SOUTHERN CALIFORNIA EDISON®
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Via Electronic Mail to WR401Program@waterboards.ca.gov

December 6, 2018

Ms. Michelle Siebal
State Water Resources Control Board
Division of Water Rights – Water Quality Certification Program
P.O. Box 2000
Sacramento, CA 95812-2000

Re: Southern California Edison Company's Comments on the Draft 401 Water Quality Certification for Six Big Creek Hydroelectric Projects - Federal Energy Regulatory Commission Project Nos. 67, 120, 2085, 2086, 2174, and 2175

Dear Ms. Siebal:

Southern California Edison Company (SCE) respectfully submits the enclosed comments on the Draft 401 Water Quality Certification (Draft Certification) issued by the State Water Resources Control Board (State Water Board) on August 13, 2018 for SCE's six Big Creek Hydroelectric Projects: Big Creek Nos. 2A, 8, and Eastwood Hydroelectric Project (Federal Energy Regulatory Commission [FERC] Project No. 67); Big Creek No. 3 Hydroelectric Project (FERC Project No. 120); Mammoth Pool Hydroelectric Project (FERC Project No. 2085); Vermilion Valley Hydroelectric Project (FERC Project No. 2086); Portal Hydroelectric Project (FERC Project No. 2174); and Big Creek Nos. 1 and 2 Hydroelectric Project (FERC Project No. 2175). As discussed in more detail below, SCE has reviewed the State Water Board's Draft Certification and provides comments (Attachment A) demonstrating that significant modifications to, and in some cases complete removal of, several Draft Certification conditions are warranted. In light of the strong scientific record and appropriate balancing of resource interests achieved in the long-standing Big Creek Alternative Licensing Process (ALP) Settlement Agreement (Settlement Agreement), SCE urges the State Water Board to work with SCE and its settling Parties to develop acceptable conditions that can be included in a final water quality certification.

Background

As part of relicensing four of the Big Creek Projects (Mammoth Pool; Big Creek Nos. 1 and 2; Big Creek Nos. 2A, 8, and Eastwood; and Big Creek No. 3) and to comply with the numerous federal and state requirements of the relicensing effort, including the Federal Power Act (FPA), Clean Water Act (CWA), Endangered Species Act (ESA), National Historic Preservation Act (NHPA), and other programs—SCE worked closely over many years with representatives from the U.S. Forest Service (USFS), U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), Native American Tribes, local and regional authorities, non-governmental organizations, and the public (collectively, the Parties) to develop the Settlement Agreement. During this process, SCE held over 300 consultation meetings—many of which were attended by representatives of the State Water Board—and conducted over 60 environmental studies to develop the relicensing applications and Settlement Agreement. Extensive effort and tens of millions of dollars were invested by SCE and the settling Parties to develop the Settlement Agreement during the course of the 10-year proceeding. Achieving resolution of the highly complex and interrelated resources associated with the Big Creek Projects—by balancing otherwise competing developmental, conservational, preservational, recreational, and other interests—was truly monumental and required significant work and compromise by all Parties.

The Settlement Agreement sets forth resource management and monitoring conditions that are the result of this extensive consultation effort among the Parties over many years and establishes robust measures for the protection, mitigation, and enhancement of environmental conditions and recreational opportunities under new FERC licenses for the Projects. While the State Water Board is not a signatory to the Settlement Agreement, its staff were active participants in its development and provided extensive verbal and written recommendations related to the protection of water quality and beneficial uses, which led directly to the

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development of mitigation measures, management and monitoring plans, and proposed license articles to protect and enhance resources that may be impacted by the Projects.

As a result of SCE's relicensing and settlement efforts, the Settlement Agreement is supported by an extensive administrative record, which includes the 32,000-page License Applications filed by SCE, FERC's Draft and Final Environmental Impact Statements (EISs), and USFS's mandatory conditions filed pursuant to FPA Section 4(e). In developing the Settlement Agreement, moreover, the Parties requested that USFS and the State Water Board accept and incorporate, without material modification, all of the measures set forth in Appendix A of the Settlement Agreement that are necessary for the adequate protection and utilization of reserved Federal lands pursuant to FPA section 4(e), and to ensure that the FERC license meets all State water quality criteria.

Although the Settlement Agreement pertains most directly to the four Projects undergoing relicensing through FERC's ALP Process (Mammoth Pool; Big Creek Nos. 1 and 2; Big Creek Nos. 2A, 8 and Eastwood; and Big Creek No. 3) it also integrates measures pertaining to the Vermilion Valley and Portal Hydroelectric Projects, currently undergoing relicensing through FERC's Traditional Licensing Process (TLP). Due to the integrated nature of the six Big Creek Projects, SCE undertook additional studies and consultation pertaining to the Vermilion Valley and Portal Hydroelectric Projects, which allowed SCE and the resource agencies to develop management and monitoring plans with a basin-wide approach. Based on the results of those studies, USFS and SCE negotiated appropriate measures to protect environmental and cultural resources, and USFS developed and filed Final FPA Section 4(e) Conditions for the Vermilion Valley and Portal Hydroelectric Projects, some of which were incorporated into the Settlement Agreement.

After this tremendous effort—after years of extensive consultation, collaboration, analysis, and negotiations among SCE and many other parties—the State Water Board unfortunately has produced a Draft Certification that largely ignores this entire effort, significantly undermining the careful balance reached by SCE, federal and state resource agencies, local governments, and the environmental community. The Draft Certification incorporates a number of conditions that are inconsistent with, and in some cases in direct conflict with, the resource measures developed over years by the settling Parties, as well as agency recommendations and USFS's Final FPA Section 4(e) Conditions. The Draft Certification also poses significant challenges, mandates operational constraints that significantly undermine Project economics, and introduces tremendous uncertainties regarding future operation and maintenance of the six Big Creek Projects. If adopted, the additional conditions in the Draft Certification will undoubtedly lead to significantly increased implementation costs.

Summary of Comments

For these reasons, SCE is deeply concerned by the Draft Certification. The considerable investment made by SCE and numerous other Parties over many years to extensively study, analyze, and collaborate to find solutions in the Settlement Agreement, coupled with the extensive supporting scientific record, should not be set aside unilaterally by the State Water Board. SCE requests that the State Water Board engage in meaningful dialogue with SCE and its settling Parties to collaboratively resolve these important issues in a manner that considers the well-developed scientific record and the thoughtful and balanced Settlement Agreement conditions.

As a starting point to commencing discussions, SCE's enclosed comments request that the State Water Board's final certification should modify 34 of the Draft Conditions and completely remove five additional Draft Conditions. In general, SCE's comments and recommendations include:

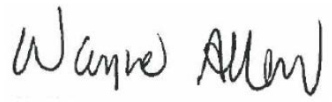
- Allow for implementation of management and monitoring plans developed in consultation with USFS, USFWS, CDFW, the State Water Board, Native American Tribes, local and regional authorities, non-governmental organizations, and the public, and included in Appendix A of the Settlement Agreement;
- Require additional consultation and development of new management and monitoring plans for the Portal Hydroelectric Project and the Vermilion Valley Hydroelectric Project;

- Remove non-FERC Settlement Agreements (Appendix B of the Settlement Agreement) from the Draft Certification since they are solely agreements among the settling parties and are not required to protect, mitigate, or enhance environmental or cultural resources from ongoing operation and maintenance of the Projects;
- Remove extraneous mitigation measures with no clear connection to Project impacts;
- Remove or modify conditions that are unsupported or even contradict applicable laws, statutes, and/or regulations; and
- Focus monitoring approach and frequency on Project impacts identified through studies and extensive consultation.

Conclusion

SCE appreciates the opportunity to comment on the Draft Certification and stands ready to work closely with the State Water Board to review comments and begin working collaboratively to resolve our concerns. We will be in touch with you to identify next steps in this process, but if in the meantime you have any questions regarding the comments, please contact me directly at (626) 302-9741 or wayne.allen@sce.com.

Sincerely,



Wayne P. Allen
Principal Manager

Enclosures:

- Attachment A: Southern California Edison Company's Requested Edits and Associated Rationale for Removal or Modification of Conditions in State Water Board's Draft 401 Water Quality Certification
- Attachment B: Distribution List

Attachment A

Southern California Edison Company's
Requested Edits and Associated Rationale for
Removal or Modification of Conditions in
State Water Board's
Draft 401 Water Quality Certification

Six Big Creek Hydroelectric Projects

(FERC Project Nos. 67, 120, 2085, 2086, 2174, and 2175)

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Summary of Southern California Edison Company's Requests by Condition

Draft 401 Water Quality Certification Condition	SCE Request
1 – Big Creek ALP Settlement Agreement	Remove
2 – Water Years	Modify
3 – Gaging	Modify
4 – Minimum Instream Flows	Modify
5 – Operational Release Limitations – Mono Creek (Vermilion Valley Hydroelectric Project)	Modify
6 – Ramping Rates	Modify
7 – Channel and Riparian Maintenance Flows	Modify
8 – Small Diversions Decommissioning	Modify
9 – Reservoir Water Level Management	Modify
10 – Whitewater Flows	Modify
11 – Erosion and Sediment Control – Warm Creek Diversion Channel (Vermilion Valley Hydroelectric Project)	No Comment
12 – Gravel Augmentation Program – Mammoth Pool Bypass Reach (Mammoth Pool Hydroelectric Project)	No Comment
13 – Sediment Management	No Comment
14 – Dam Seepage Remediation – Camp 61 Creek (Portal Hydroelectric Project)	Modify
15 – Stream Stabilization and Seepage Remediation – Adit 2 Creek (Portal Hydroelectric Project)	Modify
16 – Dam Seepage Assessment and Remediation – Mono Creek (Vermilion Valley Hydroelectric Project)	Modify
17 – Riparian Areas	Modify
18 – Large Woody Material	Modify
19 – Fish	Modify
20 – Water Quality Monitoring and Management	Modify
21 – Water Temperature Monitoring and Management	Modify
22 – Recreation Management	Modify
23 – Bald Eagles	Modify
24 – Transportation Management	Modify
25 – Amphibians	Modify
26 – Jackass Meadow Sedge Bed Restoration (Big Creek Nos. 2A, 8, and Eastwood Hydroelectric Project)	Remove
27 – Big Creek Fish Hatchery (Big Creek Nos. 2A, 8, and Eastwood Hydroelectric Project)	Remove
28 – Vegetation and Integrated Pest Management	Modify
29 – Annual Consultation Meetings	Remove
30 – Extremely Dry Conditions	Modify
31	Modify
32	Remove
33	Modify
34	Modify
35	Modify

Draft 401 Water Quality Certification Condition	SCE Request
36	Modify
37	No Comment
38	No Comment
39	Modify
40	Modify
41	Modify
42	Modify
43	No Comment
44	No Comment
45	No Comment
46	No Comment
47	Modify
48	Modify
49	No Comment
50	No Comment
51	No Comment
52	No Comment

DRAFT CONDITION 1. Big Creek ALP Settlement Agreement

Request: SCE requests that Draft Condition 1 be removed from the Draft 401 Water Quality Certification (Draft Certification). The associated rationale is provided below.

~~**CONDITION 1. Big Creek ALP Settlement Agreement**~~

~~**FERC Project Nos. 67, 120, 2085, 2086, 2174, and 2175**~~

~~This water quality certification (certification) establishes conditions requiring actions contained in the Big Creek Alternative Licensing Process (ALP) Hydroelectric Projects Settlement Agreement[23] as outlined in Table 1. Although these Big Creek ALP Settlement Agreement items are not reproduced in their entirety in this certification, full compliance with all incorporated provisions of the settlement, as amended by this certification, is a requirement of this certification. To the extent that the conditions of this certification and the incorporated provisions of the Big Creek ALP Settlement Agreement are inconsistent, the Licensee shall comply with the conditions of this certification.~~

~~**Table 1.** Incorporated Big Creek ALP Settlement Agreement Items and Corresponding Certification Conditions~~

~~Big Creek ALP Settlement Agreement Section~~	~~Big Creek ALP Settlement Agreement Description~~	~~Corresponding Certification Condition~~
~~Appendix A §1.1~~	~~Instream Flows~~	~~Condition 4~~
~~Appendix A §1.2, D,E,F~~	~~Channel and Riparian Maintenance Flows, Mono Creek Channel Riparian Maintenance Flow Plan, Camp 61 Creek Channel Riparian Maintenance Flow Plan, Channel Riparian Maintenance Flows for the South Fork San Joaquin River Below Florence Reservoir~~	~~Condition 7~~
~~Appendix A §1.7~~	~~Large Wood Debris Management License Article~~	~~Condition 18~~
~~Appendix B §1.1~~	~~Vermilion Valley Leakage Channel Macroinvertebrate Study Plan~~	~~Condition 16~~
~~Appendix B §1.2~~	~~Gravel Augmentation Plan~~	~~Condition 12~~
~~Appendix B §2.13~~	~~Jackass Meadow Sedge Bed Restoration~~	~~Condition 26~~
~~Appendix B §4.0~~	~~Recreation Management~~	~~Condition 22~~
~~Appendix B §4.9~~	~~Big Creek Fish Hatchery~~	~~Condition 27~~
~~Appendix G~~	~~Small Diversion Decommissioning Plan~~	~~Condition 8~~
~~Appendix H~~	~~Temperature Monitoring and Management Plan~~	~~Condition 21~~
~~Appendix I~~	~~Fish Monitoring Plan~~	~~Condition 19~~

~~Big Creek ALP Settlement Agreement Section~~	~~Big Creek ALP Settlement Agreement Description~~	~~Corresponding Certification Condition~~
~~Appendix J~~	~~Sediment Management Prescriptions~~	~~Condition 13~~
~~Appendix K~~	~~Riparian Monitoring Plan~~	~~Condition 17~~
~~Appendix L~~	~~Flow Monitoring and Reservoir Water Level Measurement Plan~~	~~Condition 3~~
~~Appendix N~~	~~Transportation System Management Plan~~	~~Condition 24~~
~~Appendix O §5.5~~	~~Reservoir Recreation~~	~~Condition 9~~
~~Appendix O §5.6~~	~~Whitewater Boating~~	~~Condition 10~~
~~Appendix P~~	~~Bald Eagle Management Plan~~	~~Condition 23~~
~~Appendix R~~	~~Vegetation and Integrated Pest Management Plan~~	~~Condition 28~~

~~[23] Big Creek Alternative Licensing Process (ALP) Hydroelectric Projects, Settlement Agreement, Mammoth Pool (FERC Project No. 2085), Big Creek Nos. 1 and 2 (FERC Project No. 2175), Big Creek Nos. 2A, 8, and Eastwood (FERC Project No. 67), Big Creek No. 3 (FERC Project No. 120). February 2007.~~

Rationale: SCE requests that State Water Board remove Draft Condition 1 when issuing its final Water Quality Certification because it: (1) is inaccurate by implying that the Draft Certification is generally consistent with the terms of the Big Creek Alternative Licensing Process (ALP) Hydroelectric Project Settlement Agreement (Settlement Agreement), and (2) requires the Licensee to comply with mandatory conditions by the State Water Board that directly conflict with both the terms of the Settlement Agreement and U.S. Forest Service (USFS) Final mandatory Federal Power Act (FPA) Section 4(e) Conditions.

As part of Draft Condition 1, the State Water Board is requiring compliance with all incorporated provisions of the Settlement Agreement, as amended by the Draft Certification. However, the majority of conditions in the Draft Certification (including those identified in Table 1 of the Draft Certification) are vastly different from requirements in the Settlement Agreement, resource agency recommendations, and USFS's Final FPA Section 4(e) Conditions. As such, SCE requests modification of 23 conditions and removal of four non-administrative conditions presented in the Draft Certification (Conditions 1 to 30) to provide consistency with the Settlement Agreement and USFS's Final FPA Section 4(e) Conditions. Specifically, SCE requests: 1) removal of non-FERC Settlement Agreement terms that are off-license agreements solely among the settling Parties, and are not required to protect, mitigate, or enhance environmental or cultural resources from ongoing operation and maintenance of the projects; 2) modification of conditions to allow for implementation of proposed license conditions including management and monitoring plans consistent with the Settlement Agreement and USFS's Final FPA Section 4(e) Conditions for the Big Creek ALP projects; and 3) removal of

conditions that require extraneous mitigation measures with no clear connection to project impacts.

Draft Condition 1 requires SCE to comply with the conditions in the Draft Certification even when these conditions conflict with those in the Settlement Agreement. In addition, the State Water Board fails to acknowledge and address inconsistencies in their conditions with mandatory conditions prescribed in the USFS's Final FPA Section 4(e) Conditions. Terms of the Settlement Agreement requested that both State Water Board and USFS accept and incorporate, without material modification, all of the measures in the Settlement Agreement that are necessary for ensuring that the FERC license meets the state water quality criterion. Unfortunately, the State Water Board did not follow this request in the Draft Certification. In contrast, USFS's Final FPA Section 4(e) Conditions are consistent with the Settlement Agreement. The result is conflicting mandatory conditions, which makes it impossible for SCE to meet its future compliance obligations.

Based on the inconsistency of the Draft Certification with the Settlement Agreement and USFS's Final FPA Section 4(e) Conditions and the fact that SCE is requesting modification of the majority of conditions in the Draft Certification, it is inaccurate to suggest in Draft Condition 1 that the Draft Certification incorporates conditions contained in the Settlement Agreement. SCE requests that State Water Board remove Draft Condition 1.

DRAFT CONDITION 2. Water Years

Request: SCE requests the State Water Board modify Draft Condition 2. The requested modifications and associated rationale are provided below.

> **CONDITION 2. Water Years**
>
> **FERC Project Nos. 67, 120, 2085, 2086, 2174, and 2175**
>
> The water year type (e.g., Wet, Above Normal, Below Normal, Dry, and Critical) shall be based on the March 1 forecast from the Department of Water Resources (DWR) Bulletin 120, San Joaquin Valley Index or its successor index. By March 15 of each year, the Licensee shall notify the Deputy Director of the Division of Water Rights (Deputy Director) of the March 1 determination of the water year type. By April 1 of each year, the Licensee shall implement minimum instream flows, channel and riparian maintenance flows, and recreational flow requirements based on the March 1 water year type in accordance with~~to~~ Conditions 4 (Minimum Instream Flows), 7 (Channel and Riparian Maintenance Flows), and 10 (Whitewater Flows), respectively. The Licensee shall adjust flows based on the April 1 and/or May 1 DWR water year forecasts if the water year forecast(s) is (are) updated. Within ~~24 hours~~three business days of a published change in water year type by DWR due to the April 1 and/or May 1 water year forecast, the Licensee shall notify the Deputy Director of the change, and implement the associated flows in compliance with Conditions 4, 7, and 10 of the certification. By May 31 of each year, the Licensee shall submit written documentation to the Deputy Director

of the final water year type determination, as well as the March 1, April 1, and May 1 water year type determinations associated with that year. The final water type and associated flow requirements shall remain in effect until March 31 of the following year. Any changes in flows made in response to the change in water year type shall comply with Condition 6 (Ramping Rates).

Rationale: SCE requests that Draft Condition 2 be modified to allow additional time—3 business days versus 24 hours—for water year updates to be reviewed by SCE and notifications to be sent to the Deputy Director. In addition, SCE requests that the potential for a successor index that may replace Bulletin 120 over the term of the license, be incorporated into Condition 2 adopted in the final Water Quality Certification.

The requirement to notify the Deputy Director within 24 hours of a change in water year type places an undue burden on SCE resulting from uncertainty in the posting date by DWR. SCE requests the reporting requirements to the Deputy Director be modified from 24 hours to 3 business days to allow SCE sufficient time to review and characterize any changes and notify the Deputy Director. In addition, as specified in the Settlement Agreement, the language "or its successor index" should be added to the use of DWR Bulletin 120, San Joaquin Valley Index, as there may be a change in the index over the term of the new license.

DRAFT CONDITION 3. Gaging

Request: SCE requests the State Water Board modify Draft Condition 3. The requested modifications and associated rationale are provided below.

CONDITION 3. GAGING

FERC Project Nos. 67, 120, 2085, 2086, 2174, and 2175

Except as otherwise approved in this certification, within 30 days of license issuance flows and reservoir levels shall be measured at the gages listed in Tables 2 and 3.

Within ~~nine months~~ one year of license issuance, the Licensee shall submit a Flow Monitoring and Reservoir Water Level Gaging Plan (Gaging Plan) for the Six Big Creek Hydroelectric Projects to the Deputy Director for review and approval. The Deputy Director may require modifications to the Gaging Plan as part of any approval. The Gaging Plan shall be developed in consultation with staff from California Department of Fish and Wildlife (CDFW), United States Forest Service (USFS), United States Fish and Wildlife Service (USFWS), and the State Water Resources Control Board (State Water Board). The Licensee shall file with FERC the Deputy Director- approved Gaging Plan, and any approved amendments thereto. Any construction, or other activities associated with the gages listed in Tables 2 and 3 that may impact water quality or beneficial uses are subject to review and approval by the Deputy Director prior to implementation.

The *Flow Monitoring and Reservoir Water Level Measurement Plan* contained in Appendix L of the Big Creek ALP Settlement Agreement: (a) outlines compliance gages (shown in

Table 2 and Table 3) for minimum instream flows (Condition 4) and reservoir levels (Condition 9); and (b) lays out a general process and preliminary schedule for the design, permitting, and installation of new water control infrastructure (shown in Table 2). Appendix L shall serve as the starting point for the Gaging Plan required per this condition.

The primary goal of the Gaging Plan shall be to: (a) list the gages that will be operated and maintained to effectively implement and document compliance with the conditions of this certification; (b) provide descriptions of the proposed water control infrastructure improvements necessary to comply with the instream flow, reservoir level, and dam seepage requirements specified in this certification; and (c) provide information on the measures that will be implemented during construction and maintenance of the gages to protect water quality and beneficial uses.

At a minimum, the Gaging Plan shall include:

(i) A statement of goals and objectives of the Gaging Plan;

(ii) Descriptions, maps, and photographs of existing water control infrastructure and gaging equipment and the area of proposed water control infrastructure and flow gaging upgrades;

(iii) Descriptions~~, plans, and drawings~~ of proposed water control infrastructure and gaging improvements described in Tables 2 and 3 of Appendix L of the Big Creek ALP Settlement Agreement;

(iv) Proposed stream flow and reservoir water level monitoring ~~programs~~ procedures and schedules for the Six Big Creek Hydroelectric Projects, including proposed operation, maintenance, and calibration protocols and installation schedules for all flow gaging and reservoir water level measurement equipment;

(v) Proposal for disseminating flow monitoring and reservoir measurement data, which shall include making data available to State Water Board staff and the public via the internet, as well as other appropriate formats;

(vi) Updated schedule for the design, permitting, and installation of all proposed water control infrastructure, flow monitoring equipment, and reservoir level measurement equipment necessary to implement and document compliance with the instream flow and reservoir level requirements of this certification; and

(vii) Descriptions of proposed m~~M~~easures to protect water quality and beneficial uses during installation, construction, and maintenance of all proposed water control infrastructure and flow monitoring / reservoir measurement equipment, including proposed monitoring and reporting.

The Licensee shall implement the Gaging Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein. ~~Unless otherwise approved by the Deputy Director,~~ The Licensee shall make a

good faith effort to install and make fully operational the proposed water control infrastructure and flow monitoring described in the Gaging Plan ~~shall be installed and made fully operational~~ in accordance with the schedule shown in Table 2. SCE will strive to meet the completion schedules identified in Table 2; however, the schedule may be extended to allow SCE adequate time to obtain recovery of its costs in a California Public Utilities Commission (CPUC) rate recovery proceeding. The deadlines for the completion of construction (for compliance purposes) will be concurrent with the end of the first Dry water year after acquisition of all necessary regulatory permits and upon approval by the Deputy Director. The Licensee shall submit annual progress reports to the Deputy Director regarding the status of implementation of the Gaging Plan and the need for any updates to the plan.

The Licensee shall update the Gaging Plan as necessary throughout the license period and any extensions, to incorporate: (a) updates to the Reservoir Management Plan (Condition 9); (b) dam seepage monitoring and data dissemination requirements (Conditions 14-16); and (c) the installation of new or replacement infrastructure associated with flow monitoring or reservoir level measurement.

Table 2. Stream Flow Gages and Water Control Infrastructure Improvements[24]

Project and Bypass Reach	Currently Gaged[25]	New Gage Proposed[26]	Existing USGS Gage Number	Proposed Water Control Infrastructure Improvements[27]	Deadline for Installation of Proposed Water Control Infrastructure Improvements and/or New Gages
South Fork San Joaquin (Downstream of Florence Lake Dam)	X	–	11230215	–	N/A
Bear Creek (Downstream of Diversion)	X	–	11230530	–	N/A
Hooper Creek (Downstream of Diversion)	X	–	11230200	–	N/A
Mono Creek (Downstream of Mono Diversion)	X	X[28]	11231600	X	≤4 years of license issuance
Chinquapin Creek (Downstream of Diversion)	X	–	11230560	–	N/A
Bolsillo Creek (Downstream of Diversion)	X	–	11230670	–	N/A

Project and Bypass Reach	Currently Gaged[25]	New Gage Proposed[26]	Existing USGS Gage Number	Proposed Water Control Infrastructure Improvements[27]	Deadline for Installation of Proposed Water Control Infrastructure Improvements and/or New Gages
Camp 62 Creek (Downstream of Diversion)	X	–	11230600	–	N/A

[24] Prior to installation of new water control infrastructure and/or monitoring equipment, the Licensee shall make a good faith effort to provide the specified minimum instream flows (Condition 4) and document compliance using existing infrastructure and flow monitoring equipment.

[25] Within 30 days of license issuance, minimum instream flows shall be measured at the existing gages identified in Table 2, unless otherwise approved in writing by the Deputy Director.

[26] Minimum instream flows shall be measured at the new gage within 45 days of the new gage's installation unless otherwise approved in writing by the Deputy Director.

[27] Where new water control infrastructure and/or monitoring equipment is proposed and necessary for compliance, minimum instream flows (Condition 4) shall be implemented within 45 days from the date that infrastructure and flow monitoring equipment is installed and fully operational. Items with a "*" indicate water control infrastructure modifications are needed to fully implement required minimum instream flows outlined in Condition 4.

[28] A new gage (acoustic velocity meter) is proposed to be installed to monitor increased MIFs under the new license.

Project and Bypass Reach	Currently Gaged[25]	New Gage Proposed[26]	Existing USGS Gage Number	Proposed Water Control Infrastructure Improvements[27]	Deadline for Installation of Proposed Water Control Infrastructure Improvements and/or New Gages
Pitman Creek (Downstream of Diversion)	X	–	11237700	–	N/A
North Fork Stevenson Creek (Downstream of Diversion)	X	–	11239300	–	N/A
Balsam Creek (Forebay to Diversion)	X	–	11238270	–	N/A
Stevenson Creek (Downstream of Diversion)	X	–	11241500	–	N/A

Project and Bypass Reach	Currently Gaged[25]	New Gage Proposed[26]	Existing USGS Gage Number	Proposed Water Control Infrastructure Improvements[27]	Deadline for Installation of Proposed Water Control Infrastructure Improvements and/or New Gages
Big Creek (Dam 5 to San Joaquin River)	X	X[29]	11238500	X	≤4 years of license issuance
San Joaquin River (Dam 6 to Redinger Reservoir)	X	–	11238600	X	≤5 years of license issuance
San Joaquin River (Mammoth Pool Dam to Dam 6)	X	X	11234760	X	≤5 years of license issuance
Ross Creek (Downstream of Diversion)	-	X	-	X*	≤3 years of license issuance
Rock Creek (Downstream of Diversion)	-	X	-	X*	≤4 years of license issuance
Mono Creek (Downstream of Vermilion Valley Dam)	X	–	11231500	–	N/A
Warm Creek (Downstream of Diversion)	X	–	11231700	–	N/A
Camp 61 Creek (Downstream of Portal Forebay Dam)	–	X	–	X	~~≤3 years of license issuance~~ Within the end of the first Dry year after Deputy Director approval of the remediation plan for Camp 61 Creek under Condition 14
Big Creek (Huntington Lake to Dam 4)	X	–	11237000	–	N/A
Big Creek (Dam 4 to Dam 5)	–	X	–	X	≤5 years of license issuance
Balsam Creek (Downstream of Balsam Creek Diversion)	–	X	–	X	≤4 years of license issuance

Project and Bypass Reach	Currently Gaged[25]	New Gage Proposed[26]	Existing USGS Gage Number	Proposed Water Control Infrastructure Improvements[27]	Deadline for Installation of Proposed Water Control Infrastructure Improvements and/or New Gages
Ely Creek (Downstream of Diversion)	–	X	–	X	≤4 years of license issuance

[29] An acoustic velocity meter gage is proposed to be installed at Dam 5 to monitor minimum instream flow releases. The existing United States Geological Survey (USGS) gage will be operated to monitor higher flow events.

Table 3. Reservoir Water Level Gages

Reservoir	Gage Number	Gage Type
Big Creek 2A, 8, and Eastwood (FERC Project No. 67)		
Florence Lake	USGS No. 11229600	Water-stage recorder
Shaver Lake	USGS No. 11239500	Water-stage recorder
Mammoth Pool (FERC Project No. 2085)		
Mammoth Pool Reservoir	USGS No. 11234700	Water-stage recorder
Big Creek Nos. 1 and 2 (FERC Project No. 2175)		
Huntington Lake	USGS No. 11236000	Water-stage recorder
Huntington Lake*	–	Staff gage

* A new staff gage shall be installed at the USFS Rancheria Boat Ramp at Huntington Lake, in accordance to Condition 17 of the USFS Section 4(e) for the Big Creek Nos. 1 and 2 Hydroelectric Project (FERC Project No. 2175)

Rationale: Construction of proposed water control infrastructure and/or new gages requires: (1) SCE to budget and obtain recovery of its costs in a California Public Utilities Commission (CPUC) rate recovery proceeding; and (2) a Dry water year to have sufficient time and suitable environmental conditions to complete construction activities and demobilize prior to the winter. SCE requests that the schedule for completion of construction identified in Table 2 be contingent on the completion of SCE's standard budgeting process and rate case through the CPUC as a regulated utility and be concurrent with the end of the first Dry year after acquisition of all necessary regulatory permits and upon approval by the Deputy Director.

SCE requests that the State Water Board remove the requirement for submittal of detailed Project-specific plans and drawings in the Gaging Plan within one year of license issuance. Additional time is necessary for completion of site-specific engineering to support the infrastructure modifications. SCE proposes to submit Project-specific plans and drawings for Deputy Director approval concurrent with the initiation of permitting for each project.

Further, the deadline for implementation of any proposed water control infrastructure and/or new gages at Portal Forebay (Camp 61 Creek) should be compatible with any seepage remediation plans implemented to address water quality in Camp 61 Creek (Draft Condition 14). Therefore, SCE requests that the completion of any proposed water control infrastructure and/or new gages at Portal Forebay (Camp 61 Creek) be concurrent with the end of the first Dry year after approval by the Deputy Director of the seepage remediation plan, infrastructure modifications associated with flow releases and gaging and acquisition of all necessary regulatory permits.

DRAFT CONDITION 4. Minimum Instream Flows

Request: SCE requests the State Water Board modify Draft Condition 4. The requested modifications and associated rationale are provided below.

> **CONDITON 4. Minimum Instream Flows**
>
> **FERC Project Nos. 67, 120, 2085, 2086, 2174, and 2175**
>
> The Licensee shall maintain minimum instream flows (MIFs) downstream of the Six Big Creek Hydroelectric Projects dams and diversions in accordance with the flow requirements set forth in Table 4 through Table 27 or the natural inflow whichever is less. Instantaneous flows shall be measured at least once every 15 minutes. The 24-hour average flow values shall be determined by calculating the arithmetic mean of the instantaneous flow measurements taken from midnight of one day to midnight of the next day.
>
> Within ~~one~~ two years of license issuance, the Licensee shall submit a Natural Inflow Report to the Deputy Director for review and approval. The Natural Inflow Report shall describe how the Licensee proposes to determine natural inflows for each of the waterbodies listed in Tables 4 through 27. The Deputy Director may require modifications to the Natural Inflow Report as part of any approval. The Natural Inflow Report shall be developed in consultation with staff from CDFW, USFS, USFWS, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Natural Inflow Report and any approved amendments thereto.
>
> Unless otherwise approved in writing by the Deputy Director, the MIFs (Table 4 through Table 27) shall be implemented as soon as practicable, but no later than 30 days following license issuance. Where new water control infrastructure and/or flow monitoring equipment are proposed, MIF requirements shall be implemented in accordance with the schedule provided in Table 2 (see Condition 3). Where new water control infrastructure and/or monitoring equipment is proposed and necessary for compliance, MIF requirements shall be implemented no more than 45 days from the date that infrastructure and flow monitoring equipment is installed and fully operational. Prior to installation of new water control infrastructure and/or monitoring equipment, the Licensee shall make a good faith effort to provide the specified MIF and document compliance using existing infrastructure and flow monitoring equipment.

4(A) Big Creek Nos. 2A, 8, and Eastwood Hydroelectric Project (FERC Project No. 67) Minimum Instream Flow Requirements (Table 4 through Table 16)

Table 4. South Fork San Joaquin River (Downstream of Florence Lake Dam; USGS Gage No. 11230215)

	All Water Year Types	
Date Range	**Mean Daily Flow**	**Instantaneous Flow**
Oct 1 – Oct 31	30 cfs	27 cfs
Nov 1 – Mar 31	25 cfs	22 cfs
Apr 1 – Jun 30	40 cfs	36 cfs
Jul 1 – Sep 30	35 cfs	32 cfs

Table 5. Bear Creek (Downstream of Bear Creek Diversion Dam; USGS Gage No. 11230530)

	All Water Year Types	
Date Range	**Mean Daily Flow**	**Instantaneous Flow**
Jul 1 – Nov 30	7 cfs	5 cfs
Dec 1 – Dec 31	6 cfs	4 cfs
Jan 1 – Mar 31	4 cfs	3 cfs
Apr 1 – Jun 30	10 cfs	8 cfs

Table 6. Hooper (Downstream of Hooper Creek (Downstream of Hooper Creek Diversion Dam; USGS Gage No. 11230200)

	All Water Year Types	
Date Range	**Mean Daily Flow**	**Instantaneous Flow**
Oct 1 – Mar 31	2 cfs	1.5 cfs
Apr 1 – Jun 30	4 cfs	3.0 cfs
Jul 1 -- Sep 30	3 cfs	2.0 cfs

Table 7. Mono Creek (Downstream of Mono Creek Diversion Dam; USGS Gage No. 11231600 and New Gage Proposed)

	All Water Year Types	
Date Range	**Mean Daily Flow**	**Instantaneous Flow**
Sep 1—Dec 31	25 cfs	22 cfs
Jan 1 – Mar 31	18 cfs	16 cfs
Apr 1—Jun 30	25 cfs	22 cfs
Jul 1 – Aug 31	30 cfs	27 cfs

Table 8. Chinquapin Creek (Downstream of Chinquapin Creek Diversion Dam; USGS Gage No. 11230560)

	All Water Year Types	
Date Range	**Mean Daily Flow**	**Instantaneous Flow**
Jul 1 – Mar 31	0.5 cfs	0.35 cfs
Apr – Jun 30	1.0 cfs	0.75 cfs

Table 9. Bolsillo Creek (Downstream of Bolsillo Creek Diversion Dam; USGS Gage No. 11230670)

	All Water Year Types	
Date Range	**Mean Daily Flow**	**Instantaneous Flow**
Jul 1 – Mar 31	0.5 cfs	0.35 cfs
Apr 1 – Jun 30	1.0 cfs	0.75 cfs

Table 10. Camp 62 Creek (Downstream of Camp 62 Creek Diversion Dam; USGS Gage No. 11230600)

	All Water Year Types	
Date Range	**Mean Daily Flow**	**Instantaneous Flow**
Jul 1 – Mar 31	0.5 cfs	0.35 cfs
Apr 1 – Jun 30	1.0 cfs	0.75 cfs

Table 11. Pitman Creek (Downstream of Pitman Creek Diversion Dam; USGS Gage No. 11237700)

	All Water Year Types	
Date Range	**Mean Daily Flow**	**Instantaneous Flow**
Jul 1 – Mar 31	0.8 cfs	0.5 cfs
Apr 1 – Jun 30	2.5 cfs	2.0 cfs

Table 12. North Fork Stevenson Creek (Downstream of North Fork Stevenson Creek Diversion Dam; USGS Gage No. 11239300)

Date Range	**All Water Year Types**
Oct 1 – Sep 30	The minimum release shall be 12 cfs or the flow through the instream flow valve when that valve is wide open.

Table 13. Balsam Creek (From Balsam Meadow Forebay Dam to Balsam Creek Diversion Dam; USGS Gage No. 11238270)

Date Range	All Water Year Types	
	Mean Daily Flow	**Instantaneous Flow**
Jul 1 – Mar 31	1 cfs	0.75 cfs
Apr 1 – Jun 30	2 cfs	1.50 cfs

Table 14. Stevenson Creek (Downstream of Shaver Lake Dam; USGS Gage No. 11241500)

Date Range	All Water Year Types	
	Mean Daily Flow	**Instantaneous Flow**
Oct 1 – Mar 31	5 cfs	4 cfs
Apr 1 – Jun 30	10 cfs	8 cfs
Jul 1 -- Sep 30	8 cfs	6 cfs

Table 15. Big Creek (From Dam 5 to confluence with San Joaquin River; USGS Gage No. 11238500 and New Gage*)

Date Range	All Water Year Types	
	Mean Daily Flow	**Instantaneous Flow**
Oct 1 – Oct 31	8 cfs	6 cfs
Nov 1 – Mar 31	7 cfs	5 cfs
Apr 1 -- Sep 30	12 cfs	10 cfs
• An acoustic velocity meter gage is proposed to be installed at Dam 5 to monitor MIF releases. The existing USGS gage no. 11238500 will be operated to monitor higher flow events.		

