

105 FERC ¶ 61,133
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Pat Wood, III, Chairman;
William L. Massey, and Nora Mead Brownell.

Pacific Gas and Electric Company

Project No. 2687-024

ORDER ON REHEARING

(Issued October 27, 2003)

1. Pacific Gas and Electric Company (PG&E) and, jointly, American Whitewater Affiliation and Shasta Paddlers (AWA) have filed requests for rehearing of the Commission's March 19, 2003 order issuing a new license authorizing PG&E to maintain and operate the Pit 1 Project No. 2687, located on the Fall and Pit Rivers in Shasta County, California. 102 FERC ¶ 61,309. As discussed below, we grant rehearing in part and deny rehearing in part.

BACKGROUND

2. The 69.3-megawatt Pit 1 Project was constructed in 1920-21 and began operation in 1922. The original license for the project was issued in 1970. 44 FPC 1365.

A. Project Description

1. Upper Project

3. As licensed in 1970, the project encompasses about 3,500 acres of land and water. Of this, almost 3,000 acres constitute what the PG&E relicense application called the upper project,¹ an area above the project's 15-foot-high, 595-foot-long diversion dam on the Fall River. The upper project consists of some 22 miles of

¹The original license order does not use the terms upper and lower project.

the Fall River; five miles of the Tule and Little Tule Rivers;² and Horr Pond and Big Lake, both of which are located on the upper reaches of the Tule River. Also included are 698 acres of land adjacent to Horr Pond/Big Lake, and about twelve miles of levees along Horr Pond and Big Lake, and the Fall, Tule, and Little Tule Rivers. The Tule and Little Tule Rivers, Horr Pond/Big Lake, the 698-acre parcel of land, and associated levees comprise about 2,000 acres and are part of the 6,000-acre McArthur Swamp, an important wildlife and cattle-grazing area.³

4. A key element of the original license was the development of the 698-acre parcel as a Wildlife Habitat Improvement Project (WHIP).⁴ On this parcel, PG&E implemented wildlife planting and seeding measures, erected fences to keep livestock out, built footbridges over the drainage canals, and constructed potholes, ponds, and nesting structures for waterfowl. The WHIP also includes a site (called the Rat Farm) that provides access to Big Lake for boating and fishing and is the only nearby means of access to the Ahjumawi State Park, located on the other side of Big Lake.

5. The levees hold the Little Tule and Tule Rivers, including Big Lake, in their present configuration, preventing more than 4,000 acres of adjoining land from being inundated. The upper project also includes several canals. The McArthur Diversion Canal (and related diversion structure) serves in part to drain the northeast portion of the WHIP. The Old Lee Springs and North Drainage Canals are used to drain run-off water from the WHIP and other areas of McArthur Swamp; they in turn empty into the McArthur Canal.⁵

²The Tule River meets the Fall River about 11.4 miles upstream of the diversion dam.

³The remaining 4,000 acres of the McArthur Swamp, some of which are owned by PG&E, are not within the project boundaries.

⁴See Article 29 of PG&E's original license, 44 FPC at 1372. The plan was approved in 1976. See 56 FPC 1682. The characteristics of the land constituting the WHIP are the result of the levees and drainage canals. Prior to their construction, the area was seasonal wetland.

⁵See PG&E's response to staff's request for additional information, filed March 12, 1996, at 6 and 9.

2. Lower Project

6. The lower project includes the Fall River Diversion Dam; a 222-acre forebay, formed by the 40-foot-high, 586-foot-long forebay dam; two intakes, one located a short distance above the diversion dam and one located in the forebay; and 2.5 miles of canal and tunnel that carry water from the converged intakes to the powerhouse, which is on the Pit River about seven miles downstream from its confluence with the Fall River. Powerhouse flows are released into the Pit River, bypassing 0.9 miles of the Fall River and 6.8 miles of the Pit River. Immediately below the forebay is the 0.7-mile-long Fall River Pond, formed by the 231-foot-long Fall River Weir. Below the weir the Fall River flows 0.2 mile to its confluence with the Pit River. The project boundary extends a short distance down the Pit River and includes the Pit River Weir, which is on the river just below its confluence with the Fall River.⁶

3. Project Operation

7. From 1922 until a 1929 California court decision (the Callison decision),⁷ the project was operated only to meet the company's power needs, with the consequence that the water levels upstream of the diversion dam fluctuated in response to load demands. The Callison decision was the result of a court action brought by upstream property owners objecting to the effect of the fluctuations on their property. As required by the decision, PG&E has since 1929 operated the diversion dam to mimic the natural inflows to the project, a regime that prevents PG&E from using the dam solely to store and release water in response to power demand patterns.

