

#### Filed Electronically

October 18, 2018

Kimberly D. Bose, Secretary Federal Energy Regulatory Commission 888 First Street, NE Washington, DC 20426

#### Subject: 2018 Initial Study Report Kaweah Project (FERC Project No. 298)

Dear Secretary Bose:

Southern California Edison (SCE) is filing this Initial Study Report to provide the Federal Energy Regulatory Commission (FERC or Commission) and stakeholders with an update regarding progress made in implementing 17 Technical Study Plans (TSP) associated with the relicensing of the Kaweah Project (Project).

In accordance with 18 CFR §5.15(c)(1), SCE must file an Initial Study Report within one year of Study Plan Determination by the Commission. This report summarizes SCE's overall progress to date (through September 30, 2018) in implementing the study plan and schedule and the data collected, including an explanation of any variances. This report also summarizes any modifications to ongoing studies or new studies proposed by SCE. This report is being filed with the Commission and distributed to stakeholders.

In accordance with 18 CFR §385.2010, service of the 2018 Initial Study Report is being made by electronic means unless a relicensing participant's e-mail address is unavailable or they previously requested delivery via U.S. mail (Attachments A and B). The 2018 Initial Study Report and other Kaweah Project relicensing documents can be obtained from FERC's website at <a href="http://www.ferc.gov/docs-filing/elibrary.asp">http://www.ferc.gov/docs-filing/elibrary.asp</a> or SCE's Kaweah Project relicensing website at <a href="http://www.ferc.gov/docs-filing/elibrary.asp">http://www.ferc.gov/docs-filing/elibrary.asp</a> or SCE's Kaweah Project relicensing website at <a href="http://www.ferc.gov/docs-filing/elibrary.asp">http://www.ferc.gov/docs-filing/elibrary.asp</a> or SCE's Kaweah Project relicensing website at <a href="http://www.ferc.gov/docs-filing/elibrary.asp">http://www.ferc.gov/docs-filing/elibrary.asp</a> or SCE's Kaweah Project relicensing website at <a href="http://www.ferc.gov/docs-filing/elibrary.asp">http://www.ferc.gov/docs-filing/elibrary.asp</a> or SCE's Kaweah Project relicensing website at <a href="http://www.ferc.gov/docs-filing/elibrary.asp">http://www.ferc.gov/docs-filing/elibrary.asp</a> or SCE's Kaweah Project relicensing website at <a href="http://www.ferc.gov/docs-filing/elibrary.asp">http://www.ferc.gov/docs-filing/elibrary.asp</a> or SCE's Kaweah Project relicensing website at <a href="http://www.ferc.gov/docs-filing/elibrary.asp">http://www.ferc.gov/docs-filing/elibrary.asp</a> or SCE's Kaweah Project relicensing website at <a href="http://www.ferc.gov/docs-filing/elibrary.gov/docs-filing/elibrary.asp">http://www.ferc.gov/docs-filing/elibrary.asp</a> or SCE's Kaweah Project relicensing website at <a href="http://www.ferc.gov/docs-filing/elibrary.gov/docs-filing/elibrary.gov/docs-filing/elibrary.gov/docs-filing/elibrary.gov/docs-filing/elibrary.gov/docs-filing/elibrary.gov/docs-filing/elibrary.gov/docs-filing/elibrary.gov/docs-filing/elibrary.gov/docs-filing/elibrary.gov/docs-filing/eli

#### **Background**

On December 14, 2016, SCE filed a Notice of Intent (NOI) and Pre-Application Document (PAD) with the Commission to seek a new license for the existing 8.85-megawatt (MW) Kaweah Project. The PAD provided the Commission, federal and state agencies, and other interested parties with background information related to Project facilities, operations, and maintenance activities; summarized existing, relevant, and reasonably available information; defined pertinent Project issues; and identified potential study needs. The PAD also included 15 draft study plans that SCE determined were needed to address issues for which existing information may not be adequate. The overall objective of the studies is to develop sufficient information to identify potential Project impacts and to develop new license conditions that reasonably balance multiple resource interests.

On February 10, 2017, the Commission issued a Notice of Commencement of Pre-Filing Process and Scoping Document 1 (SD1) for the Project. SD1 provided interested parties with the Commission's preliminary list of issues and alternatives to be addressed in an Environmental Assessment analyzing potential conditions of a new Project license. Additionally, the Commission requested that any party interested in providing comments on the PAD and SD1 and/or submitting formal study requests do so by April 13, 2017, in accordance with a 60-day comment period. During the comment period, the Commission conducted public scoping meetings (am/pm) on March 14, 2017 and a site visit on March 15, 2017. The Commission revised SD1 based on oral comments received at the scoping meetings and written comments received throughout the scoping process. Scoping Document 2 was issued on May 18, 2017.

Based on study requests filed by the Bureau of Land Management (BLM), National Park Service (NPS), and American Whitewater, SCE revised one study plan (REC 1 – Recreation Resources) and added two new study plans (REC 2 – Whitewater Boating and LAND 3 – Land Use). All other study plans remained unchanged from the PAD submittal. On May 24, 2017, SCE filed a Proposed Study Plan (PSP) with the Commission which included 17 study plans for the Project. The deadline to file comments on the PSP ended August 28, 2017.<sup>1</sup> During the comment period, SCE conducted a study plan meeting in Visalia, California on June 21, 2017 with stakeholders to: (1) clarify SCE's PSP; (2) discuss information gathering or study requests from stakeholders; and (3) attempt to resolve any outstanding issues with respect to SCE's PSP.

The BLM, NPS, and American Whitewater filed comments on the PSP, however, none of the comments filed resulted in revisions to any of the study plans. Therefore, on September 19, 2017, SCE filed a Revised Study Plan (RSP) which stated that the PSP, without revision, constituted its RSP. No comments were filed on the RSP. On October 24, 2017, the Commission issued its Study Plan Determination approving the study plans included in the PSP dated May 24, 2017.

#### Study Implementation Progress

Study progress through September 30, 2018 is summarized in Attachment C. Attachment C is organized by TSP and describes: (1) study elements completed/data collected; (2) Technical Working Group (TWG) meeting dates and topics; (3) any technical study plan variances; (4) outstanding study elements; (5) proposed modifications; and (6) proposed new studies. With a few exceptions, all of the TSPs are progressing as outlined. Variations/modifications in schedule and methods are summarized in Attachment C and the TSP schedules are graphically depicted in Attachment D.

Study results are currently being summarized and will be shared with stakeholders in a series of Technical Study Reports (TSR) to be distributed over the next several months.

#### <u>Next Steps</u>

In accordance with 18 CFR §5.15(c)(2), SCE will convene an Initial Study Report Meeting to discuss overall progress of study plan implementation and address any stakeholder comments. Meeting details are as follows:

Date:	November 1, 2018
Time:	1:00 pm – 3:00 pm

<sup>&</sup>lt;sup>1</sup> The statutory deadline for filing comments on the Proposed Study Plan was August 26, 2017 which fell on a Saturday. According to 18 CFR §385.2007(a)(2), if a filing date falls on a Saturday, Sunday, or federal legal public holiday, the deadline for filing becomes the next business day.

Location:	Wyndham Visalia
	Pine Room
	9000 W. Airport Drive
	Visalia, CA 93277
WebEx:	Call-in Number: (855) 225-9582
	Conference ID: 8381340
	Skype: https://meet.cardno.com/julie.smith/vll4w310

In accordance with 18 CFR §5.15(c)(3) through §5.15(c)(7), within 15 days following the meeting, SCE will file an Initial Study Report Meeting Summary with the Commission. Any participant or the Commission may file a disagreement on the meeting summary within 30 days. Responses to filings on the meeting summary are due 30 days later. The Commission Director will resolve any disagreements and amend the approved study plan, as appropriate, no later than 30 days following the due date for responses. If no disagreements are filed, the meeting summary and any proposed amendments are deemed approved.

SCE looks forward to working with the Commission and interested parties as the relicensing of the Kaweah Project proceeds. If you have any questions regarding this filing please contact David Moore, SCE Project Manager, by phone at (626) 302-9494 or via e-mail at david.moore@sce.com.

Sincerely,

anne Allen

Wayne P. Allen Principal Manager

Attachments:

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- Attachment A: Certificate of Service
  - Attachment B: Distribution List
- Attachment C: Technical Study Plan Implementation Summary
- Attachment D: Technical Study Plan Implementation Schedule

# Attachment A

Certificate of Service

# **Certificate of Service**

# 2018 Initial Study Report

# Southern California Edison Company Kaweah Project FERC Project No. 298

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding, and the enclosed distribution list.

Dated at Rosemead, California this 18<sup>th</sup> day of October, 2018.

Wayne P. Allen Principal Manager, Hydro Licensing and Implementation Southern California Edison Company 1515 Walnut Grove Avenue Rosemead, CA 91770 Telephone: 626-302-9741 Email: wayne.allen@sce.com

# **Attachment B**

**Distribution List** 

Organization	Name	Street Address	City, State, Zip	Email
Federal Government/Representatives				
Federal Energy Regulatory Commission	Kimberly D. Bose Secretary	888 First Street, N.E.	Washington, DC 20426	
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Federal Energy Regulatory Commission	James Hastreiter			james.hastreiter@ferc.gov
National Marine Fisheries Service California Central Valley Office	Maria Rea Assistant Regional Administrator			maria.rea@noaa.gov
National Marine Fisheries Service California Central Valley Office	Jeff McLain Central Valley Office Division Manager			jeff.mclain@noaa.gov
Sequoia and Kings Canyon National Parks	Woody Smeck Superintendent	47050 Generals Highway	Three Rivers, CA 93271-9700	woody_smeck@nps.gov
Sequoia and Kings Canyon National Parks	Nancy Hendricks Chief of Planning and Compliance	47050 Generals Highway	Three Rivers, CA 93271-9700	nancy_hendricks@nps.gov
National Park Service Hydropower Assistance Program	Stephen M. Bowes	333 Bush Street, Suite 500	San Francisco, CA 94104	stephen_bowes@nps.gov
National Parks Service Hydropower Assistance Program	Barbara Rice Program Manager	333 Bush Street, Suite 500	San Francisco, CA 94104	barbara_rice@nps.gov
U.S. Army Corps of Engineers Planning Division	Sacramento District	1325 J Street, Room 1513	Sacramento, CA 95814	spk-pao@usace.army.mil
U.S. Bureau of Indian Affairs Pacific Region	Amy Dutschke Regional Director	2800 Cottage Way	Sacramento, CA 95825	amy.dutschke@bia.gov
U.S. Bureau of Land Management Bakersfield Field Office	Christina Castellon Realty Specialist (PM)	3801 Pegasus Drive	Bakersfield, CA 93308	ccastellon@blm.gov
U.S. Bureau of Land Management Bakersfield Field Office	Amy Girado Archaeologist	3801 Pegasus Drive	Bakersfield, CA 93308	agirado@blm.gov
U.S. Bureau of Land Management Bakersfield Field Office	Maria Soto Realty Specialist	3801 Pegasus Drive	Bakersfield, CA 93308	msoto@blm.gov
U.S. Bureau of Land Management Bakersfield Field Office	Carly Summers Natural Resource Specialist Supervisor/Planning	3801 Pegasus Drive	Bakersfield, CA 93308	csummers@blm.gov
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U.S. Bureau of Land Management Bakersfield Field Office	Brien Chartier Recreation	3801 Pegasus Drive	Bakersfield, CA 93308	bchartie@blm.gov
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U.S. Bureau of Land Management Bakersfield Field Office	Alison Lipscomb Realty Specialist	3801 Pegasus Drive	Bakersfield, CA 93308	alipscomb@blm.gov
U.S. Bureau of Land Management Bakersfield Field Office	Karen Doran Range Specialist	3801 Pegasus Drive	Bakersfield, CA 93308	kdoran@blm.gov
U.S. Bureau of Land Management Bakersfield Field Office	Briana Doran Wildlife Biologist	3801 Pegasus Drive	Bakersfield, CA 93308	bdoran@blm.gov