Table 16. Tombstone Creek, North Slide Creek, South Slide Creek, and Crater Creek (Downstream of respective Diversion Dams)

	All Water Year Types
Year-round	Natural Flow (Diversions are no longer used)

4(B) Big Creek No. 3 Hydroelectric Project (FERC Project No. 120) Minimum Instream Flow Requirements (Table 17)

Table 17. San Joaquin River (From Dam 6 to Redinger Reservoir; USGS Gage No. 11238600)

Date Range	All Water Year Types	
	Mean Daily Flow	Instantaneous Flow
Aug 1 – Oct 31	50 cfs	45 cfs
Nov 1 – Nov 30	25 cfs	22 cfs
Dec 1 – Feb 28/29	20 cfs	18 cfs
Mar 1 – Mar 31	50 cfs	45 cfs
Apr 1 – Jun 30	80 cfs	72 cfs
Jul 1 – Jul 31	60 cfs	54 cfs

4(C) Mammoth Pool Hydroelectric Project (FERC Project No. 2085) Minimum Instream Flow Requirements (Table 18 through Table 20)

Table 18. San Joaquin River (Downstream of Mammoth Pool Dam to Dam 6; USGS Gage No. 11234760 and New Gage Proposed; Water Control Infrastructure Improvement)

Date Range	All Water Year Types	
	Mean Daily Flow	Instantaneous Flow
Sep 1 – Nov 30	80 cfs	72 cfs
Dec 1 – Feb 28/29	55 cfs	50 cfs
Mar 1 – Mar 31	80 cfs	72 cfs
Apr 1 – Jun 30	125 cfs	112 cfs
Jul 1 – Aug ~~30~~31	100 cfs	90 cfs

Table 19. Rock Creek (Downstream of Rock Creek Diversion Dam; New Gage Proposed)

Date Range	All Water Year Types	
	Mean Daily Flow	Instantaneous Flow
Aug 1 – Dec 31	0.5 cfs	0.35 cfs
Jan 1 – Mar 31	1.0 cfs	0.75 cfs
Apr 1 – Jun 30	2.0 cfs	1.50 cfs
Jul 1—Jul 31	1.0 cfs	0.75 cfs

Table 20. Ross Creek (Downstream of Ross Creek Diversion Dam; New Gage Proposed)

Date Range	Wet, Above Normal, and Below Normal Water Year Types		Dry and Critical Water Year Types	
	Mean Daily Flow	Instantaneous Flow	Mean Daily Flow	Instantaneous Flow
Oct 1 – Sep 30	0.5 cfs	0.35 cfs	--	--
Dec 1 – Jun 30	--	--	0.5 cfs	0.35 cfs
Jul 1 – Nov 30	--	--	No Diversion of Flow	

4(D) Vermilion Valley Hydroelectric Project (FERC Project No. 2086) Minimum Instream Flow Requirements (Table 21 and Table 22)

Table 21. Mono Creek (Downstream of Vermilion Valley Dam to Mono Creek Dam; USGS Gage No. 11231500)

Date Range	All Water Year Types	
	Mean Daily Flow	Instantaneous Flow
Sep 15 – Dec 15	25 cfs	20 cfs
Dec 16 – Apr 30	18 cfs	15 cfs
May 1 – Sep 14	20 cfs	16 cfs

Table 22. Warm Creek (Downstream of Warm Creek Diversion Dam; USGS Gage No. 11231700)

Date Range	All Water Year Types Instantaneous Flow
When diversion is in operation	0.2 cfs

4(E) Portal Hydroelectric Project (FERC Project No. 2174) Minimum Instream Flow Requirements (Table 23)

Table 23. Camp 61 Creek (Downstream of Portal Forebay Dam; New Gage Proposed)

Date Range	Wet, Above Normal and Below Normal Water Year Types		Dry and Critical Water Year Types	
	Mean Daily Flow	Instantaneous Flow	Mean Daily Flow	Instantaneous Flow
Oct 1 – Mar 31	2 cfs	1.5 cfs		
Apr 1 – Jun 30	4 cfs	3 cfs		
Jul 1 – Sep 30	3 cfs	2 cfs		
Oct 1 – Sep 30			1.25 cfs	0.75 cfs

4(F) Big Creek Nos. 1 and 2 Hydroelectric Project (FERC Project No. 2175) Minimum Instream Flow Requirements (Table 24 through Table 27)

Table 24. Big Creek (From Huntington Lake to Dam 4; USGS Gage No. 1123700)

Date Range	All Water Year Types	
	Mean Daily Flow	**Instantaneous Flow**
Oct 1 – Mar 31	2 cfs	1.5 cfs
Apr 1 – Jun 30	MIF release valve shall be fully open	
Jul 1 – Sep 30	3 cfs	2 cfs

Table 25. Big Creek (From Dam 4 to Dam 5; New Gage Proposed)

Date Range	All Water Year Types	
	Mean Daily Flow	**Instantaneous Flow**
Oct 1 – Oct 31	8 cfs	6 cfs
Nov 1 – Mar 31	7 cfs	5 cfs
Apr 1 – Sep 30	12 cfs	10 cfs

Table 26. Balsam Creek (Downstream of Balsam Creek Diversion Dam to Confluence with Big Creek; New Gage Proposed)

Date Range	All Water Year Types	
	Mean Daily Flow	**Instantaneous Flow**
Oct 1 – Jun 30	0.5 cfs	0.35 cfs
Jul 1 – Sep 30	1.0 cfs	0.75 cfs

Table 27. Ely Creek (Downstream of Ely Creek Diversion Dam to Confluence with Big Creek; New Gage Proposed)

Date Range	All Water Year Types	
	Mean Daily Flow	**Instantaneous Flow**
Jun 1 – Feb 28/29	0.5 cfs	0.35 cfs
Mar 1 – Mar 31	1.0 cfs	0.75 cfs
Apr 1 – May 31	2.0 cfs	1.50 cfs

4(G) Compensatory Flow Releases

FERC Project Nos. 67, 120, 2085, and 2175

The Licensee shall avoid under-release of minimum instream flows whenever possible. In accordance with Appendix A and Appendix L of the Big Creek ALP Settlement Agreement for the four Big Creek ALP Hydroelectric Projects, the Licensee may provide compensatory flow releases in a rare instance when an under-release of MIFs occurs in

accordance with the terms of this condition. Within three business days, the Licensee shall notify ~~T~~the Deputy Director ~~shall be notified prior to~~ of the under release and the ~~implementing~~ implementation of compensatory flow releases. As part of Deputy Director notification, the Licensee shall identify the reason for the under release and actions the Licensee will take in the future to avoid similar under releases. The Deputy Director may require additional action in the event of a pattern of under releases.

The compensatory flow release schedule shall be as follows:

(i) If a measured 24-hour average flow value (mean daily flow) is less than the required mean daily flow, but greater than the associated instantaneous flow, the Licensee shall begin releasing a volume of water equivalent to the under-released volume within seven days of discovering the under-release.

(ii) The rate of such compensatory flow releases shall not exceed 120 percent of the applicable MIF requirement.

The 15-minute recordings used to construct the mean daily flow, as well as the under-releases and volumes released to compensate for under-releases, shall be documented and submitted to State Water Board staff. Diversion schedules for small diversions shall also be available upon request.

The mean daily flow values shall be reported to the United States Geological Survey (USGS) on an annual basis.

4(H) Unplanned Temporary Minimum Instream Flow Modifications

The MIFs may be temporarily modified if required by equipment malfunction reasonably beyond the control of the Licensee, as directed by law enforcement authorities or in emergencies. An emergency is defined as an unforeseen event that is reasonably out of the control of the Licensee and requires the Licensee to take immediate action, either unilaterally or under instruction by law enforcement or other regulatory agency staff, to prevent imminent loss of human life or substantial property damage. An emergency may include, but is not limited to: natural events such as landslides, storms, or wildfires; malfunction or failure of project works project works;[30] and recreation accidents. Drought is not considered an emergency for purposes of this condition.

When possible, the Licensee shall notify the Deputy Director prior to any unplanned temporary MIF modification. In all instances, the Licensee shall notify the Deputy Director within 24 hours of the beginning of any unplanned temporary streamflow modification. Within 96 hours of the beginning of any unplanned temporary stream flow modification, the Licensee shall provide the Deputy Director with an update of the conditions associated with the modification and an estimated timeline for returning to the required MIFs.

Within 30 days of any unplanned temporary MIF modification, the Licensee shall provide the Deputy Director with: (1) a written description of the modification and reason(s) for its necessity; (2) photo documentation of the emergency or reason for the stream flow modification; (3) a timeline for returning to the required MIFs or timeline when the MIFs resumed; (4) a description of corrective actions taken in response to an unplanned under-release of flow; and (5) a plan to prevent the need for modification of minimum instream flows resulting from a similar emergency or event in the future.

[30] Project works must be inspected and maintained to manufacturers' specified schedule or at least annually. The inspection schedule default is the most rigorous schedule. Upon State Water Board staff, USFS, CDFW, or USFWS' request, the Licensee shall provide documentation of all inspections, results, dates, staff performing inspections, and recommended maintenance, schedule for performing maintenance, and the date maintenance was performed. Lack of appropriate inspections, maintenance, or documentation may remove events from the "emergency" category, as determined by the Deputy Director.

4(l) Planned Temporary Minimum Instream Flow Modifications

The Licensee may request temporary MIF variances for non-emergency facility construction, modification, or maintenance. Non-emergency variance requests shall be submitted to the Deputy Director for approval as far in advance as practicable, but no less than three months in advance of the desired effective date. The Licensee shall notify the Technical Review Group (Condition 29) and other interested parties of the proposed temporary MIF variance. The request shall include: a description of construction, modification, or maintenance; documentation of notification to the Technical Review Group and other interested parties, and any comments received; measures that will be implemented to protect water quality and beneficial uses; and a schedule for the construction, modification, or maintenance. The Deputy Director may require modifications as part of any approval. The Licensee shall file with FERC the Deputy Director-approved modification to minimum instream flow requirements and any approved amendments thereto.

Rationale: Implementation of Minimum Instream Flows (MIFs) according to Tables 4 through 27, which correspond to the BCALP Settlement Agreement, are acceptable with the exception of a presumed typographic error in Table 18 (corrected above). MIFs in the Settlement Agreement and in Draft Condition 4 require the identified MIFs or the natural inflow, whatever is less. Draft Condition 4 includes a new requirement for SCE to provide a Natural Inflow Report to the Deputy Director within one year of license issuance. The Natural Inflow Report is to describe how SCE proposes to determine natural inflows for each of the waterbodies that have MIF requirements listed in Tables 4 through 27. Draft Condition 4 requires that this report be completed in consultation with resource agencies and submitted to the Deputy Director within one year. Given that there are 24 MIF release locations involved and the likelihood that consultation with the resource agencies will take considerable time, SCE requests that the submission date for the report be modified to two years after license issuance.

Draft Condition 4 requires that new MIFs be implemented at each location as soon as practicable, but no later than 30 days following license issuance, except where new water control infrastructure and/or flow monitoring equipment are proposed. MIFs should be implemented in accordance with the schedule provided in Table 2 (Draft Condition 3). SCE wishes to point out that evaluation and potential installation of water quality remediation that may be required for Camp 61 Creek under Draft Condition 14 may require 30 months for completion of the Phase 1 Report, and longer for approval and implementation of a design. It would be inappropriate to design and install a new release structure at Camp 61 Creek prior to the development of the requirements of structures and/or design elements needed for remediation. The schedule for the installation of a new control structure and new MIFs for Camp 61 Creek should be modified in recognition of this. The requirement for the installation of infrastructure changes and release of the full new MIFs should be modified to be concurrent with the end of the first Dry year after approval by the Deputy Director of the remediation plan and design under Draft Condition 14.

In regard to compensatory releases, SCE recommends that the compensatory release be made by SCE, as soon as practicable, and notification made to the Deputy Director within three business days.

DRAFT CONDITION 5. Operational Release Limitations – Mono Creek (Vermilion Valley Hydroelectric Project)

Request: SCE requests the State Water Board modify Draft Condition 5. The requested modification and associated rationale is provided below.

> **CONDITION 5. Operational Release Limitations – Mono Creek (Vermilion Valley Hydroelectric Project)**
>
> **FERC Project No. 2086**
>
> To protect brown trout fry, the Licensee shall not release ~~conduct an~~ operational spills ~~release~~ greater than 50 cfs during the period April 16th thru June 15th without notifying and consulting with the Forest Service prior to releasing the operational spill.
>
> For this condition, the definition of a "natural" spill is a flow event into the channel that exceeds the storage capacity of the reservoir and the capacity of the diversion structures. An operational spill is defined as a flow event into the channel that could have been held as storage in the reservoir. ~~into Mono Creek downstream of Vermilion Valley Dam during the period of April 16 through June 15 without first notifying, consulting with, and obtaining written approval from the Deputy Director. The Deputy Director may require modifications as part of any approval. For purposes of this condition, an operational release is defined as a flow event into the Mono Creek channel that could otherwise have been held as storage in Lake Thomas Edison.~~

Rationale: Draft Condition 5 is a restatement of USFS's Final FPA Section 4(e) Condition 12 A 1, Operational Spill Management. However, it does not state the objective of the Condition provided in the FPA Section 4(e) Condition. That objective is to protect brown trout fry. This objective should be added to Condition 5 for clarification and consistency with USFS's Final FPA Section 4(e) Condition 12 A 1.

DRAFT CONDITION 6. Ramping Rates

Request: SCE requests that the State Water Board modify Draft Condition 6. The requested modifications and associated rationale are provided below.

CONDITION 6. Ramping Rates

FERC Project Nos. 67, 120, 2085, 2086, 2174, and 2175

6(A) ~~Interim~~ Ramping Rates Study Plan

~~Within six months of license issuance, the Licensee shall submit an Interim Ramping Rates Plan for Deputy Director review and approval. The Deputy Director may require modifications to the Interim Ramping Rates Plan as part of any approval. The Interim Ramping Rates Plan shall be developed in consultation with staff from USFS, CDFW, USFWS, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Interim Ramping Rates Plan and any approved amendments thereto. The Interim Ramping Rates Plan shall include proposed interim ramping rates and associated compliance points. The Interim Ramping Rates Plan shall be developed to address flow changes that are within the control of the Licensee (i.e., where water is released from one or more of the Six Big Creek Hydroelectric Projects' facilities). Flow changes for the Six Big Creek Hydroelectric Projects-affected streams within control of the Licensee include natural spills (ramp down only) and operational releases[31] (ramp up and down), including ramping rates for channel and riparian maintenance flows (Condition 7) which do not have numeric requirements specified in the Big Creek ALP Settlement Agreement. If ramping rates for any of the Six Big Creek Hydroelectric Projects-affected streams are determined to be unnecessary after consultation, the Licensee shall provide appropriate background, justification, and documentation of consultation to support the request for a ramping rate exclusion(s).~~

~~The Interim Ramping Rates Plan shall include~~ Within 9 months of license issuance, the Licensee will develop~~ment~~ and submit for approval by the Deputy Director ~~implementation~~ a ~~of the Mono Creek~~ Ramping Rate Study Plan[32] (Study Plan) that evaluates the need for ramping rates in bypass reaches based on ecological (aquatic biota) and social (public safety) factors, and operational constraints. For those bypass reaches where rates are deemed warranted, the study plan will evaluate ecological effects of rapid flow and stage fluctuations resulting from operational flow releases into the ~~Mono Creek~~ bypass ~~project~~ reach~~es~~.[33] Flow changes for the Six Big Creek Hydroelectric Project~~s~~-affected streams within control of the Licensee include natural

spills (ramp down only) and operational releases (ramp up and down), including ramping rates for channel and riparian maintenance flows (Draft Condition 7) which do not have numeric requirements specified in the Big Creek ALP Settlement Agreement. ~~The Licensee may propose changes to the Study Plan as part of the proposed Interim Ramping Rates Plan~~. The Study Plan shall include an evaluation of the ~~Vermilion Valley Hydroelectric Project~~ Project operations on channel geometry in the bypass reaches ~~Mono Creek~~ to determine whether fish and amphibians are subject to trapping or stranding, and whether recreationists are at risk from proposed project operations ~~the proposed interim ramping rates~~.

The Licensee shall implement the ~~Interim Ramping~~ Ramping Rates Study Plan within 30 days of receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein. The Study Plan results will be discussed with staff from USFS, USFWS, CDFW, and the State Water Board. Bypass reaches will be evaluated to determine where ramping rates are appropriate and where they are unnecessary and can be excluded. The study report will include the appropriate background, justification, and documentation of consultation to support the request for a ramping rate exclusion(s). The Study Report will be submitted to the Deputy Director for approval within 1 year of implementation.

~~31 The following terms are defined for the purposes of this condition. A "natural spill" is defined as a flow event that is initially outside the control of the Licensee (e.g., flood flows), in which water flows into a channel because available capacity of storage facilities (e.g., reservoirs, diversion structures, etc.) are exceeded. Operational releases include both releases from project facilities (e.g., outlets) and "operational spills" that are within the control of the Licensee. "Operational spill" is defined as a flow event into a channel that could have been held as storage.~~

32 Described in the 2004 USFS 4(e) Condition 12(C) for the Vermilion Valley Hydroelectric Project (FERC Project No.2086).

~~33 The Mono Creek project reach refers to the portion of Mono Creek from Vermilion Valley Dam to Mono Creek Diversion, which is part of the Vermilion Valley Hydroelectric Project (FERC Project No. 2086).~~

6(B) Long-term Ramping Rates

~~After completion of five years of fish and amphibian monitoring (Conditions 19 and 25, respectively), but no later than eight years~~ Within 4 years after license issuance, the Licensee shall submit a Long-term Ramping Rates Plan (Ramping Rates Plan) to the Deputy Director for review and approval. The Deputy Director may require modifications to the Ramping Rates Plan as part of any approval. The Ramping Rates Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Ramping Rates Plan for all Six Big Creek Hydroelectric Projects- affected streams[34] and any approved amendments thereto. The long-term ramping rates shall be developed for natural spills (ramp down only) and operational releases (ramp up and down), including channel and riparian maintenance flows (Condition 7). If ramping rates for any of the Six Big Creek Hydroelectric Projects-affected streams are determined to be unnecessary after consultation, based on the results of the Study Report, the Licensee shall provide

appropriate background, justification, and documentation of consultation to support the request for a ramping rate exclusion(s). At a minimum, the Ramping Rates Plan shall include: (a) evaluation of the potential impacts and benefits of the ~~interim~~ ramping rates on fish and amphibian populations in the ~~monitored Six Big Creek Hydroelectric Projects~~ affected stream reaches; ~~(b) proposed updates to the interim ramping rates, as appropriate;~~ (bc) if applicable, measures to reduce stranding or trapping of fish and amphibians and to provide for recreationists' safety in the bypass ~~Mono Creek~~ reaches, based on the results of implementation of the Study Plan ~~required as part of the Interim Ramping Rates Plan~~; and (cd) specifications regarding how compliance with ramping rates will be documented, which may include use of gages (Condition 3). To the extent feasible, the Ramping Rates Plan shall include adaptive management measures that provide for updates to the ramping rates to protect beneficial uses from potential impacts associated with changes in flow.

The Licensee shall include with the proposed Ramping Rates Plan documentation of consultation with the USFW, USFWS, CDFW, and State Water Board staff, copies of comments and recommendations made in connection with the Ramping Rates Plan, and a description of how the Ramping Rates Plan incorporates or addresses the comments and recommendations. The Licensee shall implement the Ramping Rates Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

~~[34] Ramping rates shall be developed for all Six Big Creek Hydroelectric Projects-affected streams unless determined unnecessary by the Deputy Director in writing, following consultation.~~

Rationale: SCE requests that the State Water Board remove the requirement for development of an Interim Ramping Rate Plan for the Six Big Creek Hydroelectric Projects (in consultation with resource agencies) within six months of license issuance. The schedule is unrealistic based on the number of bypass reaches under consideration and the need to: (1) develop reach-specific objectives; (2) summarize and develop a common understanding between the resource and hydrologic information on a reach-specific basis; (3) summarize infrastructure and operational limitations at each project diversion; (4) develop a common understanding of the effects of potential license conditions on operations of the project both from a feasibility and power generation perspective; and (5) fully discuss and evaluate potential project operations and associated resource benefits in consultation with resource agencies.

The evaluation of ramping rates should be conducted in a deliberate and systematic manner given the importance and sensitivity of this issue on potential project operations. As part of the relicensing of the Big Creek ALP Projects, Vermilion Valley Hydroelectric Project, and Portal Hydroelectric Project, MIFs and channel and riparian maintenance flows (CRMFs) were developed after extensive consultation with the USFS, USFWS, CDFW, the State Water Board, tribes, non-governmental organizations, and the public. The flows were based on the results of numerous relicensing studies that assessed the condition of the channel, aquatic resources, fisheries, and riparian vegetation and were included in: Appendix A Section 1.1 of the

Settlement Agreement: *Instream Flows*; Appendix A Section 1.2 of the Settlement Agreement: *Channel Riparian Maintenance Flows*; Appendix D of the Settlement Agreement: *Mono Creek Channel Riparian Maintenance Flow Plan*; Appendix E of the Settlement Agreement: *Camp 61 Creek Channel Riparian Maintenance Flow Plan*; Appendix F of the Settlement Agreement: *Channel and Riparian Maintenance Flows for the South Fork San Joaquin River below Florence Reservoir*; USFS Vermilion Valley Hydroelectric Project USFS FPA Section 4(e) Condition 12A: Flow Management – Minimum Streamflow Requirement and 12D Flow Management – Riparian Enhancement Flow Plan for Mono Creek; and USFS Portal Hydroelectric Project 4(e) Condition 12A: Flow Management – Minimum Streamflow Requirement. Development of ramping rates requires the same level of consideration and evaluation. Therefore, SCE recommends an alternative approach.

SCE recommends development and submittal of a Ramping Rate Study Plan (Study Plan) for approval by the Deputy Director within nine months after license issuance. The Study Plan will provide the approach for evaluation of ecological effects of rapid flow and stage fluctuations resulting from operational flow releases into the bypass reaches considering available biological and recreational information, and infrastructure operational limitations. SCE will implement the Study Plan upon receipt of Deputy Director's approval and any other required approvals, in accordance with the schedule and requirements specified therein. The Study Plan results will be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Study Plan results will be provided in a technical report to the Deputy Director for approval within one year of implementation. This provides for a deliberate and systematic approach for the development and understanding of necessary information to determine the appropriateness of ramping rates for each of the bypass reaches.

Based on development of the aforementioned information, SCE proposes to submit a Long-term Ramping Rates Plan (Ramping Rates Plan) to the Deputy Director for review and approval within four years of license issuance. The Ramping Rates Plan would be developed in consultation with resource agencies. If ramping rates for any of the Project affected streams are determined to be unnecessary after consultation, the Licensee shall provide appropriate background, justification, and documentation of consultation with resource agencies to support the request for a ramping rate exclusion(s) in the Ramping Rate Plan. SCE's approach for development of the Ramping Rates Plan expedites the completion date to four years after license issuance (SCE proposal) compared to eight years after license issuance (State Water Board Condition).

DRAFT CONDITION 7. Channel and Riparian Maintenance Flows

Request: SCE requests the State Water Board modify Draft Condition 7. The requested modifications and associated rationale are provided below.

CONDITON 7. Channel and Riparian Maintenance Flows

FERC Project Nos. 67, 2086, and 2174

The Licensee shall develop and implement channel and riparian maintenance flows (CRMFs) for the Vermilion Valley Hydroelectric Project (FERC Project No. 2086), Portal Hydroelectric Project (FERC Project No. 2174), and Big Creek 2A, 8, and Eastwood Hydroelectric Project (FERC Project No. 67).

7(A) CRMF Reporting and Adaptive Management

By November 15 of each year following CRMFs, the Licensee shall submit an Annual CRMF Report to the Deputy Director for review and approval. The Deputy Director may require modifications to the Annual CRMF Report as part of any approval, if necessary. The Annual CRMF Report shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Annual CRMF Report and any approved amendments thereto. The Annual CRMF Report shall document compliance with the CRMF requirements, summarize CRMF-related information, and propose CRMF modifications, as appropriate.

The Annual CRMF report shall include, but not be limited to:

(a) Flow magnitude, duration, ramping rates, cumulative release volume, and timing for the reporting year;

(b) Details of under-released CRMFs or other instances of noncompliance;

(c) Corrective measures taken to address the identified under-release of flows or other instances of non-compliance;

(d) Measures that will be taken to avoid similar under-release of flows or other instances of noncompliance in the future;

(e) ~~Monitoring~~ Sediment monitoring results for the following locations:

(i) Camp 61, and

(ii) Mono Creek below Diversion;

(f) Assessment of the CRMFs effectiveness based on monitoring results for the two locations listed above;

(g) Summary of previous riparian monitoring and assessment of CRMF effectiveness at the following locations:

(i) Camp 61 Creek Mono Creek below Diversion, and

(ii) Mono Creek below Vermilion Valley Dam

(iii) SFSJR below Florence Dam;

~~(g)~~(h) Proposed modifications to subsequent year's CRMFs; and

~~(h)~~(i) A summary of consultation, including comments received and how the comments were addressed.

7(B) Vermilion Valley Hydroelectric Project (FERC Project No. 2086)

7(B)(1) Warm Creek (Downstream of Warm Creek Diversion Dam)

(a) CRMF. In Wet water years (Condition 2), the Licensee shall not divert water at the Warm Creek Diversion Dam from April 1 through June 30.

(b) CRMF Monitoring. Within two years of license issuance, the Licensee shall develop a CRMF Monitoring Plan for Warm Creek (Warm Creek CRMF Plan), and submit it to the Deputy Director for review and approval. The Deputy Director may require modifications to the Warm Creek CRMF Plan as part of any approval. The Warm Creek CRMF Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC and the Deputy Director-approved Warm Creek CRMF Plan and any approved amendments thereto. The Licensee shall implement the Warm Creek CRMF Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

At a minimum, the Warm Creek CRMF Plan shall include:

(i) A statement of CRMF goals and objectives, including relevant background information;

(ii) CRMFs, as outlined in 7(B)(1)(a);

(iii) A proposed monitoring schedule and methodologies;

(iv) Criteria to evaluate the effects of CRMFs on sediment transport~~, water quality, and riparian habitat~~;

(v) Incorporation of CRMF reporting and adaptive management provisions outlined in Section 7(A), above; and

(vi) A summary of consultation, including comments received and how the comments were addressed.

7(B)(2) Mono Creek (Vermilion Valley Dam to Mono Creek Diversion)

(a) CRMF. The Licensee shall implement CRMFs below Vermilion Valley Dam unless one or both of the flow standards (Standard 1 or Standard 2, outlined below) have been met. No later than June 20 of each calendar year, the Licensee shall notify the Deputy Director whether one or both of the following flow standards have been met in Mono Creek below Vermilion Valley Dam:

(i) Standard 1: One or more natural spill events occurs between February 1 and June 15 of the current or preceding water year, with: (a) an average daily flow of at least 450 cfs for at least two consecutive days; and (b) at least 14 days (cumulative) of average daily flow greater than 150 cfs; and (c) a total cumulative flow volume of at least 9,000 acre-feet during those 14 days.

(ii) Standard 2: One or more natural or operational release events occurs during the period of June 16 to July 31 of the preceding water year, with: (a) an average daily flow of at least 450 cfs for at least two consecutive days; and (b) at least 14 days (cumulative) of average daily flow greater than 150 cfs; and (c) a total cumulative flow volume of at least 9,000 acre-feet during those 14 days.

If either Standard 1 or Standard 2 is met, the Licensee shall provide documentation of compliance with the flow standards as part of Deputy Director notification.

If the Licensee is unable to provide documentation demonstrating that one or both of the above listed flow standards have been met, the Licensee shall provide CRMF releases between June 15 and July 31 of the current year into Mono Creek below Vermilion Valley Dam. The June 15 through July 31 CRMF releases shall meet or exceed the flow magnitude (i.e., average daily flow of at least 450 cfs for at least two consecutive days), cumulative duration (i.e., at least 14 days [cumulative] of average daily flow greater than 150 cfs), and cumulative volume (i.e., total cumulative flow volume of at least 9,000 acre-feet during those 14 days) characteristics described in the above listed flow standards.

Unless otherwise approved by the Deputy Director, all CRMF releases shall be implemented in accordance with the Deputy Director-approved ramping rates (Condition 6). In Critical water years (Condition 2) preceded by two consecutive Critical water years, the Licensee may submit a written request for variance from these CRMF requirements.

(b) CRMF Monitoring. Within two years of license issuance, the Licensee shall submit the Mono Creek CRMF Monitoring Plan to the Deputy Director for review and approval. The Deputy Director may require modifications to the Mono Creek CRMF Monitoring Plan as part of any approval. The Mono Creek CRMF Monitoring Plan shall be developed in consultation with the staff from USFS,

USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Mono Creek CRMF Monitoring Plan and any approved amendments thereto. The Licensee shall implement the Mono Creek CRMF Monitoring Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

At a minimum, the Mono Creek CRMF Monitoring Plan shall include:

(i) A statement of CRMF goals and objectives, including relevant background information;

(ii) CRMFs, as outlined in 7(B)(2)(a);

(iii) A proposed monitoring program to evaluate the effects of CRMFs on ~~sediment transport, water quality, and~~ riparian habitat in Mono Creek below Vermilion Valley Dam;

(iv) Incorporation of CRMF reporting and adaptive management provisions outlined in Section 7(A), above; and

(v) A summary of consultation, including comments received and how the comments were addressed.

7(C) Portal Hydroelectric Project (FERC Project No. 2174)

7(C)(1) Camp 61 Creek (Downstream of Portal Forebay Dam)

The Licensee shall implement the Camp 61 Creek CRMF Plan, included as Appendix E of the Big Creek ALP Settlement Agreement, as amended herein. The objective of the Camp 61 Creek CRMF Plan is to identify and implement water year-based CRMF regimes that are sufficient to maintain reduced accumulation of fine sediment in Camp 61 Creek between Portal Forebay Dam and the South Fork San Joaquin River (subject reach). The Camp 61 Creek CRMF Plan includes initial CRMF schedules for Wet and Above Normal water years (Condition 2), a fine sediment monitoring program, and modified CRMF schedules that shall be implemented if the sediment monitoring program results indicate that the initial CRMF schedules are not meeting the Camp 61 Creek CRMF Plan objective. The CRMF releases will begin the first May 1 after the new compliance stream gage at Camp 61 is operational.

The Licensee will release CRMF within the limitations of equipment and measurement. These flows will be within 90% of the 24-hour average flow identified in Tables 28 and 29. CRMF are based on a 24-hour average.

(a) Initial CRMF Schedule – Wet and Above Normal Water Years

In Wet and Above Normal water years, to the extent feasible, the Licensee shall implement the initial CRMF schedule (Table 28) corresponding to the appropriate water

year classification (Condition 2) over a period of 10 consecutive days between May 1 and July 10.

Table 28. Initial Channel and Riparian Maintenance Flow Schedule for Camp 61 Creek (New Gage Proposed)

	Above Normal Water Year	**Wet Water Year**
Day 1	Ramp up from MIF* to 22 cfs	Ramp up from MIF* to 28 cfs
Days 2-3	22 cfs**	28 cfs**
Days 4-7	30 cfs**	40 cfs**
Days 8-9	22 cfs**	28 cfs**
Day 10	Ramp down to MIF*	Ramp down to MIF*
* Minimum Instream Flow (Refer to Condition No. 4) ** Mean daily (24-hour) flow		

(b) Fine Sediment Monitoring Program

The fine sediment monitoring program shall use the weighted mean fine sediment volume metric (V*w) of Hilton and Lisle (1993)[35] as an index of fine sediment supply and accumulation, and as the primary criteria for identifying and determining the appropriate CRMF regime. Alternative sediment monitoring procedures and CRMF regime criteria may be substituted if approved by the Deputy Director. Alternative procedures and criteria must be peer-reviewed.

At a minimum, key provisions of the fine sediment monitoring program shall include:

(i) The V*w for a given fine sediment monitoring event shall be determined by calculating the weighted mean value of the relative residual fine sediment volume (V*) measured in 10 to 20 pools in the subject reach, in accordance with procedures described by Hilton and Lisle (1993).

(ii) Pool locations shall be selected, in consultation with staff from USFS, USFWS, CDFW, and the State Water Board, and sampled either in the first or second summer following license issuance.

(iii) Following pool selection and the initial sampling event(s), the Licensee shall resample pools within six months of all Wet water year CRMF releases, with the following exceptions: (a) when Wet water year CRMF releases occur in consecutive years and the V*w value after the first Wet water year release is less than or equal to 0.25; and (b) when the V*w value for three successive sampling events is less than or equal to 0.25, in which case the monitoring frequency may be modified to once after every third Wet water year CRMF release, or a lesser frequency approved by the Deputy Director.

(iv) Within six months of each sampling event, the Licensee shall submit a CRMF monitoring report to the State Water Board staff for review and comment. The Licensee shall update the monitoring report to address State Water Board staff comments, and submit the updated report to the Deputy Director no later than 60 days following receipt of State Water Board staff comments. At a minimum, the monitoring report shall include:

(a) map showing the locations of pools sampled; (b) discussion of materials and methods; (c) relative residual fine sediment values (V*) for each pool sampled; (d) the weighted mean fine sediment value (V*w) for the most recent sampling event; (e) summary of V* and V*w values from all prior sampling events; and (f) analysis of the most recent monitoring results as well as long-term trends in fine sediment recruitment and accumulation within the subject reach. Monitoring reports do not need to contain the raw data or supporting calculations, but these data and calculations shall be made available to the State Water Board staff upon request.

[35] Hilton, S. and T. Lisle. 1993. Measuring the fraction of pool volume filled with fine sediment. Res. Note PSW-RN-414. U.S. Forest Service Pacific Southwest Research Station. Albany, CA.

(c) Modified CRMF Schedule – Wet and Above Normal Water Years

If V*w is greater than 0.25 after two Wet water year CRMF releases using the initial CRMF schedule (Table 28), the Licensee shall implement the modified CRMF schedule outlined in Table 29 in the next Above Normal or Wet water year. The modified CRMF schedule (Table 29) shall be implemented over a period of 12 consecutive days between May 1 and July 12.

If V*w is greater than 0.25 after two modified Wet water year CRMF releases (Table 29), the Licensee shall consult with staff from USFS, USFWS, CDFW, and the State Water Board regarding the need for further modification of CRMF regimes to achieve channel and riparian maintenance objectives. The Deputy Director reserves the authority to further modify CRMF requirements as necessary to achieve CRMF objectives outlined in the Camp 61 Creek CRMF Plan.

Table 29. Modified Channel and Riparian Maintenance Flow Schedule for Camp 61 Creek (New Gage Proposed)

CRMF Period	Above Normal Water Year	Wet Water Year
Day 1	Ramp up from MIF* to 22 cfs	Ramp up from MIF* to 28 cfs
Days 2-3	22 cfs**	28 cfs**
Days 4-9	30 cfs**	40 cfs**
Days 10-11	22 cfs**	28 cfs**
Day 12	Ramp down to MIF*	Ramp down to MIF*

* Minimum Instream Flow (Refer to Condition 4)
** Mean daily (24 hour) flow

7(D) Big Creek No. 2A, 8, and Eastwood Hydroelectric Project (FERC Project No. 67)

7(D)(1) Bear Creek (Downstream of Bear Creek Diversion)

In Wet water years (Condition 2), the Licensee shall not divert water at the Bear Creek Diversion for 10 consecutive days between May 15 and July 10.

7(D)(2) Bolsillo Creek (Downstream of Bolsillo Creek Diversion)

In Wet water years, the Licensee shall not divert water at the Bolsillo Creek Diversion from April 1 through June 30.

7(D)(3) Camp 62 Creek (Downstream of Camp 62 Creek Diversion)

In Wet water years, the Licensee shall not divert water at the Camp 62 Creek Diversion from April 1 through June 30.

7(D)(4) Chinquapin Creek (Downstream of Chinquapin Creek Diversion)

In Wet water years, the Licensee shall not divert water at the Chinquapin Creek Diversion from April 1 through June 30.

7(D)(5) Mono Creek (Downstream of Mono Creek Diversion)

The Licensee shall implement the Mono Creek CRMF Plan (Downstream Mono Creek CRMF Plan), included as Appendix D of the Big Creek ALP Settlement Agreement, as amended herein. The objective of the Downstream Mono Creek CRMF Plan is to identify and implement water year based CRMF regimes that are sufficient to maintain reduced accumulation of fine sediment in Mono Creek between Mono Creek Diversion and the South Fork San Joaquin River (downstream Mono Creek reach). The Downstream Mono Creek CRMF Plan prescribes two possible CRMF schedules for Wet water years, a fine sediment monitoring program that will be used to select the appropriate CRMF schedule in any given Wet water year, and one CRMF schedule for Above Normal water years~~,~~

~~and a CRMF schedule for Below Normal, Dry, and Critical water years~~. Water year types are outlined in Condition 2 of this certification.

(a) Fine Sediment Monitoring Program

The fine sediment monitoring program shall use the weighted mean fine sediment volume metric (V*w) of Hilton and Lisle (1993)[36] as an index of fine sediment supply and accumulation, and as the primary criteria for determining the appropriate CRMF regime in Wet water years. Alternative sediment monitoring procedures and CRMF regime criteria may be substituted if approved by the Deputy Director. Alternative procedures and criteria must be peer-reviewed. Key provisions of the fine sediment monitoring program shall include:

(i) The V*w for a given fine sediment monitoring event shall be determined by calculating the weighted mean value of the relative residual fine sediment volume (V*) measured in 10 to 20 pools in the downstream Mono Creek reach, in accordance with procedures described by Hilton and Lisle (1993).

(ii) Pool locations shall be selected, in consultation with staff from USFS, USFWS, CDFW, and State Water Board, and sampled in the either the first or second summer following license issuance.

(iii) Following pool selection and the initial sampling event(s), the Licensee shall resample pools within six months of all Wet water year CRMF releases, with the following exceptions: (a) when Wet water year CRMFs are released in consecutive years and the V*w value after the first Wet water year release is less than or equal to 0.2; and (b) when the V*w value for three successive sampling events is less than or equal to 0.2, in which case the monitoring frequency may be modified to once after every third Wet water year CRMF release, or a lesser frequency approved by the Deputy Director.

(iv) Within six months of each sampling event, the Licensee shall submit a CRMF monitoring report to State Water Board staff for review and comment. The Licensee shall update the monitoring report to address State Water Board staff comments, and submit the updated report to the Deputy Director no later than 60 days following receipt of State Water Board staff comments. At a minimum, the monitoring report shall include: (a) map showing the locations of pools sampled; (b) discussion of materials and methods; (c) the relative residual fine sediment values (V*) for each pool sampled; (d) the weighted mean fine sediment value (V*w) for the most recent sampling event; (e) summary of V* and V*w values from all prior sampling events; and (f) analysis of the most recent monitoring results as well as long-term trends in fine sediment recruitment and accumulation within the downstream Mono Creek reach. Monitoring reports do not need to contain the raw data or

supporting calculations, but these data and calculations shall be made available to State Water Board staff upon request.

[36] Hilton, S. and T. Lisle. 1993. Measuring the fraction of pool volume filled with fine sediment. Res. Note PSW-RN-414. U.S. Forest Service Pacific Southwest Research Station. Albany, CA.

(b) CRMF Schedules – Wet Water Years

In Wet water years, the Licensee shall implement the appropriate CRMF schedule in accordance with the following criteria. If the V*w value calculated from the preceding fine sediment monitoring event is greater than 0.2, the Licensee shall implement CRMF Schedule I (Table 30) over a period of 11 consecutive days between July 1 and August 16.

Table 30. Channel and Riparian Maintenance Flow Schedule I - Wet Water Years, for Mono Creek below Mono Creek Diversion (USGS Gage No. 11231600 and New Gage Proposed)

CRMF Period	CRMF Schedule I – Wet Water Year
Days 1 – 3	An average flow of at least 400 cfs, representing a gradual increase, to the extent within the Licensee's control, from the MIF* to 800 cfs by Day 3
Days 4 - 6	800 cfs**
Days 7 - 8	Ramp down from 800 cfs to 500 cfs**
Days 9 - 10	Ramp down from 500 cfs to 350 cfs**
Day 11	Ramp down from 350 cfs to MIF*
Cumulative CRMF Volume Requirement	≥ 10,800 acre-feet over 11-day release period
* Minimum Instream Flow (Refer to Condition 4) ** Mean daily (24 hour) flow	

In Wet water years, if the V*w value from the preceding fine sediment monitoring event is less than or equal to 0.2, the Licensee shall implement CRMF Schedule II (Table 31) over a period of 10 consecutive days between July 1 and August 15.

Table 31. Channel and Riparian Maintenance Flow Schedule II – Wet Water Years, for Mono Creek below the Mono Creek Diversion (USGS Gage No. 11231600 and New Gage Proposed)

CRMF Period	CRMF Schedule II – Wet Water Year
Day 1	Gradually ramp up from MIF* to 450 cfs, to the extent within the Licensee's control
Days 2 - 9	450 cfs**
Day 10	Gradually ramp down from 450 cfs to MIF*, to the extent within the Licensee's control
Cumulative CRMF Volume Requirement	≥ 7,700 acre-feet over 10-day release period
* Minimum Instream Flow (Refer to Condition 4) ** Mean daily (24 hour) flow	

(c) CRMF Schedule – Above Normal Water Years

In Above Normal water years, the Licensee shall implement CRMF Schedule III (Table 32) over a period of seven consecutive days between July 1 and August 12.

