COMMENTS OF FOOTHILL CONSERVANCY, AMERICAN WHITEWATER, CALIFORNIA SPORTFISHING PROTECTION ALLIANCE, CALWILD, FRIENDS OF THE RIVER, KATHERINE K. EVATT, AND R. WINSTON BELL, JR. ON THE UPDATED STUDY REPORT FOR THE MOKELUMNE PUMPED STORAGE PROJECT (P-14796)

April 17, 2024

Ms. Debbie-Anne Reese, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426
Via Electronic Submittal

Dear Ms. Reese:

Foothill Conservancy, American Whitewater, California Sportfishing Protection Alliance, CalWild, Friends of the River, Katherine K. Evatt, and R. Winston Bell, Jr. (collectively, Conservation Groups) respectfully comment on the March 18, 2025 Updated Study Report (USR) of applicant GreenGen Storage LLC (GreenGen or Applicant) for the license application for the Mokelumne Pumped Storage Project (P- 14796). Conservation Groups comprise nongovernmental organizations and water resource stakeholders in the Mokelumne River watershed. The goal of Conservation Groups in this effort is to achieve river and watershed restoration and protection benefits for the Mokelumne River while avoiding harm to existing water and power facilities, recreation facilities and uses, cultural resources, and to reservoir, national forest, and river users.

Broadly speaking, these comments are intended to ensure that the study plan process produces sufficient information to ensure that the Federal Energy Regulatory Commission (FERC or Commission) and other relicensing participants can make informed recommendations, provide adequate terms and conditions, and meaningfully evaluate the proposed action pursuant to the National Environmental Policy Act (NEPA). Conservation Groups have already provided comments on the applicant's Initial Study Report[1] and Draft License Application.[2]

Conservation Groups do not request additional studies. Conservation Groups recommend instead that the Commission issue additional information requests (AIRs) to require GreenGen to provide additional information and analysis that is missing, incomplete, and/or unclear in the USR.

[1] *See* Comments of Foothill Conservancy, American Whitewater, California Sportfishing Protection Alliance, and Friends of the River on Initial Study Report (P-14796-001), GreenGen Applicant (Apr. 16, 2024) (Conservation Groups' ISR comments), eLibrary no. 20240416-5129. See also Katherine K. Evatt and R. Winston Bell, Jr., Comments on Initial Study Report, Mokelumne Pumped Storage Project (P-14796-001), GreenGen LLC, Applicant (Apr. 17, 2024), (Evatt and Bell's ISR comments) eLibrary no. 20240417-5014.

[2] *See* Comments of Foothill Conservancy, American Whitewater, California Sportfishing Protection Alliance, CalWild, Friends of the River, Katherine K. Evatt, And R. Winston Bell, Jr. on the Draft License Application for the Mokelumne Pumped Storage Project (P-14796) (Nov. 29, 2024), eLibrary no 20241129-5054,

I. GENERAL COMMENTS

In comments on the Initial Study Report, Conservation Groups requested that the Applicant provide information relating to the intersection of the California Wild and Scenic-designated and federally eligible Wild and Scenic North Fork Mokelumne River with the need to upgrade transmission lines in that river's canyon to serve the proposed pumped-storage project:

> [T]he ISR states in Section 2.8 that the proposed project will interconnect at Salt Springs at 230kV but does not mention that the only transmission existing at Salt Springs today is a 115kV single circuit line that lacks the capacity transmit another 400 MW of generation. The significant upgrades to a 230 kV voltage that will be needed should be included in the project description and should be informed by study. Upgrades will likely require large vehicular equipment access to each tower, which would mean grading of access roads and clearing of vegetation. The uppermost three miles of this work would be in or near the corridor of the Wild and Scenic Mokelumne River. Study is needed to determine the extent and location of work required and the mitigation measures needed to protect the river and its users.[3]

In its ISR Comment Response, GreenGen stated: "Any transmission upgrades will be completed by PG&E after the CAISO determines what upgrades are necessary and after PG&E has obtained permission from the California Public Utilities Commission (CPUC) to construct the upgrades."[4]

During the February 26, 2025 USR meeting, Mr. Sher, the principal of GreenGen, acknowledged the interconnectedness of the necessary transmission upgrade, but again dismissed the concern, stating: "]T]he position of GreenGen has been clear, that we feel this is a connected action. However, we lack specificity in terms of how PG&E would upgrade the line, and CEQA has a prohibition against speculation."[5]

