Pacific Gas and Electric Company

Power Generation

300 Lakeside Drive
Oakland, CA 94612

Mailing Address:
P.O. Box 28209
Oakland, CA 94604

February 19, 2026

Via Electronic Submittal (E-File)

Debbie-Anne Reese, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

RE: Potter Valley Hydroelectric Project, No. 77-CA
2026 Minimum Instream Flow Variance Request Due to Restricted Storage
Supplemental Filing

Dear Secretary Reese:

This letter presents water temperature modeling results of thermal effects of variance implementation on Lake Pilsbury reservoir and the Eel River below Scott Dam for the period of May-September 2025 using the CE-QUAL-W2 hydrodynamic and water quality model (Model) simulations for Lake Pilsbury reservoir, which is part of Pacific Gas and Electric Company's (PG&E) Potter Valley Project (Project), Federal Energy Regulatory Commission (FERC) No. 77.

On January 30, 2026, PG&E submitted a temporary flow request to reduce East Branch Russian River (EBRR) flow requirements to proactively manage reservoir storage in a manner that is protective of Project facilities and minimizes potential impacts to federally listed fish species in the Eel River. PG&E is currently operating the Project under the requirements of Article 52 until FERC issues an order approving the 2026 temporary flow request.

As discussed in the January 30, 2026, temporary flow request, continued elevated withdrawals through the summer accelerate the depletion of cooler water in Lake Pillsbury reservoir, which is in alignment with the results of water temperature modeling.

The Model evaluated six operational scenarios to assess how timing of the 2025 flow variance approval and magnitude of EBBR diversions influence thermal conditions in the Eel River. Overall, the modeling results indicate that both the timing of variance approval and the magnitude of EBRR flows play important roles in shaping thermal conditions in the Eel River below Scott Dam. When variance approval is delayed EBRR flows must be reduced to the minimum proposed for Project facility safety and have a negligible effect on water temperature in the Eel River (Scenario 1). Early approval of the variance (e.g. May 15 [Scenarios 3 and 4]) provides the greatest potential for reducing summer water temperatures in the Eel River across EBRR proposed flow range and allows for flexible flow release management.

Additionally, this letter provides a record of consultation with various stakeholders concerning the 2026 variance request. On January 30, 2026, PG&E provided an overview of the variance request to members of the Potter Valley Irrigation District, City of Ukiah, Russian River Flood Control, Sonoma Water Agency, and Mendocino Inland Water and Power Commission. PG&E received no comments from any of the stakeholders concerning the requested variance.

On February 5, 2026, PG&E convened the Potter Valley Drought Working Group (DWG), which consists of the National Marine Fisheries Service, US Fish And Wildlife Service, California Department of Fish and Wildlife, the Round Valley Indian Tribes, Potter Valley Irrigation District, Sonoma Water, Russian River Flood Control, the State Water Resources Control Board, Friends of the Eel, and Cal Trout. During the meeting, PG&E reviewed the requested variance and discussed timelines for implementation. The DWG will meet again either once the variance is approved or by May 15th, whichever is sooner.

Enclosed with this letter, please find the technical memorandum Thermal Effects of Variance Timing and EBRR Diversions on 2025 Water Temperatures below Scott Dam (Enclosure 1). PG&E urges FERC to implement the January 30, 2026, temporary flow amendment request as soon as possible to maintain dam safety, minimize potential impacts to federally listed fish species in the Eel River, and provide a more reliable water source to downstream users.

If you have any questions or comments please contact Chadwick McCready, License Coordinator for PG&E at (530) 254-4007.

