1. On July 2, 2012, United Water Conservation District (licensee) filed its Steelhead Passage Feasibility Assessment Plan with the Federal Energy Regulatory Commission (Commission) under Article 401(a) of the project license\(^1\) for the Santa Felicia Project No. 2153. The project is located on Piru Creek, a tributary of the Santa Clara River, in Ventura County, California, and occupies 174.5 acres of federal lands administered by the U.S. Forest Service.

BACKGROUND AND LICENSE REQUIREMENTS

2. Article 401(a) of the project license requires that the licensee file various plans for Commission approval, as also found in the National Marine Fisheries Service’s (NMFS) final Biological Opinion. Each plan is required to include an implementation schedule and be submitted to the Commission for approval prior to its implementation. Among the required plans, the license is to submit a Steelhead Passage Feasibility Plan under NMFS’s Reasonable and Prudent Alternative (RPA) 3(a) within eight months of license issuance. The plan is required to describe the methods and schedules that will be used to guide the conduct and completion of an assessment of steelhead passage feasibility at or around Santa Felicia Dam or other suitable alternative to passage.

3. The plan is required to include: (A) a clear statement of objectives to guide the conduct of the assessment of the steelhead-passage feasibility; (B) a clear description of science-based investigations of steelhead behavior, ecology, and habitat requirements (to inform the assessment of steelhead-passage feasibility) as well as an analysis of the full range of physical steelhead-passage alternatives (volitional and non-volitional) and alternatives to steelhead passage, and engineering and cost analyses; (C) the requirement to convene a panel of professional technical fishery biologists, fish-passage biologists, and fish-passage engineers with expertise in the evaluation and design of fish passage at

dams, who will participate in the assessment of steelhead-passage feasibility at Santa Felicia Dam; (D) a clear description of the specific methods that will be used to perform the various tasks related to the assessment of the steelhead-passage feasibility, including objective decision criteria for judging feasibility in accordance with the information obtained through RPA 3(a)(3)(B); (E) task schedules and milestones to monitor and track performance of the assessment of the steelhead passage feasibility over time; and (F) a contingency program to effectively address and resolve unforeseen circumstances in a timely manner.

4. In addition, the plan must include documentation of agency consultation, copies of comments received and recommendations made in connection with any plan, and a description of how the plan accommodates the comments and recommendations. If the licensee does not adopt a recommendation, the filing must also include the licensee’s reasons, based on project-specific information.

LICENSEE’S PLAN

5. Per the terms of the license article and under NMFS’s and California Department of Fish and Game’s (CDFG) guidance, the licensee delegated the responsibility for developing and implementing a steelhead passage feasibility plan to a panel of technical experts (Panel). The Panel consists of fishery biologists, engineers, and an economist. The Panel was formed to develop the plan as an independent body, with the charge to operate independently of the licensee and resource agencies, and to maintain the responsibility to objectively conduct the feasibility evaluation and prepare a final report based on its professional and technical expertise and experience. Therefore, the elements of the plan, as summarized below refer to the development of the plan by the licensee-funded Panel, and not the licensee itself.

6. The Panel proposes to implement the study plan in several tasks, with contingencies for unknown circumstances that may arise during plan implementation. The tasks of the plan include: 1) Feasibility Study Preparation; 2) Preparation of a Biological Performance Tool; 3) Identification of Fish Passage Concepts; 4) Concept Development and Alternative Definition; 5) Initial Evaluation; 6) Fish Passage Alternative Refinement; 7) Reporting and Fish Passage Recommendations; 8) Group Fish Passage Decision; and 9) Biological and Economic Feasibility Analyses and Off-Site Alternatives Assessment. The first seven tasks are intended to determine feasibility and identify a recommended fish passage alternative, while task 8 is a group decision point, and the final task 9 is a contingency to consider biological feasibility of fish passage at Santa Felicia Dam and off-site alternatives. Each task is further discussed below.
Task 1-Feasibility Study Preparation

7. Under task 1, the Panel proposes to compile and review background information necessary for the development of fish passage concepts. The Panel would begin by compiling background information to allow it to become familiar with the operational, physical, hydrologic, and biological setting of the project. Following the compilation and preparation of background information, the Panel would review the draft evaluation criteria and provide any applicable updates based on this additional information. The Panel would then take measures to fill any informational gaps in its research. Finally, using the information developed above, the Panel would identify design flow ranges, select hydrologic design years, develop preliminary working base drawings, and coordinate with other Panel members to prepare for an initial brainstorm workshop.

