APPENDIX E2 SSWD'S PROPOSED MEASURES

Provided below are the operations and management activities that South Sutter Water District (SSWD or Licensee) proposes to undertake as measures of the new license for the Project for the purpose of protecting or mitigating impacts that would otherwise result from SSWD's Proposed Project as described in this Application for a New License, or for the purpose of enhancing resources that could be affected by the proposed Project (PM&E measures).

For the purpose of this appendix, SSWD has assumed that the Federal Energy Regulatory Commission's (FERC) requirements regarding inspections of Project facilities (e.g., annual FERC inspections, Part 12 Dam Safety Inspections, and Environmental and Public Use Inspections) and other similar general FERC requirements (e.g., requirement for Emergency Action Plans) will apply to SSWD's Proposed Project if FERC issues a new license. SSWD also has assumed the specific requirements included in related approvals, such as dam certificates issued by the California Division of Safety of Dams (DSOD) for Project dams within DSOD's jurisdiction and appropriative water rights licensed by the California State Water Resources Control Board (SWRCB) for power generation will not change under a new license. Therefore, SSWD has not included proposed measures related to these activities in this Application for New License.

In addition, for the purpose of this appendix, SSWD has assumed that FERC will include in the new license FERC's 37 *Terms and Conditions of License for Constructed Major Project Affecting Navigable Waters and Lands of the United States* (Form L-5 Standard Articles).¹ Therefore, SSWD has not included proposed measures that would otherwise be addressed by FERC's Form L-5 Standard Articles.

SSWD and Relicensing Participants have reached agreement, or are working towards reaching agreement, on a number of PM&E measures. The status of each measure proposed by SSWD in its Application for New License is described in Table E2-1, for which a detailed PM&E measure is included in this appendix.

Table E2-1.	PM&E me	asures on v	which SS	SWD and	Relicensing	Participants	reached	agreement,
indicated by	an "X" in th	ne respectiv	ve cell.					

PM&E Measure Included in Appendix E2	SSWD and Relicensing Participants that Support SSWD's Proposed PM&E Measure ¹			Participants d PM&E M	Explanation	
of this Exhibit E	NMFS	USFWS	NPS	CDFW	FWN	
WR1. Implement Water Year Types		х		х	х	SSWD and the indicated parties have reached agreement on this measure. For the purpose of this FLA, this agreed-on measure is included as SSWD's Proposed Measure in SSWD's FLA

¹ L–5: *Constructed Major Project Affecting Navigable Waters and Lands of the United States*, 12 F.P.C. 1329 (October 23, 1953), 17 F.P.C. 110 (January 13, 1957), 38 F.P.C. 203 (July 26, 1967), 54 F.P.C. 1832 (October 31, 1975).

Table E2-1. (continued)

PM&E Measure	SSWD and Relicensing Participants					
Included in Appendix E2	that Su	pport SSWI	D's Propose	d PM&E M	leasure ¹	Explanation
of this Exhibit E	NMFS	USFWS	NPS	CDFW	FWN	
AR1. Implement Minimum Streamflows		х		X	X	SSWD and the indicated parties have reached agreement on this measure. For the purpose of this FLA, this agreed-on measure is included as SSWD's Proposed Measure in SSWD's FLA. As a separate measure, agencies would like
						SSWD to provide flow data on a real-time basis. SSWD and the agencies will continue to discuss that potential measure.
AR2. Implement Fall and Spring Pulse Flows		x		х	х	SSWD and the indicated parties have reached agreement on this measure. For the purpose of this FLA, this agreed-on measure is included as SSWD's Proposed Measure in SSWD's FLA
AR3. Implement Ramping Rates						SSWD and the indicated parties have had very productive discussions regarding this measure and are continuing to collaborate on this measure. SSWD and the parties anticipate reaching agreement and filing with FERC a consensus measure by the end of September 2019, at which time SSWD will amend its FLA to include the agreed- on measure. SSWD has included in this FLA its measure as proposed at this time.
TR1. Implement a Bald Eagle Management Plan ²						SSWD and the indicated parties have had very productive discussions regarding this measure and are continuing to collaborate on this measure. SSWD and the parties anticipate reaching agreement and filing with FERC a consensus measure by the end of September 2019, at which time SSWD will amend its FLA to include the agreed- on measure. SSWD has included in this FLA its measure as proposed at this time.
TR2. Implement Blue Heron Rookery Management		X		Х	X	SSWD and the indicated parties have reached agreement on this measure. For the purpose of this FLA, this agreed-on measure is included as SSWD's Proposed Measure in SSWD's FLA.
RR1. Implement Recreation Facilities Plan ²						SSWD and relicensing participants are in substantial agreement on this measure. An outstanding item is the period when SSRA would be open. SSWD and the parties are continuing to collaborate on this issue and will file with FERC a consensus measure by the end of September 2019, at which time SSWD will amend its FLA to include the agreed-upon measure. SSWD has included in this FLA its proposed measure at this time