Sincerely,

Chadwick McCready
Senior License Coordinator, Hydro Compliance

Enclosure:
1. Thermal Effects of Variance Timing and EBRR Diversions on 2025 Water Temperatures Below Scott Dam

cc: See Attached List

cc: via email w/enclosure
Joshua Fuller, Fish Biologist, National Marine Fisheries Service
joshua.fuller@noaa.gov

Matt Myers, FERC Coordinator Region 1, Department of Fish and Wildlife
Matt.Myers@wildlife.ca.gov

Allan Renger, California Department of Fish and Wildlife
Allan.Renger@wildlife.ca.gov

Scott McBain, McBain Associates, Consultant to the Round Valley Indian Tribes
scott@mcbainassociates.com

Wyatt Smith, Fisheries Program Coordinator and Biologist, Round Valley Indian Tribes wsmith@RVIT.org

Josh Boyce, Supervisory Fish Biologist, United States Fish and Wildlife Service
josh_boyce@fws.gov

ENCLOSURE 1

TECHNICAL MEMORANDUM

To:	Brian Williamshen and Andrew Anderson (PG&E)
From:	Vanessa Martinez, P.E. (Kleinschmidt Group)
Date:	January 23, 2026
Re:	Thermal Effects of Variance Timing and EBRR Diversions on 2025 Water Temperatures Below Scott Dam

1.0 SUMMARY

This report presents water-temperature modeling results for Lake Pillsbury reservoir and the Eel River below Scott Dam for the May to September 2025 period. Using the CE-QUAL-W2 model calibrated to 2010–2022 data, the following six operational scenarios were evaluated to assess how the timing of variance approval and the magnitude of East Branch Russian River (EBRR) diversions influence thermal conditions in the Eel River below Scott Dam:

- Scenario 1: Observed 2025 hydrology with variance approved on August 4 (Observed historical conditions)
- Scenario 2: License-required flows using observed 2025 hydrology without the August 4 variance approval
- Scenario 3: Observed 2025 hydrology with variance approved May 15, EBRR flows 5 cfs through October 1
- Scenario 4: Observed 2025 hydrology with variance approved May 15, EBRR flows 25 cfs through October 1
- Scenario 5: Observed 2025 hydrology with variance approved July 1, EBRR flows 5 cfs through October 1
- Scenario 6: Observed 2025 hydrology with variance approved July 1, EBRR flows 25 cfs through October 1

All scenarios were run using identical hydrologic, inflow temperature, initial reservoir, and meteorological boundary conditions, with Scott Dam discharge as the only variable. Model results below Scott Dam were compared between scenarios and to a 22°C threshold as identified by PG&E (temperatures below this threshold result in favorable conditions for summer-rearing juvenile steelhead trout [*Oncorhynchus mykiss*]).

Model results show that the August 4, 2025 variance approval reduced maximum weekly average water temperature (MWAT) below Scott Dam by an average of 0.8°C and shortened the duration of temperatures above 22°C by 7 days relative to conditions

without a variance (26 versus 33 days). Earlier variance approval scenarios produced substantially greater cooling. A May 15 variance approval reduced MWAT by 2.1°C and 1.1°C (Scenarios 3 and 4) and decreased the duration of water temperatures above 22°C by 26 days. A July 1 approval yielded reductions of 1.1°C and 0.6°C (Scenarios 5 and 6) and reduced the duration of water temperatures above 22°C by 26 days. Scenarios with lower EBRR flows (5 cfs; Scenarios 3 and 5) consistently provided greater thermal benefits than those with higher diversions (25 cfs, Scenarios 4 and 6), reflecting the influence of reservoir drawdown on cool-water availability.

Overall, the modeling demonstrates that both earlier variance approval and reduced EBRR diversions substantially improve summer water-temperature conditions below Scott Dam, offering enhanced thermal protection for aquatic resources during critical warm-season periods.

2.0 MODEL

The CE-QUAL-W2 water temperature model of Lake Pillsbury reservoir used for the scenario runs was developed for PG&E by Stantec/Kleinschmidt and was originally calibrated to data collected between 2010 and 2022 (Martinez, 2023). The calibration model report is available upon request.

3.0 MODELING ASSUMPTIONS

The following sections outline the assumptions used to develop the model boundary conditions. Lake Pillsbury reservoir inflow hydrology, inflow water temperatures, initial reservoir storage, initial reservoir temperature profiles, and meteorological inputs were held constant across all scenarios. The only parameter that varied among scenarios was the discharge released from Scott Dam.