Task 2-Preparation of a Biological Performance Tool

8. Under task 2, the Panel would develop a spreadsheet biological performance tool to be used to estimate the biological performance of fish passage alternatives. The Panel would begin by compiling background information on migratory pathways, including physical, hydraulic, and biological information on conditions at the project. Following which, the Panel would identify any critical information gaps and take appropriate steps to address any information gaps. Task 2 would be completed by developing and populating the fish passage model with available information, resulting in a relative comparison of the biological performance of fish passage facilities.

Task 3-Identification of Fish Passage Concepts

9. Under task 3, the Panel would develop an initial set of fish passage concepts and refine this set by eliminating those with fatal flaws. This task would utilize a two-day brainstorm session to identify fish passage concepts. Following the brainstorm exercise, the Panel would perform a fatal flaw analysis to eliminate any concept that cannot meet the basic criteria. The remainder of task 3 would be to compile a meeting record, and to organize the work to develop concepts within small groups or by individual Panel members that would continue into the next task. The Panel proposes to distribute a summary document within two weeks of the brainstorm session meeting.

Task 4-Concept Development and Alternative Definition

10. Under task 4, the Panel would develop the fish passage concepts identified in task 3 into fish passage alternatives applicable at Santa Felicia Dam. The fish passage alternatives would address site-specific applicability, hydraulic functional design, construction and operating cost estimates, general layout, and identify any uncertainties for further examination. The alternatives’ performance using the biological performance tool would also be identified and presented to a group (Group) consisting of the licensee,
To accomplish this task, Panel members would be assigned individual alternatives to develop for further Panel and Group discussions based on the concepts identified in task 3. Following development of each alternative, a facilitator would compile all of the alternatives into a single discussion document for distribution to all Panel members. The Panel would then conduct a second workshop to refine fish passage concepts, make recommendations for further action, and prepare for an initial meeting with the Group. A Panel meeting summary document would be prepared and distributed within two weeks of the meeting date. Following the preparation of a Panel summary document, a meeting would be held with the Panel and Group members to discuss fish passage alternatives, criteria, and the biological performance tool developed to date. Additionally, the panel would prepare and distribute a meeting record within two weeks of the Group meeting. Panel members or small teams would then be assigned lead responsibility to outline individual alternatives for Panel discussion in task 5. Once the alternatives are developed, the Panel would compile and review them in preparation for the next panel meeting within one week.

**Task 5-Initial Evaluation**

### 11. Under task 5, the Panel would evaluate the fish passage alternatives developed through task 4 to estimate their relative effectiveness and ability to meet evaluation criteria, and to identify further improvements for the alternatives. Alternatives would be compared using a Pugh Matrix, which breaks the alternatives down into discrete elements for comparison, evaluation, and optimization. A third Panel workshop would be convened to perform the analysis and develop the final report outline from the Panel. Results of the initial alternatives evaluation would be presented in a meeting report and distributed within two weeks of the meeting date. Following the Panel meeting and summary report, a second meeting that includes Group members, would be held. The meeting would allow for Group review and input, in time for the Panel to incorporate any comments into the final alternative development. A Group meeting record would be distributed for review within two weeks of the meeting.

**Task 6-Fish Passage Alternative Refinement**

### 12. Under task 6, the Panel would further refine alternatives, including: preparation of refined opinions of probable construction cost; performing final runs of the biological performance tool; preparing a final quantitative evaluation of the alternatives; and addressing constructability issues and any remaining data needs or significant risks. The Panel states that at least one volitional fish passage alternative would be included in the final list of alternatives. Based on comments received from task 5, the Panel would work independently and together in small groups to finalize the above information and carry
out a fourth and final Panel meeting during which, it would finalize a report outline. The Panel would also distribute a final meeting progress report prior to the Panel issuance of a draft study report.