PM&E Measure		SSWD and Relicensing Participants				
Included in Appendix E2	that Su	pport SSWI	D's Propose	ed PM&E M	easure ¹	Explanation
of this Exhibit E	NMFS	USFWS	NPS	CDFW	FWN	
CR1. Implement Historic Properties Management Plan ³						Under Section 106 of the NHPA, SSWD has consulted with SHPO and interested Tribes regarding this measure. Refer to the HPMP for a discussion of consultation. NMFS, USFWS, CDFW, NPS and FWN defer to these agencies on this measure. SSWD has submitted the final HPMP to SHPO for concurrence and will file the final HPMP with FERC when SHPO concurrence is received. SSWD has included in this FLA the HPMP that was submitted to SHPO for concurrence.
Subtotal	0	4	0	4	4	
Total	12					

Table E2-1. (continued)

¹ The SWRCB participated in the collaboration meetings, but stated that it cannot agree to or take a position on the merits of any PM&E measures at this time.

² This plan is included in Appendix E2 of Exhibit E of SSWD's Application for New License, and is considered Public information.

³ This plan is included in Volume III of SSWD's Application for New License, and is considered Privileged information.

SSWD and the Relicensing Participants that agree to a PM&E measure as shown in Table E2-1 agreed to take the following actions for that measure assuming there is no additional information discovered or changes in the Project that affect the measure:

- SSWD will include the agreed-upon PM&E measure unchanged in its FLA, and SSWD will propose no other measure in the FLA related to the issue.
- USFWS and CDFW will include the PM&E measure unchanged and will propose no other measures related to the issue in their respective FPA Section 10(j) and/or FPA Section 10(a) recommendations.
- FWN will propose the PM&E measure and no other measures related to the issue in its comments on SSWD's FLA.

SSWD and Relicensing Participants have scheduled four meetings in July and August 2019 to resolve differences and come to agreement on Measures AR3 (Ramping Rates), TR1 (Bald Eagle Plan) and RR1 (Recreation Plan) in Table E2-1. By the end of September 2019, SSWD plans to file with FERC these final agreed-on measures.

1.0 <u>SSWD Proposed Measure WR1, Implement Water Year</u> <u>Types²</u>

Beginning within 90 days of license issuance, Licensee shall in each year determine the applicable water year type described in this measure. Licensee shall use these determinations to implement articles and measures of the license that are dependent on water year type.

² As shown in Table E2-1, SSWD, USFWS, CDFW and FWN are in agreement with this measure.

October 15 through March 14 Period

The water year type for the October 15 through March 14 period shall be determined by the previous April 1 through September 30 cumulative usable inflow into Camp Far West Reservoir, as specified in Table 1 of this measure. The water year type for the October 15 through March 14 period shall be calculated once each year by October 15, and shall apply to that entire period each year.

 Table 1. Water Year types for the Camp Far West Hydroelectric Project from October 15 through

 March 14.

Water Year Type	Cumulative Usable Inflow into Camp Far West Reservoir for the Previous April 1 through September 30 Period (acre-feet)
Wet	Greater than or equal to 80,000
Above Normal	41,000 to 79,999
Below Normal	36,000 to 40,999
Dry	20,000 to 35,999
Critically Dry	Less than 20,000

The Camp Far West Reservoir cumulative usable inflow in Table 1 shall be calculated as the sum of the daily canal diversions from April 1 through September 30 at South Sutter Water District's Main Canal and the Camp Far West Irrigation District's North and South canals, in cubic feet per second and multiplied by 1.98347 to convert to acre-feet, minus the difference between Camp Far West Reservoir storage on April 1 and September 30. Camp Far West storage on both dates will be limited to a maximum value of 93,737 acre-feet or the maximum storage possible before uncontrolled spill through the dam spillway.