Conservation Groups request that the Commission resolve this conundrum by issuing an AIR. The proposed Mokelumne Pumped Storage Project is not feasible without the transmission upgrades previously identified by Conservation Groups and acknowledged by the Applicant. Yet both the construction and the placement of new transmission in the California state Wild & Scenic corridor and the federally eligible Wild & Scenic corridor facially appear to conflict with both state and federal Wild & Scenic statutes and with associated Forest Service management guidelines. Studies of resources sensitive to transmission upgrade necessary to serve the proposed project, including but not limited to visual, recreation, cultural, and wildlife resources, need to include this upgrade in their scope and analysis. GreenGen needs to provide a plausible explanation of how the construction and presence of necessary new transmission are compatible with state Wild & Scenic protection and interim federal protection applied to federal eligible/suitable Wild & Scenic River segments.

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[3] Conservation Groups' ISR Comments, pp. 1-2. Internal citations omitted.
[4] GreenGen, ISR Comment Responses (May 16, 2024), eLibrary no. 20240516-5183, p. 7.
[5] GreenGen, USR Meeting Summary (Mar. 14, 2025), eLibrary no. 20250314-5043, p. 12.

Conservation Groups believe that Mr. Sher's response during the USR meeting is unavailing. The immediate issue is not the particular details of measures (including facility design) that may mitigate the effects of the construction and architecture of new transmission facilities, but the threshold question of whether compliance of new facilities and their construction with Wild & Scenic requirements is feasible at all.

II. COMMENTS ON STUDY REPORTS AND TECHNICAL MEMORANDA ON SPECIFIC STUDIES

A. Socioeconomic Study (SO-1) and Traffic Impact Study (SO-2)

The USR's study report for the Socioeconomic Study[6] summarizes the economic impacts of the construction and operation of the proposed pumped-storage project as follows:

> Construction of the Project is anticipated to take 48 months to complete and to incur direct and indirect one-time construction costs of $1.19 billion in 2022 dollars, spent on payroll, taxes and fees, materials and supplies, and equipment purchases and rentals. Updated to 2023 dollars, onetime economic impacts are anticipated to be approximately $1.35 billion to the County and an additional $69.4 million for the rest of the study region, for a total of $1.42 billion to the 5-County Region. The Project is expected to support 8,078 job years in the study region. When in operation, the Project is anticipated to generate $26.7 million in annual total economic impacts and support an average of 31 jobs in the County. Overall, for the 5-County Region, operations result in $28.4 million in economic impacts, supporting 38 jobs annually.[7]

Conservation Groups disagree with the characterization that construction of the proposed project will have $1.35 billion in impacts "to the [Amador] County." On the contrary, Table 5-7 ("Employee Origins Estimates - Construction Phase") of the Traffic Impact Technical Memorandum[8] bases its analysis on an estimation that a maximum of 3 construction employees would originate in Amador County (and a maximum of 6 in Calaveras County). Moreover, the Traffic Impacts Study Report assumes 180 one-way trips for the delivery of construction materials to and from the construction area each day, with an average trip distance of 80 miles: evidently also outside Amador County.

Just because economic activity is occurring ***in the County*** does not mean that there are economic benefits ***to the County***. On the contrary, the economy generated by the construction of the proposed pumped storage project would apparently more accurately simply ***pass through the County*** with little positive impact left behind.

Neither the Socioeconomic Study Report nor the associated Technical Memorandum offers any commitment (or even mention) of hiring within the County or of sourcing construction materials within the County.

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[6] USR Attachment R, Study SO-1, commencing on USR pdf p. 1628.
[7] USR, pdf p. 1635.
[8] The Traffic Impact Study Report, USR Attachment S, Study SO-2, commences on USR pdf p. 1733. Appendix 1 begins on pdf. p. 1765. Table 5-7 in on USR pdf p. 1818.

There are some factual updates in the Traffic Impact Study Report that are more helpful. Table 5-7 Of Appendix 1 provides high and low estimates of the number of workers onsite through the construction period.[9] The Study clarifies that the number of persons working onsite on the project at any one time would exceed 300 people for only one month of the projected 48-month construction period (under a scenario with a "high" number of workers). Figure 5-7 provides a useful sense of the extent of the workforce over the entire construction period, with both high and low estimates of total workforce.[10]

However, neither the Socioeconomic Study Report nor the Traffic Impact Study Report clarifies the Applicant's estimation and rationale for the project's construction season. Incidentally, the Avian Study Report mentions a limitation on construction opportunities in the winter season. However, the figures in the Traffic Impact Study Report appear to suggest that workers would be onsite year-round. This imprecision has consequences in evaluating impacts, because a more accurate estimation of the total duration of construction could mean that traffic and other impacts could extend construction for several years. The Commission should require clarification from the Applicant about the Applicant's projected season of construction, the months during which limited operating periods related to breeding birds will take place, the overall duration of construction, and its rationale for those projections.