8. To mitigate for the effects of the Callison decision on project generation, in 1947 the licensee built the project forebay dam below the diversion dam to allow for smaller-scale peaking operations between the two dams without affecting the water levels above the diversion dam. The forebay is 12 to 15 feet deep and

⁶The Pit River Weir was built to restore the upstream Pit River to its pre-project levels. See PG&E's October 16, 1969 filing at 3.

⁷F.M. Callison, et al. v. Mt. Shasta Power Corp., PG&E, et al. (California Superior Court of Shasta County, June 14, 1929). The decision is included in PG&E's March 6, 1996 response to staff's request for additional information.

fluctuates about four feet daily in response to load demand.⁸ The diversion dam is operated to release water to the powerhouse (1) directly through the intake just above the diversion dam and (2) into the forebay for release through the second intake as load demands require.⁹ The diversion dam can divert from 200 to 2,028 cubic feet per second (cfs) of water into the forebay without affecting upstream water levels. At maximum output, the generating plant can handle 2,028 cfs; flows in excess of 2,100 cfs are discharged from the forebay into Fall River Pond.¹⁰

B. Relicense Order

9. On December 20, 1993, PG&E filed an application for a new license for the continued operation and maintenance of the Pit 1 Project. PG&E proposed to remove from the project the lands, waters, levees, drainage canals, and weirs located upstream of the Fall River diversion dam -- i.e., the entire upper project -- on the theory that they are not required for project operation, and thus are beyond the Commission's licensing jurisdiction.

10. PG&E asserted that the waters in Big Lake, Tule River, Little Tule River, and the Fall River upstream of the diversion dam (collectively, the diversion dam reservoir) are not regulated for power generation, inasmuch as the project must mimic natural elevations and cannot store water for power purposes. Furthermore, PG&E averred that while the levee system does reduce water losses from absorption and evaporation, the resulting increase in energy production is insignificant and of less value than the cost of maintaining the levee system.

⁸PG&E rehearing request at 13 n. 6. The original license imposes no minimum flow release requirements from the forebay into the bypassed reach of the Fall and Pit Rivers or from the powerhouse into the Pit River.

⁹At Exhibit A, A-2 (Description of Project) of PG&E's application for new license, the company states that the project includes "two intake structures (Exhibit F-4): Intake No. 1 diverts water from the Fall River upstream of the Pit 1 Diversion Dam, and Intake No. 2 diverts water from the Pit 1 Forebay." This echoes the statement in PG&E's September 3, 1968 license application, at 6, that "[t]here are two canal intakes at the diversion dam, No. 1 upstream from it and No. 2 downstream from it, for diverting water to Pit 1 Intake Canal."

¹⁰EA at Section III.A.2.

11. On March 19, 2003, we issued an order granting PG&E's relicense application. However, we concluded that the waters, levees, lands, and canals comprising the upper project are project works and must remain licensed.¹¹ We noted that the Commission licenses project works, and that the FPA defines a "project" as a

complete unit of improvement or development, consisting of a power house, all water conduits, all dams and appurtenant works and structures . . . which are a part of said unit, and all storage, diverting, or forebay reservoirs directly connected therewith , . . . all miscellaneous structures used and useful in connection with said unit or any part thereof, and all . . . ditches, dams, reservoirs, lands, or interests in lands the use and occupancy of which are necessary or appropriate in the maintenance and operation of such unit.

See FPA Section 3(11), 16 U.S.C. § 796(11).

12. We stated that the waters impounded by the diversion dam constitute a project reservoir, and noted that water from behind the dam is diverted to the powerhouse. We cited statements by PG&E that among other things the levees control the water for the project, and that McArthur Swamp was purchased in 1925 in order to protect the project's water supply. 102 FERC ¶ 61,309 at P 19.