Organization	Name	Street Address	City, State, 2
U.S. Bureau of Land Management Bakersfield Field Office	Sarah Bullock Wildlife Biologist	3801 Pegasus Drive	Bakersfield, CA 93308
U.S. Bureau of Land Management Bakersfield Field Office	CJ Clara Hurley Wildlife Biologist	3801 Pegasus Drive	Bakersfield, CA 93308
U.S. Bureau of Reclamation South-Central California Area Office	Michael Jackson Area Manager	1243 N Street	Fresno, CA 93721-1813
U.S. Fish and Wildlife Service Pacific Southwest Region	Daniel Welsh	2800 Cottage Way, W-2605	Sacramento, CA 95825
U.S. Fish and Wildlife Service Pacific Southwest Region	Alison Willy	2800 Cottage Way, W-2605	Sacramento, CA 95825
U.S. Fish and Wildlife Service Pacific Southwest Region	Richard Kuyper	2800 Cottage Way, W-2605	Sacramento, CA 95825
U.S. Geological Survey Placer Hall, Room 2005	Denis O'Halloran FERC Coordinator	6000 J Street	Sacramento, CA 95819
U.S. House of Representatives 21st Congressional District of California	David Valadao Congressman	101 North Irwin Street, Suite 110B	Hanford, CA 93230
U.S. House of Representatives 22nd Congressional District of California	Devin Nunes Congressman	113 North Church Street, Suite 208	Visalia, CA 93291
U.S. House of Representatives 23rd Congressional District of California	Kevin McCarthy Congressman	4100 Empire Drive, Suite 150	Bakersfield, CA 93309
U.S. Senate	Kamala Harris Senator	501 I Street, Suite 7-800	Sacramento, CA 95814
U.S. Senate	Dianne Feinstein Senator	One Post Street, Suite 2450	San Francisco, CA 94104
State Government/Representatives			
California Department of Fish and Wildlife Central Region	Julie Vance	1234 E. Shaw Avenue	Fresno, CA 93710
California Department of Fish and Wildlife Central Region	Abimael León	1130 E. Shaw Avenue	Fresno, CA 93710
California Department of Parks and Recreation Office of Historic Preservation	Julianne Polanco State Historic Preservation Officer	1725 23rd Street, Suite 100	Sacramento, CA 95816
California Public Utilities Commission		505 Van Ness Avenue	San Francisco, CA 94102-
California State Senate 16th Senate District	Jean Fuller Senator	State Capitol, Room 4048	Sacramento, CA 95814-49
California State Senate 14th Senate District	Andy Vidak Senator	State Capitol, Room 3082	Sacramento, CA 95814-49
Central Valley Regional Water Quality Control Board Fresno Branch	Manager	1685 E Street	Fresno, CA 93706-2007
Native American Heritage Commission		1550 Harbor Boulevard, Suite 100	West Sacramento, CA 956
State Water Resources Control Board Division of Water Rights	Jeff Wetzel	1001 I Street, 14th Floor	Sacramento, CA 95814

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State Water Resources Control Board Water Quality Certification Program	Ann Marie Ore Environmental Program Manager	1001 I Street, 14th Floor	Sacramento, CA 95814	annmarie.ore@waterboards.ca.gov
State Water Resources Control Board Division of Water Rights	Erin Ragazzi	1001 I Street, 14th Floor	Sacramento, CA 95814	erin.ragazzi@waterboards.ca.gov
Office of Historic Preservation	Kathleen Forrest	1725 23rd Street, Suite 100	Sacramento, CA 95816	kathleen.forrest@parks.ca.gov
Local Government				
Tulare County Planning Branch	Michael Washam Assistant Director	5961 South Mooney Blvd.	Visalia, CA 93277	mwasham@co.tulare.ca.us
Tulare County	Clerk-Recorder	221 South Mooney Blvd., Room 103	Visalia, CA 93291	
Tulare County Library Main Branch	County Librarian	200 W. Oak Avenue	Visalia, CA 93291	
Tulare County Water Commission County of Tulare	Denise England Water Policy Manager	2800 W. Burrell Avenue	Visalia, CA 93291	dengland@co.tulare.ca.us
City of Tulare Planning Department	Josh McDonnell Community & Economic Development Director	411 East Kern Avenue	Tulare, CA 93274	jmcdonnell@tulare.ca.gov
City of Visalia Planning Department	Paul Bernal City Planner	315 E. Acequia Avenue	Visalia, CA 93291	paul.bernal@visalia.city
Public Agency				
Exeter Irrigation District	District Manager	150 S. E Street	Exeter, CA 93221	
Ivanhoe Irrigation District	District Manager	33777 Road 164	Visalia, CA 93292	
Kaweah Delta Water Conservation District	Mark Larsen General Manager	2975 N. Farmersville Blvd.	Farmersville, CA 93223	mlarsen@kdwcd.com
Lindmore Irrigation District	Michael Hagman District Manager	P.O. Box 908	Lindsay, CA 93247	mhagman@lindmoreid.com
Tulare Irrigation District	J. Paul Hendrix General Manager	6826 Avenue 240	Tulare, CA 93274	jph@tulareid.org
Kaweah River Power Authority	Terry Stafford	2975 N. Farmersville Blvd.	Farmersville, CA 93223	tstafford@kdwcd.com
Non-Governmental Organization				
American Whitewater	Dave Steindorf California Stewardship Director	4 Baroni Drive	Chico, CA 95928-4314	dave@americanwhitewater.org
American Whitewater	Theresa Simsiman			theresa@americanwhitewater.org
American Whitewater	Megan Hooker			megan@americanwhitewater.org
California Sportfishing Protection Alliance	Christopher Shutes FERC Projects Director			cshutes@calsport.org

Organization	Name	Street Address	City, State, Zip	Email
CalTrout – Sierra Headwaters Region	Eric Huber Director	P.O. Box 3442	Mammoth Lakes, CA 93546	ehuber@caltrout.org
CalTrout – Central California Region	Jacob Katz Director	930 Shiloh Rd., Bldg. 40-#6	Windsor, CA 95492	jkatz@caltrout.org
Friends of the River	Eric Wesselman Executive Director	1418 20th Street, Suite 100	Sacramento, CA 95811	eric@friendsoftheriver.org
Frout Unlimited	James Polfer President – Central Sierra Chapter			jpolfer@hotmail.com
Frout Unlimited	John Sikora Council Chairman	4005 Manzanita Avenue, Suite 6, Box 302	Carmichael, CA 95608	JESIKORA@SBCGLOBAL.NET
Advisory Council on Historic Preservation	John Eddins	401 F Street, NW, Suite 308	Washington, DC 20001-2637	jeddins@achp.gov
ulare County Historical Society	Mike Chrisman President	PO Box 295	Visalia, CA 93279	
Three Rivers Historical Museum	Thomas Marshall President	PO Box 162	Three Rivers, CA 93271	history@3rmuseum.org
Native American Tribes				
Fule River Indian Tribe	Neil Peyron Chairman	P.O. Box 589	Porterville, CA 93258	Neil.Peyron@tulerivertribe-nsn.gov
Tachi-Yokut Tribe	Ruben Barrios Sr. Chairman	P.O. Box 8	Lemoore, CA 93245	rbarrios@tachi-yokut-nsn.gov
Tule River Indian Tribe	Kerri Vera Environmental Coordinator	P.O. Box 589	Porterville, CA 93258	tuleriverenv@yahoo.com
Fule River Indian Tribe	Joseph Garfield Environmental Technician	P.O. Box 589	Porterville, CA 93258	joseph.garfield@yahoo.com
Nukchumni Tribal Council	Hector Lalo Franco Director – Cultural Resources Program	4737 West Concord Avenue	Visalia, CA 93277	hlfranco54@gmail.com
Fachi-Yokut Tribe	Greg Cuara Cultural Specialist	P.O. Box 8	Lemoore, CA 93245	gcuara@tachi-yokut-nsn.gov
Dunlap Band of Mono-Indians - Historical Preservation Society	Mandy Marine President	P.O. Box 18	Dunlap, CA 93621	mandy_marine@hotmail.com
Northern Band of Mono Yokuts	Delaine Bill Chairperson	P.O. Box 234	Dunlap, CA 93621	
Cold Springs Tribe	Carol Bill Chair	P.O. Box 209	Tollhouse, CA 93667	csrchair@netptc.net
Cold Springs Tribe	Blossom Hunter Tribal Administrator	P.O. Box 209	Tollhouse, CA 93667	csradmin1@netptc.net
Cold Springs Tribe	Eric Smith Environmental Director	P.O. Box 209	Tollhouse, CA 93667	csrepa@netptc.net
California Indian Basketweavers Association	Linda Navarro Executive Director	428 Main Street	Woodland, CA 95695	ciba@ciba.org
Mono Elder	Keith Turner	P.O. Box 306	Auberry, CA 93602	keithturner1950@yahoo.com