B. Traffic Management Plan (Appendix S-2)

The USR adds what it characterizes as a Traffic Management Plan (TMP) as Appendix S-2 to the Traffic Impact Study. The TMP summarizes its proposed division of responsibilities as follows:

> The responsibilities for the various elements of this TMP are shared between GreenGen (the Project applicant) and the future general contractor (GC). Generally, elements regarding construction circulation, such as development of traffic control plans (TCP), including information about lane closures, and motorist information strategies will be overseen by the GC. Elements regarding public information, such as brochures and mailers, press releases, and public meetings shall generally be coordinated by GreenGen.[11]

It is fair to say that this TMP punts decisions regarding traffic management to future determinations by the general contractor, without specific requirements, commitments, or measures that the general contractor must meet in order to comply with the plan. Instead, the TMP outlines what it terms as "strategies" for traffic management.

These strategies are so general that they cannot reasonably be construed as parts of a plan. For example, the TMP states: "GreenGen and the GC should take into consideration the collision hotspots and listed safety countermeasures when implementing any construction

[9] *Id.*
[10] USR, pdf p. 1817.
[11] USR, pdf p. 1896.

circulation changes. GreenGen shall design site access intersections according to state and local standards and should consider adequate lighting treatments at these intersections."[12]

The TMP would be more accurately described as a plan to make a plan. The TMP does not provide sufficient information to evaluate impacts of road construction, and road use for construction purposes, on recreation access, recreational enjoyment, cultural resources, forest management projects, and public safety.

C. Land Use and Visual Resources Study (RA-2); Road and Facility Erosion Assessment (GS-3)

The USR references the Forest Service's 1990 Wild and Scenic River Study Report and DEIS for the North Fork Mokelumne River.[13] The USR states that the suitable segment of the North Fork Mokelumne River recommended for designation by the Forest Service is 6 miles in length.[14] This is incorrect. The suitable segment is 6.5 miles in length.[15]

It is important to note that both the draft and final Study Report/Legislative EIS state definitively that designation of segments B2 and B3 (the 6.5 miles of the river downstream of Salt Springs Dam) "means the area would remain free of impoundments and that new water supply dams, diversions, and *hydroelectric projects* (emphasis ours) would be prohibited." [16]

To improve public and decision maker understanding, the USR should note that the California Public Resources Code for state Wild and Scenic Rivers prohibits any state agency from assisting or cooperating in the planning or construction of a dam, reservoir, diversion, or other water impoundment facility that could have an adverse effect on the free-flowing condition and natural character of state-designated rivers and segments (PRC 5093.56). The Public Resources Code also requires all state agencies to exercise their regulatory authority to protect the free-flowing condition and extraordinary values of designated rivers (PRC 5093.61). The project's multi-year construction period and required closures for the project, as well as the permanent road, bridge, and utility improvements within the river corridor, pose serious harm to the river's extraordinary scenery and recreation values.

The USR does not update the Road and Facility Erosion Assessment from the report presented in the Initial Study Report. However, the Final License Application (FLA) released by the Applicant on March 14, 2025, provides additional detail on road improvements to Ellis,

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[12] USR, pdf p. 1911.
[13] USR, pdf. p. 1590. The internal reference is to Wild and Scenic River Study Report/Environmental Impact Statement on the North Fork Mokelumne River, USFS 1990 (FS 1990 WSR): (Mokelumne WSR Study Report). Available at: https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5208236.pdf.
[14] USR, pdf. p. 1591.
[15] Mokelumne WSR Study Report, pp 4-5.
[16] Mokelumne WSR Study Report EIS pp. 5-9.

Lower Bear River, and above all Salt Springs roads.[17] Conservation Groups requested additional detail on road improvements in their ISR Comments.

Exhibit A and Attachment A-1 of the FLA depict four bridges over North Fork Mokelumne River that require improvements.[18] Additional improvements to Salt Springs Road are noted. The upper three miles of Salt Springs Road run directly adjacent to the North Fork Mokelumne River.