13. In addition, we explained that a project entails more than just physical structures. A consideration in the Commission's determination in the 1970 original license that the project was best adapted to the comprehensive development of the waterway¹² was the inclusion in the project of the WHIP, which provides significant wildlife enhancement and recreation facilities. In relicensing the project, we concluded that the WHIP continues to serve an important environmental project purpose and must remain under license. In

¹¹While PG&E originally sought also to remove from the project boundaries all lands, water, and facilities in the Fall River from below the forebay to just below the Fall River's confluence with the Pit River, we concluded, based on the record, that PG&E was no longer pursuing that portion of its request. 104 FERC ¶ 61,309 at P 22 n. 18. PG&E has not requested rehearing of this determination.

¹²Such a finding is required by Section 10(a)(1) of the FPA, 16 U.S.C. § 803(a)(1).

addition, the drainage canals are "designed to drain otherwise swampy area[s], caused partially by backing up water at the forebay. Drainage provided by these two canals serves to protect the levees on the south side of Big Lake, and contributes to the utilitarian use of the adjacent lands [including the WHIP]." 102 FERC ¶ 61,309 at P 21, citing PG&E's October 16, 1969 filing at 2. Given the role they play in the maintenance of the levees and the WHIP, we held that the drainage canals must also remain under license.

14. On April 18, 2003, PG&E filed a timely request for rehearing of the March 19, 2003 relicense order, reasserting its position that the upper project should be excluded from the project boundary because it is not required for project operations and has no nexus to the project. The company also notes inaccuracies in the project description and certain license articles, which it asks be corrected.

15. Also on April 18, 2003, AWA filed a request for rehearing or, in the alternative, clarification with respect to license articles dealing with recreational boating at the project.

16. On May 18 and June 26, 2003, the U.S. Fish and Wildlife Service (FWS) filed letters stating that, were the Commission to grant PG&E's request to remove lands from the project boundary, there would be a need for consultation under the Endangered Species Act as to the impact of this action on the endangered Shasta Crayfish.

DISCUSSION

A. The Waters Impounded by the Diversion Dam

17. As noted, pursuant to FPA Section 3(11) a project can include either or both of two categories of reservoirs: (1) "all storage, diverting, or forebay reservoirs directly connected" with a unit of development (which is a power house and any water conduits, dams, and appurtenant works); and (2) "all . . . reservoirs, . . . the use and occupancy of which are necessary or appropriate in the maintenance and operation of" the unit of development.

18. PG&E asserts that the currently-licensed waters and levees upstream of the Fall River Diversion Dam qualify for neither category and should therefore be removed from the license and corresponding project boundary. Rehearing request at 7-8.

19. PG&E asserts first that the diversion dam reservoir constitutes neither a storage, nor diverting, nor forebay reservoir under FPA Section 3(11). It argues that because the Callison decision prevents it from using the waters upstream of

the diversion dam for storage and peaking, “there is no impoundment or storage of water occurring behind the diversion dam.” It asserts that the diversion dam does not divert reservoir water to the powerhouse, but rather serves only to separate the project forebay from the Fall River, so that the store-and-release operation of the forebay does not affect the diversion dam’s maintenance of natural surface elevations in the upstream waters. According to PG&E, the project’s reservoir is the forebay. Rehearing request at 8.

20. PG&E also argues that the diversion dam reservoir is not “directly connected” to the unit of hydroelectric development. It cites Union Water Power Co., 73 FERC ¶ 61,296 at 61,825 (1995), for the ruling that directly-connected reservoirs are “only those reservoirs physically linked to the generation facilities of the project, e.g., the conduits carrying water from the reservoir to the powerhouse; the powerhouse; and the tailrace.”¹³

21. The Fall River Diversion Dam reservoir is in fact physically linked to the generation facilities of the Pit 1 Project, through the conduit that takes water from the reservoir to the powerhouse, and also through the forebay, which receives water from the diversion dam reservoir and releases water to the powerhouse as needed to meet load demands. The diversion dam also diverts reservoir water to the powerhouse through the forebay, which stores and releases the water according to load demands.

