

187 FERC ¶ 61,192
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Willie L. Phillips, Chairman;
Allison Clements, and Mark C. Christie.

Pacific Gas and Electric Company

Project No. 77-320

ORDER APPROVING TEMPORARY VARIANCE OF FLOW REQUIREMENTS
UNDER LICENSE ARTICLE 52

(Issued June 27, 2024)

1. On February 22, 2024, Pacific Gas and Electric Company (PG&E), licensee for the 9.4-megawatt (MW) Potter Valley Hydroelectric Project No. 77,¹ requested that the Commission approve a temporary variance of the flow and irrigation release requirements set forth in license Article 52.² PG&E states that the temporary variance would allow it to manage reduced reservoir storage in Lake Pillsbury as a result of a seismic-related storage restriction and to ensure it has adequate water storage capacity to provide flows necessary for the protection of federally-listed threatened species. The project is located on the East Branch Russian River and Eel River in Lake and Mendocino Counties, California. For the reasons discussed below, we grant the temporary variance.

I. Background

2. On October 4, 1983, the Commission issued a new license for the continued operation and maintenance of the Potter Valley Hydroelectric Project. The uppermost project work is Scott Dam, which impounds Lake Pillsbury on the Eel River. Scott Dam has no fish passage. Below Scott Dam, the Eel River flows 12 miles into Van Arsdale Reservoir, impounded by Cape Horn Dam, also a project work. Cape Horn Dam has

¹ *Pac. Gas & Elec. Co.*, 25 FERC ¶ 61,010 (1983). The license expired on April 14, 2022, and PG&E continues to operate the project under an annual license. Notice of April 21, 2022 Authorization for Continued Project Operation. PG&E filed a plan and schedule for filing an application to surrender the project on July 8, 2022. PG&E July 8, 2022 Filing.

² PG&E's February 22, 2024 Variance Request (2024 Variance Request).

upstream and downstream fish passage facilities, enabling salmonid species to use the reach between Cape Horn and Scott Dams.

3. At the Van Arsdale Reservoir, water is either released from or spilled over Cape Horn Dam, from which it then flows northwest in the Eel River, or is conveyed south by tunnel and penstock to the Potter Valley Powerhouse. Water discharged from the powerhouse is released into the East Branch Russian River, which flows into the mainstem Russian River. Both the Eel River and Russian River flow to the Pacific Ocean. The project's watershed is the source of most of the water in the East Branch Russian River. The U.S. Army Corps of Engineers' (Corps) Coyote Dam and its impoundment, Lake Mendocino, which provides water for municipal, irrigation, and recreational uses, is approximately 15 miles downstream of the Potter Valley Powerhouse on the Russian River.

4. The California coastal distinct population segment Chinook salmon (*Oncorhynchus tshawytscha*) and northern California distinct population segment steelhead trout (*O. mykiss*) migrate the length of the Eel River and spawn in the mainstem and tributaries up to the reach between Cape Horn and Scott Dams. Both species are federally listed as threatened³ under the Endangered Species Act (ESA).⁴ In addition, irrigated agriculture, including orchard crops and vineyards, has been an important component of the East Branch Russian River's upper basin economy since water diversions began in 1912. Surface and subsurface water sources are used extensively for irrigation, and some of the water discharged from the Potter Valley Powerhouse into the East Branch Russian River satisfies a contract between PG&E and the Potter Valley Irrigation District (Irrigation District).

A. License Article 52

5. After PG&E completed a 10-year study of flow-release effects on the salmonid fishery in the Eel River and East Branch Russian River and monitored water temperature downstream of Scott Dam, it sought and, on January 28, 2004, the Commission approved, a license amendment adding Article 52 to the license.⁵ Article 52 requires PG&E to

³ 65 Fed. Reg. 36,074 (June 7, 2000), listing the California distinct population segment steelhead trout as a threatened species; 64 Fed. Reg. 50,394 (Sept. 16, 1999), listing the California distinct population segment Chinook salmon as a threatened species.

⁴ 16 U.S.C. §§ 1531 *et seq.*

⁵ *Pac. Gas & Elec. Co.*, 106 FERC ¶ 61,065 (2004 License Amendment), *reh'g denied*, 107 FERC ¶ 61,232 (2004).

comply with the reasonable and prudent alternative (RPA)⁶ provided in the U.S. Department of Commerce's National Marine Fisheries Service's (NMFS) 2002 Biological Opinion⁷ to prevent jeopardy to the threatened salmonids in the Eel River Basin.⁸ The RPA establishes a complex regime of minimum flows into the Eel River and East Branch Russian River, as well as caps on supplementary releases to the Irrigation District, based on a variety of factors which include cumulative inflow to Lake Pillsbury and the water-year classification.⁹

6. PG&E is required to release minimum flows into the Eel River from Scott Dam, based on the water-year classification. In a normal water-year, PG&E is required to release 100 cubic feet per second (cfs) from December 1 through May 31 and 60 cfs from June 1 to November 30. Alternatively, PG&E is required to release 40 cfs year-round in a dry water-year classification and 20 cfs year-round in a critical water-year.

7. PG&E is also required to release minimum flows from Cape Horn Diversion Dam into the Eel River. This minimum flow requirement is determined using a combination of factors including water-year type, season, date, cumulative inflow into Lake Pillsbury, and a calculated set of upper and lower flow limits.

8. Additionally, the RPA requires PG&E to release minimum flows into the East Branch Russian River, based on water-year classification, for the protection of aquatic resources as follows:

⁶ See 2004 License Amendment, 106 FERC ¶ 61,065 at PP 102-103 & ordering para. (E). See *id.* at app. A (attaching the RPA).

⁷ See NMFS Nov. 26, 2002 Final Biological Opinion in Docket No. P-77-100.

⁸ 2004 License Amendment, 106 FERC ¶ 61,065 at P 1.

⁹ A water-year begins on October 1 and ends on September 30 the following year. To determine the water-year classification for a given river basin, the estimated total unimpaired runoff for the water-year is compared to historical data and then classified as very dry, normal/average, wet, or very wet. The total estimated unimpaired runoff includes the prior year's water-year index, current runoff, and forecasted runoff in the watershed. Water-year classifications in California are based on data prepared by the California Department of Water Resources. See *California Data Exchange Center – River Forecasts*, California Department of Water Resources, <https://cdec.water.ca.gov/rivforecasts.html> (last accessed Apr. 11, 2024).