Organization	Name	Street Address	City, State, Zip	Email
North Fork Mono Tribe	Ron Goode Chairman	13396 Tollhouse Road	Clovis, CA 93619	rwgoode911@hotmail.com
Kern Valley Indian Community	Julie Turner Secretary	PO Box 1010	Lake Isabella, CA 93240	administrator@kawaiisu.org
Cern Valley Indian Community	Robert Robinson Chairperson	PO Box 1010	Lake Isabella, CA 93240	bbutterbredt@gmail.com
ubatulabas of Kern Valley	Robert L. Gomez, Jr. Tribal Chairperson	PO Box 226	Lake Isabella, CA 93240	rgomez@tubatulabal.org
Vuksache Indian Tribe / Eshom Valley Band	Kenneth Woodrow Chairperson	1179 Rock Haven Ct.	Salinas, CA 93906	kwood8934@aol.com
icayune Rancheria of Chukchansi Indians	Jennifer Ruiz Chairwoman	P.O. Box 2226	Oakhurst, CA 93644	jruiz@chukchansitribe.net
Vukchumni Tribal Council	Darlene Franco Chairwoman	4737 West Concord Avenue	Visalia, CA 93277	
Dunlap Band of Mono Indians	Dirk Charley Tribal Secretary	5509 East McKenzie Avenue	Fresno, CA 93727	dcharley2016@gmail.com
Dunlap Band of Mono Indians	Benjamin Charley, Jr. Tribal Chairman	470 Winuba Lane	Bishop, CA 93621	charley07@verizon.net
Public				
	Rene Roederer	46468 Mineral King Road	Three Rivers, CA 93271	reneeroederer@gmail.com
Bear Ranch	Daniel Armstrong	616 South Irena Avenue	Redondo Beach, CA 90277	davidarmstrong43@gmail.com
Bear Ranch	Philip Armstrong	1723 Beaver Dam Road	Vilas, NC 28692	
	Autumn Davidson	46262 Mineral King Road	Three Rivers, CA 93271	clarion@value.net
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	Anne Haxton	P. O. Box 811	Three Rivers, CA 93271	mountainviewrealty@sbcglobal.net
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	Mike Hauber	P. O. Box 1116	Three Rivers, CA 93271	m.d.hauber@gmail.com
	Francis Kunz	44229 Kaweah River Drive	Three Rivers, CA 93271	
	Joy Kunz	222 E. Constance Avenue	Santa Barbara, CA 93105	
	D. Eleanor Newman	P.O. Box 66	Three Rivers, CA 93271	redbudacres28@aol.com
	Dana Sun	P.O. Box 276 44229-C Kaweah River Drive	Three Rivers, CA 93271	redbudacres28@aol.com

Organization	Name	Street Address	City, State, Zip	Email
St. Anthony's Retreat	Mike Hand	43816 Sierra Drive	Three Rivers, CA 93271	mike@stanthonyretreat.org
	Betty Wood	P.O. Box 83	Three Rivers, CA 93271	brwood6@sbcglobal.net
	Ben Peña	43815 Dinley Drive	Three Rivers, CA 93271	penarb@sbcglobal.net
	Ginger Curtis	44044 Dinely Drive	Three Rivers, CA 93271	ginger.curtis@att.net
	Robert Ruehling	44044 Dinely Drive	Three Rivers, CA 93271	ruehling@att.net
	Doug Hammer	44751 Dinely Drive	Three Rivers, CA 93271	hhp682@gmail.com
	John Gibler	43459 Sierra Drive	Three Rivers, CA 93271	john.gibler@yahoo.com
	Rudy Nesmith	43429-A Sierra Drive	Three Rivers, CA 93271	rudy@viewpt.com
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	Coleen Bath	43429 Sierra Drive	Three Rivers, CA 93271	monosail@earthlink.net
ake Elowin Resort	Milton Melkonian	43840 Dinely Drive	Three Rivers, CA 93271	catchall@lake-elowin.com
	Jonathan Peltzer	P.O. Box 454 44422 Sierra Drive	Three Rivers, CA 93271	peltzerj@asme.org
	Holly Peltzer	P.O. Box 454 44422 Sierra Drive	Three Rivers, CA 93271	drholly@hughes.net
	Michael Kunz	3244 East Kerckhoff	Fresno, CA 93702	mkunz@fresno.edu
	Uwe Reimer	P.O. Box 1179	Three Rivers, CA 93271	bedbug1@sbcglobal.net
	Nancy Reimer	P.O. Box 1179	Three Rivers, CA 93271	bedbug1@sbcglobal.net
	George Tomi	P.O. Box 572 43875 Dinely Drive	Three Rivers, CA 93271	ctomi3r@gmail.com
	Christy Tomi	P.O. Box 572 43875 Dinely Drive	Three Rivers, CA 93271	ctomi3r@gmail.com
Three Rivers Hideaway	Dave Hammond	43365 Sierra Drive	Three Rivers, CA 93271	info@threerivershideaway.com
	Paul Doose	625 Pier Avenue	Santa Monica, CA 90405	pauldoose@earthlink.net
	Tom Baker	46262 Mineral King Road	Three Rivers, CA 93271	clarion@value.net

Organization	Name	Street Address	City, State, Zip	Email
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	Sue Shanley	44609 Dinely Drive	Three Rivers, CA 93271	
Private				
Sequoia Riverlands Trust	Soapy Mulholland President and CEO	427 S. Garden Street	Visalia, CA 93277	soapy@sequoiariverlands.org
California Water Service, Visalia District	District Manager	216 North Valley Oaks Drive	Visalia, CA 93292	
Consolidated Peoples Ditch Company	James P Silva, Jr,	P.O. Box 366	Farmersville, CA 93223-0366	
Hurley and Laird	Russell Hurley	403 N Floral Street	Visalia, CA 93291	
Minasian, Spruance, Baber, Meith, Soares & Sexton, LLP	Jeffrey Meith Partner	1681 Bird Street	Oroville, CA 95965	
Three Rivers Village Foundation	Tom Sparks	45001 Sierra Drive	Three Rivers, CA 93271	tom.sparks@live.com
The Kaweah Commonwealth	John Elliott	P.O. Box 806	Three Rivers, CA 93271	tkcplanner@gmail.com
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Southern California Edison	Sher Beard	54170 Mountain Spruce	Big Creek, CA 93605	sher.beard@sce.com
Southern California Edison	Derrick Tito			derrick.tito@sce.com

# Attachment C

Technical Study Plan Implementation Summary

Technical Study Plan	Study Elements Completed / Data Collected	Work Group Update	Technical Study Plan Variances	Outstanding Study Elements (Data analysis and reporting schedules are shown on the implementation schedules provided in Attachment D)	Modifications to Ongoing Studies	Proposed New Studies
Aquatic Resources						
AQ 1 – Instream Flow	<ul> <li>Study Site Selection <ul> <li>Selected instream flow modeling sites and transects in consultation with the Aquatic Technical Working Group and in consideration of other relicensing studies.</li> </ul> </li> <li>Data Collection <ul> <li>Conducted channel habitat mapping/reach stratification, river segments, and site selection.</li> <li>Selected habitat units to be modeled in the three reaches.</li> <li>Installed transect locater pins to prepare sites for data collection.</li> <li>Selected reference sites outside the study area (above Kaweah No. 3 Powerhouse; upstream of Kaweah No. 1 Diversion; and below Kaweah No. 2 Powerhouse).</li> <li>Collected data for instream flow modeling (topography, water surface elevations, velocities, substrate, and cover) during high/high-, high-, mid-, and low-flow surveys at 61 transects in 3 reaches.</li> <li>Data collected on instream flow transects will serve as hydraulic data for riparian transects.</li> <li>Collected data on the 3 reference reach sites (topography, water surface elevations, velocities, substrate, and cover) during high/high-, high-, mid-, and low-flow surveys.</li> <li>Collected data on the 3 reference reach sites (topography, water surface elevations, velocities, substrate, and cover) during high/high-, high-, mid-, and low-flow surveys.</li> <li>Completed a riparian survey of all instream flow sites and reference reach sites.</li> <li>Instream flow transects and reference reach transects will be used for geomorphic transects.</li> </ul> </li> </ul>	<ul> <li>March 26, 2018: Conducted Aquatic Resources Technical Working Group to select instream flow modeling sites and transects.</li> <li>June 8, 2018: Conducted Aquatic Resources Technical Working Group to select study sites and specific habitat units and transects to model; obtain concurrence on cross-section placement within mesohabitat units; and select location and lengths of reach study sites.</li> <li>June 25, 2018: Conducted site visit with interested agencies and Aquatic Technical Working Group participants.</li> </ul>	• None	<ul> <li>Target Species and/or Guilds <ul> <li>Prepare a species distribution map for fish, special-status amphibians and reptiles, and riparian resources within the bypass river segments.</li> <li>Develop a life stage periodicity chart for aquatic species and riparian vegetation present in each study reach.</li> <li>Select species and life stages (and/or guilds) used for instream flow habitat modeling in collaboration with interested resource agencies.</li> </ul> </li> <li>Habitat Suitability Criteria <ul> <li>Confirm that HSC developed for the relicensing of Placer County Water Agency's Middle Fork Project can be used for Kaweah Project habitat modeling.</li> </ul> </li> <li>Hydrodynamics Modeling <ul> <li>Complete hydrodynamics modeling.</li> </ul> </li> <li>Habitat Modeling <ul> <li>Complete habitat modeling.</li> </ul> </li> <li>Technical Working Group <ul> <li>Conduct a Technical Working Group meeting to review field studies and select habitat suitability criteria, periodicity charts, and habitat modeling methods.</li> </ul> </li> <li>Data Analysis and Reporting <ul> <li>Analyze data and prepare Draft AQ 1 – TSR.</li> <li>Distribute Draft AQ 1 – TSR for stakeholder review, address comments, finalize, and distribute Final AQ 1 – TSR.</li> </ul> </li> </ul>	• None	• None
AQ 2 – Fish Population	<ul> <li>Study Site Selection</li> <li>Selected fish population sampling sites in consultation with the Aquatic Technical Working Group.</li> <li>Special-Purpose Qualitative Sampling</li> <li>Conducted two of three qualitative surveys for fry emergence in the vicinity of Project diversion (6 sites) (June and July).</li> <li>Kaweah River upstream/downstream of Kaweah No. 2 Diversion</li> <li>East Fork Kaweah River upstream/downstream of the Kaweah No. 1 Diversion</li> <li>Middle Fork Kaweah River upstream of Middle Fork Diversion</li> <li>Marble Fork Kaweah River upstream of Marble Fork Diversion</li> </ul>	<ul> <li>March 26, 2018: Conducted Aquatic Resources Technical Working Group to select fish population sampling sites.</li> </ul>	<ul> <li>Survey Timing</li> <li>Due to delays in acquisition of a scientific collection permit, the early May fry emergence sampling was not able to be performed. SCE will analyze results of the June/July sampling and consult with interested agencies and Aquatic Technical Working Group participants to make a determination on whether a third sampling is necessary.</li> </ul>	<ul> <li>River Sampling <ul> <li>Conduct quantitative river sampling (electrofishing and/or snorkeling) at 8 sites (October).</li> </ul> </li> <li>Special-Purpose Qualitative Sampling <ul> <li>Determine need to conduct third fry emergence sampling.</li> </ul> </li> <li>Data Analysis and Reporting <ul> <li>Analyze data and prepare Draft AQ 2 – TSR.</li> <li>Distribute Draft AQ 2 – TSR for stakeholder review, address comments, finalize, and distribute Final AQ 2 – TSR.</li> </ul> </li> <li>Data Distribution <ul> <li>Provide an electronic database of fish sampling data to the BLM, resource agencies, and interested stakeholders.</li> </ul> </li> </ul>	• None	• None