22. Passing over their physical linkage, PG&E would have us view the forebay as having no relationship to the reservoir on the other side of the diversion dam. However, while PG&E denominates the diversion dam as a part of the lower project and the diversion dam’s reservoir as a part of the upper project, the fact remains that the dam and its reservoir not only are directly connected but also are indivisible for purposes of project operation. Even were the dam and reservoir passive works incapable of doing other than merely passing on inflow, they both play a role in project generation by increasing, over pre-dam levels, the hydrostatic head available for generation.¹⁴ In this case, as PG&E explains, the dam and its

¹³The reservoirs at issue in Union Water Power were not directly connected to any unit of development; rather, they were a number of miles upstream of the powerhouse.

¹⁴See, e.g., Ada County, et al., 27 FERC ¶ 61,285 at 61,527 (1984) (refuting licensee’s argument that reservoir behind dam at run-of-river project “is not used in the generation process”).

reservoir must be operated and controlled so as to mimic, i.e., duplicate, what the upstream water elevations would be, absent the dam. Nor has PG&E tried to argue that it could operate the Pit 1 Project as it now does, were the diversion dam removed and the Fall River returned to a pre-reservoir state in the reach above the forebay dam.

23. That PG&E's ability to use the waters behind the diversion dam is constrained by the Callison decision does not obviate the company's physical ability to control those waters. Many reservoirs directly connected to a unit of development are operated pursuant to rule curves or other mandates or agreements that reduce, and on occasion eliminate, the hydroelectric benefits of those waters.¹⁵ The Pit 1 Project simply has a relatively stringent example of this type of requirement.

24. Because the diversion dam reservoir is directly linked to the project's generating facilities, we need not reach the second test of a project reservoir, which comes into play only if a reservoir is not directly connected to such facilities.

B. The WHIP

25. PG&E argues that the WHIP should be deleted from the license and project boundary because the project has no negative impacts on wildlife or recreation that must be mitigated by the WHIP, and therefore has no nexus to the WHIP. According to PG&E, "the fact that the WHIP (with drainage canals) provides environmental enhancement does not provide FERC with a justification for retaining it in the license." Request for rehearing at 13-14. PG&E also contends that, were it allowed to remove the WHIP and other PG&E-owned lands from the project boundary, those lands, along with other lands owned by the company outside the project boundary, would ultimately be transferred to the McArthur

¹⁵See, e.g., Grand River Dam Authority, 103 FERC ¶ 62,102 (2003) (rule curve governs project reservoir elevations).

Swamp Resource Management Association, and thereafter managed for wildlife enhancement, livestock grazing, and recreation.¹⁶

26. In licensing projects that are best adapted to a comprehensive plan for improving or developing a waterway or waterways, the Commission is not limited to mitigating harm caused by projects. Rather, Section 10(a)(1) of the FPA directs the Commission to condition a license to make it “best adapted to a comprehensive plan for improving or developing a waterway or waterways for” beneficial public purposes. FPA Section 4(e) requires the Commission to give equal consideration to developmental and environmental values, including recreation and “the adequate protection, mitigation, and enhancement of fish and wildlife (including related spawning grounds and habitat)” (emphasis added). Consequently, it is appropriate for the Commission to determine that PG&E should protect or enhance fish and wildlife and enhance recreational opportunities through the inclusion in the project of the WHIP, regardless of whether the project has negative impacts on those resources.¹⁷ The relicense order kept the WHIP in the project, finding that it continues to provide significant wildlife enhancement and recreation facilities. Nor is the WHIP remote from the project, inasmuch as it lies along the project reservoir. In sum, PG&E has provided no reason for us to alter the relicense order’s inclusion of the WHIP.

¹⁶PG&E alleges that, if the project lands in the McArthur Swamp are not removed from the project boundary, PG&E will also retain its non-project lands in McArthur Swamp, which will thus be deprived of the protection they would have otherwise received under the Swamp Plan. Request for rehearing at 14-15. Whether, and under what conditions, PG&E chooses to alienate non-project lands, and the management plans it applies to non-project lands, are matters outside of our jurisdiction.

¹⁷PG&E proposes modifications to license Articles 410, 411, and 412, which it states will, in the event that the lands at issue are removed from the project boundary, satisfy the U.S. Fish and Wildlife Service’s (FWS) October 25, 2002 Biological Opinion with respect to the protection of the endangered Shasta Crayfish. Request for rehearing at 15-19. Since we are denying PG&E’s request to remove the lands, we need not address this issue. Similarly, we need not address FWS’ suggestion that we must engage in consultation under the Endangered Species Act before allowing the lands to be removed.