(i) during a normal water-year, PG&E must provide a minimum flow of 75 cfs in the East Branch Russian River from May 15 through September 15 and 35 cfs from September 16 through May 14;

(ii) during a dry water-year, PG&E must provide a minimum flow of 25 cfs in the East Branch Russian River from April 15 through September 15 and 35 cfs from September 16 through April 14; and

(iii) during a critical water-year, PG&E must provide a minimum flow of 5 cfs in the East Branch Russian River all year.¹⁰

9. Finally, the RPA provides that PG&E must not from April 15 to October 15 release supplementary flows to the Irrigation District through the Potter Valley Powerhouse that exceed 50 cfs.¹¹ If the cumulative inflow into Lake Pillsbury is less than 40,000 acre-feet on May 1,¹² PG&E must not release supplementary flows for the Irrigation District that exceed 25 cfs between April 15 through October 15 of that year.¹³ Further, PG&E must reserve 2,500 acre-feet of water (block water) for release to the Eel River for fishery resources at the discretion of resource agencies, including NMFS, California Department of Fish and Wildlife (California DFW), Round Valley Indian Tribes, and the U.S. Fish and Wildlife Service (FWS), each water year.¹⁴

B. Dam Safety

1. Seismic Risk

10. PG&E is currently undertaking a multi-year engineering reevaluation of Scott Dam to assess its condition and expected performance under seismic and flood loading

¹⁰ RPA Condition C.1.

¹¹ RPA Condition E.4.

¹² Under RPA Condition A.10, a cumulative inflow of less than 40,000 acre-feet on May 1 is an exceptionally low inflow.

¹³ RPA Condition E.4.

¹⁴ RPA Condition D.1; *Pac. Gas & Elec. Co.*, 116 FERC ¶ 62,158 (2006).

conditions.¹⁵ The results of a preliminary, simplified seismic stability analysis¹⁶ suggested that the dam may become structurally unstable when subjected to updated seismic loading conditions¹⁷ and that the potential for seismic instability is lower when the water level in Lake Pillsbury is at or below the spillway crest elevation.¹⁸ The Commission's Division of Dam Safety and Inspections (D2SI) agreed with PG&E's finding.¹⁹

11. Based on the results of the seismic risk analysis, PG&E identified two interim risk-reduction measures to implement until more detailed studies are complete: (1) establish a ten-foot restriction on the maximum reservoir operating level; and (2) leave Scott Dam's spillway gates open year-round to maintain the water level in Lake Pillsbury at or below spillway crest elevation. PG&E states that these interim measures would reduce the maximum available storage reservoir volume by

¹⁵ The engineering reevaluation is intended to address multiple recommendations from PG&E's two most recent five-year Part 12D safety inspection reports for Scott Dam, performed by their independent consultants in 2014 and 2019. PG&E plans to complete and submit the results of the reevaluation to the Commission by December 1, 2024. PG&E March 17, 2023 Filing.

¹⁶ PG&E performed the simplified seismic stability analysis at the outset of its engineering reevaluation to gain an initial understanding of the expected performance of the dam and a preview of possible conclusions for the later, more sophisticated analyses that will be completed at the end of the engineering reevaluation.

¹⁷ These updated seismic loading conditions were developed as part of PG&E's recent deterministic seismic hazard study. *See* PG&E December 20, 2021 Deterministic Seismic Hazard and Regional Seismicity Reports.

¹⁸ PG&E completed this preliminary analysis in March 2023 using existing engineering data at the outset of its reevaluation process to develop an initial understanding of the expected performance of the dam under updated seismic loading conditions. After it completes its engineering reevaluation of Scott Dam, PG&E will reassess the project's seismic risk using updated engineering data. PG&E March 17, 2023 Filing.

¹⁹ D2SI April 28, 2023 Letter. D2SI generally agreed with PG&E's finding of greater potential seismic instability and requested that PG&E perform some additional analysis to refine the estimated risk potential and clarify aspects of the proposed interim risk reduction measures.

approximately 20,000 acre-feet, which would reduce the storage pressure behind the dam and, in turn, reduce the potential seismic risk.²⁰

2. Bank Sloughing

12. On April 3, 2017, PG&E submitted to the Commission a technical memorandum evaluating potential dam safety issues and operating constraints regarding operating the Lake Pillsbury reservoir at a lower level.²¹ The technical memorandum found that a high potential of bank sloughing exists at pool levels between 5,000 and 12,000 acre-feet, and that the degree of bank sloughing depends on the drawdown rate of the reservoir.²² In order to mitigate the risk of bank sloughing, PG&E used 12,000 acre-feet as the Lake Pillsbury planning minimum for water management.

C. Lake Pillsbury Coldwater Pool

13. Because surface water is exposed to higher ambient temperatures during warmer months, it warms faster than deeper water. As the upper water layer of the Lake Pillsbury reservoir warms, a thermal gradient is created and a coldwater pool forms at the lake bottom. PG&E states that its operational experience demonstrates that drawing cooler water from the coldwater pool and releasing it into the Eel River downstream of Scott Dam improves the aquatic habitat for listed salmonids.²³ As the cooler water is removed and the storage level decreases, the upper, warmer water increasingly mixes

²⁰ PG&E March 17, 2023 Filing. In response to Commission staff's March 28, 2023 directive that PG&E request to amend its license if it seeks to incorporate the interim seismic risk reduction measures on a more permanent basis, on July 31, 2023, PG&E filed a request to amend the minimum flow requirements in its license. The Commission is processing that request in subdocket P-77-318.

²¹ 2024 Variance Request at 3-4. The technical memorandum was prepared as a condition of the Commission's July 15, 2016 order, which required PG&E to "determine the current low level operation constraints at Lake Pillsbury (beyond operator recommendations) that support a low reservoir elevation level." *Pac. Gas & Elec. Co.*, 156 FERC ¶ 62,042, at ordering para. (B) (2016).

²² Bank sloughing is the vertical or angled collapse of a riverbank, in which the face of the bank slides or rotates away, often leaving a concave scar or scarp in the bank and a clump of sediment at the base.

²³ PG&E draws water from the coldwater pool via a lower-level outlet below full pool.

with the cooler deeper water, further diminishing the coldwater pool.²⁴ If the coldwater pool is depleted, it cannot be restored until the following winter or spring.

14. PG&E states that it has conducted a detailed water temperature analysis and determined that there are limited options for mitigating high water temperatures in the releases from Lake Pillsbury in the late-summer and early-fall months.²⁵ However, PG&E explains that its operational experience demonstrates that reducing the minimum flows and releases to the Irrigation District is an effective strategy to maintain Lake Pillsbury's cold-water pool and ensure cooler flow releases from Scott Dam into the Eel River.²⁶ Monitoring data shows a 1.6° Celsius (C) temperature reduction below water temperature trends following the implementation of the July 2022 minimum flow variance.²⁷ Conversely, when the minimum flow variance was implemented in October 2023, monitoring data shows that water temperatures had exceeded temperature trends by more than 2.5° C in 2023, despite being a much wetter water-year.²⁸

D. 2024 Water-Year Classification

15. The 2024 water-year is on track for a normal water-year classification for the Eel River below Scott Dam and the East Branch Russian River compliance locations, and a wet water-year in the Eel River at the Cape Horn Dam compliance location.²⁹ Consequently, PG&E would be required to release 60 cfs into the Eel River below Scott Dam from June 1 through November 30 and 100 cfs from December 1 through May 31 (at gage E-02). PG&E would also be required to release 35 cfs into the

²⁴ 2024 Variance Request at 3.