Technical Study Plan	Study Elements Completed / Data Collected	Work Group Update	Technical Study Plan Variances	Outstanding Study Elements (Data analysis and reporting schedules are shown on the implementation schedules provided in Attachment D)	Modifications to Ongoing Studies	Proposed New Studies
	Study Site Selection	<ul> <li>March 26, 2018: Conducted Aquatic Resources Technical Working Group to select</li> </ul>	<ul> <li>Report Distribution</li> <li>Distribution of the Draft AQ 3 – TSR to</li> </ul>	Macroinvertebrate Drift Sampling for Input to Bioenergetics Analysis	None	None
	<ul> <li>Selected macroinvertebrate sampling sites in consultation with the Aquatic Technical Working</li> </ul>	macroinvertebrate sampling sites.	additional time for laboratory results to be returned and analysis of data. The updated schedule is provided in Attachment D.	Collect second drift samples at 8 sites (October).		
	Group.			Data Analysis and Reporting		
	Macroinvertebrate Drift Sampling for Input to Bioenergetics Analysis			Analyze data and prepare Draft AQ 3 – TSR.		
	Collected the first of two drift samples at 8 sites (August).			<ul> <li>Distribute Draft AQ 3 – TSR for stakeholder review, address comments, finalize, and distribute Final AQ 3 – TSR.</li> </ul>		
Q 3 – Macroinvertebrates	<ul> <li>Submitted macroinvertebrate samples to the laboratory for identification.</li> </ul>			Data Distribution		
	Benthic Macroinvertebrate Sampling for General Habitat Conditions			<ul> <li>Provide an electronic database of drift and benthic invertebrate data to BLM, resource agencies, and interested stakeholders.</li> </ul>		
	<ul> <li>Collected Surface Water Ambient Monitoring Program (SWAMP) benthic samples and inventory data at 8 sites (August).</li> </ul>					
	• Submitted benthic macroinvertebrate samples to the laboratory for identification.					
	General Modeling		Report Distribution	General Modeling	None	None
	<ul> <li>Collected water temperature and meteorological data (2018).</li> </ul>	•	<ul> <li>Distribution of the Draft AQ 4 – TSR to stakeholders for review has been delayed to allow additional time for data collection as a result of temperature logger malfunction and/or vandalism. The updated schedule is provided in Attachment D.</li> </ul>	<ul> <li>Continue to collect water temperature and meteorological data.</li> </ul>		
				Establish a Water Temperature Modeling Group.		
				<ul> <li>Summarize water temperature and meteorological data collected as part of SCE's early data collect (2016).</li> </ul>		
				<ul> <li>Select and develop appropriate river water temperature models.</li> </ul>		
				<ul> <li>Collect and develop model inputs (i.e., channel geometry, solar shading data, meteorological data, hydrology data, and boundary condition flow and water temperature data for the modeled reaches).</li> </ul>		
				• Calibrate and validate the hydrodynamics and heat budget portions of the model(s).		
AQ 4 – Water Temperature				<ul> <li>Characterize modeled water temperatures for existing and alternative flow conditions.</li> </ul>		
				Climate Change		
				<ul> <li>Consider predictions of changes in air temperature resulting from global warming in 2 or 3 of the model runs.</li> </ul>		
				Cold Water Refugia		
				<ul> <li>Collect water temperature data at tributary inflows and in deep pools to identify potential availability of water temperature refugia for trout.</li> </ul>		
				Data Analysis and Reporting		
				<ul> <li>Analyze data and prepare Draft AQ 4 – TSR.</li> </ul>		
				<ul> <li>Distribute Draft AQ 4 – TSR for stakeholder review, address comments, finalize, and distribute Final AQ 4 – TSR.</li> </ul>		

Technical Study Plan	Study Elements Completed / Data Collected	Work Group Update	Technical Study Plan Variances	Outstanding Study Elements (Data analysis and reporting schedules are shown on the implementation schedules provided in Attachment D)	Modifications to Ongoing Studies	Proposed New Studies
	Study Site Selection	June 8, 2018: Conducted Aquatic Resources	Survey Timing	Sediment Conditions in Bypass Reaches	None	None
	Selected geomorphic and riparian quantitative transects in consultation with the Aquatic Technical Warking Crown	Technical Working Group to select geomorphic and riparian quantitative transects.	<ul> <li>The AQ 5 – TSP identified timing for conducting the sediment survey and hydrology analysis from</li> </ul>	<ul> <li>Conduct quantitative visual estimates of residual fine sediment (V*).</li> </ul>		
	Working Group. Sediment Conditions in Bypass Reaches		November 2017 to August 2018. Additional time (through October 2018) is needed to complete	<ul> <li>Analyze and summarize particle size composition of bulk spawning gravels collected.</li> </ul>		
	<ul> <li>Collected 32 bulk spawning gravel samples at 8 sites to determine particle size composition and fine sediment content.</li> </ul>		<ul> <li>surveys and analysis. The updated schedule is provided in Attachment D.</li> <li>Compare particle size compositions and fine sediment content to standards from the scientific literature.</li> </ul>			
	Sediment Capture in Project Diversions			Sediment Capture in Project Diversions		
	<ul> <li>Collected sub-surface bulk samples at Project diversions to determine particle size composition.</li> </ul>			<ul> <li>Summarize existing sediment management conducted at Project diversions.</li> </ul>		
	Identify Sources of Sediment and Document         Project-Related Erosion         • Conducted aerial reconnaissance of Project- related erosion.		Identify Flows Necessary to Maintain Geomorphic Processes in Bypass River Reaches			
			Compare impaired and unimpaired hydraulic regimes in bypass river reaches.			
AQ 5 – Geomorphology				<ul> <li>Identify initiation of sediment transport flows at the geomorphic and riparian quantitative transects and instream flow transects using the hydraulic models developed for the AQ 1 – TSP.</li> </ul>		
				Identify Sources of Sediment and Document Project-Related Erosion		
				<ul> <li>Document and map the location and relative abundance of sediment recruitment to channels from hillslope mass-wasting and bank erosion processes in the bypass river reaches.</li> </ul>		
				<ul> <li>Map historic and/or ongoing erosion resulting from spills at Project forebays, existing canal and flume releases, or historic flume failures.</li> </ul>		
				Data Analysis and Reporting		
				<ul> <li>Analyze data and prepare Draft AQ 5 – TSR.</li> </ul>		
				<ul> <li>Distribute Draft AQ 5 – TSR for stakeholder review, address comments, finalize, and distribute Final AQ 5 – TSR.</li> </ul>		
	In-situ Field Measurements and General Water		None	Data Analysis and Reporting	None	None
	Quality Sampling     Collected in-situ and general water quality			Analyze data and prepare Draft AQ 6 – TSR.		
	measurements at 16 sites in spring (May) and fall (August).			<ul> <li>Distribute Draft AQ 6 – TSR for stakeholder review, address comments, finalize, and distribute Final AQ 6 – TSR.</li> </ul>		
	Coliform Sampling					
AQ 6 – Water Quality	<ul> <li>Collected fecal coliform samples immediately above and below the river access area near the Kaweah No. 2 Powerhouse (Edison Beach) five times in July.</li> </ul>					
	Laboratory Analysis and Reporting					
	<ul> <li>Provided water quality samples to State-certified laboratories approved by the State Water Resources Control Board for chemical analyses.</li> </ul>					

Technical Study Plan	Study Elements Completed / Data Collected	Work Group Update	Technical Study Plan Variances	Outstanding Study Elements (Data analysis and reporting schedules are shown on the implementation schedules provided in Attachment D)	Modifications to Ongoing Studies	Proposed New Studies
	Study Site Selection	March 26, 2018: Conducted Aquatic Resources	Report Distribution	Foothill Yellow-Legged Frog (FYLF)	None	None
in consultation with the Group. Foothill Yellow-Legged Fro Identified and mapped p and rearing habitat in th Completed a habitat cha sites and comparison si	<ul> <li>Selected foothill yellow-legged frog modeling sites in consultation with the Aquatic Technical Working Group.</li> </ul>	Technical Working Group to select FYLF modeling sites.	<ul> <li>Distribution of the Draft AQ 7 – TSR to stakeholders for review has been delayed to allow additional time for data analysis and modeling.</li> </ul>	<ul> <li>Develop life stage periodicity chart for FYLF that identifies the season of the year when each life stage is likely to be present within the study area.</li> </ul>		
	<ul> <li>Foothill Yellow-Legged Frog (FYLF)</li> <li>Identified and mapped potential FYLF breeding</li> </ul>		The updated schedule is provided in Attachment D.	<ul> <li>Evaluate habitat suitability for FYLF egg masses and tadpoles under alternative flow regimes.</li> </ul>		
	<ul> <li>and rearing habitat in the study area.</li> <li>Completed a habitat characterization of the study sites and comparison sites and developed GIS map of potential FYLF habitat.</li> </ul>			<ul> <li>Evaluate output from water temperature modeling and compare changes in average, maximum, and minimum daily temperatures in FYLF breeding and rearing habitat between alternative flow regimes.</li> </ul>		
	<ul> <li>Identified and mapped known occurrences of FYLF</li> </ul>			Western Pond Turtle (WPT)		
AQ 7 – Special-Status Amphibians and Aquatic	<ul> <li>within the study area.</li> <li>Conducted three quantitative surveys at 8 sites: one survey in April and one survey in May for the detection of eggs and early tadpoles; and one survey in September to detect older tadpoles and</li> </ul>			<ul> <li>Evaluate output from water temperature modeling and compare changes in water temperature (average, maximum, and minimum) near potential WPT nesting habitats between unimpaired and impaired flow regimes.</li> </ul>		
Reptiles	young-of-the-year.			Data Analysis and Reporting		
	<ul> <li>Conducted qualitative surveys once during breeding season and once during the fall to detect</li> </ul>			• Analyze data and prepare Draft AQ 7 – TSR.		
	young-of-the-year. Western Pond Turtle (WPT)			<ul> <li>Distribute Draft AQ 7 – TSR for stakeholder review, address comments, finalize, and distribute Final AQ 7 – TSR.</li> </ul>		
	<ul> <li>Identified and mapped known occurrences of WPT within the study area.</li> </ul>			<ul> <li>Prepare and submit California Native Species Field Survey Forms for all FYLF and WPT recorded to California Natural Diversity Database (CNDDB).</li> </ul>		
	<ul> <li>Recorded sightings of WPT during implementation of aquatic technical studies.</li> </ul>			Data Distribution		
	<ul> <li>Developed a GIS map of potential WPT nesting habitat locations in the study area.</li> </ul>			<ul> <li>Provide an electronic database of FYLF and WPT sampling data to BLM, resource agencies, and</li> </ul>		
	<ul> <li>Conducted a field reconnaissance survey of potential nesting locations.</li> </ul>			interested stakeholders.		
	None		None	Data Collection	None	None
				Identify and classify potential fish passage barriers in bypass river reaches.		
				Conduct field surveys (November).		
				Evaluate fish passage at the potential Project- related fish barriers during the base-flow (low-flow) period.		
AQ 8 – Fish Passage				<ul> <li>In collaboration with resource agencies, identify Project-related barriers, if any, which require hydrodynamic modeling to assess fish passage over a range of flows.</li> </ul>		
				Collect hydrodynamics data, if necessary.		
				Data Analysis and Reporting		
				Analyze data and prepare Draft AQ 8 – TSR.		
				<ul> <li>Distribute Draft AQ 8 – TSR for stakeholder review, address comments, finalize, and distribute Final AQ 8 – TSR.</li> </ul>		