South Sutter Water District's Main Canal diversions and the Camp Far West Irrigation District's North and South canal diversions are to be taken as the average daily flow in cubic feet per second, and storage in Camp Far West Reservoir is determined by converting the published daily reservoir elevation data to storage in acre-feet using the Camp Far West Reservoir area-capacity curve available in Exhibit B of the Licensee's Application For New License. Hourly diversion data for the Main Canal, South Canal, and North Canal diversions will be reported on a weekly basis and will be publicly available by January 1, 2020, in compliance with the California State Water Resources Control Board's Surface Water Measurement and Reporting Regulations (California Code of Regulations, Title 23, Chapters 2.7 and 2.8). The gages used to provide data for these calculations shall be:

- Main Canal Diversion
- South Canal Diversion
- North Canal Diversion
- Camp Far West Storage

March 15 through October 14 Period

The water year type for the period from March 15 through October 14, shall be based on the California Department of Water Resources (DWR) 50 percent exceedance forecast of the water year unimpaired runoff in the Yuba River near Smartsville plus Deer Creek, as set forth in DWR's Bulletin 120 entitled "Water Year Conditions in California," as specified in Table 2 of this measure. DWR's forecast published in March and April shall apply from the 15th day of that month through the 14th day of the next month. From May 15 through October 14, the water year type shall be based on DWR's forecast published in May.

Table 2. Water Year types for the Camp Far West Hydroelectric Project from March 15 throughOctober 14.

Water Year Type	DWR Forecast of Total Water Year Unimpaired Runoff in the Yuba River near Smarstville plus Deer Creek ¹ (acre-feet)
Wet	Greater than 3,240,000
Above Normal	2,191,000 to 3,240,000
Below Normal	1,461,000 to 2,190,000
Dry	901,000 to 1,460,000
Critically Dry	Equal to or less than 900,000

¹DWR currently rounds Bulletin 120 forecasts to the nearest 1,000 acre-feet, and rounded values to the nearest 1,000 acre-feet will be used.

2.0 <u>SSWD Proposed Measure AR1, Implement Minimum</u> Streamflows³

Licensee shall, within 30 days of issuance of the new license, meet the minimum streamflow requirements for the Bear River downstream of Camp Far West Dam and Powerhouse that are shown in Table 1 of this measure.

Table 1. Minimum Streamflows in cubic feet per second (cfs) for the Camp Far	West Hydroelectric
Project by period and by Water Year Type, which is defined in Licensee's Prop	osed Measure WR1.

			Water Year Type		
Period	Wet Water Year (cfs)	Above Normal Water Year (cfs)	Below Normal Water Year (cfs)	Dry Water Year (cfs)	Critically Dry Water Year (cfs)
Oct 1 – Oct 14	10	10	10	10	10
Oct 15 – Oct 31	50	25	25	10	10
Nov 1 – Nov 14	100	60	30	20	10
Nov 15 - Feb 28 (29)	125	60	30	20	15
Mar 1 – Mar 31	60	40	30	20	15
Apr 1 – Apr 30	40	25	25	20	15
May 1 – May 14	40	25	25	15	15
May 15 – May 31	25	25	20	10	10
Jun 1 – June 14	25	25	15	10	10
June 15 – June 30	20	20	10	10	10
July 1 – Sep 30	10	10	10	10	10

Minimum streamflows of 30 cfs or less shall be measured at the fish release valve off South Sutter Water District's Main Canal (USGS Gage 11423800, Bear River Fish Release below Camp Far West Reservoir, near Wheatland, CA). Minimum streamflows greater than 30 cfs shall be

³ As shown in Table E2-1, SSWD, USFWS, CDFW and FWN are in agreement with this measure.

measured as the difference between the Camp Far West Dam release (defined as the sum of the flows through the Camp Far West Powerhouse, Camp Far West Dam Low-Level Outlet, and Camp Far West Dam Spillway) less diversions (defined as the sum of South Sutter Water District Main Canal and Camp Far West Irrigation District's North and South canals). Flow through the Camp Far West Powerhouse and Camp Far West Dam Low-Level Outlet shall be measured every 15 minutes, while flow over the Camp Far West Dam Spillway shall be measured once daily. Diversions at the South Sutter Water District's Main Canal and the Camp Far West Irrigation District's North and South canals. Average daily Camp Far West Dam release and average daily diversions shall be used to measure the average daily minimum streamflows greater than 30 cfs.