**Task 7-Reporting and Fish Passage Recommendations**

13. Under task 7, the Panel would prepare a draft and final Fish Passage Feasibility Report to summarize fish passage alternatives and the Panel’s recommendations. The draft report would include: documentation of the process followed and development of feasible fish passage alternatives; an evaluation criteria; a summary of alternatives eliminated; a final evaluation; and the final recommended alternatives. Each alternative would be described with text and conceptual level design drawings, estimates of construction and operating costs, an implementation schedule and description of construction issues, listing of pros and cons, and a summary and details of the final evaluation. The draft report would be distributed at least two weeks prior to a third meeting with Group members. Following the meeting, the Group would have 30 calendar days to prepare written comments on the draft report. The Panel would subsequently prepare a final report based on comments received. The final feasibility report would include the Panel’s recommendation regarding the technical and biological feasibility of providing volitional steelhead passage at Santa Felicia Dam. If the Panel cannot recommend a volitional passage facility due to site constraints, uncertainties, or other factors, the Panel would recommend a non-volitional passage facility, if deemed feasible. If the Panel cannot identify a feasible fish passage alternative, the Panel would document its rationale and describe potential next steps.

**Task 8-Group Fish Passage Decision**

14. Under task 8, the Group would consider the alternatives and recommendations of the final Fish Passage Feasibility Report. If the Group agrees by consensus on the selection of a fish passage alternative to be implemented, the study would be complete and the implementation process would proceed. If there were no consensus, the study would continue with task 9, which could include biological feasibility and/or off-site alternatives, including an economic analysis.

**Task 9-Biological and Economic Feasibility Analyses and Off-Site Alternatives Assessment**

15. Under task 9, the Panel would conduct an examination of biological feasibility, including non-passage alternatives and a recommended economic analysis. The analysis would include three components, including: the identification of alternatives to fish passage facilities at Santa Felicia Dam (off-site alternatives); evaluation of biological feasibility of alternatives including fish passage at Santa Felicia Dam, and conducting a cost effectiveness analysis of all alternatives, including fish passage at Santa Felicia Dam.
The comparison of feasible alternatives would result in the preparation of an additional report that considers the alternatives evaluated in task 9 and the recommendation of a preferred alternative. The licensee also states that under this extended scenario, the Group would select a preferred alternative, including consultation with and approval by NMFS, as outlined in RPA 3(c)-(e).²

Schedule

16. The Panel proposes to begin implementation of the plan in September 2012, with a final Fish Passage Feasibility Report under task 7 to be completed by June 20, 2014. The Panel also proposes to issue a decision regarding fish passage implementation by August 29, 2014. If the study proceeds to task 9, the Panel states that the study would instead, be completed by January 15, 2016.

LICENSEE/AGENCY CONSULTATION

17. The independent Panel coordinated the development of the plan in consultation with the licensee, NMFS, and CDFG, and submitted a draft plan for their review on October 19, 2011. On October 27 and November 17, 2011, the licensee provided written comments on the plan. The licensee included additional comments on the plan in the cover letter of its July 2, 2012 filing. By letter dated December 1, 2011, NMFS submitted written comments on the draft plan. The CDFG did not provide formal comments on the draft plan.

18. Among its comments, the licensee: requested clarification on elements of the plan; requested additional information regarding some of the elements of the plan; and requested that various technical corrections be made. The panel responded to the licensee’s comments and made the requested changes, where appropriate. In addition to the licensee’s written comments, the licensee’s cover letter contains various clarifications regarding the implementation of the plan.

19. While NMFS’s comments were numerous, it contends that the plan must meet its approval before it can be implemented. NMFS also states that it needs to conduct an additional review of the draft plan following any revisions, before it can agree with the final plan. In addition, NMFS requested various clarifications on elements of the plan and that additional information and analyses be included in the plan. The Panel responded to and provided an itemized response to NMFS’s comments. The licensee,

² By email dated October 10, 2012, Ms. Catherine McCalvin (licensee staff) clarified the process for reporting and selection of a preferred alternative under a scenario where the study proceeds to task 9.
who is ultimately responsible for the product produced by the Panel and compliance with article 401(a), made corresponding revisions to the extent possible, to the draft plan as described below.

