooling releases. Russian River water users would not be able to use Eel River water to cover their shortfalls.

Thus, while prudent management can reduce the risk of failure, the wiser course is clearly to move at all deliberate speed toward an equitable resolution that removes the dams and their associated risks and unreliability, replacing them with a more resilient diversion that will have dramatically less impact on Eel River fisheries. Delay is likely to prove as expensive and risky for PG&E as it is for Eel River steelhead.

H. Invasive species

In addition to Sacramento pikeminnow, detailed above, the project area is known to have existing populations of invasive plant species. The ecological benefits, including water quality benefits, of dam removal and watershed restoration could be diminished if invasive plants were allowed to become established following dam removal. As well, the Lake Pillsbury reservoir is known to harbor additional non-native fish species, and may also host invertebrate species (e.g. mussels) that pose risks to ecosystems and species if they are permitted to spread. We encourage the SWRCB to adopt suitable conditions requiring restoration of native plant species, control of invasives, and similar measures as appropriate for aquatic species.

IV. Conclusion

In conclusion, we can only empathize with SWRCB water quality staff in this matter. As noted, the successful implementation of Klamath dam removals with SWRCB guidance offers us real hope that this process will be easier for agencies like SWRCB to repeat for the

Eel River. If you have any questions regarding these comments, please contact Scott Greacen at Friends of the Eel River, ideally via email to scott@eelriver.org.

Thank you for your attention to these issues.

Sincerely yours,

Alicia Hamann
Friends of the Eel River

Samantha Kannry
Native Fish Society

Mark Rockwell
Fly Fishers International

Scott Harding
American Whitewater

Alicia Bales
Redwood Chapter Sierra Club

UNITED STATES OF AMERICA

FEDERAL ENERGY REGULATORY COMMISSION

In Re: Application for Surrender of License; Final Application for Non-Project Use of Project Lands (Pacific Gas & Electric Co.; Potter Valley Hydroelectric Project No. P-77)	FERC Docket No. 77-332

CERTIFICATE OF SERVICE

I hereby certify that I have this day served, by first class mail or electronic mail, the **COMMENTS BY FRIENDS OF THE EEL RIVER, SIERRA CLUB, NATIVE FISH SOCIETY, CALIFORNIA SPORTFISHING PROTECTION ALLIANCE, NORTHERN CALIFORNIA COUNCIL-FLY FISHERS INTERNATIONAL AND SAVE CALIFORNIA SALMON**. This Certificate of Service is served upon each person designated on the official P-77 Service List compiled by the Commission in the above-captioned proceedings.

Dated this 1st day of December, 2025.

Frederick Ezekiel R. Pasco
Legal Secretary
Shute, Mihaly & Weinberger LLP