Table 32. Channel Riparian Maintenance Flow Schedule III – Above Normal Water Years, for Mono Creek below the Mono Creek Diversion (USGS Gage No. 11231600 and New Gage Proposed)

CRMF Period	CRMF Schedule III – Above Normal Water Year
Days 1 - 2	Gradually ramp up from MIF* to 450 cfs, to the extent within the Licensee's control
Days 3 - 4	450 cfs**
Day 5	Gradually ramp down from 450 cfs to 345 cfs, to the extent within the Licensee's control
Day 6	Gradually ramp down from 345 cfs to 240 cfs, to the extent within the Licensee's control
Day 7	Gradually ramp down from 240 cfs to MIF*, to the extent within the Licensee's control
Cumulative CRMF Volume Requirement	≥ 4,100 acre-feet over 7-day release period
* Minimum Instream Flow (Refer to Condition 4) ** Mean daily (24 hour) flow	

7(D)(6) South Fork San Joaquin River (Downstream of Florence Lake)

The CRMF for the South Fork San Joaquin River below Florence Reservoir are described below. Wet water year and Above Normal water year types shall be based on the April 1 forecast for the California Department of Water Resources, Bulletin No. 120, San Joaquin Valley Water Year Index, or its successor index that is most representative of the Big Creek watershed. All CRMF releases shall be measaured at the United States Geological Survey (USGS) Gage No. 11230215 downstream of Hooper Creek, near Florence Lake. The Licensee will release CRMF within the limitations of equipment and measurement. CRMF are based on a 24-hour average. Licensee will make up any deficiency in total CRMF release volume within the existing release period.

~~Within one year of license issuance, the Licensee shall submit the South Fork San Joaquin River CRMF Plan (South Fork CRMF Plan) to the Deputy Director for review and approval. The Deputy Director may require modifications to the South Fork CRMF Plan as part of any approval. The South Fork CRMF Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the approved South Fork CRMF Plan and any approved amendments thereto.~~ The Licensee shall implement the ~~South Fork CRMF Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein. The~~ South Fork CRMFs ~~Plan shall~~ included ~~provisions outlined~~ in Appendix F of the Big Creek ALP Settlement Agreement that includes~~, as amended by this certification~~. ~~At a minimum, the South Fork CRMF~~

~~Plan shall include~~: (a) ~~preparation and~~ implementation of a Jackass Meadow CRMF Inundation Study; (b) implementation of the CRMF schedule for Wet water years; (c) implementation of the temporary CRMF schedule for Above Normal water years, and development and implementation, if approved, of an alternate Above Normal water year CRMF schedule based on the outcome of the Jackass Meadow Inundation Study; and (d) a summary of consultation, including comments received and how the comments were addressed. South Fork CRMF Plan elements are further described below.

(a) Jackass Meadow CRMF Inundation Study

The Licensee shall ~~include the Jackass Meadow CRMF Inundation Study Plan in the South Fork CRMF Plan. T~~implement the Areal Inundation Mapping of Jackass Meadow Complex outlined in Appendix F of the Settlement Agreement.

No later than one year after license issuance, the Licensee shall survey the micro-topography of the Jackass Meadow Complex at a scale and level of detail that is sufficient to evaluate the areal extent of inundation from CRMF. This mapping will be provided to the United States Department of Agriculture-Forest Service (USDA-FS), United States Fish and Wildlife Service (USFWS), and other interested governmental agencies at the annual consultation meeting following the completion of the mapping. During the first two Wet Water Years that occur after issuance of the New License, the Licensee shall map and calculate the areal extent of inundation for at least three flow levels between and including 1,000 cubic feet per second (cfs) and 1,600 cfs. In coordination with the USDA-FS, USFWS, and other interested governmental agencies, the Licensee will use the resultant maps and information to determine: 1) whether a flow less than 1,600 cfs will provide the same level of inundation as provided at 1,600 cfs; and 2) the flow necessary to inundate approximately 75% of the area inundated at 1,600 cfs. If the USDA-FS concurs that the results of the Jackass Meadow Inundation Study (SCE 2007) indicates that a peak flow less than 1,600 cfs provides the same level of inundation as provided by 1,600 cfs, the Licensee may release the agreed upon lesser amount after notification to the Federal Energy Regulatory Commission (FERC or Commission). The minimum total volume released will be adjusted down to reflect the reduced peak.

~~CRMF Inundation Study Plan shall identify methods for quantifying the areal extent of inundation in Jackass Meadow resulting from at least three controlled CRMF releases ranging in magnitude from1,000 cfs to 1,600 cfs. The results of the study shall be used: (1) as the primary basis to establish CRMFs for the South Fork San Joaquin River (below Florence Lake) in Above Normal water years; and (2) to identify alternative peak CRMF discharge rates and the total volume of water needed for Wet water year CRMFs.At a minimum, the Jackass Meadow CRMF Inundation Study Plan shall include:~~

~~(i) Study objectives, including:~~

- ~~Information to determine whether flows less than 1,600 cfs will provide the same level of inundation as flows of 1,600 cfs; and~~
- ~~Information to determine the flow necessary to inundate approximately 75 percent of the area inundated at 1,600 cfs;~~

~~(ii) Proposed study flow rates (between and including 1,000 cfs to 1,600 cfs) and rationale;~~

~~(iii) Description(s) of proposed method(s) that will be used to:~~

- ~~Delineate the boundaries and topography of Jackass Meadow;~~
- ~~Map and quantify the areal extent of inundation in Jackass Meadow, including a discussion of the proposed timing and method that will be used to measure inundation relative to the timing of test CRMF releases; and~~
- ~~Assess the data and information collected to make a preliminary determination regarding the study objectives outlined in the Jackass Meadow CRMF Inundation Study (e.g., whether a flow less than 1,600 cfs may provide the same level of inundation as 1,600 cfs, and the flow needed to inundate 75 percent of the 1,600 flow inundation area).~~

The Licensee shall implement the Jackass Meadow CRMF Inundation Study during the first two Wet water years following Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

(b) Jackass Meadow CRMF Inundation Study Report and Modified CRMF Proposal

Unless otherwise approved by the Deputy Director in writing, within eight months of the conclusion of the second Wet water year (September 30) in which the Jackass Meadow CRMF Inundation Study ~~Plan~~ is implemented, the Licensee shall submit the Jackass Meadow CRMF Inundation Study Report and Modified CRMF Proposal (Report and Proposal) to the Deputy Director for review and approval. The Report and Proposal shall be developed in consultation with staff from the USFS, USFWS, CDFW, and State Water Board. The Deputy Director may require modification to the Report and Proposal as part of any approval. The Licensee shall file with FERC the Deputy Director- approved Report and Proposal and any approved amendments thereto.

At a minimum, the Report and Proposal shall include:

(i) A summary of the Jackass Meadow CRMF Inundation Study findings and preliminary determinations regarding the study plan objectives;
(ii) Calculation of the CRMFs necessary to inundate 75 percent of the areal extent inundated by 1,600 cfs;
(iii) Proposed monitoring and methodology to assess effectiveness of CRMFs;

(iv) Proposed CRMFs for the South Fork San Joaquin River (below Florence Lake) in Above Normal water years based on the results of the Jackass Meadow CRMF Inundation Study Plan, which shall at a minimum include the following provisions:

a. Gradual increase of flow over one day from the MIF to a peak flow that will provide approximately 75 percent of the areal extent of inundation measured at 1,600 cfs;
b. Maintenance of a mean daily flow at the peak flow for two consecutive days;
c. A decrease from the peak flow to the MIF over the next five days according to the following schedule:
   i. Flow of at least 700 cfs for one day;
   ii. Flow of at least 500 cfs for three consecutive days; and
   iii. Decrease to MIF over one day, in even increments.
d. Release of a total volume of at least 6,000 acre-feet plus the volume of the two days of peak flow. In no event will the Licensee be required to increase the flow release volume above 13,000 ac-ft;
e. At least one day of flow, between approximately 500-700 cfs, during a weekend for whitewater boating purposes. If the Licensee is unable to provide the one weekend day of flow as specified, the Licensee shall, within seven days of completing the CRMFs, notify the Deputy Director of the failure and provide documentation to support the Licensee's inability to provide the one weekend day of flow; and
f. Completion of CRMFs before Memorial Day weekend, whenever feasible.

(v) Any modifications the Licensee proposes to the CRMF schedule in Wet water years.

(c) Wet Water Year CRMF Schedule

In Wet water years, the Licensee shall, within the extent of its control, implement and release sufficient flow or augment a natural spill event which meets all of the characteristics in CRMF Schedule I (Table 33) for 14 consecutive days between June 1 and July 21. The Deputy Director may reduce the CRMF discharge rates and associated cumulative release volume requirements specified in Table 33 if the results of the Jackass Meadow CRMF Inundation Study (i.e., Report and Proposal) demonstrate that a peak CRMF of less than 1,600 cfs is sufficient to meet CRMF objectives outlined in the Jackass Meadow CRMF Inundation Study.

Table 33. Channel and Riparian Maintenance Flow Schedule I (mean daily flow in cfs) - Wet Water Years, for the South Fork San Joaquin River below Florence Lake Dam (USGS Gage No. 11230215)

CRMF Period	CRMF Schedule I – Wet Water Year
Days 1 - 3	Gradually ramp up from MIF* to 1,600 cfs in as even increments as feasible
Days 4 - 6	1,600 cfs**
Day 7	Gradually ramp down from 1,600 cfs to 1,000 cfs
Days 8 - 9	Gradually ramp down from 1,000 cfs to 750 cfs
Days 10 - 12	Gradually ramp down from 750 cfs to 500 cfs
Day 13	Gradually ramp down from 500 cfs to 150 cfs
Day 14	Gradually ramp down from 150 cfs to MIF*
Cumulative CRMF Volume Requirement	≥ 22,000 acre-feet over 14-day release period
* Minimum Instream Flow (Refer to Condition 4) ** Mean daily (24-hour) flow	

(d) CRMF Natural Spill Event Adjustments for Whitewater Boating

If at any time during a Wet water year a natural spill event meets the CRMF peak flow requirement (1,600 cfs over three consecutive days) as outlined in Table 33, the Licensee shall provide ramp-down releases on the descending limb of the natural spill hydrograph to meet the requirements specified in the Whitewater Boating and CRMF Schedule II (Table 34). To the extent feasible, the Licensee shall provide at least one weekend day of flow between 750 cfs and 500 cfs, and stabilize flows between the hours of 10:00 A.M. and 4:00 P.M., if the area is accessible to boaters. If the Licensee is unable to provide the one weekend day of flow as specified above, the Licensee shall, within seven days of the natural spill event, notify the Deputy Director of the event and provide documentation to support the Licensee's inability to provide one weekend day of flow. For the purposes of this condition, a natural spill is defined as the exceedance of the maximum pool elevation of Florence Lake.

Table 34. Whitewater Boating and Channel and Riparian Maintenance Flow Schedule II – Wet Water Years with Qualifying Natural Spill Events, for the South Fork San Joaquin River below Florence Lake Dam (USGS Gage No. 11230215)

CRMF Period	CRMF Schedule II – Wet Water Year
Days 1-3	~~Ramp down from natural spill to 750 cfs~~750 cfs**
Days ~~2 –~~4-5	750 cfs**
Day ~~5~~6	~~Gradually ramp down from 750 cfs to 500 cfs~~MIF*
~~Day 6 – 7~~	~~500 cfs**~~
~~Day 8~~	~~Gradually ramp down from 500 cfs to 150 cfs~~

CRMF Period	CRMF Schedule II – Wet Water Year
~~Day 9~~	~~Gradually ramp down from 150 cfs to MIF*~~
~~Cumulative CRMF Volume Requirement~~	~~≥ 10,000 acre-feet over 9-day release period~~

* Minimum Instream Flow (Refer to Condition 4)
** Mean daily (24-hour) flow
*** To the extent feasible, the Licensee shall provide at least one weekend day of flow between 750 cfs to 500 cfs, and stabilize flows between 10:00 A.M. and 4:00 P.M.

(e) Above Normal Water Year CRMF Schedule

(i) *Initial CRMF.* In Above Normal water years, prior to the completion of the Jackass Meadow CRMF Inundation Study, the Licensee shall provide at least four consecutive days, that include ~~one~~ two weekend days, of flow between 500 cfs and 750 cfs for whitewater boating purposes.

(ii) *Updated CRMFs following completion of Jackass Meadow CRMF Inundation Study.* Upon Deputy Director approval of the Report and Proposal, the Licensee shall implement the updated CRMFs in subsequent Above Normal water years.

[36] Hilton, S. and T. Lisle. 1993. Measuring the fraction of pool volume filled with fine sediment. Res. Note PSW-RN-414. U.S. Forest Service Pacific Southwest Research Station. Albany, CA.

Rationale: SCE requests that the State Water Board modify Draft Condition 7 such that CRMF and monitoring requirements are consistent with those provided in the Settlement Agreement and the USFS's Final FPA Section 4(e) Conditions for the Vermilion Valley Hydroelectric Project. These Conditions were developed after extensive consultation with the USFS, USFWS, CDFW, State Water Board, tribes, non-governmental organizations (NGOs), and the public. These Conditions are contained: in Appendix A Section 1.2 of the Settlement Agreement: *Channel Riparian Maintenance Flows*; Appendix D of the Settlement Agreement: the *Mono Creek Channel Riparian Maintenance Flow Plan*; Appendix E of the Settlement Agreement: the *Camp 61 Creek Channel Riparian Maintenance Flow Plan*, Appendix F of the Settlement Agreement: *Channel and Riparian Maintenance Flows for the South Fork San Joaquin River below Florence Reservoir*; Appendix K of the Settlement Agreement: *Riparian Monitoring Plan*; and USFS Vermilion Valley Project 4(e) Condition 12D: *Flow Management – Riparian Enhancement Flow Plan for Mono Creek* and 12F3 *Flow Management – Mono Creek Riparian Monitoring*.

The CRMF were developed for select reaches of the Big Creek watershed in which Project-affected sediment and/or riparian resource issues were identified based on the results of numerous relicensing studies that assessed the condition of the channel, aquatic resources, fisheries, and riparian vegetation. The reaches for which CRMF are required in the Settlement Agreement and the magnitude, duration, and frequency of these releases were developed following extensive discussions with the relicensing stakeholders, including the State Water Board.

CRMF also were developed for several tributaries to the South Fork San Joaquin River (SFSJR), including Bear Creek, Bolsillo Creek, Camp 62 Creek, and Chinquapin Creek. Although neither channel nor riparian issues were identified in these tributaries, CRMF releases were developed to contribute to spring runoff flows to enhance aquatic and riparian resources in the SFSJR. Impaired and unimpaired hydrology for the stream reaches were evaluated and used to develop the timing, magnitude, duration, and volume of the CRMF.

The SFSJR CRMF schedules were developed in consultation with resource agencies and recreation stakeholders and provide opportunities for whitewater boating during the CRMF releases. The Final FPA Section USFS 4(e) Conditions for CRMF are consistent with those in the Settlement Agreement. The CRMF for Mono Creek below Vermilion Valley Dam is not included in the Settlement Agreement, but the flow schedule in the USFS's Final FPA Section 4(e) Condition was developed after extensive consultation between SCE and the resource agencies.

The CRMF measures in the Settlement Agreement also include requirements for monitoring environmental resources in reaches that were determined to be affected by SCE's operations based on the results of the relicensing studies. The Final USFS FPA Section 4(e) Conditions for monitoring in these reaches are consistent with those in the Settlement Agreement.

Several requirements of Draft Condition 7 are inconsistent with the Settlement Agreement and the Final USFS FPA Section 4(e) Conditions. SCE requests that the State Water Board modify Condition 7 to be consistent with those included in the Settlement Agreement. These inconsistencies are listed below and are discussed further by Condition in the following section:

- Draft Condition 7(A) CRMF Reporting and Adaptive Management schedule and monitoring locations are not consistent with those in the Settlement Agreement and the USFS's Final FPA Section 4(e) Conditions.
- Draft Condition 7(B) CRMF Monitoring in Warm Creek and Mono Creek below Vermilion Valley Dam requirements are not linked to any Project-affected resources.
- Draft Condition 7(C)(1) does not provide flexibility needed by SCE to meet target Camp 61 Creek CRMF releases due to limitations in SCE's ability to control flows in this reach.
- Draft Condition 7(C)(1) schedule for Camp 61 Creek CRM releases does not consider the schedule for the installation of a flow gage that will be needed for compliance with the measure.
- Draft Condition 7(D)(5) requires CRM releases in Mono Creek below the Diversion in Below Normal, Dry, and Critical water year types.
- Draft Condition 7(D)(6) requires the preparation of a new plan for evaluating CRMF releases in the SFSJR below Florence Dam.
- Draft Condition 7(D)(6)(b)(iv) does not include a maximum release volume for CRMF for the SFSJR in Above Normal water years that is needed to reduce potential for insufficient water for releases due to low inflows or facility limitations.

- Draft Condition 7(D)(6)(d) Wet water year whitewater boating flow releases are inconsistent with the Settlement Agreement and the USFS's Final FPA Section 4(e) Conditions.

DRAFT CONDITION 7(A). CRMF Reporting and Adaptive Management

Draft Condition 7(A) lists several reporting and monitoring elements for inclusion in an Annual CRMF Report. This report is to be filed by November 15 each year following a CRM release. The monitoring locations and schedules required by Draft Condition 7(A) are not consistent with those in the Settlement Agreement and USFS's Final FPA Section 4(e) Conditions.

The CRMF monitoring program was developed following extensive consultation with the resource agencies. The locations and resources that are proposed for monitoring in the Settlement Agreement and USFS's Final FPA Section 4(e) Conditions are those for which issues related to Project operations were identified based on the results of the relicensing studies. The monitoring and reporting required in Draft Condition 7 should be consistent with that included in the Settlement Agreement and should only include monitoring of specific resources and at locations that appear to have been adversely affected by Project operations. These reaches include: Camp 61 Creek, Mono Creek below Vermilion Valley Dam and the diversion, SFSRJ below Florence Dam, and Warm Creek.

Draft Condition 7 requires the report to include results for all reaches with CRM releases, including the small diversions (Bear, Bolsillo, Camp 62, and Chinquapin creeks). Flows were developed for these small creeks that are tributary to the SFSJR to contribute additional flow to the spring runoff in the SFSJR, not because riparian, geomorphic, or water quality issues were identified in the reaches. No riparian, geomorphic, or water quality issues were identified in these reaches. SCE requests that these reaches not be included in the monitoring requirements in Condition 7.

The WQC reporting schedule is inconsistent with the riparian monitoring and reporting schedule in the Settlement Agreement and USFS's Final FPA Section 4(e) Conditions. Riparian monitoring required in the Settlement Agreement and in the USFS's Final FPA Section 4(e) Conditions in Mono Creek below Vermilion Valley Dam does not occur the year of a CRMF release. Riparian monitoring is scheduled to occur five or ten years after a release so that potential responses in the riparian composition, age structure, and distribution can be documented. Monitoring immediately after a release will not document changes in riparian vegetation in response to a CRMF release. The reporting schedule presented in Draft Condition 7 that requires the incorporation of monitoring results and assessment of the CRMF effectiveness is inconsistent with the riparian monitoring schedule. SCE proposes that this assessment be included in the riparian monitoring reports required in *Appendix K* of the Settlement Agreement, and is referenced in the subsequent Draft Condition 7 CRMF annual report. The Settlement Agreement and USFS's Final FPA Section 4(e) Conditions do require sediment monitoring immediately after CRMF releases in select releases, as the results are triggers for the flow schedule in subsequent years. This information could be incorporated in the annual report that immediately follows a CRMF release. SCE requests the State Water Board

clarify the monitoring results and assessment that are to be included in the Annual CRMF Report.

DRAFT CONDITION 7(B)(1)(b) CRMF Monitoring Warm Creek (Downstream of Warm Creek Diversion Dam) and 7(B)(2)(b) CRMF Monitoring Mono Creek (Vermilion Valley Dam to Mono Creek Diversion)

Monitoring required by the Settlement Agreement and the USFS's Final FPA Section 4(e) conditions is sufficient to evaluate trends in responses of Project-affected environmental resources to the new CRMF releases. The monitoring of certain resources required by Draft Condition 7 in Warm Creek and Mono Creek below Vermilion Valley Dam is not linked to any Project-affected resources. This determination is based on extensive studies conducted as part of the relicensing efforts.

SCE conducted numerous studies along Warm Creek and Mono Creek to evaluate the condition of the channel and environmental resources. These studies evaluated water quality, fisheries, geomorphology, riparian studies, and other parameters. Sediment issues were identified in Warm Creek, and riparian issues were identified in Mono Creek below Vermilion Valley Dam. These results informed the development of the CRMF for each of these reaches. CRMF releases were developed to improve the sediment conditions in Warm Creek and the condition of the riparian vegetation along Mono Creek. A plan to monitor these resources over the new license term was developed in consultation with the resource agencies and included in the USFS's Final FPA Section 4(e) Conditions.

Draft Condition 7 requires monitoring in Warm Creek and Mono Creek of additional resources for which no Project-related effects were identified from the results of the studies. A comparison of the USFS's Final FPA Section 4(e) monitoring requirements with those from Draft Condition 7 are summarized below.

Reach	Resource Issue	USFS 4(e) Monitoring Requirement(s)	Condition 7 Monitoring Requirements
Warm Creek	Sediment	Sediment	Sediment, water quality, riparian
Mono Creek below Vermilion Valley Dam	Riparian	Riparian*	Sediment, water quality, riparian
* A riparian monitoring plan is required by the USFS's Final FPA Section 4(e) Conditions for the Vermilion Valley Project.			

No Project-related water quality or riparian resource issues were identified in Warm Creek in SCE's Amended Preliminary Draft Environmental Assessment (APDEA) or FERC's FEIS and no sediment or water quality issues were identified in Mono Creek below Vermilion Valley Dam. In addition, the State Water Board's CEQA analysis did not identify any potential adverse impacts to these resources from the implementation of the new flows. Expansion of the monitoring program in these reaches is not supported by SCE's or FERC's impact analyses or the State Water Board's CEQA analysis; and the Conditions should be modified to only monitoring of the resources for which issues were identified.

Draft Condition 7 also requires development of new plans for monitoring in Warm Creek and Mono Creek below Vermilion Valley Dam. The USFS's Final FPA Section 4(e) Conditions also require the development of a monitoring plan on Warm Creek, but the plan is focused on monitoring sediment accumulation. SCE agrees with the State Water Board and USFS that a monitoring plan should be prepared to monitor sediment conditions over time; however, SCE disagrees with the State Water Board that additional resources for which no Project-related impacts were identified should be monitored. Similarly, SCE agrees that a monitoring plan should be developed for Mono Creek below Vermillion Valley Dam. However, SCE does not agree that water quality and sediment need to be monitored because no Project-related impacts were identified for these resources. SCE proposes that the plan should be developed the first year after license issuance, consistent with the USFS's Final FPA Section 4(e) Conditions.

SCE agrees that a riparian monitoring plan should be prepared for Mono Creek below Vermilion Valley Dam. SCE proposes that riparian monitoring frequency should be consistent with the Settlement Agreement; which is the first year after license issuances; five years after the first Wet water year; and then at ten-year intervals for the remainder of the license term. SCE proposes that the plan should be prepared the first year after license issuance.

DRAFT CONDITION 7(C)(1) Camp 61 Creek (Downstream of Portal Forebay Dam)

Draft Condition 7(C)(1) does not provide SCE with flexibility in the CRMF releases in Camp 61 Creek that is included in the Settlement Agreement and the USFS's Final FPA Section 4(e) Condition. The Settlement Agreement and USFS's Conditions include provisions that allow SCE to have small deviations from the target flows in the flow schedule due to infrastructure limitation (i.e. SCE must manually operate the slide gate at the forebay, limiting SCE's ability to control the flow). The Settlement Agreement includes the following:

> "The Licensee will release CRMF within the limitations of the equipment and measurement. These flows will be within 90% of the 24-hour average flow identified in Tables 1 and 2. SCE will make up the deficiency in total CRM releases within the existing release period."

This text was added to the Settlement Agreement and USFS's Final FPA Section 4(e) Condition after extensive discussion with the resource agencies. Draft Condition 7 does not provide this flexibility and may result in more frequent non-compliance issues due to these limitations. Additionally, the State Water Board did not provide any rationale for not including this text. SCE requests that this text be added to Condition 7(C)(1).

Camp 61 Creek is currently not gaged, and therefore, SCE is not able to determine the volume of water released to document compliance with the license Conditions. The construction and implementation schedule for the new gage is discussed in Condition 3 Gaging. SCE believes that the Draft Condition 7 schedule for the start of the CRM releases in Camp 61 Creek should be modified to be consistent with the installation of the compliance gage.

DRAFT CONDITION 7(D)(5) Mono Creek (Downstream of Mono Creek Diversion)

Draft Condition 7(D)(5) requires CRM releases in Below Normal, Dry, and Critical water year types. Neither the Settlement Agreement nor USFS's Final FPA Section 4(e) Conditions require a CRMF release in Below Normal, Dry, and Critical water year types.

SCE and the resource agencies developed a flow schedule for releases in Wet and Above Normal water years to improve sediment and riparian resource conditions in the reach. The CRMF magnitudes were determined based on modeling and study results for sediment mobilization and overbank flows to improve channel and riparian conditions. FERC evaluated the potential impacts of these releases in Mono Creek, and found that the CRM releases in Wet and Above Normal water years "would (1) scour encroaching upland and riparian vegetation in the formerly active channel and on the channel bars; (2) deposit fresh alluvium; (3) regenerate and establish riparian vegetation; (4) provide higher soil moisture and water table to support riparian vegetation; (5) transport excessive accumulations of sand and fine sediment downstream to the sediment deficient South Fork San Joaquin River bypassed reach; (6) discourage continued encroachment of upland species on the channel bars; (7) cause some localized bank erosion in response reaches, and (8) increase LWD recruitment to the stream channel." The State Water Board did not identify any significant impacts to this reach in their California Environmental Quality Act (CEQA) document, and did not provide any rationale for increasing the frequency of CRMF to all water year types. SCE requests that the State Water Board modify the flow schedule for Mono Creek below the Diversion to only include Wet and Above Normal water years and to be consistent with the Settlement Agreement and the USFS's Final FPA Section 4(e) Conditions.

DRAFT CONDITION 7(D)(6) South Fork San Joaquin River (Downstream of Florence Lake)

The State Water Board requires preparation of a SFSJR CRMF Plan that will include a new Jackass Meadow CRMF Inundation Study Plan within one year of license implementation. The Settlement Agreement (Appendix F) and the USFS's Final FPA Section 4(e) Conditions already include the information required by the State Water Board's new plan.

The inundation study and monitoring along the SFSJR were developed after extensive consultation with resource agencies, including the State Water Board. Development of a new agency-approved plan will delay implementation of the monitoring plan elements, including the Jackass Meadow CRMF Inundation Study, and is inconsistent with the schedule in the USFS's Final FPA Section 4(e) Conditions and the Settlement Agreement. The State Water Board does not provide any rationale for the need to develop a new plan. SCE requests that Draft Condition 7 be modified to require the implementation of the plan included in the Settlement Agreement and the USFS's Final FPA Section 4(e) Condition.

DRAFT CONDITION 7(D)(6)(b)(iv) Jackass Meadow CRMF Inundation Study Report and Modified CRMF Proposal

Draft Condition 7(D)(6)(b)(iv) does not include the following text that is included in the Settlement Agreement and the USFS's Final FPA Section 4(e) Condition: "In no event will the Licensee be required to increase the flow release volume above 13,000 ac-ft." The maximum flow release volume during Above Normal water years was discussed extensively and agreed upon by the resource agencies, including the State Water Board, to reduce the potential for insufficient water to be available for the releases due to low inflows or facility limitations.

DRAFT CONDITION 7(D)(6)(d) CRMF Natural Spill Event Adjustments for Whitewater Boating

The whitewater boating flow schedule in Wet Water years when the CRM peak and volume release requirements are met by natural spill is inconsistent with the Settlement Agreement and the USFS's Final FPA Section 4(e) Condition. The Draft Condition requires four additional days of release and a cumulative flow volume of at least 10,000 acre-feet over a nine day period. A comparison of the two release schedules is shown below:

Day	Settlement Agreement and USFS Final FPA Section 4(e) Condition*	Draft Water Quality Certification Condition 7(D)(6)(d)
1	Approximately 750 cfs	Ramp down from natural spill to 750 cfs
2	Approximately 750 cfs	750 cfs
3	Approximately 750 cfs	750 cfs
4	Approximately 500 cfs	750 cfs
5	Approximately 500 cfs	Gradually ramp down from 750 to 500 cfs
6	MIF	500 cfs
7	--	500 cfs
8	--	Gradually ramp down from 500 cfs to 150 cfs
9	--	Gradually ramp down from 150 cfs to MIF

* Licensee will make good faith effort to provide at least one day of flows between approximately 500 and 750 cfs during a weekend; stabilize flows between 10:00 AM and 4:00 PM, if the area is accessible to boaters.
** Cumulative CRMF Volume Requirement: ≥10,000 ac-ft over 9-day release period.

The whitewater flow schedule for the SFSJR below Florence Dam during Wet Water years when CRM peak and volume release requirements are met by natural spill was developed after extensive discussion with the relicensing stakeholders of study results, flow modeling, and Project operational and facility constraints. Draft Condition 7 includes additional days of release for ramp up and ramp down with no justification. Draft Condition 6, Ramping Rates, will evaluate ramping rates in the SFSJR below Florence Dam. The ramping rates associated with these whitewater releases should be modified, as appropriate, based on the results of this evaluation. SCE requests that the Wet water year whitewater boating flow release schedule is modified to be consistent with that required in the Settlement Agreement and the Final USFS FPA Section 4(e) Conditions.

DRAFT CONDITION 8. Small Diversions Decommissioning

Request: SCE requests the State Water Board modify Draft Condition 8. The requested modifications and associated rationale are provided below.

CONDITON 8. Small Diversions Decommissioning

FERC Project Nos. 67 and 2175

The Licensee shall implement the Small Diversion Decommissioning Plan, included as Settlement Agreement, Appendix G

~~Within one year of license issuance, the Licensee shall submit a Small Diversions Decommissioning Plan (Diversion Decommissioning Plan)~~ for the diversion structures listed in Table 35 and following the milestone timeline provided in Table 36.~~, to the Deputy Director for review and approval. The Deputy Director may require modifications to the Diversion Decommissioning Plan as part of any approval. The Diversion Decommissioning Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director- approved Diversion Decommissioning Plan and any approved amendments thereto~~.

Table 35. Summary of Small Water Diversions to be Decommissioned

Big Creek Nos. 2A, 8, and Eastwood Hydroelectric Project (FERC Project No. 67)
Crater Creek Diversion
North Slide Creek Diversion
South Slide Creek Diversion
Tombstone Creek Diversion
Big Creek Nos. 1 and 2 Hydroelectric Project (FERC Project No. 2175)
Pitman Creek Domestic Diversion
Snow Slide Creek Domestic Diversion

~~The Diversion Decommissioning Plan shall be based on the general content and provisions in Appendix G in the Big Creek ALP Settlement Agreement and, at a minimum, shall include:~~

~~(i) Goals and objectives;~~
~~(ii) Descriptions, maps, photographs, and drawings of existing facilities and environmental conditions at each diversion decommissioning site;~~
~~(iii) Descriptions, plans, and drawings of all proposed decommissioning activities;~~
~~(iv) Measures to protect beneficial uses of state waters from potential impacts associated with implementation of the Diversion Decommissioning Plan;~~
~~(v) Measures to stabilize the subject diversion sites after diversion decommissioning activities are complete;~~
~~(vi) Details of the existing water rights associated with each of the subject diversions, and a discussion of the Licensee's proposal for the disposition of these water rights once the subject diversion structures have been decommissioned. The request for~~

~~revocation or transfer of existing water rights to instream use, as applicable, shall be submitted within six months of completion of the on-the-ground decommissioning work;~~

~~(vii) Monitoring and reporting program that describes how the Licensee will evaluate and report on ongoing implementation of and the success of diversion decommissioning efforts, including measures implemented to protect water quality and beneficial uses;~~

~~(viii) Schedule for all phases of diversion decommissioning, including design, permitting, implementation, monitoring, and reporting. The schedule shall incorporate the milestones and timeline in Table 36 unless otherwise approved by the Deputy Director as part of approval of the Diversion Decommissioning Plan; and~~

~~(ix) A summary of consultation, including comments received and how the comments were addressed.~~

Table 36. Small Water Diversion Decommissioning Milestone Timeline[1]

Milestone	Timeline
Conduct agency consultation in support of permitting. Prepare and submit permit application and supporting documentation for Crater Creek diversion A state-certified hygienist will prepare a health and safety plan for handling and working with pipe coated with any asbestos containing material. ~~Submit Diversion Decommissioning Plan to Deputy Director for review and approval.~~	Within one year of license Issuance*
Fully decommission Crater Creek Diversion and appurtenant facilities referenced in the Big Creek ALP Settlement Agreement, Appendix G. Prepare and submit permit application and supporting documentation for Tombstone Creek Diversion.	Within two years of license issuance*
Fully decommission Tombstone Creek Diversion and appurtenant facilities referenced in the Big Creek ALP Settlement Agreement, Appendix G. Prepare and submit permit application and supporting documentation for North and South Slide diversions.	Within three years of license Issuance*
Fully decommission North and South Slide Creek Diversions and appurtenant facilities referenced in the Big Creek ALP Settlement Agreement, Appendix G. Prepare and submit permit application and supporting documentation for Pitman Creek and Snow Slide Creek diversions.	Within four years of license Issuance*
Fully decommission Pitman Creek and Snow Slide Creek Diversions and appurtenant facilities referenced in the Big Creek ALP Settlement Agreement, Appendix G.	Within five years of license issuance*

[1] SCE will attempt to meet the construction schedules identified in Table 36; however, deadlines for completion of construction (for compliance purposes) will be concurrent with the end of the first dry year after acquisition of all necessary regulatory permits for the diversion decommissioning.

* The Licensee shall file/request/petition the State Water Board for revocation or transfer of the water rights to instream use within six months of completion of the on-the-ground decommissioning activities associated with each diversion.

> The Licensee shall implement the Diversion Decommissioning Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein. The Licensee shall notify the State Water Board in writing: (1) at least 30 days in advance of initiating each small diversion decommissioning project; and (2) once a diversion has been decommissioned and is no longer in service.

Rationale: SCE requests that the State Water Board modify Draft Condition 8 to require implementation of the Small Diversions Decommissioning Plan included as Appendix G of the Settlement Agreement. As part of the relicensing of the Big Creek ALP Projects, the Small Diversions Decommissioning Plan was developed after extensive consultation with the USFS, USFWS, CDFW, State Water Board, tribes, non-governmental organizations, and the public. The USFS's Final FPA Section 4(e) Conditions require implementation of the Small Diversions Decommissioning Plan in the Settlement Agreement, and do not require preparation of a new plan in consultation with their staff.

The Small Diversions Decommissioning Plan provides sufficient detail and information for FERC to approve the decommissioning of Crater Creek, Tombstone Creek, North Slide Creek, South Slide Creek, Pitman Creek, and Snow Slide Creek and for state regulatory agencies to issue any required permits, including the State Water Board. The Small Diversions Decommissioning Plan describes:

(1) Goals and objectives for the decommissioning of each diversion;

(2) Physical characteristics and location of each of diversion;

(3) Decommissioning activities, staging areas, and equipment to be used;

(4) Permitting process and requirements;

(5) Proposed schedule; and

(6) Reporting requirements.

The Small Diversions Decommissioning Plan describes the approvals and permits that may be required for the decommissioning of these diversions. Crater Creek and Tombstone Creek diversions are located in designated Wilderness Areas and will require completion of a Minimum Tools Analysis. The Small Diversions Decommissioning Plan outlines a process for additional consultation that may be needed for permitting the decommissioning activities.

SCE anticipates that the design and permitting for each project will be phased to align with the implementation schedule outlined in Appendix G of the Settlement Agreement. SCE will start the permitting process for the diversions that are scheduled to be decommissioned first. The Plan specifies that additional design, details of the construction activities, and environmental protection measures will be developed in consultation with the agencies during development of the permit applications for each project.

The State Water Board is requesting the development of a new Small Diversions Decommissioning Plan that is redundant and unnecessary and includes a schedule that is unrealistic. SCE's Small Diversions Decommissioning Plan in the Settlement Agreement already contains the information requested by the State Water Board its Draft Condition 8 and defines a process by which the more detailed design and environmental protection measures will be developed. Draft Condition 8 requires that SCE prepare the detailed design information and environmental protection measures for all six diversions during the first year after license issuance. It is unrealistic to assume that detailed project descriptions, engineering plans/ drawings, and construction approach of proposed decommissioning activities for all six diversions can be developed and approved by the regulatory agencies within one year of license issuance. It is also unrealistic to assume that the construction details or regulatory agency requirements would not change two to four years later when project-specific permit applications are submitted. To avoid costly duplicative efforts, this information should only be developed once, with a phased implementation schedule. SCE proposes that the State Water Board conduct a project-specific review and approval for each project once the additional engineering and construction details have been developed, in parallel with the other resource agency reviews during the permitting process.

Finally, the schedule in Draft Condition 8 for the first diversion to be decommissioned—Crater Creek Diversion—is especially problematic in that it does not allow sufficient time for the permitting process (i.e., preparation of permit applications, agency consultation, and issuance of permits). Delays in the implementation of the decommissioning of Crater Creek Diversion will result in subsequent delays in the decommissioning schedule for the remaining diversions. Draft Condition 8 requires agency consultation during the development of the plan and approval by the Deputy Director. SCE would not be able to begin the permitting process for any of the diversions until the new Small Diversions Decommissioning Plan is approved. The schedule in Draft Condition 8 requires implementation of the decommissioning of Crater Creek Diversion in Year 2. Due to weather and recreation season constraints, the construction season is limited to the late summer/early fall in dry water years. Therefore, there will likely be less than one year for SCE to prepare the permit applications, including a Minimum Tools Analysis, and for the regulatory agencies to issue permits. This schedule is not realistic. The schedule included in SCE's Plan and modified in Table 36 above, provides a more realistic schedule for preparation of the permit applications with agency consultation, permit issuance, and weather constraints.

DRAFT CONDITION 9. Reservoir Water Level Management

Request: SCE requests the State Water Board modify Draft Condition 9. The requested modifications and associated rationale are provided below.

CONDITION 9. Reservoir Water Level Management

FERC Project Nos. 67, 2085, 2175, and 2086

Reservoir Water Level Management Plan

Within ~~nine~~ one year ~~months~~ of license issuance, the Licensee shall consult with staff from the State Water Board, USFS, USFWS, and CDFW to determine whether a water surface elevation requirement is appropriate or necessary for Lake Thomas Edison (FERC Project No. 2086). If determined to be necessary, a water surface elevation requirement will be developed that allows consistency with the primary purpose of the reservoirs for hydroelectric generation, existing water rights, contracts, and/or licenses associated with Lake Thomas Edison and other beneficial uses. The water surface elevation requirement will be reviewed and approved by the Deputy Director.

~~submit a Reservoir Water Level Management Plan (Reservoir Level Plan) to the Deputy Director for review and approval. The Deputy Director may require modifications to the Reservoir Level Plan as part of the any approval. The Reservoir Level Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board.~~ The Licensee shall file with FERC the Deputy Director-approved ~~Reservoir Level Plan~~reservoir water surface elevation criteria for Lake Thomas Edison ~~and any approved amendments thereto~~. The water surface elevation criteria filed with FERC will include a summary of consultation, objectives of the criteria, and reporting/notification requirements.