Minimum streamflows may be temporarily modified as follows:

- For short periods and upon consultation with and approval by the USFWS, NMFS, CDFW and SWRCB. Licensee shall provide notification to the Commission prior to implementing such modifications.
- Due to an emergency. An emergency is defined as an outage due to an event that is reasonably out of the control of Licensee and requires Licensee to take immediate action, either unilaterally or under instruction of law enforcement, emergency services, California ISO or other regulatory agency staff, including actions to prevent the imminent loss of human life or damage to property. An emergency may include, but is not limited to: natural events such as landslides, storms, or wildfires; vandalism; malfunction or failure of transmission lines or Project works; or other public safety incidents. If Licensee temporarily modifies the requirements of the requirements, and shall notify the USFWS, NMFS, CDFW and SWRCB within 48 hours of the start of the modification. Licensee shall provide notification to the Commission as soon as possible but no later than 10 days after such incident.

Where a facility must be modified or constructed to allow compliance with the required minimum streamflow, including flow measurement facilities, then, except as otherwise provided, Licensee shall submit applications for permits to modify or construct the facility as soon as reasonably practicable but no later than within the first 2 years of the new license term, and Licensee will complete the work as soon as reasonably practicable but no later than within 2 years after receiving all required permits and approvals for the work. During the period before facility modifications or construction are completed, Licensee shall make a good faith effort to provide the specified minimum streamflows within the reasonable capabilities of the existing facilities.

3.0 <u>SSWD Proposed Measure AR2, Implement Fall and</u> <u>Spring Pulse Flows⁴</u>

Licensee shall, beginning in the first full calendar year after license issuance, provide the fall and spring pulse flows for the Bear River downstream of Camp Far West Dam and Powerhouse described in this measure.

A fall pulse flow shall occur between November 10 and November 17 in each Wet, Above Normal, and Below Normal water year, as detailed in Table 1 of this measure. In Wet water years, a second fall pulse flow shall occur between December 1 and December 7. Licensee shall determine the specific timing of each pulse flow within the periods of the pulse flows stated above. Modifications to the exact timing of the pulse flow outside of the stated periods in this measure may occur with the approval of the NMFS, USFWS, CDFW and SWRCB. If average daily flows equal to or greater than the pulse flow is not required in that year. If average daily flows equal to or greater than the pulse flow is not required between November 21 and November 30, then the second fall pulse flow is not required in that year. A fall pulse flow is not required in Dry and Critically Dry water years.

Table 1. Fall (i.e., between November 10 and December 7) pulse flow in cubic feet per second (cfs)for the Camp Far West Hydroelectric Project by period and by Water Year Type.

	October 15 – March 14 Water Year Type as Defined in SSWD's Proposed Measure WR1					
Period	Wet	Above Normal	Below Normal			
(day)	Water Year	Water Year	Water Year			
	(cfs)	(cfs)	(cfs)			
FIRST FALL PULSE FLOW PERIOD						
Day 1	≥ 175	≥ 125	≥ 125			
Day 2	≥ 175	≥ 125	≥ 125			
Day 3	≥ 125	≥ 75	≥ 75			
	SECOND FALL PULSE FLOW PERIOD					
Day 1	≥ 175	None	None			
Day 2	≥ 175	None	None			
Day 3	≥ 125	None	None			

The spring pulse flow shall occur over a 6-day period, as shown in Table 2 in this measure. If an average daily flow equal to or greater than 200 cfs has occurred after April 1 of that year, the required spring pulse flow in Table 2 is not required in that year. A spring pulse flow is not required in Wet and Above Normal water years. The spring pulse flow shall begin and end within a 2-week period, which shall start no earlier than the following date for each water year type: Below Normal – April 27; Dry – April 19; Critically Dry – April 11.

⁴ As shown in Table E2-1, SSWD, USFWS, CDFW and FWN are in agreement with this measure.