²⁵ Options are limited 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. *Id.*

²⁶ *Id.* at 3-6.

²⁷ *Id.* at 3-4.

²⁸ *Id.* at 6.

²⁹ As of April 10, 2024, the cumulative inflow in the Lake Pillsbury is 426,000 acre-feet. Personal communication with Michelle Lent, PG&E Water Management on April 10, 2024.

East Branch Russian River from April 15 through May 14, 75 cfs from May 15 through September 15, and 35 cfs from September 16 through April 14.

II. Licensee's Request

16. PG&E requests a temporary variance to reduce certain releases below the minimum flow and maximum diversion release requirements for a normal water-year under Article 52 of its license.³⁰ PG&E states that the proposed variance is necessary due to the reduced storage capacity in Lake Pillsbury as a result of the seismic-risk-related restriction and would allow it to preserve the coldwater pool to ensure cooler water release temperatures for the protection of threatened salmonids in the Eel River.³¹ Specifically, the temporary variance would reduce minimum flow releases to the Eel River below Scott Dam from the normal water-year requirement of 60 cfs from June 1 through November 30 and 100 cfs from December 1 through May 31 to the critical water-year requirement of 20 cfs.³²

17. In addition, PG&E proposes to initially reduce minimum flow releases to the East Branch Russian River to the dry water-year requirement of 25 cfs, with the ability to further decrease these flows as low as 5 cfs if daily average Lake Pillsbury release water temperatures exceed 15° C or as needed based on PG&E and resource agency determinations. After September 30, minimum flows in the East Branch Russian River would remain at 25 cfs for the remainder of the temporary variance, but further reductions could occur if monitoring indicates that Lake Pillsbury storage is approaching the critical 12,000 acre-feet storage level.

18. PG&E states that it would submit monthly storage reports to the Commission during the variance period. It proposes that the variance end when Lake Pillsbury storage

³⁰ The water-year classifications for the Eel River immediately below Scott Dam and the East Branch Russian River for the 2024 year are normal. The water-year classification for the Eel River below the Cape Horn Dam is wet. PG&E does not propose to adjust the minimum flow requirements into the Eel River below the Cape Horn Dam but does propose to temporarily adjust minimum flow compliance to a 24-hour average flow. Consistent with a wet water-year classification in the Eel River below Cape Horn Dam, minimum flows would be based on the Eel River Index Flow and summer base flows in the Biological Opinion.

³¹ 2024 Variance Request at 1.

³² *Id.* at 9.

exceeds 36,000 acre-feet following October 1, 2024, or when the variance is superseded by another variance.

19. PG&E proposes to adopt a flexible management approach to adjusting reservoir releases to provide adequate flows and cooler water temperatures in the Eel River downstream of Scott Dam for ESA-listed salmonids. It would manage releases from Lake Pillsbury in consultation with NMFS, California DFW, Round Valley Indian Tribes, and FWS (collectively, the agencies). PG&E proposes to monitor water temperatures, and, if Eel River temperatures below Scott Dam exceed 15°C, it would notify the agencies and begin meeting with them weekly to determine if diversions to the East Branch Russian River should be reduced to preserve water storage for cooler release temperatures.³³

20. The total storage in Lake Pillsbury, as of May 28, 2024, was 54,529 acre-feet,³⁴ which is significantly below the reservoir's total storage capacity of 75,000 acre-feet. PG&E states that the limited storage is comparable to that during drought conditions experienced in 2020 and 2021.³⁵ Accordingly, PG&E's request is intended to provide conditions like those approved by the Commission in 2020 and 2021.³⁶ PG&E notes that, during those years, spring flows did not fill Lake Pillsbury to the spillway crest elevation (i.e., to the spillway gates).

21. As part of its request, PG&E proposes to continue engagement with the Drought Working Group.³⁷ PG&E would meet with the group monthly during the variance period

³³ Flow adjustments would be informed by regression-based analysis guidance curves, observed water temperatures for releases, and bi-weekly vertical temperature profiles collected within Lake Pillsbury. *Id.* at 8.

³⁴ See California Department of Water Resources, California Data Exchange Center - Lake Pillsbury storage, <https://cdec.water.ca.gov/dynamicapp/QueryDaily?s=LPY> (last accessed May 29, 2024).

³⁵ 2024 Variance Request at 1.

³⁶ *Pac. Gas & Elec. Co.*, 175 FERC ¶ 62,068 (2021); *Pac. Gas & Elec. Co.*, 174 FERC ¶ 61,082 (2021); *Pac. Gas & Elec. Co.*, 171 FERC ¶ 62,074 (2020).

³⁷ PG&E established the Drought Working Group in connection to its request for a temporary flow variance in 2015. See *Pac. Gas & Elec. Co.*, 151 FERC ¶ 62,116, at P 4 (2015). PG&E filed a letter with the Commission on August 25, 2022, defining the members of the group as California DFW, FWS, California Trout, Friends of the Eel River, NMFS, Irrigation District, the Round Valley Indian Tribes, Sonoma County Water

to discuss storage levels, release flow rates, water temperature profiles, release temperatures, and estimated temperature projections. PG&E would also collect bi-weekly Lake Pillsbury temperature profiles at Scott Dam and collect bi-weekly temperature measurements near Benmore Creek and near Trout Creek on the Eel River between Scott Dam and Cape Horn Dam from June to September, to determine flow and habitat suitability for salmonids.³⁸

22. PG&E additionally requests that compliance with flow requirements to the Eel River below Cape Horn Dam be measured as a 24-hour average versus instantaneously.³⁹ The request also includes provisions for funding water temperature monitoring, profiling, and modeling, as well as for conducting fish sonar monitoring by the California DFW and the Round Valley Indian Tribes, and for streamflow monitoring in the Eel River and Rice Fork above Lake Pillsbury.⁴⁰

III. Pre-Filing Consultation

23. PG&E developed its proposal in consultation with NMFS, California DFW, FWS, and the Round Valley Indian Tribes, which all support the proposed variance.⁴¹ In comments included with the request, NMFS further explains that the variance is necessary to conserve water storage within Lake Pillsbury to provide suitable flows and water temperature conditions for federally listed salmonids in the Eel River downstream of Scott Dam, and notes that the flow components of the proposed variance are consistent with the intent of NMFS's 2002 Biological Opinion for the project and some of its proposed interim protective measures.⁴²

Agency, Russian River Flood Control District, and California State Water Resources Control Board (California Water Board).