Following issuance of the new licenses, the Licensee will make a good faith effort to maintain reservoir water surface elevations at Project reservoirs that support recreation as specified in the Recreation Management Plan in Appendix O of the Settlement Agreement.

~~At a minimum, t~~The ~~Reservoir Level~~ Plan ~~shall~~ include~~:~~s reservoir water surface elevations and compliance periods for:

- Shaver Lake ~~and Florence Lake~~ (FERC Project No. 67);
- Florence Lake (FERC Project No. 67)
- Huntington Lake (FERC Project No. 2175); and
- Mammoth Pool Reservoir (FERC Project No. 2085).
- ~~Lake Thomas Edison (FERC Project No. 2086).~~

~~Except as modified by this certification, the Reservoir Level Plan shall incorporate the annual reservoir water level management objectives and compliance periods contained in Section 5.5 of Appendix O in the Big Creek ALP Settlement Agreement, which are summarized in Table 37.~~

~~The Reservoir Level Plan shall include:~~

~~(i) The basis for the reservoir levels outlined in Table 37, including the primary function(s) of each reservoir and factors other than recreation that may influence water level management decisions, such as the Mammoth Pool Operating Agreement;~~

~~(ii) A management framework and criteria that will be used to guide water level management based on the factors that influence water level management decisions;~~

~~(iii) A process for annual submittal of drawdown plans for each reservoir no later than April 15, for approval by USFS and State Water Board staff;~~

~~(iv) Process(es) that will be used to evaluate, document, and report compliance with the Reservoir Level Plan and make updates to the Reservoir Level Plan, as appropriate;~~

~~(v) A summary of and reference to applicable portions of the Gaging Plan required in Condition 3 (Gaging) of this certification, including:~~

~~a) Installation and maintenance of a staff gage in Huntington Lake;~~

~~b) Dissemination of reservoir level elevation information and reservoir drawdown plans;~~

~~c) A list of reservoir water level gages, as described in Table 3 of Condition 3 of this certification; and~~

~~A summary of consultation, including comments received and how the comments were addressed.~~The Licensee shall implement the approved ~~Reservoir Level Plan~~reservoir water surface elevations for the Big Creek ALP Projects following issuance of the new license ~~as soon as practicable, but no later than one year following receipt of Deputy Director and any other required approvals,~~ in accordance with the schedule and requirements specified in Appendix O of the Settlement Agreement. If necessary, the Licensee shall implement reservoir water surface elevation for Lake Thomas Edison, following approval by FERC and the Deputy Director. ~~therein. In the interim period between license issuance and implementation of the Deputy Director- approved Reservoir Level Plan, the Licensee shall implement: (a) the reservoir water levels in Table 37; and (b) Section 10.0 (Reservoir Water Surface Elevation Measurement) in Appendix L of the Big Creek ALP Settlement Agreement.~~

~~Each year the Licensee shall monitor reservoir levels to evaluate whether the reservoir level targets (i.e., Florence Lake levels and levels forecasted in each reservoir's drawdown plans) outlined in Table 37 will be met. If the Licensee determines that one or more reservoir level targets will not be met, the Licensee shall notify the Deputy Director at least 30 days in advance of when the Licensee projects the reservoir level target will be missed. The Licensee shall consult with staff from the State Water Board, USFS, USFWS, and CDFW to determine what can be done to notify reservoir users, and maximize access and use of the reservoirs given the low projected reservoir level(s). The Licensee shall provide documentation explaining why the reservoir level target(s) was not met and what steps the Licensee will take in the future to address the reason(s) the reservoir level target(s) was missed, as appropriate.~~

~~Table 37.~~ ~~Annual Reservoir Levels and Compliance Periods based on Big Creek ALP Settlement Agreement, Appendix O, Section 5.5~~

~~Reservoir~~	**~~Reservoir Levels~~**	**~~Compliance Period~~**
~~Big Creek Nos. 2A, 8, and Eastwood Hydroelectric Project (FERC Project No. 67)~~		
~~Florence Lake~~	~~Licensee shall target a minimum reservoir storage of 21,000 acre-feet (7,274.85 feet* above msl**)~~	~~July 1 - August 31~~
~~Florence Lake~~	~~Licensee shall target a minimum reservoir storage of 1,000 acre-feet (7,230.73 feet* above msl**)~~	~~September 1 - June 30~~
~~Shaver Lake~~	~~Licensee shall maintain the reservoir water surface level at the maximum elevation practical for water storage, with minimal fluctuation~~	~~Memorial Day – September 10~~
~~Mammoth Pool Hydroelectric Project (FERC Project No. 2085)~~		
~~Mammoth Pool Reservoir~~	~~Licensee shall maintain the reservoir water surface level at the maximum elevation practical for water storage, with minimal fluctuation~~	~~June 1 – September 1~~
~~Big Creek Nos. 1 and 2 Hydroelectric Project (FERC Project No. 2175)~~		
~~Huntington Lake~~	~~Licensee shall maintain the reservoir water surface level at the maximum elevation practical for water storage, with minimal fluctuation~~	~~May 1 – September 10~~
~~Vermilion Valley Hydroelectric Project (FERC Project No. 2086)~~		
~~Lake Thomas Edison~~	~~To be established in Deputy Director-approved Reservoir Level Plan after consultation with staff from USFS, CDFW, USFWS, and State Water Board~~	~~To be established in Deputy Director-approved Reservoir Level Plan after consultation with staff from USFS, CDFW, USFWS, and State Water Board~~
~~* The measurement indicated references the National Geodetic Vertical Datum of 1929~~ ~~** Mean sea level~~		

~~(b) Long-Term Reservoir Levels~~

~~After seven years of implementing the Reservoir Level Plan, the Licensee shall consult with staff from the State Water Board, USFS, USFWS, and CDFW to assess implementation of the reservoir level targets and propose long-term reservoir levels for each reservoir. The Licensee may request an extension beyond seven years if there have been insufficient water year types over the implementation period to inform long-term reservoir levels. The long-term reservoir level proposal shall be submitted to the Deputy Director for review and approval, as part of an update to the Reservoir Level Plan, no later than May 30 of the eighth year of implementing the Reservoir Level Plan (or later year specified by the Deputy Director if an extension to the timeframe for the long-term reservoir level proposal is granted). The Deputy Director may require modifications to the long-term reservoir level proposal as part of any approval. The Licensee shall file with FERC the Deputy Director-approved long-term reservoir levels. The Licensee shall implement the long-term reservoir levels upon receipt of Deputy Director and any other required approvals.~~

Rationale: Development of a Reservoir Water Level Management Plan is not necessary for the Big Creek ALP Projects. As part of the Big Creek ALP, agency-approved reservoir water surface elevations at Project reservoirs were developed in consultation with USFS, CDFW, State Water Board, tribes, non-governmental organization and the public and are included in Appendix O, Recreation Management Plan, of the Settlement Agreement. SCE manages its reservoir water surface elevations to be consistent with the primary purpose of the reservoirs for hydroelectric generation, existing water rights, contracts, and/or licenses associated with the reservoirs and other beneficial uses. In meeting the primary purpose of the reservoirs, SCE has committed to make a good faith effort to maintain reservoir water surface elevations at Project reservoirs that will support recreation. These include:

- Shaver Lake
- Florence Lake
- Huntington Lake; and
- Mammoth Pool Reservoir.

SCE has also committed to report reservoir elevation information and the functional operating ranges of the boat launch ramps to the public via the internet or other appropriate technologies. SCE will also annually notify the USFS, Huntington Lake Resorts, Lakeshore Resort, Rancheria Enterprises, Sierra Marina, and Shaver Lake Marina and post at the Sierra National Forest (SNF) boat ramp and via a website or other similar information method its monthly targets for the reservoirs from May through September. Because SCE has already developed reservoir water surface elevation targets in consultation with resource agencies with defined objectives and reporting requirements (Appendix O of the Settlement Agreement), development of a Reservoir Water Level Management Plan is not necessary for Huntington Lake, Shaver Lake, Mammoth Pool Reservoir or Florence Lake.

The State Water Board also requires in Draft Condition 9 that a Reservoir Water Level Management Plan be developed for Lake Thomas Edison. Although FERC and USFS, as part of their NEPA Environmental Assessment or USFS's Final FPA Section 4(e) Conditions, did not identify concerns with reservoir elevations at Lake Thomas Edison, SCE supports additional consultation with the State Water Board, USFS, USFWS, and CDFW to determine whether a water surface elevation requirement is necessary. If a water surface elevation requirement for Lake Thomas Edison is necessary, SCE will develop the criteria in consultation with resource agencies and file a copy of the Deputy Director-approved criteria with FERC. The criteria will include a summary of consultation, objectives of the criteria, and reporting/notification requirements.

DRAFT CONDITION 10. Whitewater Flows

Request: SCE requests that State Water Board modify Draft Condition 10. The requested modification and associated rationale are provided below.

CONDITION 10. Whitewater Flows

FERC Project Nos. 67, 120, 2085, and 2086

~~Within nine months of license issuance, t~~The Licensee shall ~~submit~~ implement pre-spill whitewater flow releases and dissemination of real-time flow information as specified in the Recreation Plan included in Appendix O of the Settlement Agreement. ~~a Whitewater Boating and Data Dissemination Plan (Whitewater Boating Plan) to the Deputy Director for review and approval. The Deputy Director may require modifications to the Whitewater Boating Plan as part of any approval. The Whitewater Boating Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Whitewater Boating Plan and any approved amendmentsthereto. The Whitewater Boating Plan shall include the following projects: Big Creek Nos. 2A, 8 and Eastwood Hydroelectric Project (FERC Project No. 67); Big Creek No. 3 Hydroelectric Project (FERC Project No. 120); Mammoth Pool Hydroelectric Project (FERC Project No. 2085); and Vermilion Valley Hydroelectric Project (FERC Project No. 2086).~~

~~At a minimum, the Whitewater Boating Plan shall include:~~

~~(i) Whitewater boating flows for the San Joaquin River below Mammoth Pool Dam, as described in Section 5.6 in Appendix O of the Big Creek ALP Settlement Agreement (summarized in Table 38) or otherwise updated based on consultation and this certification;~~

~~(ii) Procedure for early public notification of the anticipated spill schedule and duration at Florence Lake Dam and Mammoth Pool Dam (as outlined in Table 38);~~

~~(iii) Ramping rates, cumulative boating flow release volumes, and boating flow release periods;~~

~~(iv) Stream flow data dissemination information that will be implemented for the streams listed in Table 39 (Stream Reaches Designated for Real-time Flow Data Dissemination), as described in Section 5.5.1 in Appendix O of the Big Creek ALP Settlement Agreement;~~

~~(v) A summary and reference to applicable portions of Condition 7 (Channel and Riparian Maintenance Flows) related to whitewater boating flows along the South Fork San Joaquin River (below Florence Lake);~~

~~(vi) A description of factors other than recreation (e.g., biological impacts) that may influence the timing, magnitude, and duration of whitewater boating flow releases in the San Joaquin River below Mammoth Pool Dam;~~

~~(vii) A framework to guide the management of whitewater boating flow releases in the San Joaquin River below Mammoth Pool Dam;~~

~~(viii) A summary of and reference to applicable portions of Condition 3 (Gaging) related to the installation and maintenance of the proposed staff gage below Mammoth Pool Dam, as well as applicable information related to the existing gage on the South Fork San Joaquin River, downstream of Florence Lake Dam;~~

~~(ix) Provisions for dissemination of the water year forecast determined in Condition 2;~~

~~(x) Process for updating the Whitewater Boating Plan based on the approved Interim Ramping Rates Plan and the Ramping Rates Plan described in Condition 6 of this certification;~~

~~(xi) Process for updating the Whitewater Boating Plan based on the approved Jackass Meadow CRMF Inundation Study Report and Modified CRMF Proposal described in Condition 7 of this certification; and~~

~~(xii) A summary of consultation, including comments received and how the comments were addressed.~~

~~The Licensee shall implement the Whitewater Boating Plan within one year of receiving Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein. For the interim period between license issuance and implementation of the Deputy Director-approved Whitewater Boating Plan, the Licensee shall implement the whitewater boating flow releases in the San Joaquin River below the Mammoth Pool Dam contained in Section 5.6 in Appendix O of the Big Creek ALP Settlement Agreement (Table 38), and the whitewater flows in the South Fork San Joaquin River below the Florence Dam contained in Condition 7 of this certification. During the interim period, the Licensee shall also implement the stream flow data dissemination provisions for the streams listed in Table 39, as described in Section 5.5.1 in Appendix O of the Big Creek ALP Settlement Agreement.~~

Table 38. Whitewater Boating Releases for San Joaquin River below Mammoth Pool Dam

Water Year Type (Conditions)	Whitewater Boating Releases
Wet Water Years	Mammoth Pool Dam Not Spilling by April 15 (pre-spill): The Licensee shall provide continuous, controlled releases between 350 cfs and 850 cfs from April 15 until Mammoth Pool Dam begins to spill.
	Mammoth Pool Dam Spilling by April 15: The Licensee shall have no further obligation to provide controlled whitewater boating flows for the remainder of the year.
Above Normal Water Years	Mammoth Pool Dam Not Spilling by April 15: The Licensee shall provide continuous, controlled releases between 350 cfs and 850 cfs between the hours of 10:00 a.m. and 4:00 p.m. for two consecutive weekend days beginning on or after April 15.
	Mammoth Pool Dam Spilling by April 15: The Licensee shall have no further obligation to provide controlled whitewater boating flows for the remainder of the year.

Table 39. Stream Reaches Designated for Real-time Flow Data Dissemination

FERC Project No.	FERC Project Name	Stream Reach
67	Big Creek Nos. 2A, 8, and Eastwood Hydroelectric Project	South Fork San Joaquin River below Florence Dam
67	Big Creek Nos. 2A, 8, and Eastwood Hydroelectric Project	Stevenson Creek below Shaver Lake Dam
120	Big Creek No. 3 Hydroelectric Project	San Joaquin River below Dam 6
2085	Mammoth Pool Hydroelectric Project	San Joaquin River below Mammoth Pool Reservoir
2086	Vermilion Valley Hydroelectric Project	Mono Creek between Vermilion Valley Dam and Mono Creek Diversion

Rationale: Development of a Whitewater Boating Plan is not necessary for the Big Creek ALP Projects. As part of the Big Creek ALP, agency-approved pre-spill whitewater flow releases below Mammoth Pool and Florence Reservoir dams were established in Wet and Above Normal Years in consultation with USFS, CDFW, State Water Board, tribes, non-governmental organization and the public. These whitewater flow releases are included in Appendix O, Recreation Management Plan, of the Settlement Agreement. As part of the pre-spill whitewater flow releases, SCE has also committed to discuss the anticipated water runoff conditions (Wet, Above Normal) with the American Whitewater Association or the regional whitewater boating representative after March 15, and to propose the timing and flow magnitudes of the pre-spill releases.

SCE also committed to dissemination of year-round hourly flow data for the following reaches:

- South Fork San Joaquin river below Florence Dam;
- San Joaquin river below Mammoth Pool Reservoir;
- San Joaquin River below Dam 6;
- Stevenson Creek below Shaver Dam; and
- Mono Creek between Vermilion Valley Dam and Mono Diversion.

Because SCE has already developed pre-spill whitewater flow releases for the Big Creek ALP Projects in consultation with resource agencies (Appendix O of the Settlement Agreement), development of a Whitewater Boating Plan is not necessary.

State Water Board is also requiring in Draft Condition 10 that the Big Creek No. 3 Project and Vermilion Valley Hydroelectric Project be included in the Whitewater Boating Plan.

For the Big Creek No. 3 Project, the bypassed reach of the San Joaquin River below Dam 6 is a steep incised river channel with sheer granite walls along the river margin. The steep terrain and granite walls along the river severely limit stream access throughout the bypass reach. This reach is identified as a class V to V+ difficulty (expert only) whitewater boating resource commonly referred to as the Chawanakee Gorge Run. This run extends approximately eight miles along the San Joaquin River from the bottom of Dam 6 to the Italian Bar Bridge crossing on Redinger Reservoir. The desirable flow range for whitewater boating in this reach is between 350 cfs to 1,000 cfs. As part of the Big Creek ALP relicensing studies, an evaluation of historical boating opportunities for a period of record from 1983 to 2002 under existing hydrology indicated that boating opportunity days within the boatable flow range normally occur in Wet and Above Normal water year types, and occasionally in a Dry water year type. In addition, SCE believes that this run is unsafe due to the steep granite wall incised channel, which limits access to the river channel, and any accidents occurring in the reach would be difficult to reach by emergency services personnel. Therefore, whitewater boating flows were determined unnecessary and inappropriate for this reach.

For the Vermilion Valley Hydroelectric Project, agencies, tribes, and non-governmental organizations evaluated whitewater boating resources and determined that no viable whitewater boating resources are present in the bypassed reaches associated with Vermilion Valley Hydroelectric Project. Therefore, it is unnecessary to develop a Whitewater Boating Plan or flows for the Vermillion Valley Hydroelectric Project.

DRAFT CONDITION 11. Erosion and Sediment Control – Warm Creek Diversion Channel (Vermilion Valley Hydroelectric Project)

SCE has no comment on this draft condition.

DRAFT CONDITION 12. Gravel Augmentation Program – Mammoth Pool Bypass Reach (Mammoth Pool Hydroelectric Project)

SCE has no comment on this draft condition.

DRAFT CONDITION 13. Sediment Management

SCE has no comment on this draft condition.

DRAFT CONDITION 14. Dam Seepage Remediation – Camp 61 Creek (Portal Hydroelectric Project)

Request: SCE requests the State Water Board modify Draft Condition 14. The requested modifications and associated rationale are provided below.

> **CONDITION 14. Dam Seepage Remediation – Camp 61 (Portal Hydroelectric Project)**
>
> **FERC Project No. 2174**
>
> As part of the Portal Hydroelectric Project, the Licensee shall develop and implement a Dam Seepage Remediation and Monitoring Program for Camp 61 Creek (Camp 61 Remediation Program). The goal of the Camp 61 Remediation Program shall be to collect, treat, and monitor seepage effluent coming from Portal Forebay Dam and appurtenant facilities as necessary to ensure compliance with Basin Plan water quality objectives, including but not limited to: iron, manganese, dissolved oxygen, temperature, settleable solids, suspended solids, turbidity, and other constituents of concern. The Camp 61 Remediation Program shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board, in accordance with the phased planning and implementation sequence described below.
>
> **14(A) Phase 1 – Concept Design Alternatives Report**
>
> Within 30 months of license issuance, the Licensee shall submit a Dam Seepage Remediation Concept Design Alternatives Report for Camp 61 Creek (Camp 61 Phase 1 Report) to the Deputy Director for review and approval. The Deputy Director may require modifications to the Camp 61 Phase 1 Report as part of any approval. The Camp 61 Phase 1 Report shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Camp 61 Phase 1 Report and any approved amendments thereto. The Camp 61 Phase 1 Report shall include a minimum of two seepage remediation concept ~~design~~ alternatives. At least one concept design alternative shall be the use of passive biological treatment systems, such as constructed wetlands.
>
> At a minimum, the Camp 61 Phase 1 Report shall include:
>
> (i) A statement of goals and objectives;

(ii) Maps, drawings, photos, and descriptions of relevant environmental conditions, including seepage sites, seepage rates, and Portal Hydroelectric Project facilities used to collect and convey seepage effluent;

(iii) A summary of available water quality and bioassessment data for seepage effluent, and Camp 61 Creek;

(iv) Descriptions, maps, and ~~as may be needed~~ concept drawings~~, sketches, or example illustrations~~ of proposed design alternatives;

(v) Analysis of the probable effectiveness of each design alternative based on a review of relevant scientific literature, pilot or bench-scale studies, and/or rationale and supporting calculations;

(vi) Description of how water quality will be protected and monitored with implementation of each design alternative presented;

(vii) Estimated schedule and cost for the design, construction, operation, and maintenance of each design alternative; and

(viii) The Licensee's recommended alternative for implementation, including: (a) the basis for the selection; (b) comments received during consultation regarding the selection of a preferred alternative and other aspects of the Camp 61 Phase 1 Report; and (c) responses to comments.

14(B) Phase 2 – Dam Seepage Remediation Plan

Within ~~one~~two years of Deputy Director approval of the Camp 61 Phase 1 Report, the Licensee shall submit a Dam Seepage Remediation and Monitoring Plan for Camp 61 Creek (Camp 61 Phase 2 Plan) to the Deputy Director for review and approval. The Deputy Director may require modifications to the Camp 61 Phase 2 Plan as part of any approval. The Camp 61 Phase 2 Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Camp 61 Phase 2 Plan and approved amendments thereto.

The Camp 61 Phase 2 Plan shall be developed for the design alternative identified in the Deputy Director's approval of the Camp 61 Phase 1 Report.

At a minimum, the Camp 61 Phase 2 Plan shall include:

(i) A statement of goals and objectives;

(ii) environmental and conceptual design information from the Camp 61 Phase 1 Report;

(iii) Construction schedule and design and specifications (90-100% complete) for the Deputy Director-approved design alternative;

(iv) Remediation implementation schedule;

(v) Description of anticipated maintenance;

(vi) Measures that will be taken to protect water quality and beneficial uses during construction, operation, and maintenance activities;

(vii) A monitoring and reporting program that describes how and when the Licensee will evaluate and report on the performance of dam seepage remediation efforts. The program shall include measurable criteria to evaluate the performance of the dam seepage remediation system; The monitoring program shall include a benthic macroinvertebrate (BMI) bioassessment based on current standard bioassessment procedures, quality assurance provisions, and data reporting requirements established by the State Water Board's Surface Water Ambient Monitoring Program (SWAMP) or its successor program, or an alternative methodology approved by the Deputy Director as part of review and approval of the Camp 61 Phase 2 Plan. In addition, the Licensee shall use the California Stream Condition Index (CSCI) and/or the hydropower-specific multi-metric index of biotic integrity (Hydropower IBI) developed by Rehn (2009),[42] as the primary basis for analysis and interpretation of BMI data sets, unless an alternative methodology is approved by the Deputy Director as part of review and approval of the Camp 61 Phase 2 Plan;

a. If monitoring results indicate that remediation successfully addresses water quality issues following implementation, and water quality criteria for aquatic life are met in Camp 61 Creek downstream of the treatment facility, BMI sampling can be discontinued following consultation with resources agencies.

(viii) An adaptive management process to evaluate, propose, and implement modifications to the seepage remediation efforts or monitoring and reporting provisions throughout the duration of the Portal Hydroelectric Project license and any extensions. The Licensee shall provide background and supporting information for modifications proposed as adaptive management. Modifications to monitoring and reporting provisions shall be based on documentation demonstrating compliance with Basin Plan objectives;

(ix) A summary of consultation, including comments received and how the comments were addressed; and

(x) Reporting of water quality and BMI monitoring results to State Water Board staff, and upload of BMI data to the California Environmental Data Exchange Network (CEDEN) or a successor database within six months of collection.

The Licensee shall implement the Camp 61 Phase 2 Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein. The Licensee shall begin the monitoring specified in the Camp 61 Phase 2 Seepage Remediation Plan within 60 days of commencing operation

of the remediation system; however, BMI data collection will be delayed until the fall to be consistent with standard sampling protocols.

[42] Rehn, A.C. 2009. Benthic macroinvertebrates as indicators of biological condition below hydropower dams on west slope Sierra Nevada streams, California, USA. River Research and Applications. 25: 208- 228.

Rationale: SCE requests modifications to Draft Condition 14 to clarify that the Phase 1 Design Alternatives Report should be a set of concept plans, rather than a set of detailed engineering drawings, suitable for an evaluation of various design alternatives. Design-level engineering drawings are an unnecessarily detailed and costly requirement for a Phase 1. Design drawings are not needed in Phase 1 to select a preferred design alternative because a narrative comparing the methods, feasibility, effectiveness, cost, advantages, and disadvantages of potential alternatives will be sufficient for the analysis. SCE will provide examples of remediation approaches drawn from the technical literature or from other actual applications, in addition to illustrations or sketches and, if needed, a concept drawing, to inform a comparison of remediation approaches for consideration. SCE will prepare detailed engineering drawings in Phase 2 following selection of a seepage remediation approach approved by the Deputy Director.

SCE will require more than one year from approval by the Deputy Director of Phase 1 Design Alternatives Report to prepare a Phase 2 Report complete with detailed design drawings and specifications, construction schedule, maintenance description, and a monitoring program. SCE is requesting a two-year period to submit a Phase 2 Report.

If remediation successfully addresses water quality issues based on water quality monitoring following implementation, and water quality criteria for aquatic life are met in Camp 61 Creek downstream of the treatment facility, benthic macroinvertebrate (BMI) sampling should be discontinued in consultation with resources agencies. Such sampling would be duplicative of the purpose of water quality sampling and costly.

DRAFT CONDITION 15. Stream Stabilization and Seepage Remediation – Adit 2 Creek (Portal Hydroelectric Project)

Request: SCE requests the State Water Board modify Draft Condition 15. The requested modifications and associated rationale are provided below.

CONDITION 15. Stream Stabilization and Seepage Remediation – Adit 2 Creek (Portal Hydroelectric Project)

FERC Project No. 2174

As part of the Portal Hydroelectric Project, the Licensee shall develop and implement a Stream Stabilization and Seepage Remediation Program for Adit 2 Creek (Adit 2 Remediation Program). The goals of the Adit 2 ~~Remediation~~ Program shall be to: (a) stabilize the bed and bank of Adit 2 Creek to reduce erosion and sediment delivery to downstream receiving waters; and (b) treat and monitor seepage coming from Adit 2 and

other appurtenant facilities as necessary to ensure compliance with Basin Plan water quality objectives, including iron, manganese, dissolved oxygen, temperature, settleable solids, suspended solids, and turbidity. The Adit 2 Remediation Program shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board, in accordance with the phased planning and implementation sequence described below.

15(A) Adit 2 Stabilization

Phase 1 ~~–~~ ~~Design~~ Adit 2 ~~Alternatives~~ Stream Stabilization Report

Within 30 months of license issuance, the Licensee shall submit an Adit 2 Phase 1 Stream Stabilization Report ~~and Seepage Remediation Design Alternatives Report~~ (Adit 2 Phase 1 Stabilization Report) ~~for Adit 2 Creek~~ to the Deputy Director for review and approval. The Deputy Director may require modifications to the Adit 2 Phase 1 Stabilization Report as part of any approval. The Adit 2 Phase 1 Stabilization Report shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Adit 2 Phase 1 Stabilization Report and any approved amendments thereto.

The Adit 2 Phase 1 Stabilization Report shall include a minimum of two ~~seepage remediation~~ concept design alternatives. ~~At least one of the seepage remediation design alternatives shall be use of passive biological seepage treatment systems, such as constructed wetlands.~~

At a minimum, the Adit 2 Phase 1 Stabilization Report shall include:

(i) A statement of goals and objectives;

(ii) Maps, drawings, photos, and descriptions of relevant environmental conditions, including a description of Adit 2 channel erosion sites~~, seepage sites, seepage rates, and the Portal Hydroelectric Project facilities used to collect and convey seepage effluent~~;

~~(iii) A summary of available water quality and bioassessment data for Adit 2 Creek and seepage effluent;~~

(iii~~iv~~) Descriptions, maps, and conceptual drawings of proposed ~~design~~concept alternatives for channel ~~soil~~ stabilization ~~and seepage remediation~~;

(iv~~v~~) Analysis of the probable effectiveness of each ~~seepage remediation design~~ alternative~~s~~ based on a review of relevant scientific literature, pilot or bench-scale studies, and/or rationale and supporting calculations;

(v~~vi~~) Description of how water quality will be protected and monitored during implementation and operation for each of the ~~soil~~ stabilization ~~and seepage remediation~~ alternative presented;

(vivii) Estimated schedule and costs for the design, construction, operation, and maintenance of each alternative;

(viiviii) The Licensee's recommended ~~seepage remediation and soil~~ stabilization alternatives proposed for implementation, including: (a) the basis for the selection; (b) comments received during consultation regarding the selection of a preferred alternative and other aspects of the Adit 2 Phase 1 Stabilization Report; and (c) responses to comments.

~~15(B)~~ Phase 2 – Adit 2 Stream Stabilization ~~and Seepage Remediation~~ Plan

Within two ~~one~~ years of Deputy Director approval of the Adit 2 Phase 1 Stabilization Report, the Licensee shall submit a Stream Stabilization ~~and Seepage Remediation~~ Plan for Adit 2 Creek (Adit 2 Phase 2 Stabilization Plan) to the Deputy Director for review and approval. The Deputy Director may require modifications to the Adit 2 Phase 2 Stabilization Plan as part of any approval. The Adit 2 Phase 2 Stabilization Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Adit 2 Phase 2 Stabilization Plan and any approved amendments thereto.

The Adit 2 Phase 2 Stabilization Plan shall be developed for the ~~soil~~ channel stabilization ~~and seepage remediation~~ alternative~~s~~ identified and selected in the Deputy Director's approval of the Adit 2 Phase 1 Stabilization Report.

At a minimum, the Adit 2 Phase 2 Stabilization Plan shall include:

(i) A statement of goals and objectives;

(ii) Relevant environmental and conceptual design information from the Adit 2 Phase 1 Stabilization Report;

(iii) A construction schedule and design specifications (90-100% complete) for the Deputy Director-approved alternatives;

(iv) Remediation implementation schedule;

(v) Description of anticipated maintenance;

(vi) Measures that will be taken to protect water quality and beneficial uses during construction, operation, and maintenance activities;

(vii) A monitoring and reporting process that describes how the Licensee will evaluate and report on the performance of ~~soil~~ channel stabilization ~~and dam seepage~~ remediation efforts. The program shall include measurable criteria to evaluate the performance of the stream stabilization ~~and seepage~~ remediation measures. ~~The monitoring program shall include a BMI bioassessment component based on current standard procedures, quality assurance provisions, and data reporting requirements established by the SWAMP or its successor program, or an alternative methodology approved by the Deputy Director as part of review and approval of the Adit 2 Phase 2 Plan. In addition, the Licensee shall use the CSCI~~

~~and/or the Hydropower IBI developed by Rehn (2009),43 as the primary basis for analysis and interpretation of BMI data sets, unless an alternative methodology is approved by the Deputy Director as part of review and approval of the Adit 2 Phase 2 Plan;~~

(viii) An adaptive management process to evaluate, propose, and implement modifications to the stream stabilization measures, ~~seepage remediation efforts,~~ or monitoring and reporting provisions throughout the duration of the Portal Hydroelectric Project license and any extensions. The Licensee shall provide background and supporting information for modifications proposed as adaptive management. Modifications to monitoring and reporting provisions shall be based on documentation demonstrating compliance with Basin Plan ~~and/or BMI~~ objectives;

(ix) A summary of consultation, including comments received and how the comments were addressed; and

(x) Reporting of ~~water quality and BMI~~ monitoring results to State Water Board staff~~,~~ ~~and upload of BMI data to CEDEN or a successor database within six months of collection~~.

The Licensee shall implement the Adit 2 Phase 2 Stabilization Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein. The Licensee shall begin implementation of the monitoring specified in the Adit 2 Phase 2 Stabilization Plan within 60 days of completing construction of the stream stabilization measures ~~and commencing operation of the seepage remediation system, respectively~~.

15(B) Adit 2 Seepage Remediation

Phase 1 – Adit 2 Seepage Remediation Report

Within 30 months of license issuance, the Licensee shall submit a Seepage Remediation Report (Adit 2 Phase 1 Seepage Report) for Adit 2 Creek to the Deputy Director for review and approval. The Deputy Director may require modifications to the Adit 2 Phase 1 Seepage Report as part of any approval. The Adit 2 Phase 1 Seepage Report shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Adit 2 Phase 1 Seepage Report and any approved amendments thereto.

The Adit 2 Phase 1 Seepage Report shall include a minimum of two seepage remediation design alternatives. At least one of the seepage remediation design alternatives shall be use of passive biological seepage treatment systems, such as constructed wetlands.

At a minimum, the Adit 2 Phase 1 Seepage Report shall include:

(i) A statement of goals and objectives;

(ii) Maps, drawings, photos, and descriptions of relevant environmental conditions, including seepage sites, seepage rates, and the Portal Hydroelectric Project facilities used to collect and convey seepage effluent;

(iii) A summary of water quality and bioassessment data for Adit 2 Creek and seepage effluent including any new water quality data collected specifically to identify the location and causes of water quality problems and to inform the identification of remediation alternatives;

(iv) An evaluation of water quality and bioassessment data to determine the source or cause of water quality issues. If the evaluation indicates that source of the water quality problem is not related to the operation and maintenance of the Portal Project then development of conceptual remediation design alternatives will not be needed. If the source is determined to be Project related then SCE develop remediation alternative as outlined below.

(iv) Descriptions, maps, and as may be needed concept drawings of proposed alternatives for seepage remediation;

(v) Analysis of the probable effectiveness of each seepage remediation design alternative based on a review of relevant scientific literature, pilot or bench-scale studies, and/or rationale and supporting calculations;

(vi) Description of how water quality will be protected and monitored during implementation and operation for each of the seepage remediation alternative presented;

(vii) Estimated schedule and costs for the design, construction, operation, and maintenance of each alternative;

(viii) The Licensee's recommended seepage remediation alternatives proposed for implementation, including: (a) the basis for the selection; (b) comments received during consultation regarding the selection of a preferred alternative and other aspects of the Adit 2 Phase 1 Seepage Remediation Report; and (c) responses to comments.

Phase 2 – Adit 2 Seepage Remediation Plan

SCE will prepare an Adit 2 Seepage Remediation Plan if it is determined during the Adit 2 Phase 1 Seepage Remediation Report 1 that the seepage from Adit 2 is a Project related source that is contributing to adverse water quality within Adit 2 Creek. Within two years of Deputy Director approval of the Adit 2 Phase 1 Seepage Remediation Report, the Licensee shall submit a Seepage Remediation Plan for Adit 2 Creek (Adit 2 Phase 2 Seepage Remediation Plan) to the Deputy Director for review and approval. The Deputy Director may require modifications to the Adit 2 Phase 2 Seepage Remediation Plan as part of any approval. The Adit 2 Phase 2 Seepage Remediation Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Adit 2 Phase 2 Seepage Remediation Plan and any approved amendments thereto.

The Adit 2 Phase 2 Seepage Remediation Plan shall be developed for the seepage remediation alternatives identified in the Deputy Director's approval of the Adit 2 Phase 1 Seepage Remediation Report.

At a minimum, the Adit 2 Phase 2 Seepage Remediation Plan shall include:

(i) A statement of goals and objectives;

(ii) Relevant environmental and conceptual design information from the Adit 2 Phase 1 Seepage Remediation Report;

(iii) A construction schedule and design specifications (90-100% complete) for the Deputy Director-approved alternatives;

(iv) Remediation implementation schedule;

(v) Description of anticipated maintenance;

(vi) Measures that will be taken to protect water quality and beneficial uses during construction, operation, and maintenance activities;

(vii) A monitoring and reporting process that describes how the Licensee will evaluate and report on the performance of dam seepage remediation efforts. The program shall include measurable criteria to evaluate the performance of the seepage remediation measures. The monitoring program shall include a BMI bioassessment component based on current standard procedures, quality assurance provisions, and data reporting requirements established by the SWAMP or its successor program, or an alternative methodology approved by the Deputy Director as part of review and approval of the Adit 2 Phase 2 Seepage Remediation Plan. In addition, the Licensee shall use the CSCI and/or the Hydropower IBI developed by Rehn (2009)[43] as the primary basis for analysis and interpretation of BMI data sets, unless an alternative methodology is approved by the Deputy Director as part of review and approval of the Adit 2 Phase 2 Plan;

(viii) An adaptive management process to evaluate, propose, and implement modifications to the seepage remediation efforts, or monitoring and reporting provisions throughout the duration of the Portal Hydroelectric Project license and any extensions. The Licensee shall provide background and supporting information for modifications proposed as adaptive management. Modifications to monitoring and reporting provisions shall be based on documentation demonstrating compliance with Basin Plan;

(ix) A summary of consultation, including comments received and how the comments were addressed; and

(x) Reporting of water quality and BMI monitoring results to State Water Board staff, and upload of BMI data to CEDEN or a successor database within six months of collection.

The Licensee shall implement the Adit 2 Phase 2 Seepage Remediation Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein. The Licensee shall begin implementation of the monitoring specified in the Adit 2 Phase 2 Seepage Remediation Plan within 60 days of completing construction and commencing operation of the seepage remediation system. However, BMI data collection will be delayed until the fall to be consistent with standard sampling protocols.

[66] Rehn, A.C. 2009. Benthic macroinvertebrates as indicators of biological condition below hydropower dams on west slope Sierra Nevada streams, California, USA. River Research and Applications. 25: 208- 228.

Rationale: Draft Condition 15 addresses two different issues: (1) instability of the Adit 2 channel, which results in erosion and sediment delivery, and (2) seepage water quality exceedances. For clarity, SCE suggests that Condition 15 be separated into two parts, 15(A) Stream Stabilization, and 15(B) Seepage Remediation. Parts A and B each have a Phase 1 Report and Phase 2 Plan. As it is currently written, Condition 15(A) Phase 1 and 15(B) Phase 2 both address channel stability and seepage remediation together. This is confusing and may be conflating the two issues of channel instability and impaired water quality, which are distinctly different issues requiring different solutions.

Condition 15 also states that seepage coming from Adit 2 and other appurtenant facilities should be treated and monitored. However, past water quality sampling conducted for the Big Creek ALP Projects indicates that seepage from Adit 2 does not present a water quality problem, rather the source of the water quality problem is likely downstream of the Adit 2 seepage, between Adit 2 and the gaging weir.

Adit 2 water quality data reported in the License Application Exhibit E Vol. 2 (March 2003) indicates that there were no exceedances for total iron (0.3 mg/L threshold) due to direct seepage from Adit 2. Dissolved iron, which is biologically available to aquatic organisms, did not exceed U.S. Environmental Protection Agency (USEPA) criterion (1.0 mg/L) at the Adit 2 opening or at any of the sampling stations downstream. However, most samples exceeded total iron Basin Plan criteria at the gaging weir located 1,500 ft downstream and in samples 4,100 ft downstream, just above confluence with Camp 61 Creek.

Low dissolved oxygen (DO) measured near Adit 2 was below Basin Plan objectives (less than 7.0 mg/L threshold for cold designated waters), suggesting water seeping from Ward Tunnel thru Adit 2 contained low DO. However, all DO measurements from the gaging weir downstream to the confluence with Camp 61 Creek were within Basin Plan objectives, therefore DO is not a water quality issue impacting aquatic life there. Measures to increase DO can be incorporated into treatment designs and may not require more than the addition of roughness elements that can induce aeration. In addition, total manganese concentrations at the Adit 2 opening were within Basin Plan objectives (<.05 mg/L), in fact all measurements were within the Basin Plan standards except one sample at the Adit 2 weir located 1,500 ft downstream.

Based on these water quality measurements, it does not appear that Adit 2 is the source of total iron concentration exceedance concerns. Manganese was also not a problem at Adit 2, although there was one exceedance downstream at the weir sampling site, while other measurements at the weir were within the Basin Plan standard. Low DO, although a problem at the Adit 2 opening does not represent an impact on aquatic life because DO met Basin Plan standards at the Adit 2 weir and can be addressed upstream as part of a treatment design. SCE proposes distinguishing the two issues at this site into distinct parts in Condition 15 to better address each focused issue and since dealing with the former issue (channel stabilization) may, in fact, reduce the potential for water quality issues and address the latter issue (Seepage water quality concerns).