	March 15 – October 14 Water Year Type as Defined in SSWD's Proposed Measure WR1						
Below	Normal	I	Dry	Critica	ally Dry		
Wate	r Year	Wate	Water Year		r Year		
Period	Flow	Period	Flow	Period	Flow		
(day)	(cfs)	(day)	(cfs)	(day)	(cfs)		
Day 1	≥ 200	Day 1	≥ 200	Day 1	≥ 200		
Day 2	≥ 200	Day 2	≥ 200	Day 2	≥ 200		
Day 3	≥ 150	Day 3	≥ 150	Day 3	≥ 150		
Day 4	≥ 100	Day 4	≥ 100	Day 4	≥ 100		
Day 5	≥75	Day 5	≥ 75	Day 5	≥75		
Day 6	\geq 50	Day 6	≥ 50	Day 6	≥ 50		

 Table 2. Spring (i.e., between April 11 and May 10) pulse flow in cubic feet per second (cfs) for the

 Camp Far West Hydroelectric Project by period and by Water Year Type.

The fall and spring pulse flows shall be measured as described in SSWD's Proposed Measure AR1, Minimum Streamflows. The fall and spring pulse flows are not additive to the minimum streamflows required in SSWD's Proposed Measure AR1, Minimum Streamflows. Fall and spring pulse flows may be temporarily modified as follows:

- For short periods and upon consultation with and approval by the USFWS, NMFS, CDFW and SWRCB. Licensee shall provide notification to the Commission prior to implementing such modifications.
- Due to an emergency. An emergency is defined as an outage due to an event that is reasonably out of the control of Licensee and requires Licensee to take immediate action, either unilaterally or under instruction of law enforcement, emergency services, California ISO or other regulatory agency staff, including actions to prevent the imminent loss of human life or damage to property. An emergency may include, but is not limited to: natural events such as landslides, storms, or wildfires; vandalism; malfunction or failure of transmission lines or Project works; or other public safety incidents. If Licensee temporarily modifies the requirements of this measure, Licensee shall make all reasonable efforts to promptly resume performance of the requirements, and shall notify the USFWS, NMFS, CDFW and SWRCB within 48 hours of the start of the modification. Licensee shall provide notification to the Commission as soon as possible but no later than 10 days after such incident.

Where a facility must be modified or constructed to allow compliance with the required pulse flow, including flow measurement facilities, then, except as otherwise provided, Licensee shall submit applications for permits to modify or construct the facility as soon as reasonably practicable but no later than within the first 2 years of the new license term, and Licensee will complete the work as soon as reasonably practicable but no later than within 2 years after receiving all required permits and approvals for the work. During the period before facility modifications or construction are completed, Licensee shall make a good faith effort to provide the specified pulse flow within the reasonable capabilities of the existing facilities.

4.0 <u>SSWD Proposed Measure AR3, Implement Ramping</u> <u>Rates⁵</u>

Licensee shall, when the average hourly release from Camp Far West Dam is less than 725 cfs from November through May, make a good faith effort to adhere to the ramping rates provided in this condition. The ramping rates in this condition shall also apply when making changes between minimum streamflow releases in SSWD's Proposed Measure AR1 and implementing fall and spring pulse flows releases in SSWD's Proposed Measure AR2. The ramping rates in this condition are targets: if Licensee, after a good faith effort to adhere to the target ramping rates, exceeds one or more target ramping rates, the exceedance shall not be deemed a license violation. In the event that a ramping rate target is exceeded, Licensee shall notify USFWS, NMFS, CDFW, and the SWRCB within 48 hours of the exceedance. This notification will include the duration of the exceedance, flow levels during exceedance, and the reason for the exceedance (e.g., unexpected upstream releases resulting in imminent spill at Camp Far West dam).

November 1 through January 31 Period

Licensee shall, from November 1 through January 31 of each year, make a good faith effort not to reduce the combined release from Camp Far West Powerhouse and Camp Far West Dam Low-Level Outlet until such time as flow passes over the Camp Far West Dam Spillway. If the Licensee, at its own discretion, determines it is necessary to reduce the combined release from the powerhouse and low-level outlet prior to flow passing over the Camp Far West Dam Spillway, Licensee shall make a good faith effort to reduce the combined release using the ramping rates specified below in Table 1.