3.1 MODEL HYDROLOGY AND INFLOW TEMPERATURES

Historical daily inflow estimates (identical across all scenarios) and scenario-specific outflow estimates (Figure 1) for Lake Pillsbury reservoir from May 1 through September 30, 2025, were developed by Michelle Lent (PG&E) and provided on January 13, 2026. Previous modeling indicated that summer outflow temperatures from Lake Pillsbury reservoir are not sensitive to the temperature of the relatively small inflows that occur during the summer (Martinez, 2025). Therefore, inflow temperatures from the Eel River and Rice Fork measured in 2023—used in earlier modeling efforts—were adopted to represent model inflow temperatures for all scenarios. Daily inflow temperatures and flow splits between the Upper Eel River and Rice Fork inflow to Lake Pillsbury reservoir for 2023 were provided by Scott McBain (Applied River Sciences).

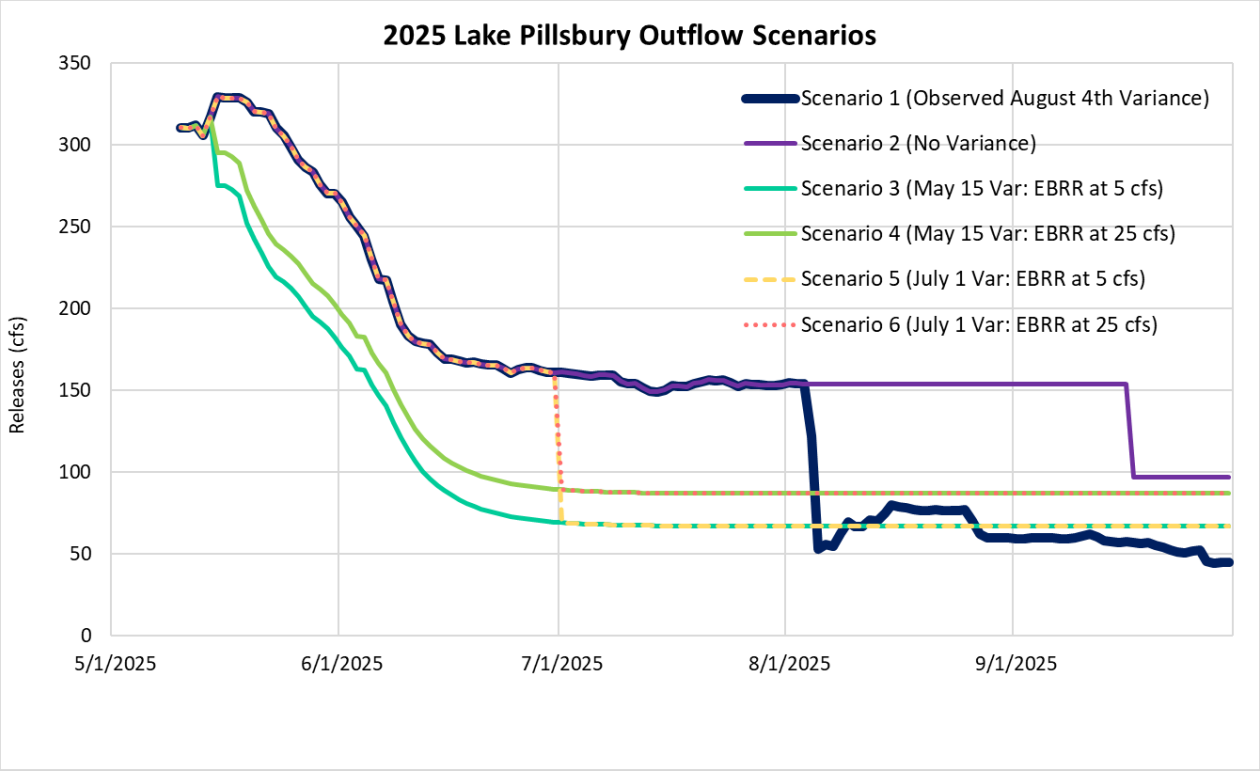

Figure 1. Outflow from Scott Dam for Model Scenarios 1 through 6.