Technical Study Plan	Study Elements Completed / Data Collected	Work Group Update	Technical Study Plan Variances	Outstanding Study Elements (Data analysis and reporting schedules are shown on the implementation schedules provided in Attachment D)	Modifications to Ongoing Studies	Proposed New Studies
AQ 9 – Entrainment	Study Sampling Periods <ul> <li>Selected representative sampling periods with the Aquatic Technical Working Group.</li> </ul>	<ul> <li>June 8, 2018: Conducted Aquatic Resources Technical Working Group to identify representative sampling periods.</li> </ul>	<ul> <li>Study Approach Refinement</li> <li>Initial entrainment sampling was conducted in Kaweah Nos. 2 and 3 flowlines on June 19-20, 2018. Sampling in Kaweah No. 3 Flowline resulted in overtopping and undermining of the flowline upstream of the Kaweah No. 3 Forebay and termination of the entrainment sampling. Post study review identified potential high risk of damage to infrastructure and the environment related to entrainment sampling in the Kaweah No. 3 Flowline. Issues of concern are (1) lack of freeboard in the flow line under normal operations; (2) steep topography along the flowline; (3) remote sampling locations; and (4) lack of access to equipment to assist in installing, cleaning, and removing entrainment nets.</li> <li>Due to the high risk associated with Kaweah No.3 Flowline, the study proposes to use entrainment monitoring in the Kaweah No. 2 Flowline as a surrogate for entrainment in Kaweah No. 3 Flowline.</li> <li>In addition, due to a landslide that damaged the Kaweah No. 1 Flowline in July 2018, the Project is currently not diverting water from the East Fork Kaweah River. The timing of the entrainment study on the Kaweah No. 1 Flowline is contingent upon its repair.</li> </ul>	<ul> <li>Technical Working Group</li> <li>Conduct meeting with interested agencies and Aquatic Technical Working Group on revised study approach.</li> <li>Data Collection <ul> <li>Conduct field data collection.</li> </ul> </li> <li>Data Analysis and Reporting <ul> <li>Analyze data and prepare Draft AQ 9 – TSR.</li> <li>Distribute Draft AQ 9 – TSR for stakeholder review, address comments, finalize, and distribute Final AQ 9 – TSR.</li> </ul> </li> </ul>	The revised study plan will be distributed to interested agencies and stakeholders for review in October 2018.	• None
Cultural Resources						
CUL 1 – Cultural Resources: Built Environment	<ul> <li>Establishment of Study Area</li> <li>Consulted with Technical Working Group regarding development of the Study Area / Area of Potential Effects (APE) for historic period built environment resources.</li> <li>Consulted with the State Historic Preservation Officer (SHPO) regarding establishment of the APE. SHPO concurrence with the APE was received on May 3, 2018.</li> <li>Cultural Resource Inventory</li> <li>Identified and relocated all known historic period built environment cultural resources in the Project APE.</li> <li>Conducted a California Historical Resources Information System (CHRIS) Record Search for the entirety of APE and a one mile buffer area surrounding APE.</li> <li>Coordinated with the BLM Bakersfield Field Office regarding records held for historic period built environment cultural resources in the Project APE.</li> <li>Reviewed records of the Tulare County Historical Society and Three Rivers Historical Society for historic period built environment cultural resources in the Project APE.</li> <li>Reviewed Records held by SCE regarding historic period built environment cultural resources in the Project APE.</li> </ul>	<ul> <li>March 20, 2018: Conducted Cultural Resources Technical Working Group to address historic period built environment resources in the Project APE.</li> </ul>	<ul> <li>Report Distribution</li> <li>The TSR for the CUL-1 Study will be distributed as three separate reports – Built Environment, Archaeology, and Ethnography to aid in clarity and ease of stakeholder review. This refinement will delay distribution of the reports as identified in the CUL – 1 TSP. The updated schedule is provided in Attachment D.</li> <li>Survey Timing</li> <li>Archaeological inventory and survey was conducted in May and June 2018 instead of April and May. The updated schedule is provided in Attachment D.</li> <li>Study Approach Refinement</li> <li>Implementation of the CUL 1 – TSP included the addition of a one-mile CHRIS record search buffer surrounding the APE to provide additional contextual information for resources in the APE.</li> <li>Historic period built environment resources associated with the Kaweah Hydroelectric Project in Sequoia National Park (SNP) were inventoried and evaluated for NRHP eligibility because these resources are contextually associated with historic period built environment resources in the Project APE.</li> </ul>	<ul> <li>Reporting <ul> <li>Distribute Draft CUL 1 – Built Environment Inventory and Evaluation TSR for stakeholder review, address comments, finalize, and distribute Final CUL 1 – Built Environment TSR.</li> </ul> </li> <li>Technical Working Group <ul> <li>Conduct a Technical Working Group meeting to review field studies and TSR comments.</li> </ul> </li> </ul>	• None	• None

Technical Study Plan	Study Elements Completed / Data Collected	Work Group Update	Technical Study Plan Variances	Outstanding Study Elements (Data analysis and reporting schedules are shown on the implementation schedules provided in Attachment D)	Modifications to Ongoing Studies	Proposed New Studies
	Identified Kaweah Project facilities and features that were not previously evaluated for the National Register of Historical Places (NRHP).					
	<ul> <li>Conducted site visits to all historic period built environment cultural resources in the Project APE.</li> </ul>					
	<ul> <li>Documented existing conditions of all historic period built environment cultural resources in the Project APE.</li> </ul>					
	<ul> <li>Accurately mapped all historic period built environment cultural resources in the Project APE.</li> </ul>					
	<ul> <li>Updated previous Site Records (DPR 523) for all historic period built environment cultural resources in the Project APE.</li> </ul>					
	<ul> <li>Created new site records (DPR 523) for all historic period built environment cultural resources in the Project APE that had not previously been documented.</li> </ul>					
	NRHP Eligibility Studies					
	<ul> <li>Assessed the need for NRHP eligibility studies for historic period built environment cultural resources in the Project APE in consultation with the Technical Working Group.</li> </ul>					
	<ul> <li>Conducted NRHP evaluation and update evaluation studies for all historic period built environment cultural resources in the Project APE.</li> </ul>					
	Establishment of Study Area	March 20, 2018: Conducted Cultural Resources	<ul> <li>See above under CUL – 1 Built Environment</li> </ul>	Reporting	None	None
	Consulted with Technical Working Group regarding development of the Study Area / APE for archaeological resources.	Technical Working Group to address archaeological resources in the Project APE.		<ul> <li>Distribute Draft CUL 1 – Archaeological Inventory TSR for stakeholder review, address comments, finalize, and distribute Final CUL 1 – Archaeological Inventory TSR.</li> </ul>		
	<ul> <li>Consulted with the SHPO regarding establishment of the APE. SHPO concurrence with the APE was received on May 3, 2018.</li> </ul>			<ul> <li>Distribute Draft CUL 1 – Archaeological NRHP Evaluation TSR for stakeholder review, address</li> </ul>		
	Cultural Resource Inventory			comments, finalize, and distribute Final CUL 1 – Archaeological NRHP Evaluation TSR.		
	<ul> <li>Identified and relocated all known archaeological cultural resources in the Project APE.</li> </ul>			Technical Working Group		
	Conducted a CHRIS Record Search for the entirety of APE and a 1-mile buffer area surrounding APE.			<ul> <li>Conduct a Technical Working Group meeting to review field studies and Archaeological Inventory TSR comments and assess the needs for</li> </ul>		
CUL 1 – Cultural	<ul> <li>Coordinated with the BLM Bakersfield Field Office regarding records held for archaeological cultural resources in the Project APE.</li> </ul>			archaeological NRHP evaluation. NRHP Evaluation Studies		
esources: Archaeology	<ul> <li>Reviewed records held by SCE regarding archaeological cultural resources in the Project APE.</li> </ul>			Develop NRHP Evaluation Plan that identifies the specific resources to be evaluated and the		
	<ul> <li>Conducted site visits to relocate all known archaeological cultural resources in the Project APE.</li> </ul>			<ul><li>evaluation methods.</li><li>Conduct NRHP evaluation studies for</li></ul>		
	<ul> <li>Documented existing conditions of all previously documented archaeological cultural resources in the Project APE.</li> </ul>			archaeological resources that are determined through consultation with Technical Working Group to require NRHP eligibility analysis.		
	<ul> <li>Conducted field surveys in areas not previously surveyed to identify new archaeological cultural resources in the APE.</li> </ul>					
	<ul> <li>Conducted field surveys in areas where previous survey was outdated and required resurvey to current standards.</li> </ul>					
	<ul> <li>Accurately mapped all archaeological cultural resources in the Project APE.</li> </ul>					