20. The licensee addressed NMFS’s comments in the final plan filed with the Commission; however, by letter dated December 22, 2011, the licensee, through its legal counsel, also elaborated on its response to a few of NMFS’s specific comments. The licensee contends that NMFS’s comments on the draft study plan conflict with the requirements of the project Biological Opinion, the RPA, and the Endangered Species Act (ESA). The licensee also contends that NMFS’s comments contradict the scope of work for the Panel and the objective statement of the study plan; both of which were reviewed, revised, and agreed to by NMFS and CDFG. In addition, the licensee contends that NMFS’s comments disregard the impartiality and independence of the panel and that NMFS and CDFG endorsed the final scope of work and objective statement during development of the plan. Finally, the licensee contends that by potentially requiring multiple revisions to the plan before agreeing to it, NMFS is not abiding by the commitment to permit the Panel to function independently.

21. By letter dated February 16, 2012, NMFS responded to the arguments presented in the December 22, 2011 letter. NMFS contends with some of the licensee’s perceived goals of the plan. In particular, NMFS asserts that one of the goals of the plan is not to conduct an assessment of biological feasibility or biological benefits of fish passage. NMFS also refutes the licensee’s claim that the identified fish passage alternative could result in an economically and technically infeasible recommendation. Rather, NMFS highlights the fact that the RPA requires the recommended alternative resulting from the plan to be economically and technically feasible. Finally, NMFS contends that it is acting in compliance with the ESA and is not being unreasonable in its requests to revise the current draft plan.

DISCUSSION AND CONCLUSIONS

22. The licensee is proposing to delegate the study of fish passage feasibility at the project to a panel of professional engineers, biologists, and an economist. The Panel would evaluate fish passage feasibility using up to a nine-step process, which involves data collection, analysis, panel meetings, meetings with the licensee and resource agencies, reporting, and a final recommendation. The plan also contains contingencies to respond to unforeseen situations and study outcomes.

23. The plan was developed by an independent panel of industry experts, in consultation with the resource agencies and the licensee. As illustrated above, the development and some elements of the plan are contested by NMFS. In the instance where resource agencies were given ample opportunity to comment on the development
of a license-required plan, it is the Commission’s practice to take into account all comments received and the manner in which the licensee responded to those comments. In the event that elements of a plan still remain contested, the Commission takes any comments received into account, in comparison with the requirements of the project license. While we do not address typographical errors or requests for clarification herein, we do wish to address the more substantial comments received from NMFS.

24. NMFS states that in its current state, it does not agree with all the elements of the plan, and is requesting that additional revisions be made before it can agree with the plan. License Article 401(a) provides the protocol for preparing several license-required plans, including the Steelhead Passage Feasibility Study Plan. The requirement states that the plan should include an implementation schedule and be submitted to the Commission for approval prior to its implementation. The filing should include documentation of consultation with the resource agencies, copies of comments and recommendations made in connection with the plan, and a description of how the plan accommodates the comments and recommendations. If the licensee does not adopt a recommendation, the filing should include the licensee’s reasons, based on project-specific information. The Commission also reserves the right to make changes to the plan. RPA 3(a) however, states that the licensee must receive written NMFS agreement of the plan, prior to its implementation.

25. Seeing that Article 401(a) leaves room for potential disagreement with resource agency comments, the Commission issued a February 29, 2012 letter to clarify the filing and review process. The letter stated that there is nothing in the project license that requires the plan to carry NMFS’s approval prior to being filed with the Commission. Rather, the Commission recommended that license-required plans be filed with the Commission following a 30-day agency review process and the licensee’s response to any comments received. In light of the above, the Commission reiterates that the plans required under Article 401(a) need not carry NMFS’s approval prior to being filed with the Commission for approval, provided that the licensee adequately addressed resource agency comments.