3.2 Starting Temperature Profile

A temperature profile was taken in Lake Pillsbury reservoir on May 16th, 2025. This profile was used to set the initial temperature in the reservoir for all scenarios.

3.3 Meteorological Boundary Conditions

Meteorological data (air temperature, dew point temperature, wind speed, wind direction, and cloud cover) were taken from the original model calibration period dataset. See the calibration model report for more information (Martinez, 2023).

The six model scenarios were run each with three different meteorological datasets to capture variation due to different possible climate conditions. An analysis of air temperature from previous years indicated that 2010, 2018, and 2021 represented cool, average, and warm years, respectively, in the available 22-year meteorological record (2000-2022)[1].

[1] The period of available meteorological data extended beyond the original model calibration period of 2010-2022.

4.0 MODEL RESULTS

Table 1 summarizes modeled water temperature results below Scott Dam for all six scenarios using three representative meteorological years (2010, 2018, and 2021). Table 2 presents the same results, averaged across the three meteorological conditions for each scenario. Figure 2, Figure 3, and Figure 4 display the modeled water temperatures below Scott Dam for Scenarios 1 through 6, using meteorological inputs from 2010, 2018, and 2021, respectively. Figure 5 shows the scenario results averaged across all three meteorological datasets. Table 3 provides a comparison between historical conditions (Scenario 1) and each modeled alternative scenario (Scenarios 2 through 6).

A comparison of historical hydrology (Scenario 1) with Scenario 2 (no variance approval) indicates that, without a flow variance, MWAT increased by an average of 0.8°C across all meteorological conditions. Average monthly temperatures are higher in August and September under Scenario 2 by 0.8°C, and 0.0°C, respectively.

When the variance is approved early and variance flows are implemented May 15 (Scenarios 3 and 4), the model indicates substantial cooling benefits. Across all meteorological conditions, MWAT decreased by an average of 2.1°C in Scenario 3 and 1.1°C in Scenario 4. Average monthly temperatures also decline notably. In Scenario 3, temperatures in July, August, and September are 3.6°C, 3.7°C, and 1.5°C lower, respectively. In Scenario 4, the reductions for the same months are 2.8°C, 1.7°C, and 0.6°C. The difference between Scenarios 3 and 4 reflects the water temperature impact of increasing the EBRR flow from 5 cfs to 25 cfs, which accelerates the drawdown of Lake Pillsbury reservoir and reduces the volume of cool water available for downstream releases.

When the variance is approved later and variance flows are not implemented until July 1 (Scenarios 5 and 6), the model indicates cooling benefits are smaller but still important. Across all meteorological conditions, MWAT decreased by an average of 1.2°C in Scenario 5 and 0.7 °C in Scenario 6. Average monthly temperatures also drop—in Scenario 5, July, August, and September temperatures are 2.0°C, 1.6°C, and 0.6°C lower, respectively. In Scenario 6, the corresponding reductions are 1.6°C, 1.0°C, and 0.1°C. The difference between Scenarios 5 and 6 reflects the temperature impact of increasing the EBRR flow from 5 cfs to 25 cfs, which accelerates the drawdown of Lake Pillsbury reservoir and reduces the volume of cool water available for downstream releases.

Table 1. Water Temperature Results below Scott Dam using 2010, 2018, and 2021 Meteorology for Scenarios 1 through 6