The USR's Land Use and Visual Resources Study states that one bridge would fall within the state Wild and Scenic corridor;[19] by our count, there are two indicated in FLA Ex. A, Figure A.4-2. The USR is silent on potential conflicts of road improvements and road use with California state Wild and Scenic values and requirements or federal Wild and Scenic eligibility.

The Land Use and Visual Resources Study further states that road improvements would be compatible with Forest Service guidance for road improvements on study reaches.[20] However, the U.S. Forest Service's 1994 Final Wild and Scenic River Study for the North Fork Mokelumne concluded that river is eligible for federal Wild and Scenic designation, and its recommendation that the North Fork be designated a Wild and Scenic River between Salt Springs Dam and just downstream of the Bear River confluence, were based on the roads and bridges that existed *at that time.*[21]

Regarding compatibility with federal requirements, the Land Use and Visual Resources Study appears to state that the federal classification of the reach of the North Fork Mokelumne River from one half mile downstream of Salt Springs Dam downstream to confluence with the Bear River is compatible with roads. and is therefore compatible with the potential designation of this river reach as a National Wild and Scenic River for its recreational character. However, compatibility of recreational values and enjoyment with roads is not the same as their compatibility with extensive road and bridge ***construction***.

The USR fails to demonstrate that the needed project "improvements" in the river corridor will meet the Forest Service's retention visual quality standard, where management activities are not visually evident.

In addition, that river segment's "outstandingly remarkable value" as identified by the U.S. Forest Service is its ***cultural resources***, which could in fact be damaged or diminished by road and bridge construction. While it is true that the river's federal wild and scenic ***classification*** (a description of existing river conditions) is recreational, the basis for its federal

[17] *See* Final License Application, Mokelumne Pumped Storage Project, FERC no. 14796 (FLA), Exhibit A (Mar. 14, 2025), eLibrary no 20250314-5330, and photos in Attachment A-1.
[18] *See* FLA, Ex. A, pdf p. 36, Figure A.4-2 for map of locations. See aerial photos of three bridges in Att. A-1, pdf pages 53, 55, and 61.
[19] USR, pdf p. 1598.
[20] USR, pdf p. 1599. The reach of the North Fork Mokelumne River between Salt Spring Dam and Bear River confluence is not accurately characterized as a federal "study reach." The study has already been completed, resulting in a finding of eligibility for federal Wild and Scenic designation. For further discussion, see Conservation Groups' comments on GreenGen's Draft License Application, *op. cit.*, pp. 5-7.
[21] *See* Mokelumne WSR Study Report op. cit. .

eligibility for wild and scenic designation is the river corridor's outstandingly remarkable cultural resources. Federal law and Forest Service guidelines require the protection of outstandingly remarkable values, regardless of classification. This means that activities that may be allowed in Recreational segments are prohibited if they harm the river's outstandingly remarkable values.

The USR's Land Use and Visual Resources Study identifies the North Fork Mokelumne River from .5 miles downstream of Salt Springs Dam downstream to its confluence with the Bear River as categorized under the California Wild and Scenic Rivers designation as having extraordinary recreational values.[22] However, the Study does not address potential conflicts between road construction, or use of the reconstructed road for construction of the pumped storage project, and the extraordinary recreational values of this river reach. Such conflicts are almost certain.

First, bridge and road construction may eliminate access to this reach of river altogether. Second, the noise, dust, and smell of road construction, and the use of heavy equipment and/or helicopters for such construction, are incompatible with recreational use in the area. Third, the use of the road for project construction would limit, and at times likely eliminate, vehicle traffic to the area, which is the only means of access. Fourth, the use of the reconstructed road and bridges for movement of heavy equipment, workers, and supplies to the project construction sites over four recreation seasons or more would be incompatible with recreational use in the area even if access were available.

The Land Use and Visual Resources Study proposes to eliminate conflict with wild and scenic values by establishing an Erosion Control Plan to avoid permanent degradation of the Wild and Scenic river corridor.[23] While necessary, this addresses only one aspect of the conflict between construction of the proposed project and the North Fork's federally protected outstandingly remarkable cultural value, as well as the state protected extraordinary scenery and recreation values of the North Fork Mokelumne River.

The Commission should issue an Additional Information Request that requires the Applicant to address the conflicts between road and bridge improvements, and project construction, with the state and federal Wild and Scenic values and recreation uses of the North Fork Mokelumne River, including its "natural condition," which is protected by the river's state Wild and Scenic River designation.