Technical Study Plan	Study Elements Completed / Data Collected	Work Group Update	Technical Study Plan Variances	Outstandin (Data analysis and report implementation schedu
	<ul> <li>Updated previous Site Records (DPR 523) for all previously documented archaeological cultural resources in the Project APE.</li> </ul>			
	<ul> <li>Created new site records (DPR 523) for all archaeological cultural resources in the Project APE that had not previously been documented.</li> </ul>			
	Establishment of Study Area	March 20, 2018: Conducted Cultural Resources	• See above under CUL 1 – Built Environment.	Reporting
	<ul> <li>Consulted with the SHPO regarding establishment of the APE. SHPO concurrence with the APE was received on May 3, 2018.</li> </ul>	Technical Working Group to address ethnographic resources in the Project APE.		<ul> <li>Distribute Draft CUL and Evaluation TSR address comments, CUL 1 – Ethnograph</li> </ul>
	Develop Ethnographic Information     Obtained, compiled, reviewed, and summarized			Evaluation TSR.
	existing ethnographic information.			Ethnographic Interview
CUL 1 – Cultural Resources: Ethnography	<ul> <li>Conducted Sacred Lands File Search with the Native American Heritage Commission (NAHC).</li> </ul>			Complete necessary     interviews.
rtesources. Ethnography	Consulted with Tribal representatives to identify			Technical Working Gro
	properties, plants, and other resources of traditional cultural or religious importance to Native Americans.			Conduct a Technica review field studies comments.
				NRHP Evaluation Studi
				Conduct NRHP eva resources that are of to require NRHP eva
Land Resources				
	Project Roads and Trails		Study Approach Refinement	Helicopter Landing Site
	<ul> <li>Identified and mapped all Project roads and trails used by SCE to access Project facilities.</li> </ul>		<ul> <li>The estimated useful remaining life span of surface treatments and erosion and drainage features on Project roads and trails was eliminated from the</li> </ul>	Characterize the fre helicopter landing si
	<ul> <li>Consulted with the BLM to determine if any Project roads and trails have been previously inventoried and assessed by BLM.</li> </ul>	Project roads and trails roject facilities. o determine if any Project n previously inventoried o characterize the current and trails, and their	assessment. It was determined that the useful remaining lifespan of surface treatments and	Describe associated activities.     Data Analysis and Repo
Land Resources	<ul> <li>Conducted field surveys to characterize the current condition of Project roads and trails, and their associated drainage features.</li> </ul>		erosion and drainage features was subjective and could change dramatically depending on the severity of local conditions (i.e., heavy equipment use or severe storms).	<ul><li>Analyze data and pr</li><li>Distribute Draft LAN</li></ul>
	<ul> <li>Characterized SCE's uses of Project roads and trails.</li> </ul>			review, address con Final LAND 1 – TSF
LAND 1 – Transportation System	<ul> <li>Characterized other uses of Project roads and trails.</li> </ul>			<ul> <li>Data Distribution</li> <li>Provide data and initial developed as part of the second second</li></ul>
System	<ul> <li>Characterized SCE's maintenance practices, responsibilities, and schedules.</li> </ul>			appropriate.
	<ul> <li>Identified existing agreements between SCE, the BLM, Tulare County, and private property owners, as applicable, related to Project roads and trails.</li> </ul>			
	Helicopter Landing Sites			
	<ul> <li>Identify and map the location of helicopter landing sites used for routine operation and maintenance of the Project.</li> </ul>			
	Data Analysis and Reporting			
	<ul> <li>Analyzed data and began preparing Draft LAND 1 – TSR.</li> </ul>			

ing Study Elements orting schedules are shown on the dules provided in Attachment D)	Modifications to Ongoing Studies	Proposed New Studies
UL 1 – Ethnographic Inventory SR for stakeholder review, ts, finalize, and distribute Final aphic Inventory and	None	None
ews and Field Visits		
ary ethnographic field visits and		
<b>roup</b> ical Working Group meeting to es and Ethnographic TSR		
dies		
valuation studies for ethnographic e determined through consultation evaluation.		
ites	None	None
frequency and seasonality of site use.		
ted Project-related maintenance		
eporting		
prepare Draft LAND 1 – TSR.		
AND 1 – TSR for stakeholder comments, finalize, and distribute SR.		
information about roads and trails t of this study to the BLM, as		

Technical Study Plan	Study Elements Completed / Data Collected	Work Group Update	Technical Study Plan Variances	Outstanding Study Elements (Data analysis and reporting schedules are shown on the implementation schedules provided in Attachment D)	Modifications to Ongoing Studies	Proposed New Studies
	Visual Resource Study		Survey Timing	Data Analysis and Reporting	None	None
	<ul> <li>Compiled and summarized pertinent BLM, Tulare County, and NPS management direction regarding visual resources.</li> </ul>		occur until September 2018 because SCE did not have any scheduled helicopter use in the vicinity of	<ul> <li>Analyze data and prepare Draft LAND 2 – TSR.</li> <li>Distribute Draft LAND 2 – TSR for stakeholder review, address comments, finalize, and distribute</li> </ul>		
	<ul> <li>Prepared maps showing Project facilities with respect to visual resource inventory information and corresponding tables.</li> </ul>	the noise measurement locations prior to this time.	Final LAND 2 – TSR.			
	<ul> <li>Identified and mapped Key Observation Points (KOP) in consultation with the BLM, Tulare County, and NPS.</li> </ul>					
	<ul> <li>Evaluated the existing visual condition (EVC) of any newly constructed or substantially modified Project facilities (post-1989) with respect to existing visual landscape.</li> </ul>					
	<ul> <li>Used contrast ratings to determine whether the EVC of Project facilities meets the established visual resource management objectives.</li> </ul>					
	<ul> <li>Used contrast ratings to determine visual compatibility with surrounding landscape.</li> </ul>					
	Helicopter Noise Study					
	<ul> <li>Identified and documented Tulare County, BLM, and NPS noise policies and criteria.</li> </ul>					
	<ul> <li>Identified specific noise-sensitive locations in consultation with the NPS.</li> </ul>					
AND 2 – Aesthetic esources	Described SCE routine operation and maintenance activities that involve helicopter use.					
	<ul> <li>Conducted noise measurements at Indian Head Trailhead Parking and Foothill Visitor Center (within the SNP) during use of helicopter associated with the Kaweah No. 3 Penstock Repair Project.</li> </ul>					
	<ul> <li>Compared noise measurement results to established noise criteria.</li> </ul>					
	Kaweah No. 3 Forebay Spill Study					
	<ul> <li>Described circumstances under which spills occur at the Kaweah No. 3 Forebay.</li> </ul>					
	<ul> <li>Consulted with NPS to identify specific location(s) where spill noise and/or visual condition is a concern.</li> </ul>					
<ul> <li>Conducted noise measurements at Indian Head Trailhead Parking and Foothill Visitor Center (within the SNP) during a planned spill event at the Kaweah No. 3 Forebay.</li> </ul>						
	<ul> <li>Compared noise measurement results to established noise criteria.</li> </ul>					
	<ul> <li>Photographed visual condition during the spill event for comparison during non-spill events.</li> </ul>					
	Data Analysis and Reporting					
	<ul> <li>Analyzed data and began preparing Draft LAND 2 – TSR.</li> </ul>					

Technical Study Plan	Study Elements Completed / Data Collected	Work Group Update	Technical Study Plan Variances	Outstanding (Data analysis and reporting implementation schedul
LAND 3 – Land Use	<ul> <li>Identify Infrastructure <ul> <li>Identified and mapped all existing fences, gates, cattle guards, bridges, watering troughs, escape ramps in the immediate vicinity of Project facilities.</li> <li>Conducted field surveys to characterize the current condition of the aforementioned infrastructure.</li> </ul> </li> <li>Characterize Maintenance Practices and Responsibilities <ul> <li>Characterized SCE's maintenance practices, responsibilities, and schedules for exclusionary fencing and safety measures.</li> <li>Identified existing agreements between SCE, the BLM, Tulare County, and private property owners.</li> </ul> </li> <li>Identified and described existing programs and measures implemented by SCE for public health and safety (i.e., fencing, barriers, gates, buoy lines, escape ropes, signage, and alarms).</li> <li>Described condition of the existing safety features.</li> </ul> Data Analysis and Reporting <ul> <li>Analyzed data and began preparing Draft LAND 3 – TSR.</li> </ul>		• None	<ul> <li>Assess Livestock Morta</li> <li>Review mammal moincidents.</li> <li>Identify Public Safety M</li> <li>Characterize and do location of safety incidents of the vicinity of the Property of the Property of the Vice of the vicinity of the Property of the Vice of the</li></ul>
Recreation Resources				1
REC 1 – Recreation Resources	<ul> <li>Inventory Existing Recreation Facilities/Areas</li> <li>Identified and mapped developed recreation facilities located in the Kaweah River Watershed.</li> <li>Utilized existing information sources to describe each recreation facility.</li> <li>Described SCE's Kaweah No. 2 Powerhouse River Access Area (Edison Beach).</li> <li>Characterize Existing Use and Opportunities in the Vicinity of the Kaweah Project</li> <li>Utilized existing information to characterize recreation opportunities and use levels in the immediate vicinity of the Kaweah Project facilities and along the bypass reaches.</li> <li>Consulted with BLM on the installation location of a trail camera at Craig Ranch Road/Salt Creek Road.</li> <li>Installed trail camera to determine frequency and timing of non-motorized use of Craig Ranch Road/Salt Creek Road and the Project access road to the Kaweah No. 1 Forebay Tank.</li> <li>Conducted visitor use counts to estimate recreation use at the Kaweah No. 2 Powerhouse River Access Area (Edison Beach).</li> <li>Installed a trail camera to augment visitor count data collection efforts.</li> <li>Characterize Potential User Conflicts</li> <li>Interviewed recreation users, if present during recreation camera data downloading, to document any concerns and issues related to motorized use along Craig Ranch Road/Salt Creek Road.</li> </ul>		<ul> <li>Survey Approach Refinement <ul> <li>Following consultation with the BLM, it was determined that only one trail camera would be necessary along Salt Creek Road.</li> <li>To augment visitor counts at the Kaweah No. 2 Powerhouse River Access Area (Edison Beach), a trail camera was installed at the parking area to record visitor use.</li> </ul> </li> <li>Survey Timing <ul> <li>Due to delays in data collection efforts, visitor counts will be conducted through March 2019 to collect a full year of data, and private property owner interviews will occur in November 2018.</li> </ul> </li> <li>Report Distribution <ul> <li>Distribution of the Draft REC 1 – TSR to stakeholders for review has been delayed because of the late start of data collection and need for additional time to complete data analysis. The updated schedule is provided in Attachment D.</li> </ul></li></ul>	<ul> <li>Inventory Existing Recret</li> <li>Assess the condition Powerhouse River A relative to current Tu accessibility standard</li> <li>Characterize Existing US Vicinity of the Kaweah F</li> <li>Continue recreation to collection.</li> <li>Characterize Potential U</li> <li>Interview Tulare Cou planners to identify of between recreation to owners in the vicinity</li> <li>Interview property ow potential concerns at use at the Kaweah N Access Area (Edisor</li> <li>Estimate Future Recreate the Project</li> <li>Utilize census data a identify population pri outdoor recreation us</li> <li>Utilize use estimates population projection needs over the licens</li> <li>Determine whether fi met in vicinity of Proj</li> </ul>