³⁸ 2024 Variance Request, Enclosure 1 at 2.

³⁹ Using an average to determine compliance allows the operator to forego releasing an additional buffer flow to maintain minimum flow compliance in the event of short flow interruptions. This approach is intended to conserve limited water resources by not releasing additional flows above the absolute minimum.

⁴⁰ 2024 Variance Request at Enclosure 1.

⁴¹ 2024 Variance Request at Enclosure 2.

⁴² *Id.* NMFS also recommends full implementation of interim protective measures it previously proposed that are intended to avoid and minimize take of

IV. Public Notice, Interventions, and Comments

24. On February 29, 2024, the Commission issued public notice of PG&E's application, establishing April 1, 2024, as the deadline for filing comments, interventions, and protests.⁴³ The California Water Board and the U.S. Department of the Interior (Interior) filed timely notices of intervention.⁴⁴ Timely, unopposed motions to intervene were filed by: the Irrigation District; Palomino Lakes Mutual Water Company; California DFW; Wiyot Tribe; Friends of the River, Trout Unlimited, California Trout, Pacific Coast Federation of Fisherman's Associations, and Institute for Fisheries Resources (collectively, Environmental Intervenors); Round Valley Indian Tribes; and North Bay Water District, Russian River Property Owners Association, and Sonoma County Farm Bureau (collectively, Sonoma County Agricultural Water Users).⁴⁵ On April 2, 2024, the City of Ukiah, California and Lake County, California filed late, unopposed motions to intervene, which were granted by Secretary's Notice.⁴⁶ In addition to comments from intervenors, the Commission received comments from: Dave Luhrs, Friends of the Eel River, and Mendocino County Farm Bureau.

25. Many commenters, including California DFW, the Wiyot Tribe, and the Environmental Intervenors, support the proposed variance and the reduction in Lake

ESA-listed species while the Commission, PG&E, and interested parties work through a final determination as to the future of the project. These interim measures are outlined in NMFS's March 16, 2022 letter to the Commission filed in subdocket P-77-314. Commission staff has initiated a proceeding to consider whether to reopen the license to incorporate NMFS's proposed measures. That proceeding is ongoing. Given that PG&E filed a protest in that proceeding, should there be a determination that the license will be reopened, it will be by Commission order instead of by delegated authority.

⁴³ 89 Fed. Reg. 16,557 (Feb. 29, 2024).

⁴⁴ Under Rule 214(a)(2) of the Commission's Rules of Practice and Procedure, the California Water Board and the U.S. Department of the Interior became parties to the proceeding upon the timely filing of the notice of intervention. 18 C.F.R. § 385.214(a)(2) (2023).

⁴⁵ Timely, unopposed motions to intervene are granted by operation of Rule 214(c)(1) of the Commission's Rules of Practice and Procedure. 18 C.F.R. § 385.214(c)(1).

⁴⁶ April 25, 2024 Notice Granting Late Intervention.

Pillsbury storage levels in light of the greater potential seismic risk.⁴⁷ Additionally, commenters support the variance due to the benefit it will provide to listed species. California DFW states that it supports the proposed variance to preserve water storage in Lake Pillsbury and to conserve cold water for the protection of federally-listed salmonids in the Eel River, and it urges the Commission to approve the variance as soon as possible. The Environmental Intervenors similarly ask the Commission to approve the variance as soon as possible to protect Eel River salmon and steelhead listed under the ESA.⁴⁸

26. The Irrigation District requests that the Commission deny PG&E's request to preemptively reduce flows to the East Branch Russian River and instead require PG&E to only reduce flows in response to real-time storage forecasting. The Irrigation District states that it is willing to remain on a demand-based delivery system for its allotted 50 cfs for the duration of the water delivery season in a good faith effort to maintain storage in Lake Pillsbury. Finally, the Irrigation District states that the proposed variance could have additional downstream effects in the Russian River system to aquatic resources and water users.

27. Palomino Lakes Mutual Water Company, the Mendocino County Farm Bureau, Sonoma County Agricultural Water Users, and the City of Ukiah state that the Commission cannot approve PG&E's variance request without completing a NEPA analysis. These entities also state that the proposed variance would have downstream effects to water users and aquatic resources in the Russian River watershed. Palomino Lakes Mutual Water Company, the Mendocino County Farm Bureau, and the City of Ukiah request that the Commission deny PG&E's variance request in its current state and instead, require that the variance be modified so that flow reductions in the East Branch Russian River are implemented slowly over time based upon real-time storage forecasting. Lake County states that the proposed variance would reduce water availability for fire suppression.⁴⁹

⁴⁷ One commenter, Dave Luhrs, however, questions whether there has been a material change in seismic risk at the project and requests PG&E provide evidence. Dave Luhrs February 29, 2024 Comments.

⁴⁸ Environmental Intervenors April 1, 2024 Comments at 7.

⁴⁹ Lake County and other parties' provided comments related to project decommissioning which are not relevant to this proceeding and will not be discussed further. This issue will be considered in the forthcoming license surrender proceeding.

V. Discussion

28. PG&E determined, and D2SI concurred, that the seismic instability of Scott Dam may be greater than previously understood. Granting the requested temporary variance would permit PG&E to manage the remaining water more effectively in Lake Pillsbury. The proposed variance does not represent a departure from the parameters and analysis of NMFS's RPA or license Article 52. Rather, it would represent an operational shift from the water release requirements of a normal water-year to those of a dry water-year in the East Branch Russian River and a critical water-year in the Eel River below Scott Dam.

29. The temporary variance would reduce the likelihood of harm to ESA-listed salmonids in the Eel River by maintaining a coldwater pool and sufficient storage levels in Lake Pillsbury. Specifically, by conserving a larger volume of water in Lake Pillsbury, PG&E would have a greater amount of coldwater storage to release into the Eel River, thereby maintaining lower riverine water temperatures for the benefit of federally-listed salmonids. Implementation of the variance would result in temporary, adverse effects to aquatic resources in the Russian River immediately below the project; however, these impacts would be minimized by incrementally reducing flows only as needed to preserve water for releases later in the season. Therefore, we find the variance appropriately balances the protection of federally-listed species in the Eel River and the interests of water users in the Russian River watershed. We further discuss the effects of the proposed variance and commenters' concerns below.