SCE recommends that additional water quality measurements be performed under Condition 15 to determine specifically where the water quality problems arise prior to developing a Phase 1 Plan. The Phase 2 Adit 2 Seepage Remediation Plan should only be prepared after the location and cause of the water quality problem are determined to be Project related.

SCE also proposes revisions to Draft Condition 15 similar to those identified previously under Condition 14. Detailed engineering plans should be developed only in Phase 2 with concept or similar plans prepared in Phase 1 and extending the scheduled submittal of the Phase 2 Report from one to two years. The Phase 1 Report should be a set of concept plans, text, sketches or example illustrations, and literature support sufficient to allow comparison between alternatives. SCE will prepare detailed engineering drawings only following selection of an agreed upon approach with the Deputy Director. The extension for the Phase 2 schedule from one to two years is to allow for sufficient time for development of the detailed drawings and construction plan as well as adequate time for consultation with the resource agencies.

DRAFT CONDITION 16. Dam Seepage Assessment and Remediation – Mono Creek (Vermilion Valley Hydroelectric Project)

Request: SCE requests the State Water Board modify Draft Condition 16. The requested modifications and associated rationale are provided below.

> **CONDITION 16. Dam Seepage Assessment and Remediation – Mono Creek (Vermilion Valley Hydroelectric Project)**
>
> **FERC Project No. 2086**
>
> Within 30 months of license issuance, the Licensee shall submit a Dam Seepage Assessment and Water Quality Monitoring Plan for the Vermilion Valley Hydroelectric Project (Vermilion Seepage Plan), to the Deputy Director for review and approval. The goals of the Vermilion Seepage Plan are to characterize seepage effluent and potential impacts to water quality, and to inform the development of a seepage remediation plan if deemed necessary. The Vermilion Seepage Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Deputy Director may require modifications to the Vermilion Seepage Plan as part of any approval. The

Licensee shall file with FERC the Deputy Director- approved Vermilion Seepage Plan and any approved amendments thereto.

At a minimum, the Vermilion Seepage Plan shall include:

(i) A description of goals and objectives;

(ii) Maps, drawings, photos, summary descriptions of relevant environmental conditions and information for the area, including seepage sources; and current seepage rates and volumes;

(iii) A description of the Vermilion Valley Hydroelectric Project facilities used to collect and convey seepage effluent;

(iv) Existing water quality and bioassessment monitoring data for Mono Creek below Vermilion Valley Dam;

(v) An assessment and characterization of the sources, discharge rates, and chemistry of seepage effluent emanating from the Vermilion Valley Dam and appurtenant facilities, including the network of conveyances used to collect and discharge the seepage effluent to Mono Creek. The assessment shall include an evaluation of: (a) existing water quality and BMI monitoring data (iv above) and (b) the effects of the seepage effluent on water quality in seepage conveyances, Mono Creek, and other receiving waters. The Licensee shall use the CSCI and/or Hydropower IBI developed by Rehn (2009),[44] as the primary basis for analysis and interpretation of BMI data sets, unless an alternative methodology is approved by the Deputy Director as part of review and approval of the Vermilion Seepage Plan;

(vi) Development of the criteria, or identification of the water quality objectives that will be used to evaluate the results of water quality and bioassessment data to determine if remediation of the seepage is necessary.

~~(vi)~~(vii) A proposal for water quality and BMI monitoring for a minimum of three years, or other timeframe approved by the Deputy Director as part of review and approval of the Vermilion Seepage Plan. The proposal shall include: (a) a monitoring schedule; (b) use of current standard SWAMP or other Deputy Director-approved BMI and water quality monitoring procedures; and (c) quality assurance and quality control provisions. ~~At a minimum,~~ BMI monitoring will be conducted at five locations consistent with the approach identified in the Vermilion Valley Leakage Channel Macroinvertebrate Study Plan (Big Creek ALP Settlement Agreement -Appendix B)~~shall include 12 sites annually, including: (a) one or more an appropriate reference sites located upstream of the Vermilion Valley Dam and/or outside of Vermilion Valley Hydroelectric Project boundaries; (b) site(s) immediately below the outflow of the drainage system that controls seepage passing through Vermilion Dam; and (c) site(s)~~

~~within the seepage channel that discharges to Mono Creek~~;

~~(vii)~~(viii) A summary of consultation, including comments received and how the comments were addressed; and

~~(viii)~~(ix) Reporting of water quality and BMI monitoring results to State Water Board staff, and upload of BMI data to the CEDEN or a successor database within six months of collection.

The Licensee shall implement the Vermilion Seepage Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

Within six months of concluding the Vermilion Seepage Plan monitoring program the Licensee shall submit a Vermilion Seepage Report to the Deputy Director for review and approval. The Deputy Director may require modifications to the Vermilion Seepage Report as part of any approval. The Vermilion Seepage Report shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file the Deputy Director-approved Vermilion Seepage Report with FERC. The Vermilion Seepage Report shall: (i) summarize and assess the data and information gathered through implementation of the Vermilion Seepage Plan and other relevant information; and (ii) provide the Licensee's determination and supporting rationale regarding whether or not seepage remediation and/or long-term water quality monitoring is necessary and feasible to protect water quality.

If Deputy Director approval of the Vermilion Seepage Report includes implementation of seepage remediation and/or long-term water quality monitoring, the Licensee shall submit a Vermilion Long-Term Seepage Implementation Plan (Vermilion Long-Term Seepage Plan) to the Deputy Director for review and approval within ~~one year~~two years of receiving Deputy Director approval of the Vermilion Seepage Report. The Deputy Director may require modifications to the Vermilion Long-Term Seepage Plan as part of any approval. The Vermilion Long-Term Seepage Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Vermilion Long-Term Seepage Plan and any approved amendments thereto. The Licensee shall implement the Vermilion Long-Term Seepage Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

At a minimum, the Vermilion Long-Term Seepage Plan shall include:

(i) A statement of goals and objectives;

(ii) For seepage remediation, include:

a. Relevant information from the Vermilion Seepage Report that provides background and support for the plan;

b. The Licensee's recommended alternative for implementation and a summary of other alternatives considered by the Licensee with supporting information for why the selected seepage remediation alternative was chosen;

c. A description, maps, and drawings of the proposed design alternatives;

d. An analysis of the probable effectiveness of the recommended and other design alternative(s) based on a review of relevant scientific literature, pilot or bench- scale studies, and/or rationale and supporting calculations;

e. A description of how water quality and beneficial uses will be protected and monitored during implementation of the recommended alternative that includes construction, operation, and maintenance activities;

f. An estimated schedule and cost for the design, construction, operation, and maintenance of the recommended alternative;

g. Comments received during consultation regarding the selection of a recommended alternative and other aspects of the Vermilion Long-Term Seepage Plan, and responses to comments;

h. A description of anticipated maintenance for the recommended alternative;

i. A monitoring and reporting program that describes how and when the Licensee will evaluate and report on the performance of dam seepage remediation efforts. The program shall include measurable criteria to evaluate the performance of the dam seepage remediation system. The monitoring program shall include BMI monitoring based on current standard procedures, quality assurance provisions, and data reporting requirements established by the State Water Board's SWAMP or its successor program, or an alternative methodology approved by the Deputy Director as part of review and approval of the Vermilion Long-Term Seepage Plan; and

j. An adaptive management process to evaluate, propose, and implement modifications to the seepage remediation efforts or monitoring and reporting provisions throughout the duration of the Vermilion Hydroelectric Project license and any extensions. The Licensee shall provide background and supporting

information for modifications proposed as adaptive management. Modifications to monitoring and reporting provisions shall be based on documentation demonstrating compliance with Basin Plan objectives ~~and BMI objectives~~;

(iii) For long-term seepage monitoring include:

a. A proposed seepage monitoring program that includes constituents that will be monitored, sampling frequency, locations that will be monitored, and quality assurance and quality control measures; and

b. A reporting and adaptive management program that describes how and when the Licensee will evaluate, report, and propose modifications to the long-term seepage monitoring program. The Licensee shall provide background and supporting information for modifications proposed under adaptive management.

The Deputy Director may require implementation of the planning and approval process outlined in (ii) of the Long-Term Seepage Plan section if monitoring results indicate seepage remediation is necessary to address water quality violations related to seepage.

[44] Rehn, A.C. 2009. Benthic macroinvertebrates as indicators of biological condition below hydropower dams on west slope Sierra Nevada streams, California, USA. River Research and Applications. 25: 208-228.

Rationale: In terms of BMI monitoring, the 12 sampling sites proposed in Draft Condition 16 are excessive and no rationale is provided to justify this level of sampling intensity. SCE proposes instead to conduct BMI monitoring at five locations in Mono Creek consistent with the approach identified in the Vermilion Valley Leakage Channel Macroinvertebrate Study Plan (Settlement Agreement -Appendix B). This study plan was developed in consultation with resource agencies, including State Water Board staff, after extensive review and discussion of the water quality results and BMI studies, which were conducted in Mono Creek in support of Project relicensing.

Draft Condition 16 states that upon approval of the Vermilion Seepage Report by the Deputy Director, the Licensee has one year to submit a Vermilion Long-Term Seepage Implementation Plan (Vermilion Long-Term Seepage Plan) to the Deputy Director for review and approval. SCE proposes to extend the schedule from one to two years following Deputy Director approval to allow sufficient time for development and consultation with the resource agencies.

DRAFT CONDITION 17. Riparian Areas

Request: SCE requests the State Water Board modify Draft Condition 17. The requested modifications and associated rationale are provided below.

CONDITION 17. Riparian Areas

FERC Project Nos. 67, 120, 2085, 2086, 2174, and 2175

~~Within one year of license issuance, the Licensee shall submit a Riparian Area Monitoring Plan (Riparian Plan) for the Six Big Creek Hydroelectric Projects to the Deputy Director for review and approval. The Deputy Director may require modifications to the Riparian Plan as part of any approval. The Riparian Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Riparian Plan and any approved amendments thereto. The geographic scope of the Riparian Plan shall be determined during the consultation process. In determining the geographic scope, the Licensee shall evaluate inclusion of the reaches with CRMFs (Condition 7) and MIFs (Condition 4) outlined in this certification.~~

~~Except as modified by this certification, the Riparian Plan shall be consistent with Appendix K of the Big Creek ALP Settlement Agreement.~~

~~At a minimum, the Riparian Plan shall include:~~

~~(i) A description of goals and objectives;~~

~~(ii) A reach-specific monitoring program for the reaches identified in Table 41 and other selected reaches based on evaluation of the applicable reaches and the consultation process. The monitoring program shall include monitoring method(s) and frequency, and monitoring for:~~

~~a. Riparian and meadow vegetation composition;~~

~~b. Age class structure, including regeneration; and~~

~~c. Trends in riparian and meadow health over the length of the new license(s);~~

~~(iii) Maps, photos, and descriptions of existing riparian conditions associated with the selected reaches;~~

~~(iv) A summary of previous riparian studies and results completed in support of the recent relicensing or other efforts to serve as a basis for determining trends in the health and quality of riparian resources;~~

~~(v) A reporting and adaptive management program that outlines when reports will be submitted to the State Water Board and the process the Licensee will use to propose updates to the Riparian Plan, including measures to restore or improve riparian resources such as plantings, weeding, or other measures proposed to protect water quality and beneficial uses;~~

~~(vi) A summary of consultation, including comments received and how the comments were addressed; and~~

~~(vii)~~(i) ~~A summary of and reference to the monitoring efforts and results associated with Condition 7 (Channel and Riparian Maintenance Flows).~~

The Licensee shall implement the Riparian Monitoring Plan (Appendix K in the Settlement Agreement) within one year of license issuance. The locations of the monitoring are listed in Table 41. ~~receiving Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.~~

Table 41. Riparian Monitoring Sites Identified in Appendix K of the Big Creek ALP Settlement Agreement

Project	Waterbody	Reach in River Miles
Portal Hydroelectric Project (FERC Project No. 2174)	Camp 61 Creek	1.1-1.6
	Camp 61 Creek	1.87-1.95
Big Creek 2A, 8, and Eastwood Hydroelectric Project (FERC Project No. 67)	Mono Creek	2.3-2.7
	Mono Creek	3.5-3.7
	Mono Creek	4.4-4.7
	South Fork San Joaquin River	26.1-27.7

Rationale: SCE requests that the State Water Board modify Draft Condition 17 to allow implementation of the *Riparian Monitoring Plan* included as Appendix K of the Settlement Agreement for the Big Creek ALP, Portal Hydroelectric, and Vermilion Valley Hydroelectric Projects. As part of relicensing the Big Creek ALP and Portal Hydroelectric Projects, a Riparian Monitoring Plan was developed after extensive multi-year consultation with the USFS, USFWS, CDFW, State Water Board, tribes, non-governmental organizations, and the public, and was included as part of the Settlement Agreement (Appendix K). The riparian monitoring conditions in the USFS's Final FPA Section 4(e) Conditions for the Portal Hydroelectric and Vermilion Valley Hydroelectric Projects refer to riparian monitoring methods used for the 2003 Big Creek ALP riparian studies. The USFS's Final FPA Section 4(e) conditions do not require preparation of a new plan or plans in consultation with their staff.

The Riparian Monitoring Plan requires riparian monitoring in selected bypass reaches for which CRMF are required by the new license, which addresses riparian issues identified in the relicensing studies. The reaches for which CRMF are required and the magnitude, duration, and frequency of these releases were developed during extensive discussions with the relicensing stakeholders. SCE believes the Riparian Monitoring Plan provides sufficient detail for monitoring trends in riparian resources in response to changes in CRMF designed in part to enhance riparian resources. The Riparian Monitoring Plan describes:

a) Goals and objectives;

b) General monitoring approach;

c) Locations for monitoring and riparian/ meadow issues that were identified during relicensing studies within each reach;

d) Sampling methods;

e) Monitoring schedule;

f) Quality control and assurance;

g) Data analysis; and

h) Reporting and agency consultation.

The State Water Board is requesting the development of a new plan that is redundant and unnecessary and will result in unnecessary delays in implementation of riparian resource monitoring. Draft Condition 17 requires the preparation of a new plan with specific information in Year 1 after license issuance. The information that is required by Draft Condition 17 for inclusion in the new plan was either previously summarized in relicensing documents or is already specified in the Riparian Monitoring Plan. Specifically, Draft Condition 17 requires SCE to state the goals and objectives for riparian monitoring, describe detailed monitoring methods; compare to previous monitoring, prepare a report, and document agency consultation. These requirements are already included in the Riparian Monitoring Plan in the Settlement Agreement. SCE's Riparian Monitoring Plan also requires baseline monitoring within the first year of license implementation. Under the schedule in Draft Condition 17, this baseline survey would be delayed until after approval of a new plan. Preparation of a new plan with redundant information will delay implementation until at least Year 2 after license implementation.

Draft Condition 17 has the potential to expand riparian monitoring to include reaches where no Project-related riparian resource issues were identified. SCE conducted qualitative riparian mapping along all Project-affected reaches in the Big Creek ALP, Portal and Vermilion Valley Project areas and quantitative riparian studies in select reaches with adjustable channels to assess the condition of the riparian resources. The quantitative studies focused on evaluating riparian and meadow vegetation composition, age structure, including regeneration, and health. Monitoring also was conducted along similar unimpaired reaches to compare to the Project-affected reaches. Riparian issues were only identified in reaches on Camp 61 Creek, Mono Creek, and the SFSJR.

The results of the studies informed the development of the CRMF measures that were designed to address various resource issues, including riparian resources. Riparian resource monitoring was designed to focus on those reaches where riparian resource issues were identified and CRMF were developed to enhance riparian resources. The monitoring will evaluate the response of the vegetation to the changes in flows over time. Project-related impacts and locations for monitoring were discussed extensively with the resource agencies, including with the State Water Board, during the development of the Riparian Monitoring Plan. The Draft Certification does not provide any rationale for potentially expanding the riparian monitoring to other reaches where no riparian Project-related impacts were identified based on the relicensing studies. The new license requires CRMF and new MIFs in other stream reaches to enhance other resources; these flows

will support the existing riparian resource. However, no Project-related riparian resource issues were identified in these reaches and the State Water Board's CEQA analysis did not identify any potential adverse impacts to riparian resources from the implementation of the new flows. Expansion of monitoring of additional reaches is not justified nor supported by SCE's or FERC's NEPA impact analyses or the State Water Board's CEQA analysis.

DRAFT CONDITION 18. Large Woody Material

Request: SCE requests the State Water Board modify Draft Condition 18. The requested modification and associated rationale are provided below.

CONDITION 18. Large Woody Material

FERC Project Nos. 67, 120, 2085, 2086, 2174, 2175

Within six months of license issuance, the Licensee shall submit a Large Woody Material Management Plan (LWM Plan) to the Deputy Director for review and approval. The Deputy Director may require modification to the LWM Plan as part of any approval. The LWM Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved LWM Plan and any approved amendments thereto. At a minimum, the LWM Plan shall include the management of large woody material at ~~the following locations: the~~ Bear Creek Diversion, forebay~~,~~ and Bear Creek downstream of the forebay~~bypass channel~~. One goal of the LWM Plan shall be to improve large woody material recruitment in ~~the~~ downstream Bear Creek ~~bypass channel~~ and downstream receiving waters by facilitating large woody material pass-through at the Bear Creek Diversion, and by physically redistributing large woody material from the Bear Creek Diversion forebay to the downstream ~~bypass~~ channel and adjacent floodplain below the forebay. ~~Another goal of the LWM Plan shall be to assess if large woody material management is necessary and feasible for other locations in FERC Project No. 67, and FERC Project Nos. 120, 2085, 2086, 2174, and 2175.~~

At a minimum, the LWM Plan shall include:

(i) A description of plan goals and objectives;

~~(ii) An assessment of the potential for and benefits of large woody material management at other Six Big Creek Hydroelectric Projects locations and identification of other locations proposed for large woody material management;~~

~~(iii)~~(ii) Large woody material management measures ~~for each location identified in part (ii), above. Measures~~ shall include those described in Section 1.7 of Appendix A of the Big Creek ALP Settlement Agreement;

~~(iv)~~(iii) Specific definitions and classification schemes for large woody material based on peer- reviewed literature;

~~(v)~~(iv) A description of existing conditions and background information on large woody material accumulation behind the Bear Creek Diversion ~~and other locations proposed for large woody material management~~. The description shall include associated operational and ecological effects associated with large woody material management;

~~(vi)~~(v) A monitoring and reporting program that describes how the Licensee will evaluate and report on the performance of large woody material management efforts. The program shall include the criteria that will be used to evaluate the performance of large woody material management measures;

~~(vii)~~(vi) An adaptive management program that describes how the Licensee plans to adjust large woody material management and monitoring methods based on evaluation of information and monitoring resulting from implementation of the LWM Plan; and

~~(viii)~~(vii) A summary of consultation, including comments received and how the comments were addressed.

The Licensee shall begin implementation of the Deputy Director-approved LWM Plan within one year of receiving Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein. Prior to Deputy Director-approval of the LWM Plan, the Licensee shall not implement any large woody material management measures without prior written approval by the Deputy Director.

Rationale: SCE requests the State Water Board to modify Draft Condition 18 to require preparation and submittal of a Large Woody Material Management Plan (LWM Plan) that applies only to the Bear Creek Diversion Forebay and downstream channel. SCE fully analyzed large woody debris (LWD) recruitment, transport and functionality in all other streams (including Bear Creek) as part of the previous relicensing efforts; therefore, it is unnecessary to repeat this assessment. SCE performed ground and aerial surveys documenting the location, abundance, recruitment potential, channel position, and geomorphic function of LWD as reported in the Combined Aquatic Working Group (CAWG) 2 (SCE, 2003). Following the 2003 report, the CAWG agreed that further study of LWD on small tributary streams would not be necessary since transport of LWD was likely an infrequent occurrence on small channels. This is because downed large wood: (1) often bridged the small channels and was thus unaffected by high flow, (2) was often stable since the hydraulic forces generated during snowmelt on small streams is inadequate to move large wood, and (3) even if subject to infrequent transport, would not move very long distances (SCE, 2004).

During relicensing, the CAWG geomorphic sub-workgroup found that the vast majority of larger streams are comprised of boulders and bedrock such that LWD entering the channel would fall over the top of immovable large bed elements and would therefore have very little effect on channel morphology or habitat. However, the workgroup decided that information on LWD capture and management at the large reservoirs was necessary to consider how to best manage LWD downstream of the large reservoirs and agreed that additional information be collected as part of the study on sediment management practices. The findings were presented

in CAWG 2 (SCE, 2004). A key finding was that at small diversion facilities only a small number of logs (two logs per year, on average) are removed from diversion facilities. On the large to moderate size reservoirs, the study determined that little LWD is entrapped because of low delivery rates except, in the case of Mammoth Pool, where LWD is bypassed to the downstream channel during spill events. Because of the larger amounts of LWD captured at the Bear Creek diversion, which was periodically removed, piled off-channel, and either burned or hauled away under SCE maintenance practices at that time, it was agreed that a management plan should be prepared to retain this wood for the downstream channel.

Considering these studies previously performed for the Big Creek ALP Projects, there is no need for an additional assessment of potential for benefits of LWD material management at locations other than Bear Creek Diversion Forebay and bypass channel. The existing record demonstrates that there would be no additional benefit to aquatic habitat by modifying the existing LWD management practices. Hence, the modifications to the LWD requirements established in the Settlement Agreement as provided in Draft Condition 18 are unnecessary and unsupported, and the State Water Board's Final Water Quality Certification should adopt SCE's proposed changes to this condition.

DRAFT CONDITION 19. Fish

Request: SCE requests the State Water Board modify Draft Condition 19. The requested modifications and associated rationale are provided below.

> **CONDITION 19. Fish**
>
> **FERC Project Nos. 67, 120, 2085, 2086, 2174, and 2175**
>
> Within one year of license issuance, the Licensee shall submit a Fish Monitoring Plan for the Six Big Creek Hydroelectric Projects to the Deputy Director for review and approval. The Deputy Director may require modifications to the Fish Monitoring Plan as part of any approval. The Fish Monitoring Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Fish Monitoring Plan and any approved amendments thereto.
>
> A primary goal of the Fish Monitoring Plan shall be to characterize fish populations in the Six Big Creek Hydroelectric Projects reservoirs and stream reaches affected by MIF (Condition 4) and CRMF (Condition 7) regimes specified in the certification. Additionally, the Fish Monitoring Plan shall include monitoring provisions for the crayfish population in Mammoth Pool Reservoir, as described in Appendix I of the Big Creek ALP Settlement Agreement and modified by this certification.
>
> Except as modified by this certification, the Fish Monitoring Plan shall be consistent with Appendix I in the Big Creek ALP Settlement Agreement.

At a minimum the Fish Monitoring Plan shall include the following:

(i) A description of goals and objectives;

(ii) A summary of baseline fish population data for the Six Big Creek Hydroelectric Projects reservoirs and bypass reaches, including the sources of information used to prepare the summary;

(iii) A monitoring program to determine fish (and crayfish, Mammoth Pool Reservoir only) population composition, relative abundance, size/age distribution, physical condition, and biomass in stream reaches affected by MIF (Condition 4) and CRMF (Condition 7). The monitoring program shall include: (1) sampling methods; ~~annual monitoring for the first five years of plan implementation~~ (2) monitoring schedule; and (3) a list of proposed monitoring sites that consider long-term site accessibility and sampling feasibility. Fish monitoring will begin in ~~the~~ year 3 following issuance of the new license, followed by sampling of the set of study reaches listed in Table 42 in years 8, 18, 28, and 38, depending on the length of the license through the remainder of the license period, but not to begin before new minimum instream flows (MIFs) are implemented in each survey reach.~~, and monitoring at the frequency outlined in the Deputy Director- approved Fish Monitoring Plan for the remainder of the license(s) term(s); and a list of proposed monitoring sites that consider long-term site accessibility and sampling feasibility~~.

~~(iii)~~(iv) Additionally, the monitoring program shall include monitoring for silver concentrations in tissue of fish collected from Mammoth Pool Reservoir and Huntington Lake, ~~and/or~~ and crayfish collected from Mammoth Pool Reservoir~~coll.ected from:~~

~~a. Mammoth Pool; and~~

~~b. Huntington Reservoir.;~~

~~c. Bypass, augmented reaches, and reservoirs listed in Table 42; and~~

~~d. Additional reaches identified through consultation process.~~

The plan shall include a provision for a "triggering" level of increase in silver in tissue samples. If reached, the L~~l~~icensee shall consult with the SWRCB and resource agencies about supplemental silver tissue sampling. If sampling is scheduled for a Wet Water Year, it will be postponed until the next non-Wet Water Year to avoid the potential confounding effect of high flows on fish recruitment and populations.

(iv) A reporting and adaptive management program that outlines the reporting schedule and process that will be used to update the Fish Monitoring Plan; and

(v) A summary of consultation, including comments received and how the comments were addressed.

The Licensee shall begin implementation of the Deputy Director-approved Fish Monitoring Plan within one year of receiving Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

Table 42. Minimum Fish Monitoring Based on Appendix I in the Big Creek ALP Settlement Agreement

		Monitoring Requirements[1]		
FERC Project Name and No.	**Targeted Reach or Reservoir**	**Fish Population**	**Crayfish Population**	**Tissue Analysis (Silver)**
Stream Reaches				
Big Creek Nos. 2A, 8, and Eastwood Hydroelectric Project (FERC Project No. 67)	Big Creek (Below Dam 5)	X	---	---
	Stevenson Creek (Downstream of Shaver Lake)	X	---	---
	North Fork Stevenson Creek (Upstream of Shaver Lake)	X	---	---
	South Fork San Joaquin River (Downstream of Florence Lake)	X	---	---
	Bear Creek (Downstream of Diversion)	X	---	---
	Mono Creek (Downstream of Diversion)	X	---	---
Big Creek No. 3 Hydroelectric Project (FERC Project No. 120)	San Joaquin River (Downstream of Powerhouse 3)	X	---	---
Mammoth Pool Hydroelectric Project (FERC Project No. 2085)	San Joaquin River (Downstream of Mammoth Pool)	X	---	---
Vermilion Valley Hydroelectric Project (FERC Project No. 2086)	Mono Creek (Downstream of Vermilion Valley Dam)	X	---	--
	Warm Creek (Downstream of Diversion)	X	---	---
	Boggy Meadow Creek (Downstream of Warm Creek Diversion Channel)	X	---	---
Portal Hydroelectric Project (FERC Project No. 2174)	Camp 61 Creek (Downstream of Portal Forebay)	X	---	---

		Monitoring Requirements[1]		
FERC Project Name and No.	**Targeted Reach or Reservoir**	**Fish Population**	**Crayfish Population**	**Tissue Analysis (Silver)**
Big Creek Nos.1 and 2 Hydroelectric Project (FERC Project No.2175)	Big Creek (Below Dam 4)	X	---	---
Reservoirs				
	Florence Lake	X	---	---
Big Creek Nos. 2A, 8, and Eastwood Hydroelectric Project (FERC Project No. 67)	Shaver Lake	X	---	---
Mammoth Pool Hydroelectric Project (FERC Project No. 2085)	Mammoth Pool Reservoir	X	X	X[2]
Big Creek Nos.1 and 2 Hydroelectric Project (FERC Project No.2175)	Huntington Lake	X	---	X[3]

[1] An "X" indicates that the Licensee committed to perform this monitoring per the Big Creek ALP Settlement Agreement.
[2] Fish and crayfish tissue.
[3] Fish tissue only.

Rationale: Draft Condition 19 states that the primary goal of the Fish Monitoring Plan shall be to characterize fish populations in the Six Big Creek Hydroelectric Project reservoirs and stream reaches affected by MIF (Condition 4) and CRMF (Condition 7) regimes specified in the Draft Certification. Additionally, the Fish Monitoring Plan shall include monitoring provisions for the crayfish population in Mammoth Pool Reservoir, as described in Appendix I of the Settlement Agreement and modified by this Draft Certification. The rationale for Draft Condition 19 states the primary goal of the Appendix I Plan is to track the status of fish population composition, abundance, size/age distribution, and condition in bypass reaches and reservoirs, in response to the new MIF and CRMF regimes. As a goal, this is inappropriate and an unnecessary cost. As described in SCE's draft License Application and FERC's Final Environmental Impact Statement for the Big Creek ALP, the new MIFs and CRMFs contained in the Settlement Agreement would improve aquatic habitat, conserve aquatic species, and improve compliance with Basin Plan objectives for coldwater beneficial uses in many of the bypassed reaches by decreasing the prevailing seasonal water temperatures.

There is no reason for an intensive monitoring program to monitor fish over a five-year period to characterize fish populations. This would be documented by a monitoring program conducted over the term of the license. The stakeholders that negotiated the Settlement Agreement, including State Water Board staff, recognized that the principal objective of monitoring was to focus on reaches in which benefits might be expected at the population level over time. The

Settlement Agreement Fish Monitoring Plan recognizes that and that it may take several lifecycles of those populations for changes to manifest. Therefore, the Plan was designed to commence following the implementation of new MIFs and CRMFs, which were the principal habitat enhancements. Sampling would occur at intervals to allow for population adjustment to the enhanced conditions, so that the trajectory of population responses could be detected. Sampling proposed in the Settlement Agreement also avoided sampling during Wet water years, since these water year types may result in reduced reproductive success and population estimates as an artifact of hydrological conditions not project operations.

SCE considers that the timing and intensity of sampling included in the Settlement Agreement developed in collaboration with Big Creek ALP stakeholders (including State Water Board staff) is appropriate and should be implemented.

In addition, Draft Condition 19 adds crayfish populations in with fish to determine "population composition, relative abundance, size/age distribution, physical condition, and biomass in stream reaches affected by MIF." This is an unnecessary and expensive additional component, since crayfish were not a target of enhancement or mitigation, especially in the stream reaches. The principal objective of crayfish sampling in the Settlement Agreement was to collect tissue for monitoring silver bioaccumulation in Mammoth Pool Reservoir (fish and crayfish), and Huntington Lake (fish only). Draft Condition 19 also adds silver tissue sampling of fish and/or crayfish collected from:

a) Mammoth Pool;

b) Huntington Reservoir;

c) Bypass, augmented reaches, and reservoirs listed in Table 42; and

d) Additional reaches identified through consultation process.

There is no basis to support such a large scale and expensive monitoring program, especially for the five years identified in the license. These requirements should be eliminated from Draft Condition 19, as they are excessive and far beyond what stakeholders, including State Water Board staff, agreed to in the Settlement Agreement. More extensive sampling for silver in fish tissue should only be triggered by significant increases over baseline tissue concentrations in Huntington Lake and Mammoth Pool Reservoir.

DRAFT CONDITION 20. Water Quality Monitoring and Management

Request: SCE requests the State Water Board modify Draft Condition 20. The requested modifications and associated rationale are provided below.

> **CONDITION 20. Water Quality Monitoring and Management**
>
> **FERC Project Nos. 67, 120, 2085, 2086, 2174, and 2175**
>
> Within one year of license issuance, the Licensee shall submit a Water Quality Monitoring Plan for the Six Big Creek Hydroelectric Projects to the Deputy Director for

review and approval. The Deputy Director may require modifications to the Water Quality Monitoring Plan as part of any approval. The Water Quality Monitoring Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, Central Valley Regional Water Quality Control Board (Central Valley Regional Water Board), and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Water Quality Monitoring Plan and any approved amendments thereto.

At a minimum, the Water Quality Monitoring Plan shall include:

(i) A summary of baseline water quality and BMI data, including data collected as part of the relicensing studies and other water quality monitoring conducted thereafter;

(ii) Proposed monitoring:

a. Sampling locations, ~~including but not~~ limited to those ~~the~~ locations where water quality studies previously performed by SCE (2002) found exceedances of the Basin Plan and/or California Toxics Rule (CTR) and National Toxics Rule (NTR) standards (excluding locations where- previous studies found both exceedances both upstream and downstream of SCE facilities). Monitoring associated with Camp 61 Creek, Adit 2, Portal Forebay, and Vermilion Valley Dam ~~leachate~~seepage channel will be addressed under Conditions 14, 15, and 16 ~~outlined in Appendix H of the Big Creek ALP Settlement Agreement~~;

~~b. Water quality parameters, including BMI ;~~

~~c.~~b. Sampling frequency. At a minimum, water quality monitoring ~~and BMI monitoring~~ shall be conducted ~~annually~~ (spring and fall) ~~for~~ in Year 1 ~~the first five years~~ following implementation of the new MIFs after Deputy Director approval of the Water Quality Monitoring Plan, and then once every five years for the term of the license(s), and any extensions, unless an alternative monitoring frequency is approved by the Deputy Director;

~~d.~~c. Handling methods and quality assurance/quality control protocols; and

~~e.~~d. Laboratory methods[45] and associated reporting and detection limits for all constituents and parameters to be monitored;

(iii) A summary of consultation, including comments received and how the comments were addressed;

(iv) A reporting program and schedule, with data and monitoring results summarized in a report and submitted to the State Water Board within six months of performing the monitoring in a given year. Unless otherwise approved by the Deputy Director as part of approval of the Water Quality Monitoring Plan, the Licensee shall also submit all water quality data to CEDEN or its successor database within six months of collection. The report shall include:

a. An evaluation and discussion of the monitoring data, including any trends and exceedances;

b. A discussion of whether changes in water quality and any exceedances are related to the Six Big Creek Hydroelectric Projects;

c. Recommendations to address water quality exceedances related to the Six Big Creek Hydroelectric Projects, as appropriate; and

d. Any proposed modifications to the Water Quality Monitoring Plan, including documentation of consultation that includes comments received and how the comments were addressed.

The Licensee shall implement the Water Quality Monitoring Plan within one year of receiving Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

The Licensee and/or staff from the USFS, USFWS, CDFW, Central Valley Regional Water Board, and the State Water Board may recommend to the Deputy Director modifications to the methodologies and frequencies of data collection if it is determined that: (a) there is a more appropriate or preferable methodology or location to use than that described in the Water Quality Monitoring Plan; or (b) monitoring may be reduced or terminated because the relevant ecological resource objectives are being met or no change in water quality ~~or BMI is expected~~ based on data trends. The Licensee shall submit a revised Water Quality Monitoring Plan to the Deputy Director, based on agency staff recommendations, if requested by the Deputy Director. Revisions to the Water Quality Monitoring Plan must be approved by the Deputy Director prior to implementing the revised Water Quality Monitoring Plan. The Licensee shall file the Deputy Director's approval, together with the revised Water Quality Monitoring Plan, with FERC.

[45] Laboratory analyses shall be conducted using United States Environmental Protection Agency analytical methods and/or standard methods adequately sensitive to detect constituent levels for determination of compliance with recognized state and federal criteria and objectives.

Rationale: SCE requests that water quality monitoring locations and parameters to be sampled in the Water Quality Monitoring Plan be limited to only those locations where water quality studies previously performed by SCE (2002) found exceedances of the Basin Plan and/or California Toxics Rule (CTR) and National Toxics Rule (NTR) standards, where applicable. During relicensing, SCE conducted extensive water quality sampling studies, which found many locations with no water quality exceedances of either Basin Plan or CTR and NTR criteria. Additionally, some exceedances of Basin Plan standards were found both upstream and downstream of SCE facilities. Where exceedances occur both upstream and downstream of SCE facilities, the water quality is indicative of natural conditions unrelated to Project effects, and therefore should not be included in the Water Quality Monitoring Plan. There were few water quality issues identified during the relicensing studies. However, Draft Condition 20

requires SCE to conduct extensive water quality sampling of all Project-affected stream reaches at regular intervals over the term of the new license, including at locations where no Project-related water quality effects were identified during relicensing.

The Draft Certification does not provide any rationale for requiring extensive water quality monitoring at locations where no water quality Project-related impacts were identified. The USFS's Final FPA Section 4(e) conditions do not require preparation of a new plan or plans in consultation with their staff. Expansion of water quality monitoring by this Draft Condition 20 at locations where no water quality-related Project impacts have been identified is not justified or supported by SCE's or FERC's NEPA impact analyses or the State Water Board's CEQA analysis.

Further, Draft Condition 20 states that sampling should be performed at "locations including but not limited to the locations outlined in Appendix H of the Big Creek ALP Settlement Agreement." Appendix H references the temperature monitoring program. SCE does not agree that the temperature monitoring locations should be a basis for a general Water Quality Monitoring Plan, unless the locations coincide with non-temperature water quality problems previously identified in the 2002 studies.

SCE agrees to develop a Water Quality Monitoring Plan associated with seepage remediation at Camp 61 Creek, Adit 2 channel, and Vermilion seepage channel under Draft Conditions 14, 15, and 16. Therefore, additional sampling under Draft Condition 20 is duplicative and SCE proposes to exclude these locations from the requirements of a redundant Water Quality Monitoring Plan under Draft Condition 20.

Draft Condition 20 requires BMI monitoring and potentially expands BMI sampling to all water quality monitoring locations in the Plan. However, BMI sampling should only be conducting at locations where known water quality problems have been previously identified and should be excluded from other locations, due to the high cost and lack of a specific nexus to Basin Plan water quality objectives. SCE agrees to conduct BMI sampling at Camp 61 Creek, Adit 2 channel, and Vermilion seepage channel under Draft Conditions 14, 15 and 16, respectively. Therefore, including them for sampling under Draft Condition 20 is duplicative and unnecessary. SCE proposes to exclude these locations from the requirements of this condition.

DRAFT CONDITION 21. Water Temperature Monitoring and Management

Request: SCE requests the State Water Board modify Draft Condition 21. The requested modifications and associated rationale are provided below.

> **CONDITION 21. Water Temperature Monitoring and Management**
>
> **FERC Project Nos. 67, 120, 2085, 2086, 2174, and 2175**
>
> Within one year of license issuance, the Licensee shall submit a Water Temperature Monitoring and Management Plan (Water Temperature Plan) for the Six Big Creek Hydroelectric Projects to the Deputy Director for review and approval. The Deputy

Director may require modifications to the Water Temperature Plan as part of any approval. The Water Temperature Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, Central Valley Regional Water Board, and the State Water Board. The Licensee shall file with FERC the Deputy Director- approved Water Temperature Plan and any approved amendments thereto. The Water Temperature Plan shall ensure compliance with the Basin Plan objectives.

Except as modified by this certification, the Water Temperature Plan shall be consistent with Appendix H in the Big Creek ALP Settlement Agreement.