C. Whitewater Boating

27. License Article 424 requires PG&E to file with the Commission a plan to conduct a recreational boating use study in the Pit River, including “a provision for test flows within the range of 1,250 [] cfs to 1,750 cfs between September 15 and October 30.” PG&E contends that this range of flows may not be possible, and asks that we revise Article 424 to conform to Condition 13 of the water quality certification, which requires a flushing flow release of the lesser of 1,250 cfs or natural flow to the Pit 1 forebay for two consecutive days, three times a year, in order to control growth of aquatic vegetation and mosquito production.

28. The EA discusses whitewater boating recreation in two stretches of the Pit River: the Canyon Section, located in the 6.8-mile bypassed reach,¹⁸ and the Highway 299 Section, located between the powerhouse tailrace and Lake Britton, 5.6 miles downstream. EA at 115-19. According to the EA, flows of 1,250 cfs and 1,750 cfs represent the low end of the range for flows suitable for, respectively, 75 percent of potential boaters and essentially all potential boaters. Id. at 128. The EA also sets forth mean monthly flows measured at three Pit River stations for 1975-1991. Id. at 25, Figure 3. Measurements below the powerhouse -- corresponding to the Highway 299 Section -- show mean monthly flows in September and October in the area of 1,300-1,400 cfs. While measurements in the bypassed reach -- corresponding to the Canyon Section -- show considerably lower flows (about 200-250 cfs), these flows could be brought up to the level of those below the powerhouse by reducing diversions to the project powerhouse. Therefore, the record demonstrates that there typically will be enough water available to conduct the required study. For its part, PG&E provides no explanation as to why it cannot release the required flows. If, as we infer, PG&E wishes to minimize impacts on generation by performing the whitewater study on the same days that it is releasing the flushing flows required by Condition 13 of the water quality certification, nothing in the certification prohibits releasing flows of greater than 1,250 cfs during those days. Thus, Article 424 is not inconsistent with the water quality certification.

29. AWA asserts that Article 424 does not provide a mechanism for regulatory action based on the results of the whitewater boating study. It recommends that we add the requirements that PG&E file the results of the study, including its

¹⁸ EA at 115. The Canyon section extends from Cassell Bridge (600 feet upstream of the Fall River’s confluence with the Pit River) to the powerhouse tailrace.

recommendations, and that PG&E include in its report an analysis of a range of alternatives for annual whitewater releases and a schedule for implementing its recommendation. Article 424 already contains sufficient procedures to deal with the matters raised by AWA. As discussed above, Article 24 requires PG&E, after consulting with state and federal resource agencies and other listed parties, including AWA, to file for Commission approval a plan for a whitewater boating study, covering a range of test flows. The plan also must include a schedule for PG&E to provide the Commission the results of the study (including comments on the study and PG&E's response to them) and PG&E's recommendations. We will then issue an order either accepting or modifying the company's recommendations.

30. License Article 425 requires PG&E to file, for Commission approval, a river information plan, including a specification of "how the licensee will provide real time access to Pit River flow information by telephone or Internet." AWA requests that we add to the preceding sentence "in the reach bypassed by the project facilities and operations directly downstream of the confluence of the Fall River with the Pit River." We will not amend Article 425 as AWA suggests. Article 425 requires that PG&E consult with AWA, among others, in preparing the river information plan. During this process, the parties can discuss the appropriate location for the collection of flow information. If this proves to be an issue, we will resolve it in considering PG&E's plan.

D. Other Issues

31. PG&E proposes a number of clarifications and modifications to the March 19, 2003 order, as discussed below.

32. PG&E suggests modifications to paragraph 7 of the order, to clarify that portions of the upper project (the WHIP, reaches of the Tule and Little Rivers, Horr Pond and Big Lake) are within both the project boundary and McArthur Swamp, while the remainder of McArthur Swamp is not within the project or subject to the license. Paragraph 7 does not contain any incorrect statements, and the clarification PG&E requests is found in paragraph 56 of the order.