A. Dam Safety

30. Lake County comments that PG&E is leveraging its preliminary seismic analysis to justify its goal of permanently lowering the Scott Dam gates.⁵⁰ Dave Luhrs questions whether there has been a material change in seismic risk factors at the Scott Dam over its 100 years of operation that justifies the proposed variance and requests supporting documentation and asks that the supporting information be made public.⁵¹

31. The proposed variance does not pertain to the Scott Dam gates and this order does not grant PG&E permission to leave the gates permanently open. Many of the Potter Valley Project's safety analyses are over 20 years old.⁵² Since then, the analytical

⁵⁰ Lake County April 2, 2024 Comments at 2.

⁵¹ Dave Luhrs February 29, 2024 Comments at 1. The Irrigation District also notes that PG&E's simplified seismic stability analysis has not been made public. Irrigation District March 20, 2024 Comments at 1.

⁵² PG&E March 17, 2023 Filing.

tools for seismic analysis have improved, and seismic data from the following years has become available. To improve its understanding of seismic risk at the project while it undertakes a larger engineering reevaluation of Scott Dam, PG&E conducted a simplified seismic stability analysis that incorporated the results of its system-wide 2021 seismic hazard study⁵³ and used modern analytical methods and tools.⁵⁴ With respect to Mr. Luhrs' comment, PG&E's simplified seismic stability analysis was filed as Critical Energy Infrastructure Information (CEII) and is not available to the general public; access to CEII can be requested pursuant to section 388.113(g) of the Commission's regulations.⁵⁵

32. As previously explained, PG&E has determined that the Scott Dam may become structurally unstable when subject to updated seismic loading conditions and that the potential for seismic instability is lower when the water level in Lake Pillsbury is at or below the spillway crest elevation.⁵⁶ The Commission's D2SI reviewed PG&E's preliminary seismic analysis and agreed with its finding.

B. Federally-Listed Species in the Eel River

33. As explained above, the Eel River from the mainstem and tributaries up to the reach between Cape Horn and Scott Dams, is home to the California Coastal Chinook salmon and the Northern California steelhead. Both Chinook salmon⁵⁷ and steelhead

⁵³ PG&E December 21, 2021 Deterministic Seismic Hazard and Regional Seismicity Reports. In this report, PG&E updated the seismic hazard model for the 22 licensed projects in its hydroelectric system, including the Potter Valley Project. This model incorporates new data and adopts advancements in seismic source characterization since the model was originally developed. *Id.*

⁵⁴ PG&E March 17, 2023 Filing.

⁵⁵ 18 C.F.R. § 388.113(g) (2023).

⁵⁶ *See supra* section I.B.1.

⁵⁷ California Coastal Chinook salmon are fall spawners, with spawning typically occurring between October and December. Young-of-the-year emergence occurs after 40-60 days, emerging in late winter or spring and then out-migrating to the Pacific Ocean as smolts during the spring and summer. Adults will return to their natal streams after one to five years maturing in the Pacific Ocean, with most returning as three-year-olds.

trout⁵⁸ may occur in the affected area during the proposed variance implementation period.

34. NMFS's November 26, 2002 Biological Opinion explained that the number of Chinook salmon in the Upper Eel River has declined from an estimated 13,000 in 1964 to fewer than 1,000 in 1999. Steelhead counts have similarly declined from an estimated 10,000 in 1964 to fewer than 1,000 in 1999.⁵⁹ PG&E counted a total of 255 adult Chinook salmon at the Van Arsdale Fisheries Station at Cape Horn Dam during the 2023 passage season, and 209 adult steelhead trout at the Van Arsdale Fisheries Station during the 2024 spring run.⁶⁰

35. Environmental Intervenors support the proposed variance, stating that it would protect these federally listed species by conserving water storage in Lake Pillsbury to later aid in maintaining suitable flow and water temperature conditions.⁶¹ They assert that the current flow rates have resulted in a sharp drawdown of Lake Pillsbury, and that the longer it continues, the fewer management options will be available in the future.⁶²

36. NMFS stated that the proposed variance is necessary to minimize and avoid adverse effects to ESA-listed salmonids and their designated critical habitat and is

⁵⁸ Both summer- and winter-run steelhead trout may be present, with the latter being predominant. Summer-run adults migrate into the river system between April and June and hold in cooler river sections until spawning starts in September. The winter run begins in November and may extend into April, with spawning generally occurring between February and May (though spawning in June is also possible). Steelhead trout are typically smaller than Chinook salmon and therefore more likely to spawn in tributaries where flows are lower, although they will use the mainstem during low-flow years. Steelhead trout also require somewhat colder water than Chinook salmon for spawning and successful egg incubation. Young steelhead may reside in the river for up to four years (although two years is typical) before out-migrating to the ocean. Steelhead trout, unlike Chinook salmon, may not die after spawning and can return to spawn several times.

⁵⁹ See NMFS November 26, 2002 Final Biological Opinion at 30 filed under P-77-110.

⁶⁰ See *Eel River Fish Count Station at Van Arsdale Reservoir*, Friends of the Eel River, <https://eelriver.org/the-eel-river/fish-count/> (last accessed Apr. 19, 2024).

⁶¹ Environmental Intervenors April 1, 2024 Comments at 7.

⁶² *Id.* at 8.

consistent with the intent of its 2002 Biological Opinion and some of the interim measures proposed in its March 16, 2022 letter.⁶³ We agree. The proposed variance would allow PG&E to ensure that the water storage level is sufficient to maintain the coldwater pool in the reservoir and release cooler flows into the Eel River for the protection of listed salmonids while it operates Lake Pillsbury at a lower storage level necessary to reduce its seismic risk potential. By only reducing flows to the East Branch Russian River below 25 cfs as needed, the proposed variance would also minimize effects on aquatic resources in the downstream Russian River.

C. Reduced Releases to the Russian River

37. Multiple commentors express concern regarding the proposed variance's reduction in flows to the East Branch Russian River and resulting effects on downstream users and protected species.

1. Effects on Russian River Water Users

38. City of Ukiah comments that the Commission must consider the impacts of PG&E's proposed variance on the residents, businesses, schools, and community that rely on the project's diversions to the East Branch Russian River.⁶⁴ Commenters state that the appropriative water rights⁶⁵ held by downstream users in the Russian River watershed are predicated, in part, on the expected annual diversions from the Eel River under Article 52 of the Potter Valley Project license.⁶⁶ Commenters generally assert that the temporary

⁶³ 2024 Variance Request at Enclosure 2. In comments on PG&E's similar 2022 variance request, NMFS indicated that the proposed variance would benefit the Eel River salmonids without endangering Russian River populations. PG&E May 22, 2022 Variance Request at Enclosure 1.

⁶⁴ City of Ukiah April 2, 2024 Comments at 5.

⁶⁵ An appropriative water right is the right to take water for use on non-riparian land or to use water on riparian land that would not be there under natural conditions. Permits and licenses granting appropriative water rights are administered by the California Water Board and are outside of the Commission's jurisdiction.