At a minimum, the Water Temperature Plan shall include the following:

(i) A description of goals and objectives;

(ii) A summary of baseline water temperature and meteorological data for reservoirs, bypass reaches, and non-bypass reaches~~, including data collected as part of re- licensing studies and other monitoring conducted thereafter~~;

(iii) Water temperature and associated meteorological monitoring specified in Table 43 – Table 47[46], as well as any additional monitoring resulting from the consultation process. At a minimum, as part of the consultation process, the Licensee and agencies shall discuss the need for:

a. Monitoring for one full ~~period~~ sampling period during the summer months (June 1 – September 30)[1,2] of water temperatures and meteorological data for a Dry water year or a Critical water year (Condition 2);

b. Stream reaches that remained at or below water temperature targets during relicensing studies will be monitored for no more than three sampling periods including at least one Dry or Critical water year following the implementation of the MIF regimes for the reach in question and its tributaries (Condition 4);~~Monitoring for one full period of data for a Critical water year;~~

c. Monitoring for five ~~full periods of data~~sampling periods would take place for other reaches depending upon location, ~~under~~ following the implementation of the MIF regimes for the reach in question and its tributaries (Condition 4); and

d. Monitoring tributaries and other stream reaches affected by operations of the Six Big Creek Hydroelectric Projects;

(iv) A summary of consultation, including comments received and how the comments were addressed;

(v) Proposed monitoring:

a. Sampling locations, including but not limited to the locations listed in Table 43 – Table 47;

b. Sampling frequency. At a minimum, water temperature and meteorological monitoring shall be conducted annually for ~~the first five or ten years~~ either three to five years including a Dry or Critical Dry year

identified in Table 43 through 47. Water temperature monitoring will be initiated after implementation of the full new MIFs for the reach and its tributaries and after Deputy Director approval of the Water Temperature Plan as noted in Table 43 –Table 47, and then every ~~five~~ ten years for the term of the license(s) and any extensions thereto, unless an alternative monitoring frequency is approved by the Deputy Director; and

c. Quality assurance/quality control protocols;

(vi) A study plan to evaluate the suitability of the cold freshwater habitat beneficial use designation for the Stevenson Reach of the San Joaquin River, as outlined in Section 4.0 of Appendix H of the Big Creek ALP Settlement Agreement; and

(vii) A reporting program and schedule, with data and monitoring results summarized in a report and submitted to the Deputy Director within six months of performing monitoring in a given year. Unless otherwise approved by the Deputy Director as part of approval of the Water Temperature Plan, the Licensee shall also submit all water temperature data to CEDEN or its successor database within six months of collection. The report shall include:

a. An evaluation and discussion of the monitoring data, including trends and exceedances;
b. A discussion of whether changes in water temperature are related to the Six Big Creek Hydroelectric Projects;
c. Recommendations to address water temperature exceedances related to the Six Big Creek Hydroelectric Projects, as appropriate; and
d. Any proposed modifications to the Water Temperature Plan, including documentation of consultation that includes comments received and how the comments were addressed.

The Licensee shall implement the Water Temperature Plan within one year of receiving Deputy Director and any other required approvals, following the implementation of the MIF regimes for the reach in question and its tributaries and in accordance with the schedule and requirements specified therein.

The Licensee and/or staff from the USFS, USFWS, CDFW, Central Valley Regional Water Board, and the State Water Board may recommend to the Deputy Director modifications to the Water Temperature Plan. The Licensee shall submit a revised Water Temperature Plan to the Deputy Director, based on agency staff recommendations, if requested by the Deputy Director. Revisions to the Water Temperature Plan must be approved by the Deputy Director prior to implementation of the revised Water Temperature Plan. The Licensee shall file the Deputy Director's approval, together with the revised Water Temperature Plan, with FERC.

[46] Table 43 – Table 47 cover minimum water temperature monitoring locations and durations for four of the Six Big Creek Hydroelectric Projects, as noted in Appendix H of the Big Creek ALP Settlement Agreement. Additional temperature monitoring shall be developed, as appropriate, during consultation.

[1] A sampling period for water temperature monitoring includes June 1 through September 30 of the same year, except where unsafe conditions and limited access delay implementation to July 1.

[2] Starting dates for monitoring at higher elevation sites along Big Creek and the South Fork San Joaquin River (SFSJR) bypass reach and its tributaries, which are generally colder for a longer portion of the year, would be from July 1 (depending upon access conditions and safety), through September 30.

Table 43. Water Temperature Monitoring Requirements for Big Creek Nos. 2A, 8, and Eastwood Hydroelectric Project (FERC Project No. 67)

Monitoring Site	Temperature Gage Location by River Miles (RM)	Temperature Gage Type and Measurement Interval	Minimum Initial Monitoring Period*	Long Term Monitoring Period ~~and Minimum Duration~~*
STREAM AND RIVER REACHES				
Big Creek (BC) (Downstream of Dam 5)	BC RM 1.65	Data Logger Interval ≤15-minute	3 years	June 1 – September 30 Every ~~5~~10 years
Big Creek (Upstream of Powerhouse 8)	BC RM 0.10	Data Logger Interval ≤15-minute	3 years	June 1 – September 30 Every 10 ~~5~~ years
Camp 61 Creek (C61) (Upstream of South Fork San Joaquin River)	C61 RM 0.10	Data Logger Interval ≤15-minute	3 years	June 1 – September 30 Every 10 ~~5~~ years**
Mono Creek (MC) (Upstream of South Fork San Joaquin River)	MC RM 0.10	Data Logger Interval ≤15-minute	3 years	June 1 – September 30 Every 10 ~~5~~ ~~years~~**
North Fork Stevenson Creek (NFSC) (USGS Stream Gage No. 11239300)	NFSC RM 1.60	TBD† Interval ≤15-minute	3 years	June 1 – September 30~~5~~ Every 10 years
North Fork Stevenson Creek (Tunnel 7 Outlet)	NFSC RM 3.50	TBD† Interval ≤15-minute	3 years	June 1 – September 30 ~~5~~ Every 10 years
South Fork San Joaquin River (SFSJR) (Upstream of San Joaquin River)	SFSJR RM 0.10	Data Logger Interval ≤15-minute	3 years	~~June~~ July 1 – September 30 Every 10 ~~5~~ years
South Fork San Joaquin River (Rattlesnake Crossing)	SFSJR RM 14.35	Data Logger Interval ≤15-minute	3 years	~~June~~ July 1 – September 30 Every 10 ~~5~~ years

Monitoring Site	Temperature Gage Location by River Miles (RM)	Temperature Gage Type and Measurement Interval	Minimum Initial Monitoring Period*	Long Term Monitoring Period ~~and Minimum Duration~~*
South Fork San Joaquin River (Downstream of Mono Creek)	SFSJR RM 16.55	Data Logger Interval ≤15-minute	3 years	~~June~~ July 1 – September 30 Every 10 ~~5~~ years
South Fork San Joaquin River (Upstream of Mono Creek)	SFSJR RM 16.65	Data Logger Interval ≤15-minute	3 years	~~June~~ July 1 – September 30 Every 10 ~~5~~ years
South Fork San Joaquin River (Downstream of Camp 61 Creek)	SFSJR RM 17.80	Data Logger Interval ≤15-minute	3 years	~~June~~ July 1 – September 30 Every 10 ~~5~~ years
South Fork San Joaquin River (Upstream of Camp 61 Creek)	SFSJR RM 17.90	Data Logger Interval ≤15-minute	3 years	~~June~~ July 1 – September 30 Every 10 ~~5~~ years
South Fork San Joaquin River (Downstream of Florence Lake)	SFSJR RM 27.85	Telemetry Interval ≤15-minute	3 years	~~June~~ July 1 – September 30 Every 10 ~~5~~ years
San Joaquin River (SJR) (Upstream of South Fork San Joaquin River)	SJR RM 38.40	Data Logger Interval ≤15-minute	3 years	~~June~~ July 1 – September 30 Every 10 ~~5~~ years
RESERVOIR DEPTH PROFILES				
Florence Reservoir	Downstream end, upstream end, and middle of reservoir	TBD† Monthly Temperature-Depth Profile	3 years	~~June~~ July 1 – September 30 Every 10~~5~~ years**

* Unless otherwise approved by the Deputy Director as part of Water Temperature Plan approval, the ~~minimum~~ duration for annual temperature monitoring is as indicated. Monitoring will begin after implementation of the new MIFs and ~~five years~~ following approval of the Water Temperature Plan for the periods identified, and every ~~five~~ ten years thereafter for the term of the Big Creek Nos. 2A, 8, and Eastwood Hydroelectric Project license and any extensions thereto.

** Starting dates for higher elevation sites along Big Creek and ~~monitoring in~~ the South Fork San Joaquin River (SFSJR) bypass reach and its tributaries, which are generally colder for a longer portion of the year, would be from July 1 (depending upon access conditions and worker safety), through September 30. However, this later monitoring date does not present a water temperature concern as periods of high flow and snow generally correlate with lower water temperatures.

† TBD = To be determined based on consultation and upon Deputy Director approval of the Water Temperature Plan.

Table 44. Water Temperature Monitoring Requirements for Big Creek No. 3 Hydroelectric Project (FERC Project No. 120)

Monitoring Site	Temperature Gage Location by River Miles (RM)	Temperature Gage Type and Measurement Interval	Minimum Initial Monitoring Period*	Long-term Monitoring Period ~~and Minimum Duration~~*
STREAM AND RIVER REACHES				
San Joaquin River (SJR) (Upstream of Powerhouse 3)	SJR RM 11.00	Telemetry After Spill Interval ≤15-minute	5 years	June 1 – September 30 Every 10 years
San Joaquin River (Upstream of Stevenson Creek)	SJR RM 15.50	Data Logger Interval ≤15-minute	5 years	June 1 – September 30 Every 10 years
San Joaquin River (at Dam 6)	SJR RM 17.00	Telemetry Interval ≤15-minute	5 years	June 1 – September 30 Every 10 years

* Unless otherwise approved by the Deputy Director as part of Water Temperature Plan approval, the ~~minimum~~ duration for annual temperature monitoring is as indicated. Monitoring will begin after implementation of the new MIFs and ~~five years~~ following approval of the Water Temperature Plan for the periods identified, and every ~~five~~ ten years thereafter for the term of the Big Creek No. 3 Project license and any extensions thereto.

Table 45. Water Temperature Monitoring Requirements for Mammoth Pool Hydroelectric Project (FERC Project No. 2085)

Monitoring Site	Temperature Gage Location by River Miles (RM)	Temperature Gage Type and Measurement Interval	Minimum Initial Monitoring Period*	Long-term Monitoring Period ~~and Minimum Duration~~*
STREAM AND RIVER REACHES				
San Joaquin River (SJR) (Upstream of Mammoth Pool Powerhouse)	SJR RM 18.20	Telemetry After Spill Interval ≤15-minute	5 years	June 1 – September 30 Every ~~5~~10 years
San Joaquin River (Upstream of Rock Creek)	SJR RM 22.60	Data Logger Interval ≤15-minute	5 years	June 1 – September 30 Every ~~5~~10 years
San Joaquin River (Downstream of Mammoth Pool)	SJR RM 25.55	Telemetry Interval ≤15-minute	5 years	June 1 – September 30 Every ~~5~~10 years
San Joaquin River (Upstream of Mammoth Pool Reservoir)	SJR 34.60	Data Logger Interval ≤15-minute	3 years	June 1 – September 30 ~~35~~Every 10 years

Monitoring Site	Temperature Gage Location by River Miles (RM)	Temperature Gage Type and Measurement Interval	Minimum Initial Monitoring Period*	Long-term Monitoring Period ~~and Minimum Duration~~*
RESERVOIR DEPTH PROFILES				
Mammoth Pool Reservoir	Downstream end, upstream end, and middle of reservoir	TBD† Monthly Temperature-Depth Profile	5 years	June 1 – September 30 Every ~~5~~10 years

* Unless otherwise approved by the Deputy Director as part of Water Temperature Plan approval, the ~~minimum~~ duration for annual temperature monitoring is as indicated. Monitoring will begin after implementation of the new MIFs and ~~five years~~ following approval of the Water Temperature Plan for the periods identified, and every ~~five~~ ten years thereafter for the term of the Mammoth Pool~~Big Creek Nos. 2A, 8, and Eastwood~~ Hydroelectric Project license and any extensions thereto.

† TBD = To be determined based on consultation and upon Deputy Director approval of the Water Temperature Plan.

Table 46. Water Temperature Monitoring Requirements for Big Creek Nos. 1 and 2 Hydroelectric Project (FERC Project no. 2175)

Monitoring Site	Temperature Gage Location by River Miles (RM)	Temperature Gage Type and Measurement Interval	Minimum Initial Monitoring Period*	Long-term Monitoring Period ~~and Minimum Duration~~*
Big Creek (BC) (Upstream of Powerhouse 2/2A)	BC RM 2.10	Data Logger Interval ≤15-minute	3 years	June 1 – September 30 Every 10~~5~~ years
Big Creek (Release at Dam 4)	BC RM 5.90	Data Logger Interval ≤15-minute	3 years	June 1 – September 30 Every 10~~5~~ years

* Unless otherwise approved by the Deputy Director as part of Water Temperature Plan approval, the ~~minimum~~ duration for annual temperature monitoring is as indicated. Monitoring will begin after implementation of the new MIFs and ~~five years~~ following approval of the Water Temperature Plan for the periods identified, and every ~~five~~ten years thereafter for the term of the Big Creek Nos. 1 and 2~~2A, 8, and Eastwood~~ Hydroelectric Project license and any extensions thereto.

Table 47. Meteorological Monitoring Requirements

Monitoring Site	Meteorological Parameters*	Minimum Initial Monitoring Period**	Long-term Monitoring Period ~~and Minimum Duration~~**
Big Creek (Powerhouse No. 3)	AT – RH – WS – SR	5 years	June 1 – September 30 Every 10 years
Big Creek (Upstream of Powerhouse 2/2A)	AT – RH	3 years	June 1 – September 30 Every 10 ~~5~~ years
Florence Lake	AT – RH – WS – SR	3 years	June 1 – September 30 Every 10 ~~5~~ years
Huntington Lake	AT – RH – WS – SR	3 years	June 1 – September 30 Every 10 ~~5~~ years
Lake Thomas A. Edison	AT – RH – WS – SR	3 years	June 1 – September 30 Every 10 ~~5~~ years
Mammoth Pool Powerhouse	AT – RH – WS – SR	5 years	June 1 – September 30 Every 10 years
San Joaquin River (Upstream of Mammoth Pool Reservoir)	AT – RH	3 years	June 1 – September 30 Every 10 ~~5~~ years
South Fork San Joaquin River (Upstream of San Joaquin River)	AT – RH	3 years	June 1 – September 30 Every 10 ~~5~~ years

* AT = Air Temperature; RH = Relative Humidity; WS = Wind Speed; SR = Solar Radiation

** Unless otherwise approved by the Deputy Director as part of Water Temperature Plan approval, the ~~minimum~~ duration for annual meteorological monitoring is as indicated. ~~is five or ten years following~~ Monitoring will begin after implementation of new MIFs and following approval of the Water Temperature Plan (for the time periods identified~~as noted in this table~~), and every ten~~five~~ years thereafter for the term of the Big Creek ~~Nos. 1 and 2~~ Hydroelectric Project licenses and any extensions thereto.

Rationale: SCE requests that Draft Condition 21 be modified to require that water temperature monitoring be implemented for no more than 3 years for stream reaches that remained at or below water temperature targets during relicensing studies, and 5 years for other stream reaches. The 3-and 5-year monitoring frequency is the nominal time frame for water temperature monitoring and must include at least one Dry or Critical water year. Additionally, water temperature monitoring should not be initiated until the full new MIFs have been implemented.

The basis of monitoring in Draft Condition 21 is not clearly stated. However, the principal purpose identified in the Settlement Agreement is to confirm that water temperature targets are being met under the new MIFs during the summer months. Therefore, monitoring in the reaches identified should only occur after the new MIFs are implemented.

For reaches that did not exceed water temperature targets during relicensing studies, monitoring should not exceed 3 years, as long as a Dry or Critical water year is included. A case could be made that these reaches should not require monitoring at all, especially when subject to higher MIFs that are expected to reduce water temperatures further than the flow regime under which the previous monitoring was conducted. If temperature targets are exceeded in the proposed monitoring, monitoring could be extended for up to 5 years. It should be noted that water temperature monitoring performed during relicensing included an Above Normal water year with warm air temperatures and a Dry water year with much warmer than normal air temperatures. Therefore, any reach or stream that did not exceed temperature targets should not be a concern with higher MIFs.

The proposed monitoring of Draft Condition 21 is too open-ended and appears to be excessive. Identifying Dry and Critical water year types for individual monitoring should be addressed as identified in the Settlement Agreement to monitor one of these two water year types, not both. Under Draft Condition 21, most MIF requirements for the Big Creek projects do not differentiate between Water Year types. For those that do, MIFs for dry and critical water year types are the same. The duration of monitoring should be based on whether a Dry or Critical water year is monitored and if water temperature targets are met during the proposed monitoring period, regardless of the monitoring period. If these conditions are met, no additional years of monitoring are warranted.

Table 44, San Joaquin River between Dam 6 and Powerhouse 3, should be revised to change the annual monitoring duration from 10 years to 5 years. The State Water Board has provided no justification for monitoring temperature in the San Joaquin River between Dam 6 and Powerhouse 3 for more than 5 years. The Draft Certification rationale for the condition misinterprets this reach stating:

> ". . . provisions for evaluating the cold freshwater habitat status of the Stevenson Reach of the South Fork San Joaquin River, located between Mammoth Pool Powerhouse and Big Creek Powerhouse No. 3 (Big Creek No. 3 Hydroelectric Project, FERC Project No. 120)."

The reach is on the mainstem of the San Joaquin River, not the South Fork. It lies between Dam 6 and Big Creek Powerhouse 3. The concern identified in the Settlement Agreement was that under new MIFs, the water temperatures in the reach might be cooled to the benefit of trout, but to the detriment of native minnows. The Settlement Agreement states:

> "New MIFs should provide increased habitat for the native species, specifically hardhead, Sacramento pike minnow, and Sacramento sucker. These species, especially hardhead, are in decline in many portions of California. In addition, their temperature requirements are believed to be warmer than those for trout. A supplementary study will evaluate the

> use and importance of this reach for these species. If this reach is found to be important for native transition zone species, it may be more appropriate to manage this reach as a warm or cool/warm reach rather than as a cold fresh water habitat reach."

The frequency of long-term monitoring should be at a 10-year rather than at 5-year intervals. The purpose of long-term monitoring is to provide information based on the assumption that there may be changes in some factor(s) affecting water temperatures over time, such as climate change. If that is the case, monitoring at intervals of less than 10 years is unlikely to reveal trends, but rather may indicate year-to-year variability. The initial 3 to 5 years of monitoring following the implementation of the new MIFs should provide that information.

During Wet water years and colder than average years, access to the SFSJR and its tributaries may be limited or unsafe for installation of water temperature equipment. This may be true of more normal water years, as well. Monitoring at sites along the SFSJR, its tributaries, and the Middle Fork San Joaquin River, could start on June 1, under some conditions. However, for consistency and for simplifying compliance, the monitoring period has been adjusted to start no later than July 1, depending upon access, flow, and conditions for worker safety.

This is why the Settlement Agreement states:

> "Starting dates for monitoring in the South Fork San Joaquin River (SFSJR) bypass reach, which is generally colder for a longer portion of the year, would be from July 1 (depending upon access conditions and safety), through September 30. However, this later monitoring date does not present a water temperature concern as periods of high flow and snow generally correlate with lower water temperatures."

The Draft Condition 21 requirement for installation of water temperature equipment in the backcountry should follow the agreed upon language in the Settlement Agreement, which State Water Board staff helped to develop.

DRAFT CONDITION 22. Recreation Management

Request: SCE requests the State Water Board modify Draft Condition 22. The requested modifications and associated rationale are provided below.

> **CONDITION 22. Recreation Management**
>
> **FERC Project Nos. 67, 120, 2085, ~~2086, 2174,~~ and 2175**
>
> The Licensee shall implement the Recreation Management Plan, included as Appendix O in the Settlement Agreement.
>
> In addition to the provisions of the Recreation Management Plan in Appendix O, SCE will also complete the following activities.
>
> - Following completion of the planning and design/engineering phase for recreation facility rehabilitation projects, SCE will provide to the State Water Board a complete package that includes the final design drawings, NEPA

compliance documentation, relevant project information (e.g., Project Description, Site Development Plan, or Construction Plan, design narratives), site photographs, estimated impacts to waters of the state (if any), plans for any fish stocking (if applicable), proposed construction schedule, BMPs or other minimization measures to protect water quality and beneficial uses, and copies of all other permits and approvals obtained or applications for those being sought for the project (e.g., USFS BA/BE, USFS RUP, USACE 404 permit, CDFW SAA, etc.).

- The State Water Board will conduct a 60-day review to determine if any additional measures could be taken to further protect water quality and to comply with this Certification. The Licensee shall only proceed with recreation facility work upon approval by the Deputy Director.

- SCE shall submit a report to the Deputy Director every 5 years throughout the term of the new license(s). The 5-year reports shall describe elements of the Recreation Management Plan that were implemented in the previous 5 years.

FERC Project Nos. 2086 and 2174

Within ~~three~~ one year~~s~~ of license issuance, the Licensee shall submit a Recreation Facility Rehabilitation and Improvement Plan (Recreation Plan) for the ~~Six Big Creek Hydroelectric~~Portal Hydroelectric Project and Vermilion Valley Hydroelectric Project~~s~~ to the Deputy Director for review and approval. The Deputy Director may require modifications to the Recreation Plan as part of any approval. The Recreation Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Recreation Plan and any approved amendments thereto. The Recreation Plan shall provide information for recreation facility rehabilitation and improvement projects proposed under the new Portal Hydroelectric Project and the Vermilion Valley Hydroelectric ~~Six Big Creek Hydroelectric~~ Project~~s~~ license(s). During development and review of the Recreation Plan, the Licensee shall not implement any recreation facility rehabilitation or improvement projects without prior written approval from the Deputy Director.

~~Except as modified by this certification, t~~The Recreation Plan shall be consistent with Sections 5.2 and~~,~~ 5.3~~, and 5.7~~ of Appendix O of the Big Creek ALP Settlement Agreement.

At a minimum, the Recreation Plan shall include:

(i) A statement of goals and objectives;
(ii) Overview maps or other graphics showing the locations and extent of all existing ~~and proposed~~ recreation facilities~~, including any proposed rehabilitation and improvement projects~~;

(iii) The Licensee shall highlight proposed recreation facility rehabilitation, improvement, and construction projects, as well as maintenance activities with the potential to impact water quality or beneficial uses;

Descriptions ~~and conceptual designs for modifications to~~of existing and proposed recreation ~~facilities~~facility rehabilitation/construction projects. The Licensee will include within the Recreation Plan the 5-year planning and implementation process, consistent with Section 5.2 of the Recreation Management Plan (Appendix O of the Big Creek ALP Settlement Agreement), that will be followed for preparation of the Design Narrative, Conceptual Plan, completion of any necessary National Environmental Policy Act (NEPA) compliance, preparing a Site Development Plan and Construction Plan, contracting, and rehabilitation. Following completion of the planning and design/engineering phase, SCE will provide to the State Water Board a complete package that includes the final design drawings, NEPA compliance documentation, relevant project information (e.g., Project Description, Site Development Plan, or Construction Plan, design narratives), site photographs, estimated impacts to waters of the state (if any), plans for any fish stocking (if applicable), proposed construction schedule, BMPs or other minimization measures to protect water quality and beneficial uses, and copies of all other permits and approvals obtained or applications for those being sought for the project (e.g., USFS BA/BE, USFS RUP, USACE 404 permit, CDFW SAA, etc.).~~Licensee shall also provide detailed maps, drawings, photos, and other information relevant to each recreation facility.~~

(iv) ~~A summary and relevant provisions from Sections 5.2 and 5.3 of Appendix O of the Big Creek ALP Settlement Agreement;~~

(iv) A timeline and schedule for recreation facility rehabilitation ~~modifications and maintenance of existing~~ and proposed new recreation facility~~ies, including final design and~~ construction;

(v) Plans for fish stocking, including provisions consistent with Section 5.7 of Appendix O of the Big Creek ALP Settlement Agreement (except as modified based on Recreation Plan consultation) and Condition 12(A) or 12(B) of this certification;

(vi) Measures the Licensee will implement to protect water quality and beneficial uses of surface waters during construction and maintenance activities associated with implementation of the Recreation Plan; and

(vii) A summary of consultation, including comments received and how the comments were addressed.

The Licensee shall implement the Recreation Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein. Depending on the status of each recreation facility project (e.g., in-design, design complete), the Licensee may need to submit recreation facility-specific supplements to the Recreation Plan for Deputy Director review and approval. The

Licensee shall only proceed with recreation facility work that is explicitly approved by the Deputy Director as part of the approval of the Recreation Plan or otherwise in writing. At a minimum, the Licensee shall submit a report to the Deputy Director every five years throughout the term of the new license(s) and any extensions thereto, unless the Deputy Director approves otherwise. The five-year reports shall describe elements of the Recreation Plan that were implemented in the previous five years.

Rationale for Big Creek ALP Projects - FERC Project Nos. 67, 120, 2085, and 2175:

SCE requests that the State Water Board modify Draft Condition 22 to allow for implementation of the Recreation Management Plan (Recreation Plan) included as Appendix O of the Settlement Agreement, and to develop individual Recreation Plans for the Portal Hydroelectric Project and the Vermilion Valley Hydroelectric Project.

As part of the relicensing of the four Big Creek ALP projects, SCE developed a Recreation Plan in consultation with USFS, CDFW, the State Water Board, tribes, non-governmental organizations, and the public and included it as part of the Settlement Agreement (Appendix O). The Recreation Plan includes mitigation and enhancement measures that were developed to protect and enhance environmental resources in accordance with the goals and guidelines contained in the USFS Long Range Management Plan (LRMP) and the 2001 and 2004 Sierra Nevada Forest Plan Amendments (SNFPA). The Recreation Plan identified SCE's responsibility for the management of recreation resources associated with the four Big Creek ALP Projects during the terms of the new licenses. The Recreation Plan describes measures for continuing or improving recreation opportunities and resources, and identifies a schedule for the implementation of these measures.

The Recreation Plan defines a 5-year planning and implementation process to allow SCE and resource agencies sufficient time to complete activities associated with each recreation facility rehabilitation over the terms of the licenses. This includes preparation of a Design Narrative and Conceptual Plan, completion of any necessary NEPA compliance, preparing a Site Development Plan and Construction Plan, contracting, and rehabilitation/construction. After completion of the USFS NEPA process, and as part of the Site Development Plan, site specific avoidance and protection measures (including BMPs for the protection of water quality) and all necessary permit and approvals would be identified and obtained, prior to beginning construction activities.

As part of the Settlement Agreement, SCE agreed to early implementation of the Recreation Plan, including its schedule for the rehabilitation of recreation facilities. Since then, SCE has been working in consultation with USFS and other resources agencies, including the State Water Board or Regional Water Quality Control Board (RWQCB), as appropriate, to plan, design, permit, and implement the rehabilitation of recreation facilities as identified in the Recreation Plan. Table A-1 provides a list of recreation rehabilitation projects and the status of each project within the 5-year planning process. A total of eight recreation facilities have been rehabilitated or constructed, and five are currently in design or permitting phases. USFS BMPs, as developed consistent with the Managing Agency Agreement (MAA) for compliance with CWA, and measures for the protection

of water quality in accordance with the Basin Plan were developed and implemented for all recreation rehabilitation projects. In addition, an individual CWA 401 Water Quality Certification was obtained from the State Water Board or RWQCB for implementation of each of the six projects that required excavation or fill within waters of the state. The State Water Board or RWQCB acted as the lead agency for completion of CEQA or relied on CEQA documentation that was prepared by CDFW for issuance of the 401 Certifications.

The State Water Board directs in the Draft Certification that the new plan includes concept designs, maps and drawings showing proposed modifications, site photos, a more detailed implementation schedule (including timeline for final design), and avoidance and protection measures to be implemented as part of the Project, for each recreation facility modification identified in the Plan. There are currently 35 recreation facility rehabilitation projects associated with the Big Creek ALP projects that are scheduled to be implemented over a 27-year period. As described above, the Recreation Plan commits SCE to a 5-year planning and implementation process for each project to allow for appropriate phasing of the projects and consideration of any new site conditions or information that becomes available following license approval of the Recreation Plan. SCE must also budget the expenses and obtain recovery of its costs in a California Public Utilities Commission (CPUC) rate recovery preceding. Considering that the 5-year process defined in Appendix O of the Settlement Agreement has been implemented over the past 10 years and has allowed for the successful completion of eight recreation rehabilitation projects, it is inappropriate for the State Water Board to direct, and impractical for SCE to achieve, development of the full suite of designs for the remaining 27 recreation facility rehabilitation projects within a 3-year time frame.

SCE requests that the State Water Board modify Draft Condition 22 (as described above) to: (1) allow SCE to provide a complete package for each recreation facility modification effort for State Water Board review and comment; (2) require SCE to submit a progress report to the Deputy Director every 5 years throughout the term of the new license(s); and (3) reinforce that SCE can only proceed with recreation facility work upon approval by the Deputy Director.

Finally, the State Water Board has specified that no recreation facility work may be implemented until it is approved by the Deputy Director as part of the new Recreation Plan. As provided in Table A-1, SCE has been working with USFS to plan, design, and implement several projects since 2007. Furthermore, the State Water Board has already issued individual CWA 401 Certifications for those projects that could potentially affect waters of the State. These certifications include implementation of BMPs to protect water quality and beneficial uses of surface water during construction activities and monitoring and reporting requirements. SCE should not be expected to comply with Draft Condition 22 of the Certification as written since eight of the recreation facility projects have been already approved and completed.

SCE appreciates the attempt to move away from issuing individual Certifications on a project-by-project basis and instead addressing the potential impacts for recreation site rehabilitation on a programmatic basis. The addition of a complete package submittal with a 60-day review period for each project would allow the State Water Board to review and provide input on each of the projects.

Rationale for Portal Hydroelectric Project and Vermilion Valley Hydroelectric Project – FERC Project Nos. 2086 and 2174:

SCE agrees that a Recreation Plan should be developed for the Portal and Vermilion Valley Projects. However, such a plan will be developed within one year of license issuance, as specified by the USFS's Final FPA Section 4(e) Condition 14 for the Projects. This Recreation Plan will be developed as specified in the modified Draft Condition 22 provided above and would mirror the approach taken for the rest of the Big Creek ALP Projects.

Table A-1. Status of SCE Big Creek ALP Recreation Facility Rehabilitation Projects.

Recreation Rehabilitation Project	5-Year Planning Process													
	Site Development Plan												Construction	
	Engineering Design			Environmental Permits/Approvals Obtained										
											CEQA			
	Concept	Draft	Final	USFS SUA	USFS RUP	BA/BE	USACE 404	SWB/ RWQCB 401 Cert.	CDFW SAA	NEPA	Lead Agency	Document Type	Initiated	Completed
Big Creek Nos. 1 and 2 (FERC Project No. 2175)														
Upper Billy Creek Campground	X	X	X	N/A	N/A	X	N/A	N/A	N/A	X	N/A	N/A	2016	2016
Lower Billy Creek Campground	X	X	X	N/A	N/A	X	X	X	N/A	X	RWQCB	Cat Ex	2014	2015
College Campground	X	X	X	N/A	N/A	X	N/A	N/A	N/A	X	N/A	N/A	2012	2013
Rancheria Campground	X	X	X	N/A	N/A	X	X	X	X	X	RWQCB	Cat Ex	2011	2012
Billy Creek Day-use Picnic Area	X	X	X	N/A	N/A	X	X	X	N/A	X	RWQCB	Cat Ex	2014	2015
Dowville Day-use Picnic Area	X	X	X	N/A	N/A	X	X	X	X	X	CDFW	Cat Ex	2012	2013
Eastwood Overlook and Parking	X	X	X	N/A	N/A	X	X	Pending	Pending	X	Pending	Pending		
Big Creek No. 3 (FERC Project No. 120)														
Angler Access Stairway at Mammoth Pool Powerhouse	X													
Big Creek Nos. 2A, 8, and Eastwood (FERC Project No. 67)														
Boat Ramp-Florence Lake	X	X												
Jackass Meadow Campground	X	X												
Florence Lake Day-use Picnic Area	X	X												
Dorabelle Campground	X	X	X	N/A	N/A	X	X	X	X	X	CDFW	Cat Ex	2013	2013
Dorabelle Day-use Picnic Area	X	X	X	N/A	N/A	X	X	X	X	X	N/A	N/A	2014	2014

DRAFT CONDITION 23. Bald Eagles

Request: SCE requests the State Water Board modify Draft Condition 23. The requested modifications and associated rationale are provided below.

CONDITION 23. Bald Eagles

FERC Project Nos. 67, 120, 2085, ~~2086, 2174,~~ and 2175

Within 30 days of license issuance, the Licensee shall implement the provisions of the Bald Eagle Management Plan (Bald Eagle Plan) in Appendix P of the Big Creek ALP Settlement Agreement. In addition, the Licensee will provide to the Deputy Director final survey reports for all protocol bald eagle surveys conducted, as described in the Bald Eagle Plan, over the term of the license.

FERC Project Nos. 2086 and 2174

Within ~~three~~ 1 year~~s~~ of license issuance, the Licensee shall consult with staff from USFS, USFWS, CDFW, and the State Water Board to develop a Bald Eagle Plan for the Vermilion Valley Hydroelectric Project (FERC Project No. 2086) and the Portal Hydroelectric Project (FERC Project No. 2174). ~~review, update, and submit the Bald Eagle Plan to the Deputy Director for review and approval. The Deputy Director may require modifications to the Bald Eagle Plan as part of any approval. The Licensee shall file with FERC the Deputy Director-approved Bald Eagle Plan and any approved amendments thereto.~~

At a minimum, the ~~updated~~ Bald Eagle Plan shall be consistent with the most current USFWS *National Bald Eagle Management Guidelines*[47] and include:

(i) Statement of the goals and objectives;

(ii) Summary of consultation, including comments received and how the comments were addressed;

~~(iii) Addition of the Vermilion Valley Hydroelectric Project (FERC Project No. 2086) and the Portal Hydroelectric Projects (FERC Project No. 2174);~~[48]

~~(iv)~~(iii) Summary of existing information regarding the presence of bald eagles, their nests, and wintering habitat in the vicinity of the ~~Six Big Creek Hydroelectric Projects~~two projects;

~~(v)~~(iv) Surveys to identify the locations of bald eagles, their nests, and wintering habitat in the vicinity of the ~~Six Big Creek Hydroelectric~~two ~~Projects~~projects. The ~~initial~~ surveys shall be ~~conducted within one year of Deputy Director approval of the updated Bald Eagle Plan with subsequent surveys conducted every five years thereafter for the term of the license and any extensions thereto~~consistent with those described in Appendix P of the Big Creek ALP Settlement Agreement. The surveys shall be conducted using the *Protocol for Evaluating Bald Eagle Habitat*

and Populations in California[49]*,* or alternate method approved by the Deputy Director;

~~(vi)~~(v) A plan for development of corrective measures and a timetable for actions in cases when the Bald Eagle Plan's goals and objectives are not being achieved or data indicate ~~one or more of the Six Big Creek Hydroelectric Projects~~the projects may be impacting bald eagles and/or bald eagle nests; and

~~(vii)~~(vi) A reporting program to report on the outcome of surveys and any corrective actions.

The Licensee shall implement the Bald Eagle Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

~~[47] At the time of draft certification issuance, the most current version of the USFWS *National Bald Eagle Management Guidelines* is dated May 2007, and is available at: https://www.fws.gov/northeast/ecologicalservices/eaglenationalguide.html.~~

~~[48] The Bald Eagle Plan outlined in Appendix P of the Big Creek ALP Settlement Agreement does not include these two projects.~~

~~[49] Jackman and Jenkins (2004), Protocol for Evaluating Bald Eagle Habitat and Populations in California. Report by Pacific Gas and Electric Company for the U.S. Fish and Wildlife Service, Endangered Species Division, Sacramento, CA.~~

FERC Project Nos. 67, 120, 2085, and 2175

Rationale: SCE recommends implementation of the existing Bald Eagle Plan without modification included as Appendix P of the Settlement Agreement for several reasons.

First, the development of the Appendix P Bald Eagle Plan involved extensive collaboration and has already been approved by the appropriate regulatory agencies. Protection of bald eagles in the vicinity of the Six Big Creek Projects is under the jurisdiction of the USFWS in cooperation with both the USFS and the CDFW. The draft Bald Eagle Plan, which was developed in consultation with USFWS, USFS, and CDFW, was provided to agencies and stakeholders (including the State Water Board) for review on August 17, 2005. Comments on the Bald Eagle Plan were received from USFWS, USFS, and CDFW and incorporated into the plan. No comments were received from the State Water Board. On March 5, 2008 the U.S. Department of Interior (DOI) provided FERC with USFWS's preliminary Section 18 Prescriptions, Section 10(j) Conditions and Section 10(a) Recommendations that were developed in accordance with the Federal Power Act (FPA), the Fish and Wildlife Coordination Act (FWCA), the ESA, the MBTA, and NEPA. Furthermore, on December 16, 2008, USFWS provided FERC with a letter providing its concurrence with the Draft EIS (DEIS) and Biological Assessment/Biological Evaluation (BA/BE) for the Big Creek ALP Projects.

The revised Bald Eagle Plan was included as Appendix P of the Settlement Agreement that was filed with FERC on February 23, 2007. Signatories to the Settlement Agreement included USFS, DOI, and CDFW. Given the extensive collaboration that went into its development, and

consistent with Section 3.3 of the Settlement Agreement, SCE requests that the State Water Board not materially modify or include additional conditions in its Certification, regarding the Bald Eagle Plan.

Second, while the Bald Eagle Plan was developed prior to the delisting of the species and subsequent issuance of the National Bald Eagle Management Guidelines (Guidelines) (USFWS 2007), the Bald Eagle Plan is consistent with and allows for implementation of avoidance and protection measures included in the Guidelines. Specifically, the Bald Eagle Plan states that SCE will conduct both protocol-level surveys for nests and roosts and annual monitoring of known nests. As part of required reporting for the surveys and monitoring, SCE must evaluate the potential for operations and maintenance activities to affect bald eagles, must suggest appropriate avoidance and protection measures to minimize any such effects, and must provide the reports to FERC, USFS, CDFW, and USFWS. SCE proposes to submit these reports to the Deputy Director for review. This process provides agencies, including the State Water Board, with the opportunity to evaluate the adequacy of proposed measures, including their consistency with most recent agency guidelines and policies including, but not limited to, the current Guidelines.

Finally, SCE has already commenced implementation of the nesting and wintering surveys required by the Bald Eagle Plan and consistent with the *Protocol for Evaluating Bald Eagle Habitat and Populations in California*. Surveys of all Big Creek reservoirs and other suitable habitats and the required reporting were completed in 2010/2011 and 2015/2016. The next surveys are scheduled for 2020/2021.

FERC Project Nos. 2086 and 2174

Rationale: Consistent with the State Water Board's draft condition, SCE proposes to develop a Bald Eagle Plan for the Vermilion Valley and Portal Hydroelectric Projects within one year of license issuance. This plan would be consistent with the agency-approved plan in Appendix P of the Settlement Agreement for the four Big Creek ALP Projects, allowing SCE to continue its Basin-wide approach for eagle monitoring and management. Under the plan, SCE would continue nesting and roosting surveys according to the current schedule. The new Bald Eagle Plan would be implemented upon receipt of Deputy Director approval, in accordance with the schedule and requirements specified therein.

DRAFT CONDITION 24. Transportation Management

Request: SCE requests the State Water Board modify Draft Condition 24. The requested modification and associated rationale are provided below.

> **CONDITION 24. Transportation Management**
>
> **FERC Project Nos. 67, 120, 2085, ~~2086, 2174,~~ and 2175**
>
> ~~Within 30 days of license issuance, the Licensee shall implement the Transportation Management Plan and Measures contained in Section 3.1 of~~

~~Appendix B and Appendix N of the Big Creek ALP Settlement Agreement.~~ The Licensee shall implement the Transportation System Management Plan (Transportation Plan) included as Appendix N in the Settlement Agreement for the Big Creek ALP projects. In addition to implementing the provisions of the Transportation Plan in Appendix N, SCE will also complete the following activities:~~.~~

- SCE will submit construction drawings and copies of all permits and approvals obtained for the road rehabilitation projects to State Water Board for a 60-day review period. During this period, State Water Board will determine if any additional measures could be implemented to further protect water quality and to comply with this Certification. The Licensee shall only proceed with road rehabilitation projects that are approved by the Deputy Director.