26. In order to determine the licensee’s compliance with the requirements of the plan, we compared the licensee’s filing to the goal of the plan outlined in RPA 3(a) and the itemized list of the 6 requirements of the plan in the RPA. We also considered the Panel’s response to comments received from the licensee and NMFS. Review of the plan indicates that it satisfies the requirements of RPA 3(a) and should meet the intended goal of describing the methods and schedules that will be used to guide the conduct and completion of a steelhead-passage feasibility assessment. In addition, our review of the Panel’s response to comments received indicates that the responses adequately address the concerns raised by the licensee and resource agencies.
27. We do recognize, however, that implementing the plan without NMFS final consent may lead to the licensee being out of compliance with the requirements of the RPA. Therefore, the licensee should continue to work with NMFS to resolve any potential outstanding concerns. The licensee should also delay implementation of the plan until the licensee receives formal agreement on the plan from NMFS, thereby complying with the conditions of the RPA. Should any substantial revision to the plan result from additional consultation, the licensee should be required to file a revised plan with the Commission for review and approval.

28. We note however, that there was no proposal for filing reports with the Commission. The Panel anticipates filing a final study report with the licensee and Group members by June 20, 2014, following the completion of task 7. The Panel would also issue a final decision regarding fish passage implementation by August 29, 2014, under task 8. In order to track the licensee’s compliance and implementation of the plan, and to keep the Commission apprised of its recommendations for future action, the licensee should be required to file a copy of its final fish passage feasibility report and final recommendation under task 8 with the Commission within 30 days of the decision on fish passage implementation and potential future studies, but no later than September 27, 2014, which is 30 days after the study under task 8 is expected to conclude.

29. In like manner, we also note that there is no clear framework in place for keeping the Commission apprised of its actions should the study proceed to task 9. Therefore, the licensee should be required to file a copy of the final report under task 9 and accompanying recommendation within 30 days of report completion, but no later than February 13, 2016, which is 30 days after the study under task 9 is expected to conclude.

30. Finally, we note that there are some unknowns concerning the implementation schedule contained in the plan. In particular, the Panel has not begun implementation of the plan in September 2012, as originally anticipated in its implementation schedule. For this reason, the licensee should be required to keep the Commission apprised of any schedule changes related to plan implementation and filing of a final report. Thus, the licensee should be required to provide an updated implementation schedule within 30 days of the date of this order. Any additional delays or schedule changes affecting the filing of the above reports with the Commission should be handled through a request for an extension of time, filed with the Commission Secretary.

31. In summary, the Steelhead Passage Feasibility Study Plan provides a framework for assessing the feasibility of fish passage at the project and adheres to the requirements of Article 401(a) and RPA 3(a). While certain elements of the plan were contested by NMFS, the plan and the licensee’s subsequent revisions to it, address those concerns, and
should result in a comprehensive analysis that assesses the feasibility of fish passage at the project. Therefore, the licensee’s plan, as modified above, should be approved.

The Director orders:

(A) United Water Conservation District’s (licensee) Steelhead Passage Feasibility Plan under license Article 401(a) for the Santa Felicia Project, as modified in ordering paragraphs (B) through (D), is approved.

(B) The licensee shall not commence implementation of the Steelhead Passage Feasibility Plan until it has received formal agreement on the plan from the National Marine Fisheries Service (NMFS). Any substantial changes to the plan resulting from additional consultation with NMFS shall be filed with the Federal Energy Regulatory Commission (Commission) for approval in a revised plan.

(C) The licensee shall file a copy of its final fish passage feasibility report and final recommendation with the Commission within 30 days of the decision on fish passage implementation under task 8, but no later than September 27, 2014. If the study proceeds to task 9, the licensee shall file a report of its economic and off-site mitigation analysis and recommendation for future action within 30 days of a final recommendation under task 9, but no later than February 13, 2016.

(D) The licensee shall file a revised steelhead passage feasibility study implementation schedule with the Commission Secretary within 30 days of the date of this order.

(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. § 8251 (2006), and the Commission’s regulations at 18 C.F.R. § 385.713 (2012). 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. The licensee’s failure to file a request for rehearing shall constitute acceptance of this order.

Thomas J. LoVullo  
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Division of Hydropower Administration and Compliance