February 1 through May 31 Period

Licensee shall, from February 1 through May 31 of each year, make a good faith effort to not reduce the combined release from the Camp Far West Powerhouse and the Camp Far West Low-Level Outlet at a rate greater than the target ramping rates in Table 1 of this condition.

Table 1. Target ramping rates in cubic feet per second (cfs) from February 1 through May 31, excluding the period of flashboard installation at the downstream non-Project diversion dam.

Average Hourly Release From Combination of Camp Far West Dam Low-Level Outlet and Powerhouse for Previous Hour (cfs)	Target Maximum Reduction in Release From Combination of Camp Far West Dam Low-Level Outlet and Powerhouse for That Hour (maximum of three steps per day) (cfs)
725 - 600	125
599 - 450	100
449 - 330	85
329 - 230	70
229 - 150	60
149 - 100	45
99 - 60	30
59 – 10	20

⁵ As indicated in Table E2-1, SSWD, USFWS, CDFW, and FWN have had very productive discussions regarding this measure and are continuing to collaborate on this measure. SSWD and the parties anticipate reaching agreement and filing with FERC a consensus measure by the end of September 2019, at which time SSWD will amend its FLA to include the agreed-on measure. SSWD has included in this FLA its measure as proposed at this time.

Springtime Installation of Flashboards at Non-Project Diversion Dam (April or May)

During the spring installation of flashboards on the non-Project diversion dam downstream of the Project (i.e., installation includes the activities of drawing down the non-Project diversion dam pool, installing the flashboards, and refilling the non-Project diversion dam pool to initiate diversions), Licensee shall make a good faith effort to not reduce the combined release from the Camp Far West Powerhouse and/or the Camp Far West Low-Level Outlet at a rate greater than the target ramping rates in Table 2. The ramping rate values shown in Table 2 are made in recognition of the physical limitations and challenges that the operator of the non-Project diversion dam encounters when manually installing flashboards with the existing infrastructure at the non-Project diversion dam. If in the future the operator of the non-Project diversion dam automates initiation of diversions at the non-Project diversion dam such that the physical limitation and challenges no longer occur, Licensee shall adhere to the target ramping rates shown in Table 1 of this condition.

 Table 2. Target ramping rates in cubic feet per second (cfs) for springtime flashboard installation at the non-Project diversion dam (April or May)

Average Hourly Release From Combination of Camp Far West Dam Low-Level Outlet and Powerhouse for Previous Hour (cfs)	Target Maximum Reduction in Release From Combination of Camp Far West Dam Low-Level Outlet and Powerhouse for That Hour (unlimited steps per day) (cfs)
725 - 600	200
599 - 450	150
449 - 330	120
329 - 230	100
229 - 150	80
149–100	50
99 - 60	40
59 - 30	30
29 - 10	20

For the purpose of this condition, the ramping rate targets shall be measured as described in SSWD's Proposed Measure AR1.

This condition is subject to temporary modification if required for repairs to the dam or associated equipment, by equipment malfunction, as directed by law enforcement authorities, or in emergencies. An emergency is defined as an outage due to an event that is reasonably out of the control of Licensee and requires Licensee to take immediate action, either unilaterally or under instruction of law enforcement, emergency services, or other regulatory agency staff, including actions to prevent or reduce the imminent loss of human life or damage to property. An emergency may include, but is not limited to: natural events such as landslides, storms, or wildfires; vandalism; malfunction or failure of Project works; or other public safety incidents. If Licensee temporarily modifies the requirements of this condition, Licensee shall make all reasonable efforts to promptly resume performance of the requirements and shall notify USFWS, NMFS, CDFW and SWRCB within 48 hours of the modification. Licensee shall provide notification to the Commission as soon as possible but no later than 10 days after such incident.

5.0 <u>SSWD Proposed Measure TR1, Implement Bald Eagle</u> Management Plan⁶

The Licensee shall, within 1 year of license issuance, implement the Bald Eagle Management Plan included in Attachment 1 of this Appendix E2.

6.0 <u>SSWD Proposed Measure TR3, Implement Great Blue</u> <u>Heron Rookery Management⁷</u>

The Licensee shall implement a Limited Operating Period (LOP) from March 15 to July 31 within a 500-foot buffer of the great blue heron (*Ardea herodias*) rookery located presently at the South Shore Recreation Area and other blue heron rookeries that may be identified on Camp Far West Reservoir. Land barriers and appropriate signage shall be placed to designate the buffer zone during the LOP from the edge of the outside nest.