Model Scenario	Met Data	MWAT (°C)	Average July Temperature (°C)	Average August Temperature (°C)	Average September Temperature (°C)	Number of Days above 22°C (Days)
Scenario 1: August 4 Observed	2010	22.2	19.9	22.9	22.2	6.3
	2018	22.7	21.8	23.1	22.4	16.0
	2021	23.7	21.9	24.5	23.1	46.2
Scenario 2: No Variance	2010	23.0	19.9	23.6	22.3	24.5
	2018	23.0	21.8	23.2	22.5	21.2
	2021	24.2	21.9	24.6	23.1	47.4
Scenario 3: May 15, EBRR=5 cfs	2010	20.0	17.4	18.2	20.3	0.0
	2018	20.6	17.7	19.4	21.3	0.0
	2021	22.0	17.9	20.5	22.8	4.6
Scenario 4: May 15, EBRR=25 cfs	2010	21.0	17.8	19.3	21.4	0.0
	2018	21.3	18.5	21.6	22.4	0.2
	2021	22.6	19.0	23.1	22.9	20.9
Scenario 5: July 1, EBRR=5 cfs	2010	20.9	18.2	19.6	21.4	0.0
	2018	21.3	19.6	21.7	22.2	0.1
	2021	22.6	19.9	23.1	23.0	22.3
Scenario 6: July 1, EBRR=25 cfs	2010	21.6	18.5	21.0	22.1	0.1
	2018	21.8	20.0	22.3	22.4	2.4
	2021	22.9	20.1	23.4	23.0	32.2

Table 2. Water Temperature Results below Scott Dam with Averaged Meteorology (Scenarios 1-6)

Model Scenario	MWAT (°C)	Average July Temperature (°C)	Average August Temperature (°C)	Average September Temperature (°C)	Number of Days above 22°C (Days)
Scenario 1, Average Met	22.5	21.1	22.8	22.3	26.7
Scenario 2, Average Met	23.3	21.1	23.6	22.3	33.8
Scenario 3, Average Met	20.4	17.5	19.2	20.7	0
Scenario 4, Average Met	21.4	18.3	21.2	21.7	0
Scenario 5, Average Met	21.4	19.1	21.3	21.7	0
Scenario 6, Average Met	21.9	19.5	21.8	22.2	0.8

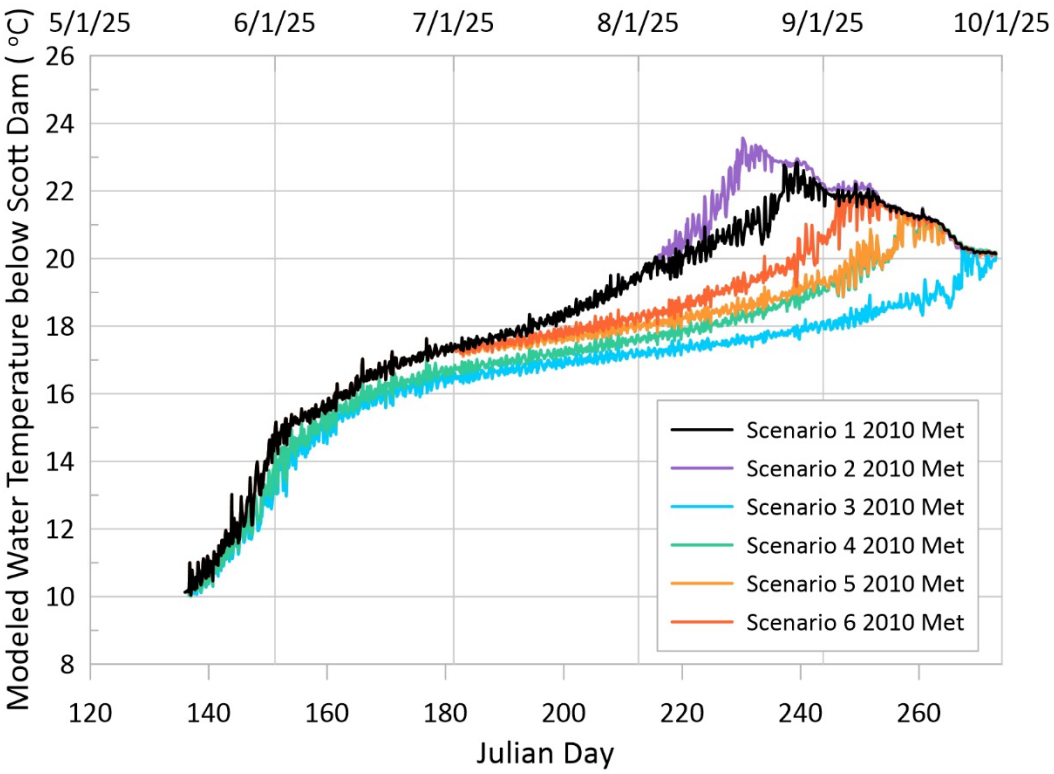

Figure 2. Modeled Water Temperature below Scott Dam for Scenarios 1 through 6 using 2010 (cool year) Meteorological Data