33. PG&E states that paragraph 8 of the order incorrectly states that Rat Farm is the only means of access to the Ahjumawi State Park, when in is rather the closest access point; other access points exist at locations significantly further from the park. The company states further that paragraph 10 should be corrected to state that the Fall River Mills Community Services District obtains its municipal water supply not from the Fall River Pond but rather from the Pit 1 Project forebay. We accept PG&E's corrections.

34. PG&E notes that, while paragraph 47 explains the need to provide public access to the Fall River and suggests the Glenburn site or a comparable site, license Article 423 specifies that public access be provided at the Glenburn site. PG&E asks that we conform the license article to the discussion. We agree, and will revise Article 423(2) to require an access facility “at the licensee’s Glenburn site, or a comparable nearby site. . . .”

35. Paragraph 55 states that PG&E must measure minimum flows from the forebay dam “at the [Fall River] pond’s weir.” PG&E asks that it be given the flexibility to work with the U.S. Geological Survey (USGS) to consider alternative locations for gauging flow releases. Condition No. 9 of the water quality certification (see ordering paragraph D) states that “the Licensee shall monitor the flow releases at the Fall River Weir in accordance with [USGS] standards. Flows should be continuously monitored at or below the weir at the downstream end of the Fall River Pond. . . .” We clarify that PG&E may work with USGS to identify alternative gauging locations, provided that the company complies with Condition No. 9.

36. PG&E asks that the Commission “replace” license Article 402, which requires a minimum flow of 700 cfs from the project powerhouse, with Condition 11 of the water quality certification, which requires a 500-cfs minimum flow at that location. PG&E’s only rationale is that Article 402 should be “consistent with” the certification condition.

37. The Commission has independent jurisdiction to impose water quality requirements in a license. While in case of a conflict the conditions of a water quality certification prevail over Commission-drafted conditions, where no conflict ensues the Commission may impose water quality conditions that are more stringent than those in the certification.¹⁹ As explained in the EA, e.g., at 57 and 147, a flow of 700 cfs would provide additional wetted streambed, thus enhancing macrobenthic invertebrate production and providing additional prey for resident fish, and would reduce, although not eliminate, the potential for stranding fish. The relicense order adopted the EA’s recommendation (at 146-47) to require a 700-cfs minimum flow, and we have been given no reason to revise that decision.

¹⁹See, e.g., Great Northern Paper, Inc., 77 FERC ¶ 61,066 at 61,244 n. 26 (1996).

38. Article 415 requires PG&E to “develop a plan to monitor year-round bald eagle use of the Pit River above the Pit 1 [Fall River] diversion dam, along the bypassed reach and the reach from the tailrace to Lake Britton.” PG&E states that that Article 415 could be interpreted to require monitoring in an area extending over 100 miles upstream of the project, while PG&E assumes the Commission intended to limit such monitoring to the reach of the Pit River from the project powerhouse to the confluence of the Pit River and Fall River. The language at issue tracks that set forth by FWS in the incidental take statement that accompanied its October 25, 2002 biological opinion. We interpret Article 415 as requiring PG&E to monitor bald eagle use (1) on the Fall and Pit Rivers in the project area, (2) along the bypassed reaches of the Fall and Pit Rivers, and (3) on the reach of the Pit River from the project tailrace to Lake Britton.²⁰

The Commission orders:

(A) Article 423(2) of the license for the Pit No.1 Hydroelectric Project No. 2687 is revised to read as follows:

An access facility on the Fall River at the licensee’s Glenburn site or a comparable nearby site, including a car-top boat launch, parking areas, and sanitary and trash facilities.

(B) The request for rehearing filed on April 18, 2003, by Pacific Gas and Electric Company, is granted to the extent set forth herein and is in all other respects denied.

²⁰This is consistent with the reasonable and prudent alternative contained in FWS’s biological opinion: “Minimize the effects of Project impacts on the bald eagle throughout the Project area.” The EA recommends (at 143) that PG&E be required to “monitor bald eagle productivity for all pairs within the project vicinity” and to “monitor bald eagle use of the Pit River bypassed reach and the reach from the tailrace to Lake Britton (a 10-mile reach of the Pit River). . . .”

(C) The request for rehearing filed on April 18, 2003, by American Whitewater Affiliation and Shasta Paddlers is denied.

By the Commission.

(S E A L)

Linda Mitry,
Acting Secretary.