⁶⁶ Palomino Lakes Mutual Water Company March 25, 2024 Comments at 3.

variance may cause widespread, adverse effects to agricultural and domestic water users throughout Mendocino, Sonoma, and Marin Counties.⁶⁷

39. Downstream users of the East Branch Russian River immediately below the Potter Valley Powerhouse may experience a reduction in flows and water deliveries under the variance. Specifically, PG&E states that water deliveries directly to the Irrigation District would shift to a demand-based system.⁶⁸ The Irrigation District participates in the Drought Working Group and states that it will voluntarily remain on a demand-based delivery of up to 50 cfs for the duration of the water delivery season in a good faith effort to help maintain storage in Lake Pillsbury to safeguard infrastructure and to maintain necessary flows for threatened salmonids in the Eel River.⁶⁹ Aside from flows released to the Irrigation District, PG&E would also reduce summertime flows to the East Branch Russian River from 75 cfs to a range of 5 to 25 cfs.⁷⁰ This water will be available for beneficial uses in the East Branch Russian River below the project.

40. While the proposed curtailment may reduce water available to downstream water users further below Lake Mendocino in the Russian River watershed, storms in the winter of 2023-2024 largely replenished Lake Mendocino,⁷¹ which should buffer any effect the

⁶⁷ Sonoma County Agricultural Water Users April 1, 2024 Comments at 6; Mendocino County Farm Bureau April 1, 2024 Comments at 2; Irrigation District March 20, 2024 Comments at 3.

⁶⁸ 2024 Variance Request at 9.

⁶⁹ PG&E asserts that demand-based deliveries to the Irrigation District would be at its discretion to meet temperature, storage, and facility safety objectives. 2024 Variance Request at 9. The Irrigation District contests this, arguing that PG&E and the Irrigation District's contract does not permit PG&E to limit Irrigation District deliveries up to 50 cfs between April 15 and October 15 unless the cumulative inflow to Lake Pillsbury is less than 25,000 acre-feet by April 1. Irrigation District March 22, 2024 Comments at 2. Because the Irrigation District and PG&E's contract is not subject to the Commission's jurisdiction, we decline to address this dispute.

⁷⁰ 2024 Variance Request at 9.

⁷¹ See California Department of Water Resources, California Data Exchange Center – Coyote (Lake Mendocino) storage <http://cdec4gov.water.ca.gov/dynamicapp/QueryDaily?s=COY> (last accessed April 19, 2024). Water levels on April 19, 2024 were 100,306 acre-feet and approaching the flood control pool level of 110,000 acre-feet. As of April 15, 2024, the storage in Lake

temporary variance would have on those users. The administrator of flow releases in the Russian River from Lake Mendocino, Sonoma Water, has also stated that it is able to meet all of its water commitments during the current water season, due to significant tributary flows and maximum storage levels in Lake Mendocino.⁷² Further, immediate approval of the temporary variance would ensure that water from Lake Pillsbury remains usable, both for aquatic species and downstream water users, and would ensure that more extreme emergency curtailments do not become necessary at a later time. PG&E's approach would ensure reliable deliveries of a limited amount of water while maintaining flows within the bounds of the existing RPA. We are satisfied that PG&E's proposal adequately minimizes effects to East Branch Russian River water users.

2. Effects on ESA Species in the Russian River

41. The reduced flows in the East Branch Russian River under the proposed variance have the potential to reduce aquatic habitat and increase water temperatures in the Russian River below Lake Mendocino, which could become increasingly severe in the warmer summer months. This has the potential to cause elevated stress and possible salmonid mortality.

42. The temporary variance would minimize these effects by reducing flows below 25 cfs only if necessary to protect listed species in the Eel River. Moreover, storms in the winter of 2023-2024 largely replenished Lake Mendocino, which should further mitigate the effects of reduced flows on protected salmonids in the Russian River downstream of Lake Mendocino.⁷³ Additionally, as noted above, Sonoma Water confirmed it can still meet the requirements of the authorized storage releases, including all minimum instream flow requirements in the Russian River.⁷⁴ Therefore, we do not anticipate any change to flows, aquatic habitat, or effects to listed salmonids in the Russian River as a result of the proposed variance.

Mendocino also represented 98.3% of the forecast informed reservoir operations water supply curve (<https://www.sonomawater.org/current-water-supply-levels>).

⁷² See March 1, 2024 letter from Sonoma Water to Erik Ekdal, California SWRCB.
https://www.sonomawater.org/media/PDF/Environment/BiologicalOpinion/TUCP/2023/Term10_rpt_1Mar24.pdf (accessed April 19, 2024).

⁷³ *See supra* P 40.

⁷⁴ *Id.*

3. Best Management Practices

43. PG&E also proposes several best management practices to monitor and offset the potential effects of variance implementation. PG&E would convene the Drought Working Group monthly throughout the variance period to discuss storage levels, release flow rates, water temperature profiles, release temperatures, and estimated temperature projections in the Eel River below Scott Dam. The Drought Working Group would use this data to inform flow modifications within the bounds of the proposed variance using Lake Pillsbury's early fall storage target as guidance.

D. Fire Suppression

44. Lake County notes its concern about potential effects to fire suppression activities in the area, due to the lack of available water.⁷⁵ Approval of PG&E's proposed variance would result in water conservation in Lake Pillsbury that would otherwise be reduced under normal operations.⁷⁶

E. National Environmental Policy Act

1. Environmental Analysis

45. Commenters claim the Commission must prepare an environmental assessment (EA) or environmental impact statement (EIS) under NEPA to analyze the effects of the proposed variance.⁷⁷

46. The proposed variance mirrors the minimum flow requirements for a dry water-year as outlined in Article 52 of the License and the RPA in NMFS's 2002 Biological Opinion. The impacts of these flow requirements were previously analyzed in the Final EIS prepared for the 2004 license amendment adopting Article 52.⁷⁸

⁷⁵ Lake County April 2, 2024 Comments at 3.

⁷⁶ Lake County's comments regarding a reduction in water availability as a result of project decommissioning are outside the scope of this proceeding.

⁷⁷ See, e.g., City of Ukiah April 2, 2024 Comments at 9-10.

⁷⁸ May 30, 2000 Final EIS. The Final EIS analyzed the draft minimum flow recommendations of Interior and NMFS, filed with the Commission on April 27, 1999. In the 2004 License Amendment, the Commission highlighted that NMFS's November 29, 2002 Biological Opinion is based upon Interior and NMFS alternative analyzed in the Final EIS.

In the following sections, we have updated the Final EIS's analysis to address effects to the human environment specific to the proposed temporary variance.

47. As noted above,⁷⁹ PG&E filed an application with the Commission for an amendment to the project license to permanently implement elements of its previous temporary variances.⁸⁰ Commission staff will prepare an environmental document for the proposed amendment under NEPA to account for any potential effects to environmental resources and the human environment.