ing Study Elements orting schedules are shown on the dules provided in Attachment D)	Modifications to Ongoing Studies	Proposed New Studies
rtality	None	None
nortality records for livestock		
Measures		
document the number, type, and incidents that have occurred in Project.		
porting		
prepare Draft LAND 3 – TSR.		
ND 3 – TSR for stakeholder omments, finalize, and distribute SR.		
creation Facilities/Areas	None	None
ion of the Kaweah No. 2	• None	• None
r Access Area (Edison Beach) Tulare County design and lards.		
Use and Opportunities in the h Project		
on use surveys and data		
I User Conflicts		
County land use/recreation y concerns related to conflicts n users and private property nity of the Kaweah Project.		
owners to identify and document and issues related to recreation No. 2 Powerhouse River son Beach).		
eation Needs in the Vicinity of		
a and existing information to projections and to document n use trends and needs.		
tes along with trends and ions to estimate future recreation ense period.		
er future recreation needs can be Project.		

Technical Study Plan	Study Elements Completed / Data Collected	Work Group Update	Technical Study Plan Variances	Outstanding Study Elements (Data analysis and reporting schedules are shown on the implementation schedules provided in Attachment D)	Modifications to Ongoing Studies	Proposed New Studies
				Identify Public Safety Measures		
				<ul> <li>Characterize and document the number, type, and location of safety incidents that have occurred in the vicinity of the Project.</li> </ul>		
				<ul> <li>Identify and describe existing programs and measures implemented by SCE for public health and safety (i.e., buoy lines, escape ropes, signage, and alarms).</li> </ul>		
				Describe condition of the existing safety features.		
				• Identify and map the locations of existing helicopter landing sites in the vicinity of the Project.		
				Data Analysis and Reporting		
				<ul> <li>Distribute Draft REC 1 – TSR for stakeholder review, address comments, finalize, and distribute Final REC 1 – TSR.</li> </ul>		
	Develop Information about Whitewater Resources	April 3, 2018: Conducted Whitewater Boating	Report Distribution	Site Visit	None	None
	<ul> <li>and Hydrology</li> <li>Characterized existing whitewater boating opportunities and use on the bypass reaches, based on existing published information sources.</li> <li>Summarized commercial and private whitewater boating use on the bypass reaches.</li> </ul>	Focus Group Meeting (WBFG) to develop additional information about whitewater boating opportunities.	<ul> <li>The REC 2 – TSP identifies preparation of a whitewater boating opportunities summary report and distribution to stakeholders for review prior to the WBFG meeting. This information was developed and incorporated into the WBFG meeting presentation, however, a summary report use not distributed to the WBFC</li> </ul>	<ul> <li>The TSP states that, if necessary, a site visit will be conducted with experienced commercial and private whitewater boaters. The decision to conduct a site visit was to be made after the WBFG meeting. At the WBFG meeting, it was determined that a site visit would not be needed at the time and move not be werented depending.</li> </ul>		
REC 2 – Whitewater	Conducted a hydrology assessment.		was not distributed to the WBFG members prior to the meeting.	this time, and may not be warranted depending upon review of the REC 2 – TSR. If it is		
Boating	Identified flow dissemination mechanisms.		<ul> <li>Distribution of the Draft REC 2 – TSR to</li> </ul>	determined that a site visit is necessary, it will be		
	<ul> <li>Determined, in consultation with the Whitewater Boating Focus Group, that whitewater boating flow studies are not required to establish and/or refine boatable flow ranges.</li> </ul>		stakeholders for review has been delayed to allow additional time to complete data analysis. The updated schedule is provided in Attachment D.	<ul> <li>scheduled in the spring of 2019.</li> <li>Data Analysis and Reporting</li> <li>Distribute Draft REC 2 – TSR for stakeholder</li> </ul>		
	Data Analysis and Reporting			review, address comments, finalize, and distribute Final REC 2 – TSR.		
	Analyzed data and prepared Draft REC 2 – TSR.					
errestrial Resources						
	Vegetation Alliances and Wildlife Habitats		Study Approach Refinement	Data Analysis and Reporting	None	None
	<ul> <li>Developed vegetation alliances maps of the study area based on Classification and Assessment with LANDSAT of Visible Ecological Groupings (CALVEG) mapping and vegetation alliance</li> </ul>		• Some species of non-native invasive plants (NNIP) were ubiquitous in the Project area, and the survey area was not expanded to capture the full extent of these populations.	<ul> <li>Analyze data and prepare Draft TERR 1 – TSR.</li> <li>Distribute Draft TERR 1 – TSR for stakeholder review, address comments, finalize, and distribute Final TERR 1 – TSR.</li> </ul>		
	<ul> <li>descriptions.</li> <li>Verified CALVEG data against recent aerial photographs.</li> </ul>			<ul> <li>Prepare and submit California Native Species Field Survey Forms for special-status plant populations recorded to California Natural Diversity Database</li> </ul>		
	Conducted ground-truthing of vegetation alliances.			(CNDDB).		
ERR 1 – Botanical Resources	<ul> <li>Cross-referenced CALVEG alliances with California Wildlife Habitat Relationship (CWHR) System wildlife habitats.</li> </ul>					
	<ul> <li>Developed GIS maps of vegetation alliances and wildlife habitats.</li> </ul>					
	Developed GIS maps of riparian alliances.					
	Special-status Plants					
	Consulted with agencies regarding updated special-status species lists or known occurrences.					
	<ul> <li>Developed updated lists of special-status plant species potentially occurring in the Project area, based on agency responses.</li> </ul>					

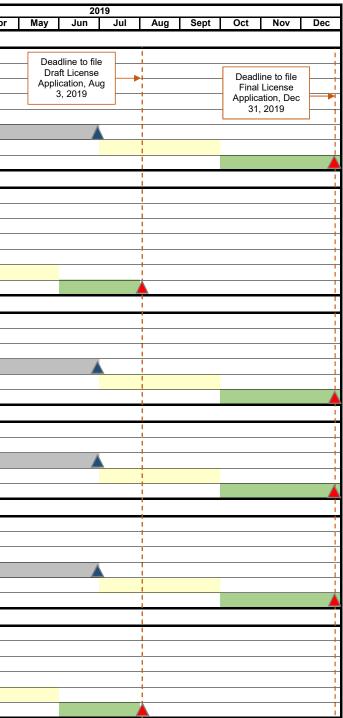
Technical Study Plan	Study Elements Completed / Data Collected	Work Group Update	Technical Study Plan Variances	Outstanding Study Elements (Data analysis and reporting schedules are shown on the implementation schedules provided in Attachment D)	Modifications to Ongoing Studies	Proposed New Studies
	<ul> <li>Identified and mapped known occurrences of special-status plant species.</li> </ul>					
	<ul> <li>Provided updated plant list and timing of surveys to BLM, CDFW, USFWS, and RWQCB, and requested input on the location of special-status plant reference populations (no responses received).</li> </ul>					
	<ul> <li>Conducted special-status plant reference population surveys and provided results to BLM, CDFW, USFWS, and RWQCB.</li> </ul>					
	Conducted focused special-status plant surveys.					
	<ul> <li>Developed GIS maps of special-status plant populations.</li> </ul>					
	Non-Native Invasive Plants					
	<ul> <li>Consulted with agencies regarding updated non- native invasive plant (NNIP) lists or known occurrences.</li> </ul>					
	<ul> <li>Developed updated list of priority NNIPs for focused surveys.</li> </ul>					
	<ul> <li>Identified and mapped known occurrences of NNIPs.</li> </ul>					
	<ul> <li>Provided updated NNIP list and timing of surveys to BLM, CDFW, USFWS, and RWQCB.</li> </ul>					
	Conducted focused NNIP surveys.					
	Developed GIS maps of NNIPs.					
	Data Analysis and Reporting					
	<ul> <li>Analyzed data and began preparing Draft TERR 1 – TSR.</li> </ul>					
	Special-status Wildlife		Survey Timing	Special-status Bat Surveys	None	None
	<ul> <li>Consulted with agencies regarding updated special-status species lists or new occurrences (none were provided).</li> </ul>		<ul> <li>In consultation with resource agencies, the bat expert determined that it was more appropriate to conduct the acoustic surveys during the last two</li> </ul>	Conduct seasonal use surveys (October). Evaluation of Wildlife Use of Wildlife Bridges and Escape Ramps		
	<ul> <li>Updated existing wildlife lists and wildlife occurrence maps.</li> </ul>		weeks of June to coincide with the end of the typical maternity roosting period, which would maximize the potential for detections.	<ul> <li>Document use of wildlife bridges and escape ramps by mule deer and other animals crossing</li> </ul>		
	<ul> <li>Identified special-status wildlife species potentially occurring within CWHR designations.</li> </ul>			the Kaweah No. 2 and No. 3 Flowlines (November/December).		
	Provided updated wildlife list and timing of surveys     to PLM CDDM LISTMCs and DWOCD			Data Analysis and Reporting		
	to BLM, CDFW, USFWS, and RWQCB (no responses received).			Analyze data and prepare Draft TERR 2 – TSR.		
ERR 2 – Wildlife	Conducted wildlife reconnaissance surveys.			<ul> <li>Distribute Draft TERR 2 – TSR for stakeholder review, address comments, finalize, and distribute</li> </ul>		
Sources	<ul> <li>Documented incidental observations of special- status species during 2018 field surveys.</li> </ul>			Final TERR 2 – TSR. Data Distribution		
	Evaluation of Transmission Line, Transmission Tap Line, and Power Line Configuration			Provide an electronic database of the following to BLM, resource agencies, and interested		
	Mapped the location and documented the			stakeholders:		
	configuration of Project transmission lines, transmission tap lines, and power lines.			<ul> <li>Special-status wildlife occurrences;</li> <li>Avian electrocutions and mortalities;</li> </ul>		
	Evaluated consistency with Avian Power Line Interaction Committee (APLIC) guidelines			<ul> <li>Special-status bat survey data; and</li> </ul>		
	Interaction Committee (APLIC) guidelines.  Documented past avian electrocutions and			<ul> <li>Wildlife use of bridges and escape ramps.</li> </ul>		