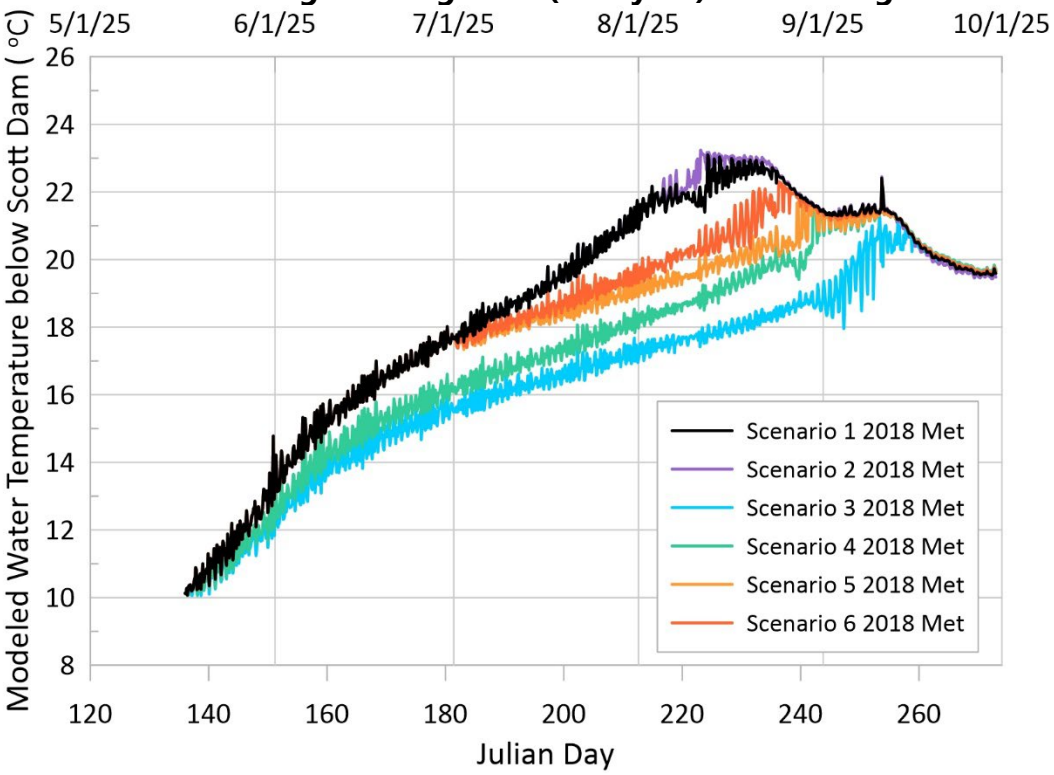

Figure 3. Modeled Water Temperature below Scott Dam for Scenarios 1 through 6 using 2018 (average year) Meteorological Data