2. Cumulative Effects

48. City of Ukiah comments that the Commission must consider the cumulative effects of the proposed variance and previous, similar temporary variances granted to PG&E over the past decade.⁸¹ The city further comments that the Commission must consider the cumulative impacts of similar actions, such as flood control and water supply operations at the Coyote Dam, on the city and the entire upper Russian River.⁸²

49. As defined by CEQ, cumulative effects are “effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.”⁸³ Further, “[c]umulative effects can result from individually minor but collectively significant actions taking place over a period of time.”⁸⁴ As noted by the City of Ukiah, the main resource affected by the proposed variance is water quantity, particularly in the Russian River watershed.

⁷⁹ *See supra* note 20.

⁸⁰ On October 4, 2023, Commission staff requested additional information from the licensee to analyze the effects of its proposal and to comply with federal environmental statutes. The licensee has not yet filed the requested information with the Commission.

⁸¹ City of Ukiah April 2, 2024 Comments at 10.

⁸² City of Ukiah April 2, 2024 Comments at 10.

⁸³ 40 C.F.R. § 1508.1(g)(3) (2023).

⁸⁴ *Id.*

50. Under NEPA, cumulative impacts are considered in the context of existing environmental conditions.⁸⁵ Here, the existing environmental conditions include project operations within the confines of the project license and NMFS's RPA. In its variance request, PG&E has proposed to comply with the minimum flow requirements for a dry water-year, which are within the confines of the project license and RPA, during the variance term. Thus, the effects of the proposed variance are the same as the effects of the RPA that were analyzed previously in the Commission's May 30, 2000 Final EIS, and include consideration of downstream water users in the Russian River watershed. Nonetheless, as previously discussed, the reduced diversions to the East Branch Russian River would result in reduced water quantity available to consumptive water users and for aquatic resources downstream.⁸⁶ However, some immediate cumulative benefits of the proposed variance would include offsetting the reduced storage in Lake Pillsbury from the gate closure restriction. This has a cumulative benefit in increased water storage, reduced river temperatures, and enhanced recreational opportunities that would result from the water stored in Lake Pillsbury that would otherwise be lost without variance implementation.

51. As to the cumulative impacts of other water uses in the project area, the number of water users from the Potter Valley powerhouse to Lake Mendocino and below Lake Mendocino is unknown, and it is difficult to quantify the effect to water users below Coyote Dam. Generally, the cumulative effect of reduced water diversions into the East Branch Russian River is expected to be more pronounced in the upper watershed above Lake Mendocino, which provides a buffering effect, especially during periods of high reservoir storage. Thus, the cumulative effects to water users below Lake Mendocino is expected to be minimal, as Sonoma County Water Agency expects to be able to meet water use objectives downstream in 2024 due to the wetter water-year and existing storage in the reservoir. Similarly, Sonoma County Water Agency states in its March 1, 2024 letter that it is able to maintain reservoir operations within the Corps' flood control pool deviation threshold of 111,000 acre-feet.

⁸⁵ *Brookfield White Pine Hydro LLC*, 182 FERC ¶ 61,099, at P 22 (2023) (“the Commission’s review of cumulative impacts for the relicensing of a hydroelectric project requires ‘a substantive analysis of how the *present* impacts of those past actions [i.e., the past construction and past operation of the project] would combine and interact with the added impacts of the 30-year licensing decision.’”) (quoting *American Rivers v. FERC*, 895 F.3d 32, 55 (D.C. Cir. 2018)).

⁸⁶ *See supra* section V.C.

3. Alternatives

a. No Action Alternative

52. If the Commission does not grant PG&E's proposed temporary variance, the project would potentially face higher risk of diminished reservoir storage and deplete the coldwater pool before the end of the dry season. This would result in warmer water releases to the Eel River and would likely cause dangerously elevated water temperatures in the Eel River downstream of Scott Dam.⁸⁷

53. Further, storage in Lake Pillsbury is already restricted as an interim protective measure to mitigate the potential for an increased seismic risk at the project. Denying the proposed variance increases the likelihood of significant depletion of the storage reservoir. In the event of extremely low storage levels in Lake Pillsbury, the licensee may experience a potential loss of reservoir operations resulting from low water levels triggering bank sloughing and impairing the operation of the outlet works.⁸⁸

b. Alternate Flow Regime

54. Several commenters oppose the variance as proposed because it would preemptively reduce flows to the East Branch Russian River to 25 cfs. Instead, these commenters request the Commission require PG&E to take a more reactive approach by continuing to release 75 cfs to the Russian River, as required by the RPA during a wet water-year, and only reducing flows as warranted over time.⁸⁹ Commenters suggest that this alternative approach would reduce the impacts on protected species and water users

⁸⁷ 2024 Variance Request at 5 (describing increase in water temperature before approval of a temporary variance in October 2023).

⁸⁸ *See supra* section I.B.2.

⁸⁹ Irrigation District March 22, 2024 Comments at 3; Mendocino County Farm Bureau April 1, 2024 Comments at 2; Palomino Lakes Water March 24, 2024 Comments at 4. While these commenters all support a more reactive approach to flow management that would reduce flows more slowly, the commenters propose various methods for implementing such an approach. For instance, Palomino Lakes Mutual Water Company suggests that PG&E only release flows to the Eel River during wet months, but as soon as the rainfall stops, releases should be increased to the East Branch Russian River to reflect the needs of the Irrigation District and Lake Mendocino. The Irrigation District recommends that the Drought Working Group should determine whether reductions in East Branch Russian River minimum flows are warranted based on changing storage conditions.

in the East Branch Russian River while maintaining minimum pool levels in Lake Pillsbury and favorable conditions below the Scott Dam.⁹⁰

55. Initially, continuing to release 75 cfs to the Russian River and only reducing releases as warranted would result in greater water quantity in the Russian River, which would minimize impacts to Russian River water users and aquatic resources. However, an alternate, more reactive flow regime would increase the likelihood of negative impacts on aquatic resources in the Eel River as the dry season progresses. Continuing to release 75 cfs to the Russian River would deplete reservoir storage and the coldwater pool more quickly than if minimum releases were proactively reduced to 25 cfs under the proposed variance. This could result in dangerously warm water releases to the Eel River and, if the storage reservoir levels dip below 12,000 acre-feet, potential bank sloughing. In the event the storage reservoir depletes more quickly than projected, PG&E would have to significantly curtail flows to the Russian River to preserve the remainder of the water, which may negatively impact Russian River water users and aquatic resources.