Technical Study Plan	Study Elements Completed / Data Collected	Work Group Update	Technical Study Plan Variances	Outstanding Study Elements (Data analysis and reporting schedules are shown on the implementation schedules provided in Attachment D)	Modifications to Ongoing Studies	Proposed New Studie
	Special-status Bat Surveys					
	<ul> <li>Provided timing of special-status bat surveys to BLM, CDFW, USFWS, and RWQCB (no responses received).</li> </ul>					
	<ul> <li>Conducted reproductive surveys (including roost surveys, acoustic sampling, and mist net sampling).</li> </ul>					
	Evaluation of Wildlife Use of Wildlife Bridges and Escape Ramps					
	<ul> <li>Documented use of wildlife bridges and escape ramps by mule deer and other animals crossing the Kaweah No. 2 and No. 3 Flowlines (initiated in late March).</li> </ul>					
	Evaluation of Wildlife/Livestock Mortality in Project Flowlines					
	<ul> <li>Reviewed and summarized historic information on wildlife/livestock mortality in Project flowlines.</li> </ul>					
	Data Analysis and Reporting					
	<ul> <li>Analyzed data and began preparing Draft TERR 2 – TSR.</li> </ul>					

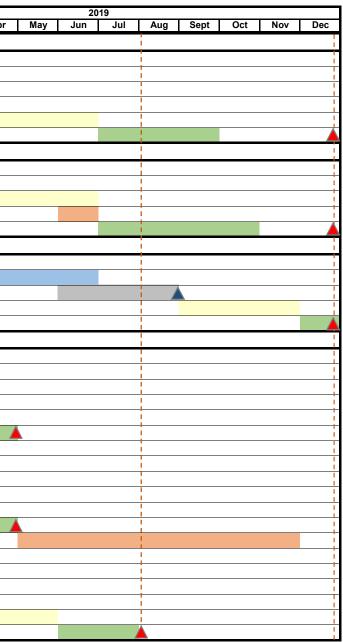
# **Attachment D**

Technical Study Plan Implementation Schedule

Technical Study Plan	Jan Feb	Mar Apr	201 May Jun	8 Jul Aug	Sep C	Oct Nov [	Dec Jan	Feb Mar	Apr
AQ 1 - INSTREAM FLOW	oun rep		may ban	Vui Aug	000 0		Jee Juli		
Conduct Aquatic TWG - March 26, 2018									
Conduct Aquatic TWG - June 8, 2018									
Conduct Site Visit - June 25, 2018									
Conduct Aquatic TWG - October TBD									
Conduct Field Surveys									
Analyze Data/Prepare Draft Report									
Stakeholder 90-day Review and Comment Period									
Resolve Comments/Prepare Final Report									
AQ 2 - FISH POPULATION									
Conduct Aquatic TWG - March 26, 2018									
Conduct Qualitative Fish Sampling (Young-of-the-year Emergence)									
Conduct Quantitative Fish Sampling and Fish Tissue Collection									
Analyze Data/Prepare Draft Report									
Determine if Additional Data Collection Required									
Stakeholder 90-day Review and Comment Period									
Resolve Comments/Prepare Final Report									
AQ 3 - MACROINVERTEBRATE									
Conduct Aquatic TWG - March 26, 2018									
Conduct Benthic Macroinvertebrate Sampling for General Habitat Conditions									
Conduct Macroinvertebrate Drift Sampling for Input to Bioenergetics Analysis									
Analyze Data/Prepare Draft Report									
Stakeholder 90-day Review and Comment Period									
Resolve Comments/Prepare Final Report									
AQ 4 - WATER TEMPERATURE									
Collect Temperature and Meteorological Data									
Develop and Validate Preliminary Temperature Model in collaboration with WTMG									
Analyze Data/Prepare Draft Report									
Stakeholder 90-day Review and Comment Period									
Resolve Comments/Prepare Final Report									
AQ 5 - GEOMORPHOLOGY									
Conduct Aquatic TWG - June 8, 2018									
Conduct Sediment Survey/Hydrology Analysis									
Conduct Sediment Transport Survey									
Analyze Data/Prepare Draft Report									
Stakeholder 90-day Review and Comment Period									
Resolve Comments/Prepare Final Report									·
AQ 6 - WATER QUALITY									
Collect Spring Water Quality Samples									·
Collect Coliform Samples									
Collect Summer Water Quality Samples									
Analyze Data/Prepare Draft Report									·
Stakeholder 90-day Review and Comment Period									
Resolve Comments/Prepare Final Report									



Technical Study Plan		2018																	
	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr			
AQ 7 - SPECIAL-STATUS AMPHIBIANS AND AQUATIC REPTILES																			
Conduct Aquatic TWG - March 26, 2018						_													
Conduct Spring/Early Summer Surveys for FYLF and WPT																			
Conduct Late Summer/Fall Surveys for FYLF and WPT																			
Analyze Data/Prepare Draft Report																<u> </u>			
Stakeholder 90-day Review and Comment Period																			
Resolve Comments/Prepare Final Report																			
AQ 8 - FISH PASSAGE																			
Conduct Field Surveys																			
Analyze Data/Prepare Draft Report																			
Stakeholder 90-day Review and Comment Period																			
Consult with Resource Agencies to Determine Need for Hydrodynamics Modeling																			
Collect Additional Data (if necessary)/Resolve Comments/Prepare Final Report																			
AQ 9 - ENTRAINMENT																			
Consult with Agencies and Stakeholders on Revised Approach																			
Summarize Diversion/Turbine Data and Measure Entrainment in Flowlines																			
Summarize Fish Population Data/Prepare Draft Report																			
Stakeholder 90-day Review and Comment Period																			
Resolve Comments/Prepare Final Report																			
CUL 1 - CULTURAL RESOURCES	-																		
Built Environment																			
Conduct Cultural TWG - March 20, 2018/Compile Existing Resource Information																			
Conduct Built Environment Survey																			
Analyze Data/Prepare Draft Report																			
Stakeholder 90-day Review and Comment Period																			
Resolve Comments/Prepare Final Report																			
Archaeology																			
Conduct Cultural TWG - March 20, 2018/Compile Existing Resource Information																			
Conduct Archaeology Survey																			
Analyze Data/Prepare Draft Report																			
Stakeholder 90-day Review and Comment Period																			
Resolve Comments/Prepare Final Report																			
Assess Need for Eligibility Studies																			
Ethnography																			
Conduct Cultural TWG - March 20, 2018/Compile Existing Resource Information																			
Conduct Interviews and Potential Site Visit													I						
Analyze Data/Prepare Draft Report																			
Stakeholder 90-day Review and Comment Period																			
Resolve Comments/Prepare Final Report													Ī						



Attachment D. Technical Study Plan Implementation Schedule as of September 30, 2018.	2018	2019
Technical Study Plan	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec	
LAND 1 - TRANSPORTATION SYSTEM		
Consult with Stakeholders/Compile Existing Resource Information		
Conduct Field Surveys		
Analyze Data/Prepare Draft Report		
Stakeholder 90-day Review and Comment Period		
Resolve Comments/Prepare Final Report		
LAND 2 - AESTHETIC RESOURCES		
Consult with Stakeholders/Compile Existing Resource Information		
Identify and map KOPs in Consultation with BLM, Tulare County, and NPS		
Identify noise-sensitive locations in Consultation with NPS		
Conduct Visual Resource Survey		
Conduct Noise Assessment (Kaweah No. 3 Forebay Spill)		
Conduct Noise Assessment (Helicopter Use)		
Analyze Data/Prepare Draft Report		
Stakeholder 90-day Review and Comment Period		
Resolve Comments/Prepare Final Report		
LAND 3 - LAND USE		
Consult with Stakeholders/Compile Existing Resource Information		
Conduct Field Surveys		
Analyze Data/Prepare Draft Report		
Stakeholder 90-day Review and Comment Period		
Resolve Comments/Prepare Final Report		
REC 1 - RECREATION RESOURCES		
Consult with Stakeholders/Compile Existing Resource Information		
Conduct Visitor Counts at Kaweah No. 2 Powerhouse River Access Area		
Monitor Use Along Craig Ranch Road/Salt Creek Road		
Conduct Interviews (Tulare County, Property Owners, Users of Craig Ranch Rd)		
Analyze Data/Prepare Draft Report		
Stakeholder 90-day Review and Comment Period		
Resolve Comments/Prepare Final Report		
REC 2 - WHITEWATER BOATING		
Phase 1 – Develop Information		
Develop Information about Whitewater Boating Resources and Hydrology		
Prepare and Distribute Summary Report		
Conduct Whitewater Boater Focus Group Meeting		
Phase 2 – Possible Site Visit (if necessary)		
Conduct Site Visit	Not needed at this time	
Phase 3 – Possible Whitewater Boating Flow Studies (if necessary)		
Develop Whitewater Boating Survey Instrument	Not needed	
Conduct Whitewater Boating Flow Study(s) (runoff dependent)	Not needed	
Reporting		
Prepare Draft Report		
Stakeholder 90-day Review and Comment Period		
Resolve Comments/Prepare Final Report		

Technical Study Plan		2018											2019												
Ja		Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
TERR 1 - BOTANICAL RESOURCES																									
Consult with Resource Agencies - Updated Plant List and Survey Timing																				1					
Consult with Resource Agencies - Special-Status Plant Reference Populations																									
Conduct Botanical Surveys																								1	
Analyze Data/Prepare Draft Report																									
Stakeholder 90-day Review and Comment Period																								1	
Resolve Comments/Prepare Final Report																				<u> </u>				1	
TERR 2 - WILDLIFE RESOURCES																				1				i i	
Consult with Resource Agencies - Updated Wildlife List and Survey Timing																									
Conduct Evaluation of Wildlife Use of Bridges and Escape Ramps																								i	
Conduct Wildlife Reconnaissance Surveys																				1					
Conduct Special-status Bat Reproductive Surveys																									
Conduct Special-status Bat Seasonal Use Surveys and Monitoring Bridges																									
Conduct Evaluation of Wildlife Use of Bridges and Escape Ramps																									
Analyze Data/Prepare Draft Report																									
Stakeholder 90-day Review and Comment Period																									
Resolve Comments/Prepare Final Report																									



Stakeholder/Agency Consultation Field Surveys/Data Collection Data Analysis and Prepare Draft Report Stakeholder Review and Comment Period Resolution of Comments and Prepare Final Report



Submit Draft Report to Stakeholders Submit Final Report to Stakeholders