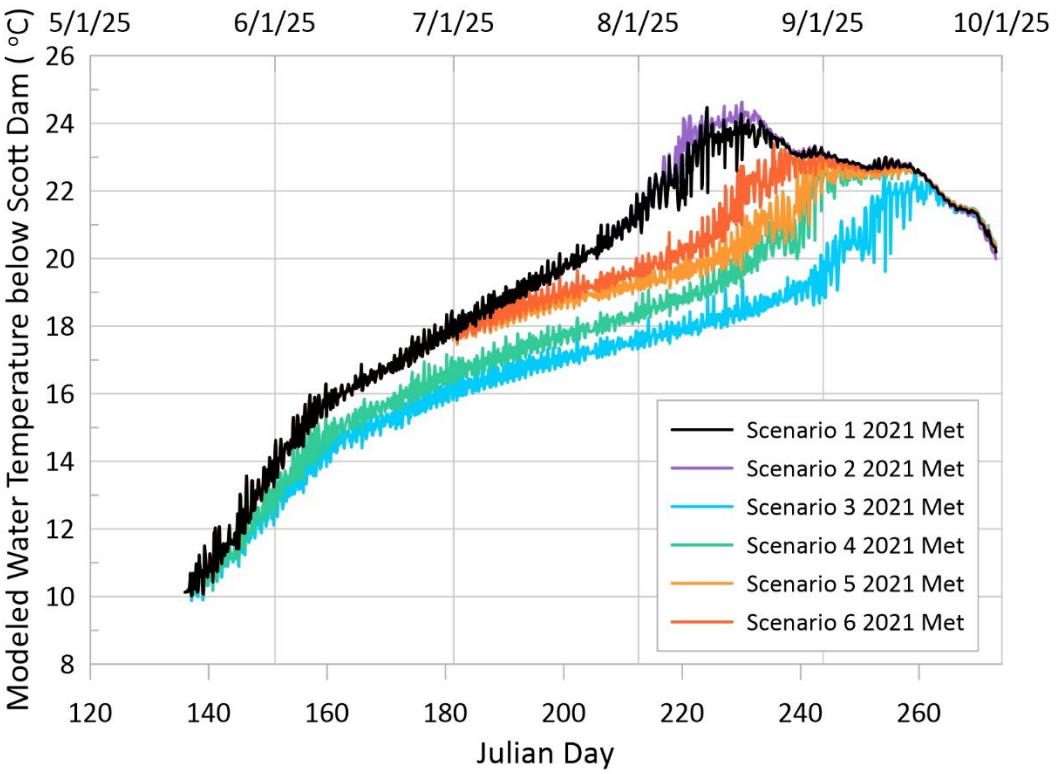

Figure 4. Modeled Water Temperature below Scott Dam for Scenarios 1 through 6 using 2021 (warm year) Meteorological Data