56. Authorizing PG&E to limit minimum flows to 25 cfs as proposed would allow it to maintain Lake Pillsbury's storage level above the 12,000-acre-feet critical storage level and maintain the coldwater pool level through the dry season (i.e., summer and fall) and minimize the risk of reaching these levels after the variance terminates. Should levels in Lake Pillsbury reach 12,000 acre-feet, the critical storage level, the project risks operational effects associated with bank sloughing and impairment of outlet works, which would prevent PG&E from meeting the minimum flow requirements in the Eel River.⁹¹ In addition, maintaining the coldwater pool would help ensure that the released flows do not become dangerously warm for threatened salmonids in the Eel River.⁹² Under the proposed variance, PG&E would adjust its flow releases based on data collected during prior years' outcomes in order to maximize releases while preserving the coldwater pool.⁹³

⁹⁰ Palomino Lakes Mutual Water Company March 25, 2024 Comments at 4.

⁹¹ 2024 Variance Request at 11. *See also* PG&E April 3, 2017 Technical Memo on Lake Pillsbury Minimum Pool Operations.

⁹² 2024 Variance Request at 11.

⁹³ Since 2014, PG&E used vertical temperature arrays in Lake Pillsbury to better understand the effects of coldwater storage under various water-year classifications and flow release requirements.

c. License Amendment

57. Sonoma County Agricultural Water Users comments that PG&E's successive requests for temporary variances, including this proposed variance, should be considered as a permanent license amendment.⁹⁴

58. At the Commission's request, PG&E filed an application to amend its minimum flow requirements on July 31, 2023.⁹⁵ While the amendment request is pending, the potentially increased seismic risk at the project persists, and temporary mitigation measures, such as the proposed variance, are necessary to mitigate this risk.

4. Segmentation

59. Sonoma County Agricultural Water Users and City of Ukiah allege that PG&E's successive temporary variance requests constitute a single project that has been impermissibly segmented. We disagree. The Commission cannot have segmented the environmental review of PG&E's various temporary variance requests because no two temporary variance requests were pending before the Commission at the same time.⁹⁶ Moreover, the various requests were not dependent on each other.⁹⁷

60. Since the adoption of the minimum flow regime in NMFS's RPA, PG&E has requested, and the Commission has granted numerous temporary variance requests. These temporary variances have been intermittent and stem from a variety of causes,

⁹⁴ Sonoma County Agricultural Water Users April 1, 2024 Comments at 3-5.

⁹⁵ This amendment request is pending consideration before the Commission in Docket No. 77-318. *See supra* note 20, P 47.

⁹⁶ *Kleppe v. Sierra Club*, 47 U.S. 390, 410 (1976) (“...proposals for ... actions that will have cumulative or synergistic environmental impact upon a region ... pending concurrently before an agency ... must be considered together.”); *Del. Riverkeeper Network v. FERC*, 753 F.3d 1304, 1313 (D.C. Cir. 2014) (“[a]n agency impermissibly ‘segments’ NEPA review when it divides connected, cumulative, or similar federal actions into separate projects and thereby fails to address the true scope and impact of the activities that should be under consideration.”).

⁹⁷ *See Del. Riverkeeper Network v. FERC*, 753 F.3d at 1318 (finding the NEPA review of four pipeline projects was impermissibly segmented because the projects were “financially and functionally interdependent” and there was “no apparent logic to where one project began and the other ended.”).

including severe drought conditions, maintenance activities, agricultural production, project testing, fish protection, and seismic-related risk reduction.⁹⁸

61. The cumulative number and rationale for these variances demonstrates that the current flow regime does not provide adequate operational flexibility or encompass all of the factors affecting project operations. To this end, the Commission requested, and PG&E filed a request to amend the project license to amend its project minimum flow requirements.⁹⁹

VI. Conclusion

62. We find that approval of PG&E's temporary variance request would help ensure that it has adequate water storage capacity to provide flows and temperatures necessary for the protection of threatened species. The proposed variance conserves limited water resources, minimizes the risk of operational and dam safety effects at Lake Pillsbury, and maintains flows within the bounds of Article 52 of the license. While the Russian River watershed would receive reduced flow allocations, the proposed variance would appropriately balance competing interests by only further reducing flows to the Russian River below 25 cfs as necessary for the protection of Eel River salmonids or dam safety. In addition, the proposed variance would avoid new effects to Eel River environmental resources while minimizing any effects to aquatic resources in the East Branch Russian River. Finally, approval of the proposed variance would allow additional time for PG&E to complete the outstanding elements of its July 31, 2023 request for a permanent amendment to modify its minimum flow requirements and for the Commission to review and analyze the completed application. Therefore, we approve the temporary variance from the minimum flow and maximum release requirements in Article 52, subject to the conditions outlined below.

63. Although the proposed temporary minimum flow reductions in the East Branch Russian River would be compliant with the critical water flow regime of the RPA, PG&E should monitor for and alert the resource agencies and the Commission to any adverse effects to aquatic resources during the temporary variance. If such effects occur, PG&E must report them to NMFS, FWS, California DFW, the Round Valley Indian Tribes, and the Commission as soon as possible, but not later than two business days after the effects are discovered.

⁹⁸ See, e.g., *Pac. Gas & Elec. Co.*, 185 FERC ¶ 61,003 (2023); *Pac. Gas & Elec. Co.*, 180 FERC ¶ 61,041 (2022).

⁹⁹ See *supra* note 20, P 47, and P 58.

64. Given the dynamic watershed conditions in the Eel River and East Branch Russian River, in Ordering Paragraph (D) below the Commission reserves its authority to modify this order based on any new information received or as conditions may warrant.

The Commission orders:

(A) Pacific Gas and Electric Company's (PG&E's) request, filed with the Federal Energy Regulatory Commission (Commission) on February 22, 2024, for a temporary variance of the minimum flow and maximum irrigation release requirements set forth in license Article 52 for the Potter Valley Hydroelectric Project No. 77 is approved, subject to paragraphs (B) through (D) below.

(B) PG&E must file a report notifying the Commission that the temporary variance is terminated no later than 15 days after Lake Pillsbury storage exceeds 36,000 acre-feet following October 1, 2024.

(C) PG&E must notify the National Marine Fisheries Service, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, the Round Valley Indian Tribes, and the Commission of any adverse effects to aquatic resources observed or reported during the temporary variance as soon as possible, but no later than two business days after the discovery.

(D) The Commission reserves its authority to modify this order based on any new information received and as conditions may warrant.

(E) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the Federal Power Act, 16 U.S.C. § 825*l*, and the Commission's regulations at 18 C.F.R. § 385.713 (2023). The filing of a request for rehearing does not operate as a stay of the effective date of this order, or of any other date specified in this order. PG&E's failure to file a request for rehearing shall constitute acceptance of this order.

By the Commission. Commissioner Rosner is not participating.

(S E A L)

Debbie-Anne A. Reese,
Acting Secretary.