In addition, the Eldorado National Forest plan found that Cole Creek, Green Creek, Beaver Creek, and the Bear River are also potentially eligible for National Wild and Scenic River designation due to their outstandingly remarkable cultural resource values. The Commission's AIR request should ask the Applicant to explain how construction of the project and related road and power-line improvements will avoid harm to the cultural resources that form the basis of those streams' potential inclusion in the National Wild and Scenic Rivers System.

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[22] *Id.*
[23] *Id.*

D. Project Economic Valuation Assessment (SO-3)

The Updated Study Report does not make changes to the Project Economic Valuation Assessment and thus refers the reader to the report for that study in the Initial Study Report (ISR). However, information provided in the USR calls for additional evaluation of the Project Economic Valuation Assessment.

The Project Economic Valuation Assessment states: "Additionally, there are several unquantified benefits that further increase the attractiveness of the proposed Project relative to Li-ion batteries. These include local employment stimulus through the construction of a large plant with local labor…"[24] Similarly, Appendix T-1, the Economic Value Assessment of Mokelumne Water Battery Project (Brattle), contains Table 3 entitled: "Job Creation and Social Equity Benefits by Technology Type," which touts as a project benefit: "Development of Mokelumne [project] in rural counties will benefit local communities (e.g., through local tax base and economic stimulus during construction)."[25]

As discussed in Section II(A) above, the USR projects that the project will create a maximum of 3 construction new jobs for residents of Amador County and 6 new jobs for residents of Calaveras County. The projected sales tax revenues to Amador and Calaveras counties during construction are minimal: $2.4 million to Amador, and $1.8 million to Calaveras stretched over 4½ years.[26] The ongoing sales tax revenue during project operations appears to be grossly overstated and based on the assumption that all the sales tax paid on goods purchased in the county will be retained by the county. However, each county receives a tax of only 1.75 percent on goods sold: 1.25 percent in local sales tax (1 percent to the county, 0.25 percent for transportation purposes), and 0.50 percent for local fire and emergency response. The remaining sales tax goes the State of California. Thus, the local benefit from sales tax will be minimal. There are virtually no projected property tax revenues to these counties from project operations, as they will be primarily located on Forest Service land.

The absence of local economic benefits is one of the most glaring shortcomings of the proposed project.

III. Additional Information Need Required to Supplement the Final License Application

Section 3.9.2.3 of Appendix E of the Final License Application ("LBRR Horizontal Lake Level Analysis") demonstrates the daily fluctuation in the shoreline of Lower Bear River Reservoir that would result from project operation.[27] Tables E.3.9-4, 5 and 6 present the extent of the lateral daily change in shoreline on a percentage-of-time basis, capping the exceedance at 75 percent.

[24] Initial Study Report (P-14796-001), GreenGen Applicant (Apr. 16, 2024), eLibrary no. 20240214-5112, pdf p. 1351.
[25] *Id.,* pdf p. 1387.
[26] USR, pdf p. 1639.
[27] *See* FLA, Exhibit E, pp. 329-335.

Based on reservoir fluctuations at 10%-75% exceedance, the FLA concludes: "While the Project would increase the maximum daily horizontal water level fluctuations in LBRR, they would likely be on the order of 10 to 20 feet each day, depending on the location along the reservoir shoreline, which, for example, is only the length of about 1-2 standard kayaks."[28] This summarization based on averages minimizes potential impacts to boaters, fishermen, campers and picnickers from reservoir fluctuations. It hides the impact for the 25 percent of the time that reservoir fluctuations will have the greatest effect.

The Commission should require GreenGen to supplement the analysis to document the full range of daily variation in the reservoir shoreline due to operation of the pumped storage project. These fluctuations are likely to be among the greatest effect of project operation on recreational activities such as mooring and launching boats, swimming, picnicking at beaches, and fishing from shore.

IV. Conclusion

Thank you for the opportunity to comment on the Updated Study Report for the proposed Mokelumne Pumped Storage Project. Conservation Groups recommend that the Commission order the Applicant to produce additional information consistent with these comments.

Respectfully submitted,

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[28] FLA, pdf. p. 33.

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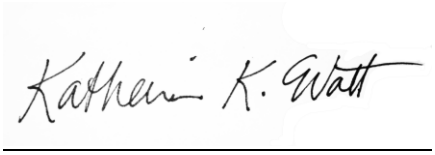

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