7.0 <u>SSWD Proposed Measure RR1, Implement Recreation</u> Facilities Plan⁸

The Licensee shall, within 1 year of license issuance, implement the Recreation Facilities Plan included in Attachment 2 of this Appendix E2.

8.0 <u>SSWD Proposed Measure CR1, Implement Historic</u> <u>Properties Management Plan⁹</u>

The Licensee shall, within 1 year of license issuance, implement the Historic Properties Management Plan included in Volume III of Licensee's June 2019 Application for New License.

⁶ As indicated in Table E2-1, SSWD, USFWS, CDFW, and FWN have had very productive discussions regarding this measure and are continuing to collaborate on this measure. The parties are in general agreement regarding limited operating periods and buffers around nests, and are discussing monitoring. SSWD and the parties anticipate reaching agreement and filing with FERC a consensus measure by the end of September 2019, at which time SSWD will amend its FLA to include the agreed-on measure. SSWD has included in this FLA its measure as proposed at this time.

⁷ As shown in Table E2-1, SSWD, USFWS, CDFW and FWN are in agreement with this measure.

⁸ As indicated in Table E2-1, SSWD and relicensing participants are in substantial agreement on this measure. The outstanding item is expanding the period when SSRA would be open. SSWD and the parties anticipate reaching agreement and filing with FERC a consensus measure by the end of September 2019, at which time SSWD will amend its FLA to include the agreed-on measure. SSWD has included in this FLA its measure as proposed at this time.

⁹ Under Section 106 of the NHPA, SSWD has consulted with SHPO and interested Tribes regarding this measure. SSWD has submitted the final HPMP to SHPO for concurrence and will file the final HPMP with FERC when SHPO concurrence is received. SSWD has included in this FLA the HPMP that was submitted to SHPO for concurrence.

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APPENDIX E2

Attachment 1

Bald Eagle Management Plan

<u>Application for New License</u> <u>Major Project – Existing Dam</u>

Bald Eagle Management Plan Security Level: Public

Camp Far West Hydroelectric Project FERC Project No. 2997



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GLOSSARY - DEFINITION OF TERMS, ACRONYMS AND ABBREVIATIONS

ac	acres					
Application	Application for New License					
BGEPA	Bald and Golden Eagle Protection Act					
CDFW	California Department of Fish and Wildlife					
CESA	California Endangered Species Act					
C.F.R	Code of Federal Register					
ESA	Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq. and 50 CFR 402)					
FERC or Commission	Federal Energy Regulatory Commission					
F.G.C.	Fish and Game Code					
FR	Federal Record					
ft	foot/feet					
LOP	Limited Operating Period; time period within which certain Project activities would NOT occur, within a pre-defined distance from a sensitive resource area.					
MBTA	Migratory Bird Treaty Act					
NMWSE	Normal Water Surface Elevation					
O&M	operations and maintenance					
Plan	Bald Eagle Management Plan					
Project	Camp Far West Hydroelectric Project, FERC Project No. 2997					
Project Vicinity	The area surrounding the proposed Project on the order of United States Geological Survey 1:24,000 quadrangles.					
§	section					
	Listed under the federal Endangered Species Act as Endangered, Threatened, Proposed or Candidate for listing.					
	Designated by the California Department of Fish and Wildlife as a Species of Special Concern.					
Special-Status	Listed under the California Endangered Species Act as Threatened, Endangered or a Candidate for Listing.					
	Classified as Fully Protected by the State of California.					
	Protected under the Migratory Bird Treaty Act.					
	Protected under the Bald and Golden Eagle Protection Act.					
SSWD	South Sutter Water District					
take	For bald eagles, 'take' includes pursue, shoot, shoot at, poison, wound, kill, trap, collect, molest, or disturb.					
USFWS	United States Fish and Wildlife Service					
U.S.C	United States Code					

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SECTION 1.0 INTRODUCTION

1.1 Background

In June 2019, the South Sutter Water District (SSWD), pursuant to Sections (§§) 5.17 and 5.18 of Title 18 of the Code of Federal Regulations (C.F.R.), file with the Federal Energy Regulatory Commission (FERC or Commission) an Application for New License for Major Project – Existing Dam for SSWD's 6.8 megawatt Camp Far West Hydroelectric Project (Project), FERC Project No. 2997. The initial license for the Project was issued by FERC to SSWD on July 2, 1981, effective on July 1, 1981. In its Application for New License (Application), SSWD proposes to continue operating the Project for the next 40 years with one modification to the spillway, a reservoir pool raise of 5 feet (ft) (from 300.0 ft Normal Maximum Water Surface Elevation [NMWSE) to 305.0 ft NMWSE), and the adoption of the resource management measures proposed in its license application.