- SCE will submit annual reports to the Deputy Director throughout the term of the new license(s). The annual report shall describe elements of the Transportation Plan that were implemented in the previous year. Annual reports shall cover activities conducted during the previous calendar year (January 1 – December 31) and proposed activities for the current year, if applicable. The annual report shall be submitted no later than February 15 of the current year (e.g., submitted by February 15, 2018 for activities conducted during calendar year January 1 – December 31, 2017 and proposed activities for the 2018 calendar year).

FERC Project Nos. 2086 and 2174

Within 1 ~~three~~year~~s~~ of license issuance, the Licensee shall~~file with FERC an approved Transportation Plan for the Portal Hydroelectric Project and Vermilion Valley Hydroelectric Project~~. ~~review, update, and submit an updated Transportation System Management Plan (Transportation Plan)~~ submit a ~~The~~ Transportation Plan for the Vermilion Valley Hydroelectric Project (FERC Project No. 2086) and the Portal Hydroelectric Project (FERC Project No. 2174). ~~shall be submitted~~ to the Deputy Director for review and approval. The Deputy Director may require modifications to the Transportation Plan as part of any approval.

The Transportation Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Transportation Plan and any approved amendments thereto. The primary goal of the Transportation Plan shall be to maintain and construct roads and trails in a manner that is protective of water quality and beneficial uses.

The Transportation Plan shall require the Licensee to submit annual reports to the State Water Board that provide an overview of all road and trail maintenance and improvement project activities for the subsequent year.

~~At a minimum~~Consistent with Appendix N of the Settlement Agreement, the Transportation Plan for the Portal Hydroelectric Project and Vermilion Valley Hydroelectric Project shall include the following:

(i) A statement of goals and objectives;

(ii) A summary of consultation, including comments received and how the comments were addressed;

~~(iii) Addition of the Vermilion Valley Hydroelectric Project [FERC Project No. 2086] and the Portal Hydroelectric Project [FERC Project No. 2174];~~[50]

~~(iv) A summary of actions implemented under this condition since implementation of the license(s);~~

~~(v)~~(iii) An inventory and assessment of all Project roads and trails associated with the Portal and Vermilion Valley Hydroelectric ~~the Six Big Creek Hydroelectric~~ Projects, including a map(s) that documents roads, trails, drainage structures, streams, and other surface water bodies. The assessment shall highlight any drainage structures or road segments that are impacting or have the potential to impact water quality;

~~(vi)~~(iv) A summary of proposed Project road and trail maintenance, improvement, or construction activities. The summary shall include any items identified during the assessment that are impacting or have the potential to impact water quality identified as part of the assessment under item (v), above. For each activity, the Licensee shall provide:

a. A description of the proposed road or trail maintenance, improvement, and/or construction activities, including any available designs (conceptual to final);

b. Proposed schedule to complete final design (if applicable) and implement the proposed activities; and

c. Proposed measures to protect water quality and beneficial uses of surface waters during activities associated with proposed road and trail maintenance, improvement, and construction. Proposed measures designed to improve drainage should be consistent with the most current United States Department of Agriculture, *National Best Management Practices [BMPs] for Water Quality Management on National Forest System Lands, Volume 1: National Core BMP Technical Guide;*[51]

~~(vii)~~(v) A schedule and plan for inspection and maintenance of Project roads and trails throughout the term of the license(s) and any extensions; and

~~(viii)~~(vi) A reporting program that includes submittal of annual reports to the State Water Board that provide:

a. An overview of all Project road and trail activities conducted during the prior year, including highlights of any inspection results that indicate existing or potential impacts to water quality and beneficial uses;

b. Proposed activities for the coming year, including any requests for Deputy Director- approval of proposed road or trail maintenance, improvement, or construction activities not previously approved by the Deputy Director as part of the Transportation Plan; and

c. Any proposed updates to the Transportation Plan for the subsequent year.

The annual reports shall cover activities conducted during the previous calendar year (January 1 – December 31) and proposed activities for the current year, if applicable. The annual report shall be submitted no later than February 15 of the current year (e.g., submitted by February 15, 2018 for activities conducted during calendar year January 1 – December 31, 2017 and proposed activities for the 2018 calendar year).

The Licensee shall implement the Transportation Plan upon ~~receipt~~ approval of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein. Depending on the status of each trail or road activity (e.g., in design, design complete, new problem identified), the Licensee may need to submit activity-specific supplements to the Transportation Plan for Deputy Director review and approval. The Licensee shall proceed with road or trail activity work approved by the Deputy Director as part of the approval of the Transportation Plan or an activity-specific supplement thereto.

[50] ~~Section 3.1 of Appendix B and Appendix N of the Big Creek ALP Settlement Agreement do not include these two projects.~~

[51] At the time of issuance of the certification, the most current version of the USDA *National Best Management Practices for Water Quality Management on National Forest System Lands, Volume 1: National Core BMP Technical Guide*, is dated April 2012, and is available at: https://www.fs.fed.us/naturalresources/watershed/pubs/FS_National_Core_BMPs_April2012.pdf

Rationale: SCE requests that State Water Board modify Draft Condition 24 to allow for implementation of the Transportation System Management Plan included as Appendix N of the Settlement Agreement, and development of a separate Transportation System Management Plan for the Portal Hydroelectric Project and the Vermilion Valley Hydroelectric Project.

The Transportation Plan included in Appendix N of the Settlement Agreement meets the requirements listed in Draft Condition 24 for the Big Creek ALP Projects, but does not include the Portal Hydroelectric Project (FERC No. 2174) and Vermilion Valley Hydroelectric Project

(FERC No. 2086). SCE agrees that a separate Transportation Plan should be developed with respect to these Projects. As specified by the USFS's Final FPA Section (e) Conditions, a Transportation Plan will be developed within one year of license issuance. Draft Condition 24 should be revised to address development of a Transportation Plan for the Portal Hydroelectric Project and the Vermilion Valley Hydroelectric Project only.

In addition, the State Water Board Rationale for Draft Condition 24 incorporates non-FERC Transportation Management Conditions from Appendix B of the Settlement Agreement (i.e., Non-FERC Settlement Agreement). SCE requests that State Water Board remove the requirement for implementation of these non-FERC Transportation Management Conditions. The Non-FERC Settlement Agreement includes measures that SCE agreed to implement that are unrelated to the six Big Creek ALP Projects. The terms of the agreements in Appendix B, which are agreements solely among the settling Parties, were provided to FERC as part of the Settlement Agreement solely for informational purposes to assist FERC's review of cumulative impacts associated with the issuance of the new licenses for the Big Creek ALP Projects and are not required to protect, mitigate, or enhance environmental or cultural resources related to ongoing operation and maintenance of the projects, and therefore were expressly determined not to be part of any new license issued by FERC.

Furthermore, the off-license transportation management conditions in Appendix B of the Settlement Agreement include a number of provisions that are beyond the scope of the Project, including the use of non-Project roads, maintenance of USFS roads outside of the FERC Project boundary, Road Use Permit (RUP) for SCE special projects that are not part of the normal operation and maintenance of the Project, SCE's support of the USFS Transportation Signage Funds, snow removal, RUP for tunnel muck pile use, cost escalation, and non-Project road rehabilitation projects. None of these actions are necessary for or related to the operation and maintenance of the Big Creek ALP Projects.

The USFS, as the lead federal agency for implementing the Sierra National Forest Land and Resource Management Plan (Forest Plan), will ensure that environmental resources, including water quality, are protected during implementation of the non-FERC agreements through implementation of BMPs, adherence to other requirements of the Forest Plan (currently undergoing revision under the new Forest Service Planning Rule) or Forest management objectives, and complying with statutes and regulations, including the CWA. USFS develops and implements water quality BMPs under a Management Agency Agreement (MAA) with the State Water Board for compliance with the CWA and the Porter-Cologne Act. The USFS is currently implementing the BMPs in the *Soil and Water Conservation Handbook* (FSH2509.22 Chapter 5, R5 Supplement) and the *National Best Management Practices for Water Quality management on National Forest Lands* (USFS 2012). USFS conducts ongoing Best Management Practices Effectiveness Evaluations (BMPE) and updates BMPs as necessary under the MAA. Through these processes, water quality will be protected during implementation of non-FERC transportation management conditions.

Because the off-license transportation management conditions address actions on or for roads that are not necessary for operation or maintenance of the Big Creek ALP Projects, and the

USFS implements BMPs developed through the MAA in compliance with the CWA, SCE requests that State Water Board modify Draft Condition 24 to remove requirements that appear in Appendix B of the Settlement Agreement.

DRAFT CONDITION 25. Amphibians

Request: SCE requests the State Water Board modify Draft Condition 25. The requested modification and associated rationale are provided below.

CONDITION 25. Amphibians

FERC Project Nos. 67, ~~120, 2085,~~ 2086, 2174, and 2175

~~Within one year of license issuance, the Licensee shall submit an Amphibian Plan to the Deputy Director for review and approval. The Amphibian Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Deputy Director may require modifications to the Amphibian Plan as part of any approval. The Licensee shall file with FERC the Deputy Director-approved Amphibian Plan and any approved amendments thereto.~~

~~The primary goals of the Amphibian Plan shall be to: (a) determine the presence or absence of state and/or federally listed amphibian species, and amphibian species of special concern (listed and special concern amphibian species) in the Six Big Creek Hydroelectric Projects- affected stream reaches; and (b) evaluate potential impacts from the new MIFs and CRMCFs (Conditions 4 and 7, respectively) on listed and special concern amphibian species.~~

~~At a minimum, the Amphibian Plan shall include:~~

~~(i) A statement of goals and objectives;~~

~~(ii) A summary of consultation, including comments received and how the comments were addressed;~~

~~(iii) A list of: (a) amphibian species present in the Six Big Creek Hydroelectric Projects area and (b) listed and special concern amphibian species with habitat in the Six Big Creek Hydroelectric Projects area;~~

~~(iv) A summary of existing information regarding the presence of listed and special concern amphibian species and their habitat in the vicinity of the Six Big Creek Hydroelectric Projects;~~

~~(v) Proposed monitoring for listed and special concern amphibian species with potential to be present in the Six Big Creek Hydroelectric Projects area that includes:~~

~~a. Monitoring protocol(s);~~

~~b. Monitoring locations, including maps showing the location and extent of proposed survey monitoring reaches; and~~

~~c. Monitoring frequency. Monitoring surveys shall occur annually for the first five years following Deputy Director-approval of the Amphibian Plan, with initial surveys conducted no later than the first spring following Deputy Director-approval of the Amphibian Plan. The monitoring frequency for the remainder of the term of the license(s) and any extensions shall be established as part of Deputy Director approval of the Amphibian Plan;~~

The Licensee ~~Measures that~~ will ~~be~~ implement~~ed~~ measures included in existing management and monitoring plans and required by USFWS for ~~as part of~~ the ~~Six~~ four Big Creek Hydroelectric Projects to protect listed and special concern amphibian species, including measures that will be implemented in conjunction with other conditions of this certification (e.g., construction associated with Recreation Plan [Condition 22], Transportation Plan [Condition 24], etc.).

The Licensee will prepare a ~~A reporting program with~~ summary report~~s~~ documenting the results of amphibian surveys and ~~-~~monitoring efforts. Summary reports shall be submitted annually to State Water Board~~at the same frequency as the monitoring established in the Amphibian Plan (e.g., currently the first five years following Deputy Director approval of the Amphibian Plan).~~, at least two weeks prior to the USFS annual consultation meeting. The reports shall include:

a. An evaluation of the data collected during the prior year's amphibian surveys; and

b. An assessment of the ~~Six~~ four Big Creek Hydroelectric Projects' ~~affect~~effect on existing, and listed and special concern amphibian species~~ and any proposed modifications to the Amphibian Plan or other certification conditions to protect listed and special concern amphibian species~~.

~~The Licensee shall implement the Amphibian Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.~~

Rationale for Sierra Nevada Yellow-legged Frog and Yosemite Toad: Two amphibians are listed under the ESA and/or CESA that are known to occur or may potentially occur in suitable habitat within four of the Six Big Creek Projects. These are:

- The Sierra Nevada yellow-legged frog (SNYLF) – listed as threatened under CESA on April 1, 2013 and as endangered under the ESA on April 29, 2013. The final rule for critical habitat for SNYLF was issued by USFWS on August 26, 2016.
- Yosemite toad (YT) – listed as threatened under the ESA on April 29, 2013. The final rule for critical habitat for SNYLF was issued by USFWS on August 26, 2016.

The Mammoth Pool Project (FERC Project No. 2085) and Big Creek No. 3 Project (FERC Project No. 120) are below the elevation range for SNYLF and YT (i.e., above approximately 4,500 feet msl for SNYLF and 5,000 feet msl for YT). Therefore, the rationale provided below applies only to the Big Creek Nos. 2A, 8, and Eastwood; Big Creek Nos. 1 and 2; Vermilion Valley Hydroelectric Project; and Portal Hydroelectric Project.

FERC Project Nos. 67, 2175, 2086 and 2174

An Amphibian Plan is unnecessary for the Big Creek Nos. 1, 2, 2A, and 8, Eastwood, Vermilion Valley, and Portal Projects because FERC is in the process of completing consultation with USFWS, the agency with jurisdiction over ESA-listed species. As the non-Federal designee for ESA consultation, SCE has agreed with USFWS with respect to several additional measures for the protection of SNYLF and YT. These new measures will be provided to FERC for review in November 2018. Following FERC's review and approval of the measures, FERC will request a Letter of Concurrence from USFWS stating that, with implementation of agreed-upon measures, the Big Creek Nos. 2A, 8, and Eastwood, Big Creek Nos. 1 and 2, Vermilion Valley, and Portal Projects are not likely to adversely affect SNYLF or YT or destroy or adversely modify proposed critical habitat for these species. The Letter of Concurrence is expected to be provided to FERC by USFWS in early 2019. Upon receipt, the Licensee will provide a copy of the Letter of Concurrence to the State Water Board.

The following actions have occurred since SCE filed license applications for the Big Creek Nos. 2A, 8, and Eastwood; Big Creek Nos. 1 and 2; Vermilion Valley; and Portal Hydroelectric Projects:

- December 19, 2014: USFWS issued its Programmatic Biological Opinion (PBO) on Nine Forest Programs on Nine National Forests in the Sierra Nevada of California for the Endangered Sierra Nevada Yellow-legged Frog, Endangered Northern Distinct Population Segment of the Mountain Yellow-legged Frog, and Threatened Yosemite Toad (USFWS 2014), which provides conservation measures and terms and conditions intended to protect SNYLF and YT during implementation of forest management activities on USFS lands.
- July 14, 2016: FERC submitted a Supplemental Biological Assessment to USFWS disclosing potential effects of the relicensing on SNYLF and YT considering the listing and new information available since submission of the license applications. The Supplemental BA, which incorporates new measures from the 2014 PBO, concludes that relicensing the Big Creek Nos. 2A, 8, and Eastwood; Big Creek Nos. 1 and 2; Vermilion Valley Hydroelectric Project; and Portal Hydroelectric Project is not likely to adversely affect the SNYLF or YT or destroy or adversely modify proposed critical habitat for these species; and states that formal consultation is not, therefore, required.
- SCE and USFWS are currently in the process of finalizing additional avoidance and minimization measures for the Big Creek Nos. 2A, 8, and Eastwood, Big Creek Nos. 1 and 2, Vermilion Valley, and Portal Hydroelectric Projects. Measures include (but are not limited to):

- Protection of YT and SNYLF and suitable habitat when applying herbicides and pesticides;
- Implementation of an employee training program;
- Requirements for reporting and preservation of any observed SNYLF or YT found near an SCE facility;
- Preparation of BEs and obtaining project-specific permits/approvals for new construction projects with the potential to impact SNYLF and YT;
- Measures for protection of SNYLF and YT when implementing road improvements;
- Obtaining project-specific permits prior to the decommissioning of small diversions, including development of measures to avoid and minimize impacts to SNYLF and YT;
- Implementation of erosion control measures;
- Measures for protection of SNYLF and YT when implementing vegetation management and slop stabilizations;
- Disinfection of equipment used when conducting environmental studies/monitoring required by the new license within suitable habitat for SNYLF or YT;
- Schedule and attend an annual coordination meeting with USFS to review planned Project maintenance activities covered in the FERC license. During the meeting SCE and USFS will review the appropriateness of avoidance and protection measures included in management and monitoring plans and required by USFWS. If necessary, avoidance and protection measures would be modified to protect SNYLF and YT and their habitat. This may include conducting surveys prior to implementation of planned activities or monitoring during project activities. All materials developed for the USFS annual consultation meeting will be provided to State Water Board for review;
- Measures to prevent potential entrapment of SNYLF or YT at equipment storage areas and at construction sites; and
- Reporting the results of any amphibian surveys or monitoring completed.

  As stated above, SCE and USFWS have agreed that, with implementation of the avoidance and minimization measures, the Big Creek Projects are not likely to adversely affect the SNYLF or YT or destroy or adversely modify proposed critical habitat for these species. Following issuance of the new license, the Big Creek Nos. 2A, 8, and Eastwood; Big Creek Nos. 1 and 2; Vermilion Valley; and Portal Hydroelectric Projects will be operated and maintained consistent with USFWS requirements.

Rationale for Foothill Yellow-legged Frog: Foothill yellow-legged frog (FYLF) was designated as a candidate for listing as a threatened species under CESA on June 27, 2017. However, the Vermilion Valley and Portal Hydroelectric Projects are above the elevation range for FYLF (approximately 4,500 feet msl) and therefore this species is not considered in the applications

for those licenses. Therefore, the rationale provided below applies primarily to the Mammoth Pool and Big Creek No 3 Projects, though a small portion of the Big Creek Nos. 2A, 8, and Eastwood and Big Creek Nos. 1 and 2 Projects fall below 4,500 feet.

FERC Project Nos. 67, 120, 2085, and 2175

An Amphibian Plan for FYLF applicable to the Big Creek Nos 1, 2, 2A, 3, 8, Eastwood, and Mammoth Pool Projects is unnecessary because the Projects will not affect the species. At the time of the license applications, FYLF were considered a Forest Service Sensitive Species (FSS) and California species of special concern. Since that time, CDFW has listed FYLF as a candidate for listing under the CESA. There are currently no known occurrences of FYLF in the bypass reaches of the Big Creek Projects; the license applications, however, address the potential of the Projects to impact FYLF habitat, where it occurs. The BA/BE for the Big Creek ALP Projects concludes that "[h]igher MIF and augmented flow release requirements and implementation of the Sediment Management Prescriptions, the Vegetation and Integrated Pest Management Plan, the Flow Monitoring and Reservoir Water Level Measurement Plan, and SCE programs will either maintain or enhance habitat for this species." In the case that FYLF becomes listed under CESA, SCE would consult with CDFW, the agency responsible for implementation of CESA, and review existing avoidance and protection measures included in management and monitoring plans to verify that they adequately protect FYLF and their potential habitat. If additional measures are determined to be necessary, they would be developed in consultation with CDFW and implemented as part of the Projects.

DRAFT CONDITION 26. Jackass Meadows Sedge Bed Restoration (Big Creek 2A, 8, and Eastwood Hydroelectric Project)

Request: SCE requests that Draft Condition 26 be removed from the Draft Certification. The associated rationale is provided below.

> ~~**CONDITION 26. Jackass Meadows Sedge Bed Restoration (Big Creek 2A, 8, and Eastwood Hydroelectric Project)**~~
>
> ~~**FERC Project Nos. 67**~~
>
> ~~If the Licensee funds the activities described in Section 2.13 of Appendix B of the Big Creek ALP Settlement Agreement, the Licensee shall develop and submit a Jackass Meadow Sedge Bed Restoration Water Quality Monitoring Plan (Sedge Bed Plan) to the Deputy Director for review and approval. The Deputy Director may require modifications to the Sedge Bed Plan as part of any approval~~. ~~The Sedge Bed Plan shall be developed in consultation with staff fromUSFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Sedge Bed Plan and any approved amendments thereto.~~
>
> ~~At a minimum, the Sedge Bed Plan shall include:~~

~~(i) A description of the proposed sedge bed restoration activities, including maps, diagrams, and a proposed schedule;~~
~~(ii) A summary of consultation, including comments received and how the comments were addressed;~~
~~(iii) Proposed measures that will be implemented to protect water quality and beneficial uses during construction and maintenance of the sedge beds;~~
~~(iv) Construction and any subsequent monitoring; and~~
~~(v) Proposed reporting for restoration implementation and any subsequent activities related to the sedge beds.~~

~~The Sedge Bed Plan shall be implemented upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.~~

Rationale: The non-FERC Settlement Agreement (provided in Appendix B of the Settlement Agreement) includes measures that SCE agreed to implement off-license, as they are unrelated to the Six Big Creek Projects. The Appendix B terms, which are agreements solely among the Settlement Parties, were provided to FERC as part of the Settlement Agreement for informational purposes only to assist FERC's review of cumulative impacts associated with the issuance of the new licenses for the four Big Creek ALP Projects.

Draft Condition 26, which provides for Jackass Meadow Sedge Bed Restoration, includes measures that are not part of the Projects, are not required to protect, mitigate, or enhance environmental or cultural resources from ongoing operation and maintenance of the Projects, and therefore will not be part of the new license to be issued by FERC. Because the Certification is intended only to provide water quality certification for a project covered under a federal FERC-issued license, SCE requests that the State Water Board remove Draft Condition 26 from the Draft Certification.

The Jackass Meadows sedge bed restoration non-FERC settlement agreement was established with USFS during the relicensing process to address the effects of ongoing grazing activities, authorized by USFS grazing permits, on Jackass Meadows sedge beds. Through the collaborative relicensing process, SCE agreed to support USFS efforts by providing funding for reconstruction of fencing and augmentation of sand and/or gravel to improve soil texture for the sedge rhizomes establishment. SCE provided funding for implementation of the project, and USFS implemented the restoration in 2007. In addition to funding, SCE also provided staff to support USFS and Tribes in implementation of the restoration.

Because the Jackass Meadows sedge bed restoration is a USFS project that has already been implemented and is not related to the Big Creek ALP Projects, it should be removed from the Draft Certification.

DRAFT CONDITION 27. Big Creek Fish Hatchery

Request: SCE requests the State Water Board remove Draft Condition 27 from the Draft Certification. The associated rationale is provided below.

~~**CONDITION 27. Big Creek Fish Hatchery**~~

~~**FERC Project No. 2175**~~

~~Within five years of license issuance, the Licensee shall submit a Big Creek Fish Hatchery Feasibility Study (Fish Hatchery Feasibility Study) to the Deputy Director for review and approval. The Deputy Director may require modifications to the Fish Hatchery Feasibility Study as part of any approval. The Fish Hatchery Feasibility Study shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Licensee shall file with FERC the Deputy Director-approved Fish Hatchery Feasibility Study and any approved amendments thereto. Except as modified by this certification, the Fish Hatchery Feasibility Study shall be consistent with Section 4.9 of Appendix B in the Big Creek ALP Settlement Agreement. As part of the Fish Hatchery Feasibility Study the Licensee shall: (a) make a recommendation regarding the feasibility of re-opening the hatchery and provide supporting rationale for the recommendation; (b) provide the factors used to recommend whether or not it is feasible to re-open the hatchery; and (c) provide a summary of consultation, including comments received and how the comments were addressed.~~

~~If Deputy Director approval of the Fish Hatchery Feasibility Study includes a determination that re-opening the Big Creek Fish Hatchery is feasible and such re-opening is supported by USFWS and CDFW, the Licensee shall submit a Big Creek Fish Hatchery Water Quality and Monitoring Plan (Fish Hatchery Plan) to the Deputy Director for review and approval no later than one year following Deputy Director approval of the Fish Hatchery Feasibility Study. The Fish Hatchery Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Deputy Director may require modifications to the Fish Hatchery Plan as part of any approval. The Licensee shall file with FERC the Deputy Director-approved Fish Hatchery Plan and any approved amendments thereto.~~

~~At a minimum, the Fish Hatchery Plan shall include:~~

~~(i) An overview of the proposed hatchery and its operation:~~
~~a. Maps and/or diagrams of the hatchery;~~
~~b. Target species and production numbers;~~
~~c. Water source, diversion rate, and associated water right information;~~
~~d. List of proposed modifications or enhancements to existing facilities; and~~
~~e. Measures that will be implemented prior to initiating hatchery operations (e.g., during construction of modifications, enhancements) to protect water quality and beneficial uses;~~
~~(ii) A summary of consultation, including comments received and how the comments were addressed;~~

~~(iii) Compliance with the *Waste Discharge Requirements for Cold Water Concentrated Aquatic Animal Production Facility Discharges to Surface Waters* permit (General NPDES No. CAG135001) or subsequent National Pollutant Discharge Elimination System (NPDES) permit issued by the Central Valley Regional Water Board;~~

~~(iv) A proposed timeline for completion of any work and initiation of hatchery operations; and~~

~~(v) A reporting program that includes submittal of reports to the State Water Board regarding the implementation of work to re-open the hatchery, and provide updates on the operation of the hatchery (i.e., fish produced, water quality, etc). The Licensee shall also include any proposed modifications to the hatchery (construction or operation modifications) for Deputy Director approval.~~

~~The Licensee shall not conduct work or operate the Big Creek Fish Hatchery without prior written approval from the Deputy Director. The Licensee shall implement the Fish Hatchery Plan upon receipt of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.~~

Rationale: The non-FERC Settlement Agreement (Appendix B of the Settlement Agreement) includes measures that SCE agreed to implement off-license that are unrelated to the Six Big Creek Projects. The Appendix B terms, which are agreements solely among the settling Parties, were provided to FERC as part of the Settlement Agreement for informational purposes only to assist FERC's review of cumulative impacts associated with the issuance of the new licenses for the four Big Creek ALP Projects.

These measures are not part of the projects, are not required to protect, mitigate, or enhance environmental or cultural resources from ongoing operation and maintenance of the projects, and therefore will not be part of the new license to be issued by FERC. Considering that the 401 Certification is intended only to provide water quality certification for a project covered under a federal permit, the SWB inappropriately incorporated Draft Condition 27 – Big Creek Fish Hatchery (Big Creek Nos. 2A, 8, and Eastwood Hydroelectric Project) into the Draft 401 Certification.

Draft Condition 27 requires a Big Creek Fish Hatchery Feasibility Study. The Big Creek Fish Hatchery is not a component of the Big Creek ALP Projects, and rehabilitation and operation of the hatchery is not required to mitigate any potential project impacts. As part of the Settlement Agreement and USFS's Final FPA Section 4(e) Conditions for the Big Creek Nos. 2A, 8, and Eastwood Hydroelectric Project, SCE has committed to equally match the CDFW stocking of Project-related reservoirs and bypass stream reaches below Project diversions and upstream of Redinger Lake.

In consultation with CDFW, SCE agreed to investigate the feasibility of rehabilitating and operating the Big Creek Fish Hatchery. SCE conducted an internal evaluation on the feasibility of rehabilitating and operating the Big Creek Fish Hatchery and determined that it would be

infeasible because: 1) the facility would require substantial reconstruction to become operable; 2) SCE would be subject to National Pollutants Discharge Elimination System (NPDES) permitting requirements to operate the facility; and 3) it is not part of SCE's core business to operate this type of facility nor does SCE currently have any staff trained in its operation or rearing/caretaking of fish. Therefore, it would not be cost effective to rehabilitate and operate the facility.

Because the Big Creek Fish Hatchery is not a Big Creek ALP Project facility, is not currently operable, and is infeasible to rehabilitate and operate, the requirement for a water quality monitoring plan will not be necessary. Therefore, Draft Condition 27 should be removed from the Draft Certification.

DRAFT CONDITION 28. Vegetation and Integrated Pest Management

Request: SCE requests the State Water Board modify Draft Condition 28. The requested modifications and associated rationale are provided below.

CONDITON 28. Vegetation and Integrated Pest Management

FERC Project Nos. 67, 120, 2085, ~~2086, 2174,~~ and 2175

Within 30 days of license issuance, the Licensee shall implement the provisions of the Vegetation and Integrated Pest Management Plan (Vegetation and Pest Plan) contained in Appendix R of the Big Creek ALP Settlement Agreement. In addition, SCE will implement a reporting program that will provide the State Water Board with: an overview of all vegetation and pest management activities conducted during the prior year; and proposed vegetation and pest management actions for the coming year.

FERC Project Nos. 2086 and 2174

Within ~~four~~ one year~~s~~ of license issuance, the Licensee shall submit ~~an updated~~ a Vegetation and Pest Plan for the ~~Six Big Creek Hydroelectric~~Vermilion Valley and Portal Projects to the Deputy Director for review and approval. The ~~updated~~ Vegetation and Pest Plan shall be developed in consultation with staff from USFS, USFWS, CDFW, and the State Water Board. The Deputy Director may require modifications to the ~~updated~~ Vegetation and Pest Plan as part of any approval. The Licensee shall file with FERC the Deputy Director-approved ~~updated~~ Vegetation and Pest Plan and any approved amendments thereto.

At a minimum, the ~~updated~~ Vegetation and Pest Plan shall include:

(i) A statement of goals and objectives;

(ii) A summary of consultation, including comments received and how the comments were addressed;

~~(iii) Addition of the Vermilion Valley Hydroelectric Project (FERC Project No. 2086) and the Portal Hydroelectric Project (FERC Project No. 2174);~~[52]

~~(iv) A summary and assessment of the actions related to implementation of this condition conducted since implementation of the license(s). The summary and assessment shall identify any proposed modifications or additions to the existing Vegetation and Pest Plan with associated information to support the modifications and additions;~~

~~(v)~~(iii) Maps and lists of all facilities and locations to be managed under the ~~updated~~ Vegetation and Pest Plan, broken out by project. For each facility or location identify:

a. Proposed vegetation and/or pest management action(s);

~~b. An inspection and maintenance schedule for the term of the license(s) and any extensions; and~~

~~c.~~b. Measures to protect water quality and beneficial uses associated with implementation of the Vegetation and Pest Plan; and

~~(vi)~~(iv) A reporting program that includes submittal of annual reports to the State Water Board that provides:

a. An overview of all vegetation and pest management activities conducted during the prior year, including highlights of any inspection results that may require modifications to the updated Vegetation and Pest Plan to protect water quality and beneficial uses; and

b. Proposed vegetation and pest management actions for the coming year, including any requests for Deputy Director approval of modifications to the updated Vegetation and Pest Plan.

The Licensee shall implement the ~~updated~~ Vegetation and Pest Plan for the Vermilion Valley and Portal Projects upon approval ~~receipt~~ of Deputy Director and any other required approvals, in accordance with the schedule and requirements specified therein.

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[52] ~~The Vegetation and Pest Plan in Appendix R of the Big Creek ALP Settlement Agreement does not include these two projects.~~

FERC Project Nos. 67, 120, 2085, and 2175

Rationale: With respect to the four Big Creek ALP Projects, SCE requests implementation of the existing Vegetation and Integrated Pest Management Plan (Vegetation Plan) included as Appendix R of the Settlement Agreement. The development of the Appendix R Vegetation Plan involved extensive effort and has already been approved by the appropriate regulating agencies. The Draft Vegetation and Integrated Pest Management Plan was submitted to agencies and stakeholders (including the State Water Board) on July 22, 2005. Comments on the plan were received from USFS, CDFW, and USFWS and incorporated into the plan. No comments were received from the State Water Board.

Appendix R already includes the majority of the requested items listed in Draft Condition 28. Specifically, the Vegetation Plan identifies routine vegetation and pest management activities to be implemented over the term of the license, evaluates resources potentially affected by the activities, and describes avoidance and protection measures and SCE programs to be implemented to minimize any potential project-related effects. Consistent with USFS policy, Appendix R commits SCE to implementation of water quality BMPs that are part of the MAA between USFS and the State Water Board for compliance with the CWA.

In addition, the Vegetation Plan describes resource monitoring and reporting required over the term of the license. This includes an annual proposal for vegetation and pest management activities, to be reviewed at the annual consultation with USFS. Draft Condition 28 includes development of "an inspection and maintenance schedule for the term of the license" for the four Big Creek ALP Projects. Attachment A of the agency-approved Vegetation Plan already provides a list of each facility associated with the four Big Creek ALP Projects and denotes the type and frequency (i.e., annual, regular, infrequent) of vegetation management activities that would be conducted at each facility over the term of the license. In preparation for the annual coordination meeting with USFS, SCE would review Attachment A and develop a specific proposal for the timing and location of vegetation management activities to be implemented for the coming year. A number of factors would be considered in developing the annual proposal for vegetation management including (but not limited to) USFS priorities for lands and recreation facilities under their jurisdiction, past and projected weather patterns, occurrence and severity of wildfire, and coordination with other facility maintenance activities. Because the annual vegetation management activities are based on a number of factors that may change considerably from year-to-year, development of a schedule for the term of the license (30 years) as proposed by State Water Board is neither possible nor practicable.

SCE proposes to provide final resource survey and monitoring reports to the Deputy Director. In addition, Appendix R requires the Vegetation Plan to be reviewed for adequacy every five years. SCE would obtain approval from the Deputy Director for any proposed changes to the Vegetation Plan.

FERC Project Nos. 2086 and 2174

Rationale: Consistent with the objectives of the State Water Board's draft condition, SCE proposes to develop a Vegetation and Pest Plan for the Vermilion Valley and Portal Hydroelectric Projects within one year of license issuance. This plan would be consistent with the agency-approved plan for the four Big Creek ALP Projects, allowing SCE to continue its Basin-wide approach for vegetation and integrated pest management. As stated above, because the annual vegetation management activities are based on a number of factors that may change considerably from year-to-year, development of a schedule for the term of the license (30 years) is neither possible nor practicable. SCE would instead provide to the Deputy Director for review any USFS approved annual proposals for vegetation management activities.

The new Vegetation and Pest Plan would be implemented upon approval of Deputy Director in accordance with the schedule and requirements specified therein.

DRAFT CONDITION 29. Annual Consultation Meetings

Request: SCE requests that Draft Condition 29 be removed from the Draft Certification. The associated rationale is provided below.

> ~~**CONDITION 29. Annual Consultation Meetings**~~
>
> ~~**FERC Project Nos. 67, 120, 2085, 2086, 2174, and 2175**~~
>
> ~~Within one year of license(s) issuance, the Licensee shall establish a Technical Review Group (TRG) to meet annually regarding implementation of the Six Big Creek Hydroelectric Projects license(s). The first meeting of the TRG shall be held within two years of the license(s) issuance. At the annual meetings, the Licensee shall: (a) provide a summary of the past year's implementation of the Six Big Creek Hydroelectric Projects license(s), including the status and results of studies, a summary of activities conducted, and an overview and evaluation of data collected as required by conditions of this certification; (b) provide a summary of proposed activities; and (c) solicit input from the TRG to inform the development of adaptive management or other recommendations, as required by conditions of this certification. At a minimum, staff from USFS, USFWS, CDFW, and the State Water Board, Tribes, nongovernmental organizations, and parties signatory to the Big Creek ALP Settlement Agreement shall be invited to participate in the TRG. The annual meeting shall be open to the public. The Licensee shall provide 30-day notice of the annual meeting to the TRG. The TRG shall establish communication protocols to facilitate interactions between group members that allow for open participation and communication between all parties.~~
>
> ~~[52] The Vegetation and Pest Plan in Appendix R of the Big Creek ALP Settlement Agreement does not include these two projects.~~

Rationale: Draft Condition 29 requires SCE to conduct annual consultation meetings with resource agencies and other interested parties to review monitoring reports and discuss ongoing and forecasted operations, including revisions or modifications to monitoring and/or operations that may be needed to protect water quality and beneficial uses. SCE, with active participation by representatives from USFS, USFWS, CDFW, the State Water Board, Native American Tribes, local and regional authorities, non-governmental organizations, and the public, were engaged in a consultation process associated with the relicensing of the four Big Creek ALP Projects. The Big Creek ALP involved the design and implementation of more than 60 studies. Reports were prepared based upon these studies and were reviewed and commented upon by the Parties. These reports, which were used to identify potential Project impacts, serve as the basis for the Settlement Agreement.

Annual consultation meetings with resource agencies are already required by the Settlement Agreement, including appropriate processes to allow for the protection of water quality and beneficial uses. All Settlement Agreement appendices, with exception of Appendix G Small Diversion Decommissioning and Appendix I Fish Monitoring (discussed below), contain at a

minimum annual agency meeting and reporting requirements. These requirements include providing a summary of the previous year's implementation of the Six Big Creek Hydroelectric Projects license(s), including the status and results of studies, a summary of activities conducted, an overview and evaluation of data collected, and a summary of proposed upcoming activities, all of which support an adaptive management approach.

Settlement Agreement Appendix G requires consultation with agencies as needed for permitting and reporting at conclusion of each decommissioning project. Appendix I requires establishment of a Fisheries Review Oversight Group, which will provide specified reporting after each monitoring period.

Compliance with the existing terms of the Settlement Agreement meets the requirements of Draft Condition 29. Therefore, the requirements of Draft Condition 29 are redundant and the condition should be removed.

DRAFT CONDITION 30. Extremely Dry Conditions

Request: SCE requests the State Water Board to modify Draft Condition 30. The requested modifications and associated rationale are provided below.

> **CONDITION 30. Extremely Dry Conditions**
>
> **FERC Project Nos. 67, 120, 2085, 2086, 2174, and 2175**
>
> In the event of extremely dry conditions, which may include a year in which the Governor of the State of California declares a drought emergency for Fresno County or Madera County, or multiple consecutive Dry or Critical water year types, the Licensee may request modification of the flow requirements of this certification. If the Licensee anticipates that it may request modification pursuant to this condition, the Licensee shall notify the Deputy Director, CDFW, USFS, and USFWS of the Licensee's concerns related to flows or reservoir levels as early as possible, ~~and~~ no later than ~~March 15~~ 10 business days after DWR's May 1 forecast of the year in which a request may be submitted or within 10 business days of the Governor declaring a drought emergency, if after May 1. If the Licensee requests modification pursuant to this condition, the Licensee shall develop a Revised Operations Plan in consultation with staff from the State Water Board, CDFW, USFS, and USFWS for flows and/or reservoir operations during the extremely dry conditions.
>
> The Licensee shall provide notice of the proposed Revised Operations Plan to interested parties at least seven days prior to submittal to the Deputy Director. The Licensee's request shall include: an estimate of water to be saved and the alternative beneficial uses for which the water is being conserved; a timeline for the return to regular operations; proposed monitoring for the revised operations, including an estimation of any impacts the revised operations may have on any beneficial uses of water; and proposed water conservation measures that will be implemented. If conservation

measures are not applicable, the Licensee shall describe the circumstances and justification for not implementing water conservation measures.

The Licensee shall submit the proposed Revised Operations Plan to the Deputy Director for review and approval. The Licensee shall also provide a summary of any comments received and how the comments were addressed. The Deputy Director may require modifications to the Revised Operations Plan as part of any approval. The Licensee may implement the Revised Operations Plan upon receipt of Deputy Director and other required approvals, in accordance with the schedule and requirements specified therein. The Licensee shall file with FERC the Deputy Director-approved Revised Operations Plan, and any approved amendments thereto.

Rationale: Draft Condition 30 provides SCE with a process for adaptive management of the Big Creek system during times of extreme water shortage. Draft Condition 30 specifies two events under which this condition would be triggered: declaration of drought by the Governor and/or multiple consecutive Dry or Critical Dry years. Draft Condition 30 specifies the process for the preparation and approval of a Revised Operations Plan if SCE would need to modify flows or reservoir levels during extreme dry conditions, including the information required for inclusion in the Revised Operations Plan. The State Water Board also specifies that SCE needs to notify the agencies no later than March 15th of concerns related to compliance with flow releases or reservoir water levels. This schedule does not account for the possibility that the Governor may declare a drought emergency after March 15th or potential adjustments in the water year type based on the April and May DWR forecasts specified in Draft Condition 2. SCE requests that the State Water Board modify Draft Condition 30 to allow for flexibility in the date of the notification that considers the timing of the Governor's drought declaration and potential updates in the water year type through the spring consistent with Draft Condition 2.