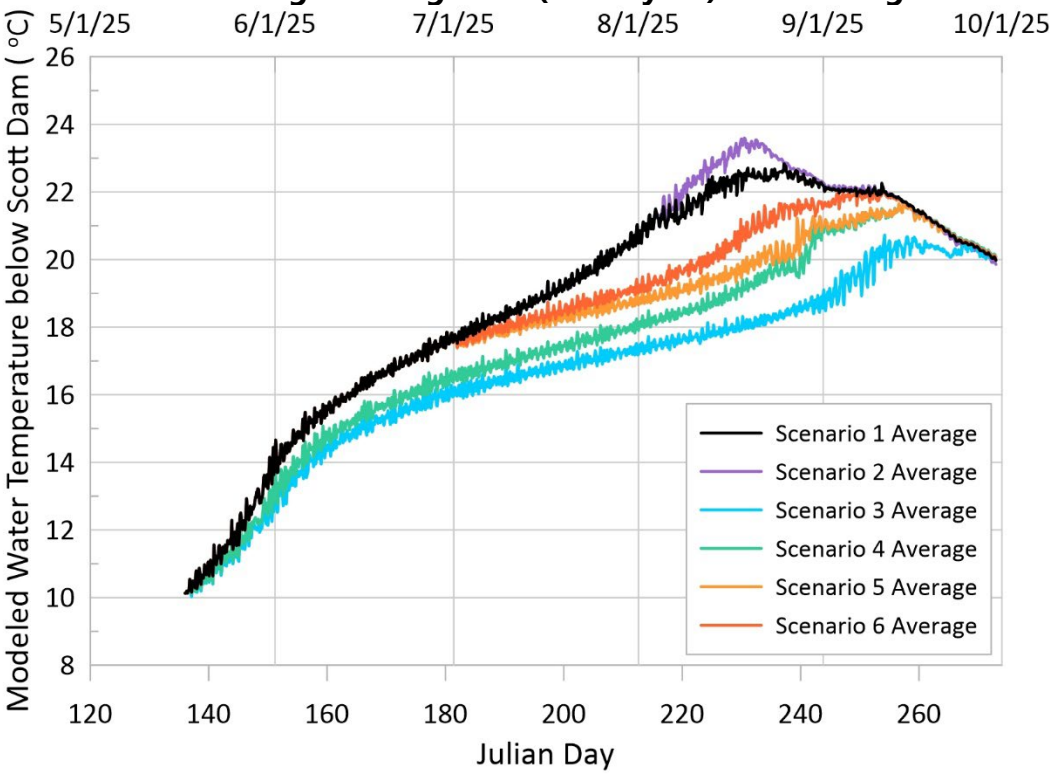

Figure 5. Modeled Water Temperature below Scott Dam for Scenarios 1 through 6 averaged across three meteorological years (2010, 2018, and 2021)

Table 3. Model Result Comparison between Historical (Scenario 1) and Alternative Scenarios 2-6.

Model Scenario	Difference in Water Temperature below Scott Dam between Scenario 1 (Actual 2025 Hydrology) and Alternative Scenarios 2-6			
	MWAT (°C)	Average July Temperature (°C)	Average August Temperature (°C)	Average September Temperature (°C)
Scenario 1, Average Met – Historical Hydrology	N/A	N/A	N/A	N/A
Scenario 2, Average Met-No Variance	0.8	N/A	0.8	0.0
Scenario 3, Average Met- May 15, EBRR=5 cfs	-2.1	-3.6	-3.7	-1.5
Scenario 4, Average Met- May 15, EBRR=25 cfs	-1.1	-2.8	-1.7	-0.6
Scenario 5, Average Met- July 1, EBRR=5 cfs	-1.2	-2.0	-1.6	-0.6
Scenario 6, Average Met- July 1, EBRR=25 cfs	-0.7	-1.6	-1.0	-0.1

5.0 CONCLUSION

The 2025 Lake Pillsbury reservoir water-temperature modeling effort evaluated six operational scenarios to assess how the timing of variance approval and the magnitude of East Branch Russian River (EBRR) flows influence downstream thermal conditions in the Eel River below Scott Dam. All scenarios were run using identical hydrologic, inflow temperature, initial reservoir, and meteorological boundary conditions, with Scott Dam discharge as the only variable.

Model results demonstrate that the August 4, 2025, variance approval provided measurable thermal benefits, reducing maximum summer temperatures by an average of 0.8°C and shortening the duration of temperatures above 22°C by 7 days relative to conditions without a variance. However, the analysis shows that earlier variance approval dates would have yielded substantially cooler release to the Eel River below Scott Dam.

A May 15 approval (Scenarios 3 and 4) produced the largest reductions in downstream temperatures, lowering maximum summer water temperatures by 2.1°C and 1.1°C,

respectively and reducing the duration of temperatures above 22°C by 26.7 days. A July 1 approval (Scenarios 5 and 6) also provided meaningful benefits, reducing maximum temperatures by 1.2°C and 0.7°C, respectively, and decreasing the duration above 22°C by over 25.9 days for both scenarios.

Across both the May and July approval dates, scenarios with lower EBRR flows (5 cfs) consistently resulted in greater cooling in the Eel River below Scott Dam than those with higher EBRR flows (25 cfs). The benefit of reduced EBRR flows on MWAT averaged about 0.8°C across the various scenarios.

Overall, the modeling results indicate that both the timing of variance approval and the magnitude of EBRR flows play important roles in shaping thermal conditions in the Eel River below Scott Dam. Earlier variance approval and lower EBRR diversions provide the greatest potential for reducing summer water temperatures in the Eel River below Scott Dam, offering improved thermal conditions for aquatic resources during critical summer months.

6.0 REFERENCES

Martinez, V., and Addley, C. (2023). *Lake Pillsbury CE-QUAL-W2 Water Temperature Model 2010–2022 Calibration Report*.

Martinez, V., and Addley, C. (2025). *Baseline and Proposed Variance Simulation of June-October 2025 Lake Pillsbury Temperature Forecast Modeling (June 2025) Technical Memorandum*.