DRAFT CONDITION 31.

Request: SCE requests the State Water Board modify Draft Condition 31. The requested modifications and associated rationale are provided below.

CONDITION 31. The State Water Board's approval authority, including authority delegated to the Deputy Director or others, includes the authority to withhold approval or to require modification of a document prior to approval. ~~The State Water Board may take enforcement action if the Licensee fails to provide or implement a required plan or study in a timely manner.~~ If a time extension is needed to submit a report, study, or plan for Deputy Director approval, the Licensee shall submit a written request for the extension, with justification, to the Deputy Directory no later than 60 days prior to the deadline. The Licensee shall file with FERC any Deputy Director-approved time extensions but will be permitted to move forward with timely compliance filings with FERC while the State Water Board's approval is pending, in order to maintain compliance with the requirements of the FERC license.

Rationale: Draft Condition 31 provides that the State Water Board's approval authority, including authority delegated to the Deputy Director or others, includes the authority to withhold approval or to require modification of a document prior to approval. It also provides that the State Water Board may take enforcement action if the Licensee fails to provide or implement a required plan or study in a timely manner. Further, it states that if a time extension is needed to submit a report, study, or plan for Deputy Director approval, the Licensee shall submit a written request for the extension, with justification, to the Deputy Director no later than 60 days prior to the deadline. Finally, it provides that the Licensee shall file with FERC any Deputy Director-approved time extensions.

SCE is concerned that this draft condition would impair its ability to timely file documents with FERC for its review and approval, in accordance with the deadlines that will apply in the FERC-issued license. SCE will be required to adhere to all deadlines in its FERC license, and while SCE does not dispute the State Water Board's authority to approve a plan or study as required by the water quality certification conditions, SCE cannot be placed in a position of missing a deadline under its FERC license due to ongoing review requirements of the State Water Board. In order to acknowledge that SCE can move forward with timely filings with FERC in order to maintain compliance with its license, SCE proposes a modest change to this draft condition.

SCE also is concerned about the reference in Draft Condition 31 to the State Water Board's purported enforcement authority. Section 401 of the Clean Water Act (CWA), 33 U.S.C. § 1341, extends no express enforcement authority to the State Water Board, and the State Water Board cites no authority for the enforcement provision in Draft Condition 31. Rather, enforcement authority is well established by section 401, which plainly requires conditions of a water quality certification to become conditions of the federal license or permit. Although states have clear authority to impose conditions on FERC licenses through the CWA section 401 water quality certification, the Federal Power Act (FPA) vests FERC with exclusive authority over licensing and regulation of hydropower projects, and it is well-settled that the FPA preempts conflicting state regulation. *See California v. FERC*, 495 U.S. 490 (1990); *First Iowa Hydro-Electric Cooperative v. FPC*, 328 U.S. 152 (1946), *reh'g denied*, 328 U.S. 879 (1946). Accordingly, all conditions of the FERC-issued license, including conditions incorporated through the state water quality certification, are enforceable only as Congress comprehensively provided in FPA section 31, 16 U.S.C. § 823b, as well as in 16 U.S.C. § 825p. For this reason, the inclusion in the second sentence of Draft Condition 31 of an "enforcement action" by the State Water Board is inappropriate and this sentence should be removed.

DRAFT CONDITION 32.

Request: SCE requests the State Water Board remove Draft Condition 32. The associated rationale for this request is provided below.

> ~~**CONDITION 32.** The State Water Board reserves the authority to add to or modify the conditions of this certification: (i) to incorporate changes in technology, sampling, or methodologies; (ii) if monitoring results indicate that continued operation of the Six Big~~

~~Creek Hydroelectric Projects could violate water quality objectives or impair beneficial uses; (iii) to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act; (iv) to coordinate the operations of the Six Big Creek Hydroelectric Projects and other hydrologically connected water development projects, where coordination of operations is reasonably necessary to meet water quality objectives and protect beneficial uses of water; and (v) to require additional monitoring and/or other measures, as needed, to ensure that continued operations of the Six Big Creek Hydroelectric Projects meet water quality objectives and protect beneficial uses of the upper San Joaquin River and its tributaries.~~

Rationale: Draft Condition 32 includes a reservation of authority to add to or modify the water quality certification to reflect potential changed circumstances in the future, including: (i) changes in technology, sampling, or methodologies; (ii) to reflect monitoring results indicating that the continued operation of the Projects would violate water quality objectives or impair beneficial uses; (iii) new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality control Act or Section 303 of the Clean Water Act; (iv) to coordinate the operations of the Big Creek Projects and other hydrologically-connected water development projects, in order to meet water quality objectives and protect beneficial uses of water; and (v) to require additional monitoring and/or other measures, as needed to ensure that continued operations of the Projects meet water quality objectives and protect beneficial uses of the upper San Joaquin River and its tributaries.

As a general matter, SCE does not dispute the State Water Board's ability to reserve authority to adjust conditions of a water quality certification over the long term of a FERC-issued hydropower license. However, we are concerned that overly broad and vague reservations of authority, such as Draft Condition 32, will interfere with fundamental objectives of the FPA, which are designed to support continued investment in renewable hydropower through long license terms with fixed, certain obligations. These policies are implemented through statutory requirements set forth in sections 6, 10, and 15 of the FPA, among others. To meet these objectives and provide SCE needed certainty when continuing its significant investments in its projects, it is imperative that any reservations of authority in the final Water Quality Certification be focused on project-level effects and well-defined to provide the needed level of certainty and expectations. Broad and sweeping reservations of authority are antithetical to the policies set forth in the FPA and introduce an unacceptable risk that undermines the entire purpose of a set license term.

Draft Condition 32 does not adhere to these principles and amounts to a significant overreach of State Water Board reserved authority under CWA section 401. The broad and sweeping scope of the reservations of authority under Draft Condition 32 provide no certainty to SCE, and would allow the State Water Board unilateral authority to make nearly any change to license conditions, without any regard to the policies articulated in FPA section 6, namely that "[l]icenses . . . may be altered . . . only upon mutual agreement between the Licensee and the Commission …" 16 U.S.C. § 799. Draft Condition 32 also fails to recognize FERC's overall

authority to regulate licensed projects, as well as the stewardship responsibilities of other federal agencies such as USFS and USFWS—particularly with respect to Draft Condition 32's reservation of authority to coordinate the operation of the Big Creek Projects and other hydrologically-connected water development projects.

The State Water Board itself has acknowledged the potential for overreach associated with this type of sweeping condition. In responding to Pacific Gas and Electric's (PG&E) request for reconsideration of a similar reservation of authority in the Water Quality Certification for the DeSabla-Centerville Project (FERC Project No. 803), the Water Board stated that "[a]lthough the State Water Board has routinely included reservations of authority in the water quality certifications it issues, the issue has not reached the California appellate courts, so there is no California precedent specifically addressing the issue." *In the Matter of Petition for Reconsideration of Water Quality Certification for the Pacific Gas and Electric Company DeSabla-Centerville Hydroelectric Project, FERC Project No. 803,* 2016 WL 5719856, at *7.

Thus, SCE objects to Draft Condition for several significant reasons. First, including Draft Condition 32 in the final water quality certification would lead to significant uncertainty regarding SCE's obligations over a very long license term, given the State Water Board's purported ability under this condition to modify the conditions of the water quality certification at will. Such approach undermines a foundational policy embedded in the FPA of establishing fixed license terms to encourage investment in our nation's water resources. As FERC recently explained:

> The Commission recognizes the importance of providing license applicants and other stakeholders as much certainty as possible. License applicants expend significant financial resources on preparing their license applications and complying with their licenses thereafter.
>
> Policy Statement on Establishing License Terms for Hydroelectric Project, 161 FERC ¶ 61,078, at P 12 (2017).

Second, the State Water Board's open-ended approach in Draft Condition 32 undermines the Settlement Agreement by giving the State Water Board broad authority to unilaterally amend license conditions that were carefully negotiated and balanced among numerous parties with competing interests.

Third, the broad reservation of authority in Draft Condition 32 lacks support in the scientific record. As discussed throughout this comment, environmental issues related to the ongoing operation of the Big Creek Projects have been studied exhaustively for many years. There is no basis for the State Water Board to conclude that monumental changes will be needed over the course of the new license term.

Fourth, the broad reservation of authority provided in Draft Condition 32 fails to recognize that modification or revocation of a water quality certification is allowable only *upon administrative or judicial review*, brought, for example, through a petition for writ of mandate challenging a State Water Board's final Water Quality Certification approval. *See* Cal. Code Regs. tit. 23, §§ 3860, 3869. While the State Water Board has the authority to bring a reconsideration petition "on [its]

own motion," this right expressly limited to no later than 30 days from the date certification was approved when a federal agency relied on the certification to issue a federal permit. *See* Cal. Code Regs. tit. 23, § 3867(b)(1), (2).

Fifth, Draft Condition 32 would lead to absurd results, as the types of changes purportedly reserved by the State Water Board under this condition would require FERC approval as well, creating a seemingly unending loop of competing FERC and State Water Board approvals and associated environmental reviews.

Finally, this broad reservation of authority undermines the very purpose for the various management plans required by the Settlement Agreement and the resource-specific plans included in the State Water Board's draft water quality certification. From SCE's perspective, these management plans have built-in adaptive management provisions based on specific factors and criteria; given the breadth of Draft Condition 32, these adaptive management measures are rendered meaningless, and there is very little value in expending time and resources in developing these detailed management plans that can be unilaterally changed by the State Water Board at any time.

For these reasons, SCE recommends that this Draft Condition be removed to conform to the State Water Board's statutory authorities in connection with the issuance of a water quality certification under the CWA.

DRAFT CONDITION 33.

Request: SCE requests the State Water Board modify Draft Condition 33. The requested modification and associated rationale are provided below.

> **CONDITION 33.** ~~Future changes in climate projected to occur during the license(s) term(s) may significantly alter the baseline assumptions used to develop the conditions of this certification.~~ Where it has been demonstrated that the Project has caused or is causing adverse effects to water quality based on climate change, ~~T~~the State Water Board reserves authority to modify or add conditions in this certification to require additional monitoring and/or other measures, as needed, to verify that Project operations meet water quality objectives and protect the beneficial uses assigned to the Six Big Creek Hydroelectric Projects-affected stream reaches.
>
> When exercising reserved authority under this Condition 33, the State Water Board shall adhere to the requirements of Draft Condition 34.

Rationale: Draft Condition 33 includes a reservation of authority to modify this water quality certification as a result of the change in baseline assumptions caused by future climate change.

As more fully described in SCE's comment in response to Draft Condition 32, above, reservations of authority must be focused to address the precise circumstances in which a reservation of authority is needed, so as to provide the licensee needed certainty over the term of the license. In general, SCE does not object to a reservation of authority for the State Water

Board to address climate change, but any new or modified conditions should be based on demonstrated project-related effects.

Additionally, any action by the State Water Board to exercise reserved authority under the Water Quality Certification requires due process, as explained in SCE's comment in response to Draft Condition 34. For consistency and clarity, SCE recommends a specific reference to Draft Condition 34 in every instance in which the State Water Board seeks to reserve authority under the new license.

DRAFT CONDITION 34.

Request: SCE requests the State Water Board modify Draft Condition 34. The requested modification and associated rationale are provided below.

> **CONDITION 34.** Prior to exercising any reserved authority under this Water Quality Certification, ~~T~~the State Water Board shall provide notice and an opportunity ~~to be heard in exercising its authority~~ for hearing to inform whether Project-related effects on water quality warrant the exercise of reserved authority and whether and how to add to or modify the conditions of this certification. In exercising any reserved authority under this certification, the State Water Board shall coordinate with the Federal Energy Regulatory Commission and other federal agencies with regulatory responsibilities for the Big Creek Projects to ensure that the exercise of reserved authority meets all applicable requirements of federal and state law.

Rationale: Draft Condition 34 provides that the State Water Board shall provide notice and an opportunity to be heard in exercising its authority to add to or modify the conditions of this certification.

SCE agrees with the principle embodied in Draft Condition 34 that changes to license conditions should not occur absent public notice and an opportunity to be heard and does not dispute the State Water Board's ability to assert authority over the Projects, like FERC and other agencies with Project-related conditioning authority. *See In the Matter of Petition for Reconsideration of Water Quality Certification for the Pacific Gas and Electric Co. DeSabla-Centerville Hydroelectric Project No. 803,* 2016 WL 5719856 (August 2016) and *In the Matter of Petition for Reconsideration of Water Quality Certification for the Pacific Gas and Electric Co. Chili Bar Hydroelectric Project No. 2155,* 2013 WL 2298376 (May 2013).

However, consistent with these other authorities, the exercise of reserved authority in the water quality certification must protect SCE's due process rights. FERC-issued licenses, for example, include appropriate license reopener conditions that allow FERC to make adjustments to license conditions over time, but only after notice and opportunity for hearing. Specifically, Standard License Article 15 requires that the licensee, "for the conservation and development of fish and wildlife resources, construct, maintain, and operate... such reasonable modifications of the project structures and operation, as may be ordered by the Commission..., after notice and opportunity for hearing." Other federal agencies' exercise of Project-related conditioning

authority—including those under the Departments of Interior, Agriculture, and Commerce—also triggers an opportunity for a trial-type hearing to protect licensees' due process rights (*see* 43 C.F.R. § 45, 7 C.F.R. Part 1, and 50 C.F.R. § 221).

Moreover, as more fully explained in SCE's comment in response to Draft Condition 32 above, Draft Condition 34 assumes, incorrectly, that the State Water Board possesses broad, unilateral authority to add to or modify the conditions of this water quality certification. At no point does the State Water Board in the draft water quality certification identify the authority by which it may properly make unilateral, sweeping changes to water quality certification conditions, and SCE maintains that such changes would violate FPA section 6, which provides that "[l]icenses . . . may be altered . . . only upon mutual agreement between the Licensee and the Commission …" 16 U.S.C. § 799. Its position is also inconsistent with its own regulations, which limit the State Water Board's authority to unilaterally amend water quality certification conditions. *See* Cal. Code Regs. tit. 23, §§ 3860, 3867, 3869.

Finally, the State Water Board should also recognize that other agencies have stewardship responsibilities over the Project and resources that may be affected by Project operations—such as FERC, USFS pursuant to section 4(e) of the FPA, and USFWS pursuant to section 18 of the FPA and the Endangered Species Act. In many cases, the State Water Board's exercise of reserved authority could well interfere with or at least touch upon areas of other agencies' jurisdiction. Thus, it is appropriate that the State Water Board, when exercising its reserved authority, coordinate its exercise with other agencies to ensure that all applicable requirements of the law are met. Additionally, Draft Condition 34 should be limited to situations where there is a demonstrated Project nexus that has been determined to cause adverse effects to water quality.

For these reasons, SCE requests that this Draft Condition be modified to conform to the State Water Board's statutory authorities in connection with the issuance of a water quality certification under the CWA, and to include the procedural safeguards discussed above, including notice and an opportunity for hearing, coordination with FERC and other agencies with Project-related authority, and is exercised in connection with project-related effects.

DRAFT CONDITION 35.

Request: SCE requests the State Water Board modify Draft Condition 35. The requested modification and associated rationale are provided below.

> **CONDITION 35.** This certification is contingent on compliance with all applicable requirements of the Basin Plan applicable to the effects of the Six Big Creek Projects, as may be identified by the State Water Board following adherence to the requirements of Condition 34.

Rationale: Draft Condition 35 provides that the certification is contingent on compliance with all applicable requirements of the Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin River Basin. In SCE's view, this condition is overly broad. Specifically, it fails to define what requirements or categories of requirements—from a Basin

Plan over 200 pages in length—are "applicable" for purposes of determining compliance with the Water Quality Certification. For example, section 4.2 of the Basin Plan describes water quality control measures to be implemented by the Regional Water Board and provides that "whatever actions the Regional Water Board implements must be consistent with the Basin Plan's beneficial uses and water quality objectives, as well as certain State and Regional Water Board's policies, plans, agreements, prohibitions, guidance, and other restrictions or requirements."

Despite SCE's concerns that this draft condition is overly broad, SCE would not object to the inclusion of Draft Condition 35 in the final Water Quality Certification, provided it is tied to Project-related effects and includes the procedural safeguards of Draft Condition 34.

DRAFT CONDITION 36.

Request: SCE requests the State Water Board modify Draft Condition 36. The requested modification and associated rationale are provided below.

> **CONDITION 36.** Notwithstanding any more specific conditions in this certification, the Six Big Creek Hydroelectric Projects shall be operated in a manner consistent with all applicable water quality standards and implementation plans adopted or approved pursuant to ~~the Porter- Cologne Water Quality Control Act or~~ section 303 of the Clean Water Act, as may be identified by the State Water Board following adherence to the requirements of Condition 34. ~~The Licensee must take all reasonable measures to protect the beneficial uses of the upper San Joaquin River watershed.~~

Rationale: Draft Condition 36 requires SCE to comply with all water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act and to take all reasonable measures to protect the beneficial uses of the upper San Joaquin River watershed.

In SCE's view, this condition is too broad and undefined to be the basis of a future compliance determination. In its August 2016 final Water Quality Certification for PG&E's DeSabla-Centerville Project (FERC Project No. 803), the State Water Board acknowledged this and struck the reference to the Porter-Cologne Water Quality Control Act. It should do the same here.

Moreover, the State Water Board should remove the generic and undefined reference to "beneficial uses" and an open-ended requirement to take "all reasonable measures" to protect such undefined uses. However, SCE would not object to the inclusion of Draft Condition 36 in the final Water Quality Certification, provided it is tied to Project-related effects and includes the interagency coordination requirements and procedural safeguards of Draft Condition 34.

DRAFT CONDITION 37.

SCE has no comment on this draft condition.

DRAFT CONDITION 38.

SCE has no comment on this draft condition.

DRAFT CONDITION 39.

Request: SCE requests the State Water Board modify Draft Condition 39. The requested modification and associated rationale are provided below.

> **CONDITION 39.** The Licensee shall submit any change to the Six Big Creek Hydroelectric Projects, including operations, technology changes or upgrades, or methodology, which would have a significant or material effect on the findings, conclusions, or conditions of this certification, to the State Water Board for prior review and written approval. The State Water Board shall determine significance and may require consultation with state and/or federal agencies. If the State Water Board is not notified of a change to the Six Big Creek Hydropower Projects, it will be considered a violation of this certification. ~~If such a change would also require submission to FERC, the change must first be submitted and approved by the Executive Director of the State Water Board.~~

Rationale: Draft Condition 39 provides that the Licensee shall submit any change to the Six Big Creek Hydroelectric Projects, including operations, technology changes or upgrades, or methodology, which would have a significant or material effect on the findings, conclusions, or conditions of this certification, to the State Water Board for prior review and written approval. The State Water Board shall determine significance and may require consultation with state and/or federal agencies. If the State Water Board is not notified of a change to the Six Big Creek Hydropower Projects, it will be considered a violation of this certification. If such a change would also require submission to FERC, the change must first be submitted and approved by the Executive Director of the State Water Board.

Judicial precedent is clear that changes to hydropower operations at a FERC-licensed project that could affect water quality require state certification under section 401 of the CWA (*see Alabama Rivers Alliance v. FERC*, 325 F.3d 290 (D.C. Cir. 2003). Absent a water quality certification from the State Water Board, therefore, FERC cannot authorize any license amendment that would involve the type of operational changes envisioned in Draft Condition 39. As such, Draft Condition 39 is unnecessary to ensure that state water quality certification is obtained in any applicable FERC license amendment proceeding.

For these reasons, SCE does not object to Draft Condition 39. As a sequencing matter, however, it is inappropriate for Draft Condition 39 to require State Water Board approval *before* an amendment application is even filed with FERC. Unless and until an application for a license or permit is filed with the federal permitting agency, there is no requirement for state water

quality certification. And FERC's well-established regulations set forth orderly procedures for license amendment applicants to file for state water quality certification.

DRAFT CONDITION 40.

Request: SCE requests the State Water Board modify Draft Condition 40. The requested modification and associated rationale are provided below.

> **CONDITION 40.** In the event of any violation or threatened violation of the conditions of this certification, the violation or threatened violation is subject to any remedies, penalties, process or sanctions as provided for under applicable state or federal law. ~~For the purposes of section 401(d) of the Clean Water Act, the applicability of any state law authorizing remedies, penalties, process, or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this certification.~~

Rationale: Draft Condition 40 provides that, in the event of a violation or threatened violation of the conditions of the certification, such violation is subject to any remedies, penalties, process or sanctions as provided under applicable state or federal law. It also provides that, for purposes of section 401(d) of the CWA, the applicability of any state law authorizing remedies, penalties, process, or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into the certification.

As detailed above in SCE's comment to Draft Condition 31, by operation of law under section 401 of the CWA, the conditions of a water quality certification become a condition of the license or permit issued by FERC. The FPA includes a broad authorization of authority for FERC to assume compliance under FPA section 31. 16 U.S.C. § 825p also gives parties an opportunity to seek enforcement in federal district court. Congress has already established mechanisms for the enforcement of license conditions, including CWA 401 conditions, and any penalties, enforcement authorities, or sanctions under state law relied upon by the State Water Board are preempted. Thus, any alleged violation of SCE's licenses for the Six Big Creek Projects should be addressed as expressly provided by Congress, as competing State enforcement programs are preempted. *See Albany Engineering Corp. v. FERC*, 548 F.3d 1071 (D.C. Cir. 2008).

DRAFT CONDITION 41.

Request: SCE requests the State Water Board modify Draft Condition 41. The requested modification and associated rationale are provided below.

> **CONDITION 41.** In response to a ~~suspected~~ demonstrated violation of any condition of this certification in accordance with Section 31 of the Federal Power Act or pursuant to 16 U.S.C § 825p, the State Water Board or Central Valley Regional Water Board may require the holder of any federal permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the State Water Board

deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. (Wat. Code, §§ 1051, 13165,13267, and 13383.). Any requirements imposed upon the Licensee under this Condition 41 shall be imposed only as provided in Condition 34.

Rationale: Draft Condition 41 provides that, in response to a suspected violation of the certification, the State or Regional Water Board may require SCE to furnish, under penalty of perjury, any technical or monitoring reports the State Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

However, Draft Condition 41 does not reference a specific statutory provision authorizing this reserved authority. The State Water Board's effort to retain jurisdiction in this manner—particularly in response to a suspected, rather than a demonstrated violation—would permit it to unilaterally change the requirements of SCE's FERC license. As explained in detail in SCE's comment in response to Draft Condition 32, such reservations of authority contravene both FPA section 6 and State regulations governing water quality certifications. Additionally, and as detailed above in response to Draft Conditions 31 and 40, Congress has already established mechanisms for the enforcement of license conditions, including CWA 401 conditions, and any penalties, enforcement authorities, or sanctions under state law relied upon by the State Water Board are preempted. Accordingly, all conditions of the FERC-issued license, including conditions incorporated through the state water quality certification, are enforceable only as Congress comprehensively provided in section 31 of the Federal Power Act (FPA), 16 U.S.C. § 823b, as well as in 16 U.S.C. § 825p.

As explained in more detail in SCE's comment to Draft Condition 31, the enforcement mechanism of Draft Condition 41 is inconsistent with CWA section 401, which extends no independent means for enforcement, as well as FPA section 30 and 16 U.S.C. § 825p, which affirmatively extend broad authority to FERC and federal district courts, respectively, to enforce license conditions.

SCE supports the State Water Board's need, in the event of a demonstrated violation of a certification condition, to require additional monitoring and reporting to promote improvement to compliance on a going-forward basis. Thus, the proposed changes to Draft Condition 41 preserve this ability, while ensuring that compliance violations are established by appropriate authorities and the procedural safeguards of Draft Condition 34 are met.

DRAFT CONDITION 42.

Request: SCE requests the State Water Board modify Draft Condition 42. The requested modification and associated rationale are provided below.

> **CONDITION 42.** In response to any violation of the conditions of this certification established in accordance with Section 31 of the Federal Power Act or pursuant to 16 U.S.C § 825p, the State Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance. Any requirements imposed upon the Licensee under this Condition 42 shall be imposed only as provided in Condition 34.

Rationale: Draft Condition 42 provides that, in response to any violation of the conditions of the certification, the State Water Board may add to or modify the conditions as appropriate to assure compliance.

For the reasons explained in SCE's comments on Draft Condition 41, SCE does not object to the concept of Draft Condition 42, so long as this condition: (1) specifies that compliance violations are established by appropriate authorities under FPA section 31 and 16 U.S.C. § 825p; and (2) the procedural safeguards of Draft Condition 34 are met.

DRAFT CONDITION 43.

SCE has no comment on this draft condition.

DRAFT CONDITION 44.

SCE has no comment on this draft condition.

DRAFT CONDITION 45.

SCE has no comment on this draft condition.

DRAFT CONDITION 46.

SCE has no comment on this draft condition.

DRAFT CONDITION 47.

Request: SCE requests the State Water Board modify Draft Condition 47. The requested modification and associated rationale are provided below.

> **CONDITION 47.** Activities associated with operation and maintenance of the Six Big Creek Hydroelectric Projects that threaten or potentially threaten the Licensee's attainment of applicable water quality standards shall be subject to further review by the Deputy Director and Executive Officer. Any requirements imposed upon the Licensee under this Condition 47 shall be imposed only as provided in Condition 34.

Rationale: Draft Condition 47 provides that activities at the Six Big Creek Hydroelectric Projects that threaten or potentially threaten water quality are subject to further review by the State Water Board.

SCE appreciates the State Water Board's efforts in Draft Condition 47 to focus reserved authority only on effects caused by the Six Big Creek Projects. Thus, as explained in SCE's comments to Draft Conditions 32 and 34, SCE's only recommendations for Draft Condition 47 are intended to: (1) provide additional context to what is meant by "threaten water quality" in this condition; and (2) specify that the procedural and coordination requirements under Condition 34 are met upon any exercise of this reserved authority.

DRAFT CONDITION 48.

Request: SCE requests the State Water Board modify Draft Condition 48. The requested modification and associated rationale are provided below.

> **CONDITION 48.** This certification is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330 and California Code of Regulations, title 23, division 3, chapter 28, article 6 (commencing with section 3867). Any modification to this certification under this Condition 48 shall be imposed only as provided in Condition 34.

Rationale: Draft Condition 48 provides that the certification is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330 and California Code of Regulations, title 23, division 3, chapter 28, article 6.

SCE understands that the final Water Quality Certification is subject to modification, or even revocation, if it becomes subject to administrative or judicial review following issuance. However, SCE recommends using the procedures provided in Condition 34 when imposing any modification to the requirements of the Water Quality Certification to protect parties' due process rights as explained above.

DRAFT CONDITION 49.

SCE has no comment on this draft condition.

DRAFT CONDITION 50.

SCE has no comment on this draft condition.

DRAFT CONDITION 51.

SCE has no comment on this draft condition.

DRAFT CONDITION 52.

SCE has no comment on this draft condition.

Attachment B

Distribution List

Attachment B
Distribution List

ENTITY	TITLE	NAME	ADDRESS	CITY	ST	ZIP
Author and Agencies Copied on State Water Board's Letter – Denial Without Prejudice of Water Quality Certification for Six Big Creek Hydroelectric Projects (November 16, 2018)						
California Department of Fish and Wildlife	Regional Manager	Julie Vance	1234 E. Shaw Ave	Fresno	CA	93710
Central Valley Regional Water Quality Control Board	Executive Officer	Patrick Pulupa	11020 Sun Center Drive, Suite 200	Rancho Cordova	CA	95670
Federal Energy Regulatory Commission	Secretary	Kimberly D. Bose	888 First Street, N.E.	Washington	DC	20426
State Water Resources Control Board	Division of Water Rights - Water Quality Certification Program	Allan Laca	PO Box 2000	Sacramento	CA	95812-2000
State Water Resources Control Board	Executive Director	Eileen Sobeck	PO Box 2000	Sacramento	CA	95812-2000
U.S. Environmental Protection Agency	Director, Region 9, Water Division	Tomas Torres	75 Hawthorne Street	San Francisco	CA	94105
U.S. Fish and Wildlife Service	FERC Coordinator	Field Supervisor	2800 Cottage Way, Room W-2605	Sacramento	CA	95825
U.S. Forest Service - Sierra National Forest	Assistant Public Services Officer for Recreation	Jody Nickerson	1600 Tollhouse Rd	Clovis	CA	93611
Combined FERC Service List for SCE's Six Big Creek Hydroelectric Projects (FERC Project Nos. 67, 120, 2085, 2086, 2174, and 2175)[1]						
American Whitewater	California Stewardship Dir.	Dave Steindorf	4 Baroni Drive	Chico	CA	95928-4314
Big Sandy Rancheria	Tribal Chair	Connie Lewis	37387 Auberry Mission Road	Auberry	CA	93602
Big Sandy Rancheria	Chairperson	Thane Baty	37387 Auberry Mission Road	Auberry	CA	93602
Calif. Sportfishing Protection Alliance	Executive Director	Bill Jennings	1248 East Oak Avenue #D	Woodland	CA	95776
California Department of Fish and Wildlife	Regional Manager	Julie Vance	1234 E Shaw Ave	Fresno	CA	93710

[1] FERC service list for the six Big Creek Projects (downloaded 11/27/18), was consolidated and updated where possible based on best available information.

ENTITY	TITLE	NAME	ADDRESS	CITY	ST	ZIP
California Department of Fish and Wildlife	Asst. Atty.	R. Connett	1300 I St	Sacramento	CA	95814-2919
California Department of Parks and Recreation	Office of Historic Preservation	Dr. Knox Mellon	1725 23rd Street, Suite 100	Sacramento	CA	95816
California State Historic Preservation Office	Office of Historic Preservation	Milford W Donaldson	1725 23rd Street, Suite 100	Sacramento	CA	95816
Cardno		Edward Bianchi	2890 Gateway Oaks Drive, Suite 200	Sacramento	CA	95833
City of Banning, California	Director	Paul Toor	99 E Ramsey St	Banning	CA	
Cold Springs Mono	Chairman		PO Box 209	Tollhouse	CA	93667
Dunlap Band of Mono Indians		Ben Charley, Sr	470 Winuba Lane	Bishop	CA	93621
Fresno, County of	Deputy Director, Planning	Bernard Jimenez	2220 Tulare St, 6th Floor	Fresno	CA	93721
Fresno, County of	Public Works & Development Services	Harris Hayes	2220 Tulare St, Fl 6	Fresno	CA	93721-2104
Fresno, County of	Planning Department		2220 Tulare St, Fl 6	Fresno	CA	93721-2104
Friant Water Authority	Consulting Engineer	Roger Robb	2151 Sunnyside Ave., Apt 169	Clovis	CA	93611
Friant Water Users Authority			854 N Harvard Ave	Lindsay	CA	93247-1715
Friends of the River	Senior Policy Advocate	Ronald Stork	1418 20th Street, Suite 100	Sacramento	CA	95811
Huntington Lake Big Creek Historical Conservancy		Chris Oberti	8116 N. Preuss	Clovis	CA	93611
Kearns & West		Anna West	475 Sansome St, Suite 570	San Francisco	CA	94111
Kern County, California	Kern County Admin. & Courts Bldg.		1415 Truxtun Ave	Bakersfield	CA	93301-5215
Madera Irrigation District			12152 Road 28 1/4	Madera	CA	93637-9106
Madera, County of	Board of Supervisors		209 W Yosemite Ave	Madera	CA	93637-3534

ENTITY	TITLE	NAME	ADDRESS	CITY	ST	ZIP
Minasian, Minasian, Minasian, et al.	Partner	Jeffrey Albert Meith, ESQ	1681 Bird Street	Oroville	CA	95965
Mono Nation		Dorothy Sherman	PO Box 1377	North Fork	CA	93646-1377
NOAA Fisheries Service, Northeast Region	Attorney	Dan Hytrek	501 W. Ocean Blvd, Suite 4470	Long Beach	CA	90802
North Fork Mono Tribe	Tribal Chair	Ron Goode	13396 Tollhouse Rd	Clovis	CA	93619-9703
North Fork Rancheria	Chairperson	Delores Roberts	33173 Road 222 Ste 7	North Fork	CA	93643-9704
North Fork Rancheria of Mono Indians of CA	Tribal Chair	Elaine Fink	PO Box 929	North Fork	CA	93643
Northwest Power Planning Council			851 SW 6th Ave, Suite 1100	Portland	OR	97204-1337
Office of the Governor of California	Governor of California		State Capitol, Suite 1173	Sacramento	CA	95814
Picayune Rancheria of the Chuckchansi Indians	Tribal Chair	Dixie Jackson	46575 Road 417	Coarsegold	CA	93614-9761
Riverside Public Utilities	Public Utilities Department	Everett C Ross	3900 Main St	Riverside	CA	92522
Sierra Mono Museum Board	President	Kelly Marshall	33173 Road 222, #3	North Fork	CA	93643
Sierra National Forest	Forest Supervisor		1600 Tollhouse Rd	Clovis	CA	93611-0532
Sierra National Forest	Assistant Public Services Officer	Jody Nickerson	1600 Tollhouse Rd	Clovis	CA	93611
Southern California Edison Company	FERC Case Administration		2244 Walnut Grove Ave	Rosemead	CA	91770
Southern California Edison Company	Attorney	Kelly Henderson	2244 Walnut Grove Ave	Rosemead	CA	91770
Southern California Edison Company	Technical Specialist	Mark Charles Newquist	54205 Mt. Poplar	Big Creek	CA	93605
Southern California Edison Company	Senior Manager, Regulatory Affairs and Compliance	Martin Ostendorf	54170 Mtn. Spruce Rd, PO Box 100	Big Creek	CA	93605
Southern California Edison Company	Dam Safety Engineer	Nicolas von Gersdorff	1515 Walnut Grove Ave	Rosemead	CA	91770

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Southern California Edison Company		Sher Beard	54170 Mountain Spruce	Big Creek	CA	93605
Southern California Edison Company	Principal Manager, Hydro Licensing and Compliance	Wayne P Allen	1515 Walnut Grove Ave	Rosemead	CA	91770
Southern California Gas Company			555 W 5th St	Los Angeles	CA	90013-1010
Spiegel & McDiarmid LLP		Frances Francis	1875 Eye Street, NW, Suite 700	Washington	DC	20006
Table Mountain Rancheria	Tribal Chair	Leann Grant	PO Box 410	Friant	CA	93626
Trout Unlimited	California Director	Brian Johnson	4221 Hollis Street	Emeryville	CA	94608
Tulare, County of			Board of Supervisors	Visalia	CA	93291
U.S. Army Corps of Engineers	San Francisco District Office		1455 Market St, #1760	San Francisco	CA	94103
U.S. Bureau of Reclamation		Paul Landry	3310 El Camino Ave, Suite 300	Sacramento	CA	95821
U.S. Department of Interior	Attorney-Advisor	Chris Watson	1849 C St, NW - MS 6513	Washington	DC	20240
U.S. Department of Interior		Jennifer L Frozena	1849 C Street NW, Mailstop 6557	Washington	DC	20240-0001
U.S. Department of Interior	Office Environ. Policy		1111 Jackson St Ofc 520	Oakland	CA	94607-4807
U.S. Department of Interior	Regional Environ. Officer		333 Bush St, Ste 515	San Francisco	CA	94104
U.S. Department of Interior	Office of Environmental Affairs		1849 C ST NW #Room2353	Washington	DC	20240-0001
U.S. Fish & Wildlife Service	Field Supervisor	FERC Coordinator	2800 Cottage Way, Room W-2605	Sacramento	CA	95825
U.S. House of Representatives	Honorable	Jim Costa	1314 Longworth	Washington	DC	20515
U.S. National Park Service		Alan Schmierer	333 Bush St Ste 500	San Francisco	CA	94104-2828
U.S. National Park Service	Hydro Program Coordinator		333 Bush St Ste 500	San Francisco	CA	94104-2828

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U.S. National Park Service	Southern Calif. Hydro Coord.		333 Bush St Ste 500	San Francisco	CA	94104-2828
U.S. Senate	Senator		112 Hart Senate Office Bldg	Washington	DC	20510
Upper San Joaquin River Water & Power Authority			24790 Avenue 95	Terra Bella	CA	93270-9695
USDA Forest Service Pacific SW Region		Joshua Rider	33 New Montgomery, 17th Flr	San Francisco	CA	94105
USDA Forest Service Pacific SW Region	R5 Hydropower Program Manager	Vicki J Davis	1323 Club Drive	Vallejo	CA	94596
USDA-FS PSW Region	Attorney-USDA Office of the Ge	Patrick Redmond, ESQ	1400 Independence Ave. SW, Room 3350-B	Washington	DC	20250
USDOI - Pacific Southwest Region	Assistant Regional Solicitor	Kerry O'Hara	2800 Cottage Way, Rm. E-1712	Sacramento	CA	95825
USDOI - Pacific Southwest Region	Field Supervisor		2800 Cottage Way, W2605	Sacramento	CA	95825
		Rick Telegan	5 River Park Place East, Suite 102	Fresno	CA	93720
		Victor Engel	5120 Center Ave, Bldg A, Suite 368	Fort Collins	CO	80526
Settlement Agreement Parties						
American Whitewater		Dave Steindorf	1325 Deodara Way	Paradise	CA	95969
California Department of Fish and Wildlife			1234 East Shaw, Suite 155	Fresno	CA	93710
California State Water Resources Control Board			1001 I Street, 14th Floor	Sacramento	CA	95812
Fly Fishers for Conservation		Wayne Thompson	4295 East Copper Avenue	Clovis	CA	93619
Fresno County Sheriff's Department		Rick Hill	Fresno Court; 2200 Fresno Street	Fresno	CA	93717
Friant Water Authority		Mario Santoyo	854 North Harvard Avenue	Lindsay	CA	93247

ENTITY	TITLE	NAME	ADDRESS	CITY	ST	ZIP
Friends of the River		Kelly Catlett	915 20th Street	Sacramento	CA	95814
Huntington Lake Association		Maureen Barile	5662 East Sussex Way	Fresno	CA	93727
Huntington Lake Big Creek Historical Conservancy		Chris Oberti	8116 North Preuss	Clovis	CA	93611
Huntington Lake Volunteer Fire Department		Bob Leach	63000 Huntington Vista Lane	Lakeshore	CA	93634
Natural Resources Defense Council		Monty Schmitt	111 Sutter Street, 20th Floor	San Francisco	CA	94104
SAMS Coalition		Katie Horst	36281 Lodge Road	Tollhouse	CA	93667
San Joaquin Paddlers Club		Paul Martzen	942 North Harrison	Fresno	CA	93728
San Joaquin River Trail Council		Steve Haze	PO Box 447	Prather	CA	93651-0477
Shaver Crossing Railroad Station Group		Darinda Otto	PO Box 917	Shaver Lake	CA	93664
Sierra Mono Museum Board		Kelly Marshall	33103 Road 228	North Fork	CA	93643
Sierra Resource Conservation District of the County of Fresno		Toby Horst	36281 Lodge Road	Tollhouse	CA	93667
The Eshom Valley Band of Michahai and Wuksachi Indians	Tribal Chair	Ken Woodrow	1179 Rockhaven Court	Salinas	CA	93906
Trout Unlimited		Brian Johnson	1808B Fifth Street	Berkeley	CA	94710
U.S. Department of Agriculture, Forest Service			1600 Tollhouse Road	Clovis	CA	93611
U.S. Department of the Interior, Fish and Wildlife Service			2800 Cottage Way, Room W-2605	Sacramento	CA	95825