The proposed FERC Project Boundary¹ encompasses 2,674.0 acres (ac) of land in Nevada, Placer, and Yuba Counties, California. Within the boundary, SSWD is the major landholder with 2,515.2 ac (94.8% of the area within the FERC Project Boundary). The remaining lands (146.7 ac) are privately-owned lands. Neither the existing FERC Project Boundary nor the proposed FERC Project Boundary includes federal lands. Figure 1.1-1 shows the Project Vicinity² and the proposed FERC Project Boundary.

¹ The Federal Energy Regulatory Commission Project Boundary encompasses all Project facilities and features as well as all land needed by SSWD for the normal operation and maintenance of the Project. The boundary is shown in Exhibit G of SSWD's Application for New License.

² In this Plan, "Project Vicinity" refers to the area surrounding the Project on the order of United States Geological Survey 1:24,000 scale topographic quadrangle.



Figure 1.1-1. Camp Far West Hydroelectric Project and Project Vicinity.

1.2 Purpose of the Bald Eagle Management Plan

This Bald Eagle Management Plan (Plan) is intended to provide guidance for the protection of bald eagles (*Haliaeetus leucocephalus*) in all areas within the FERC Project Boundary where bald eagles are affected or have the potential to be affected by the Project.

SSWD will coordinate, to the extent appropriate, the efforts required under this Plan with other Project resource efforts, including implementation of other resource management plans and measures included in the new license.

1.3 Goals and Objectives of the Bald Eagle Management Plan

The goal of the Plan is to ensure that Project operations and maintenance (O&M), as well as Project-related recreation activities, do not result in "take" of bald eagles and their eggs or nests by implementing measures that are consistent with federal and State of California laws and regulations (see Section 2.1.1 for the definition of "take" under various applicable laws and regulations).

The objective of the Plan is to provide necessary guidelines to meet Plan goals.

1.4 Contents of the Bald Eagle Management Plan

This Plan includes the following major sections:

- <u>Section 1.0.</u> Introduction. This section includes introductory information, including the purpose and goals of the Plan.
- <u>Section 2.0. Bald Eagle Distribution and Life History</u>. This section provides a description and life history of bald eagles, as well as occurrences known in the Project vicinity.
- <u>Section 3.0. Bald Eagle Protection</u>. This section describes bald eagle protection measures for the Project.
- <u>Section 4.0. Reporting, Consultation and Plan Revisions</u>. This section details reporting and consultation commitments under the Plan between SSWD and appropriate state and federal agencies.
- <u>Section 5.0. References Cited</u>. This section provides a list of the references cited in the Plan.

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SECTION 2.0 BALD EAGLE DISTRIBUTION AND LIFE HISTORY

2.1 Bald Eagle

2.1.1 Bald Eagle Status



On March 11, 1967, the southern bald eagle was listed as endangered under the Endangered Species Act (ESA) of 1966³ (32 Federal Record [FR] 4001). This endangered status resulted from a population decline caused primarily by high levels of dichloro-diphenyl-trichloroethane in the food chain that increased egg shell thinning and drastically impaired productivity. On February 14, 1978, the United States Department of the Interior, Fish and Wildlife Service (USFWS) ruled to delete the subspecific names for the southern and northern subspecies, which resulted in the designation of a

single species *Haliaeetus leucocephalus* (43 FR 6230). The February 14, 1978 ruling also listed bald eagle as endangered in 43 of the 48 contiguous United States. Bald eagle in the remaining five States (i.e., Washington, Oregon, Minnesota, Wisconsin, and Michigan) was listed as threatened (43 FR 6230). On July 12, 1995, all bald eagles listed as endangered in the 43 States were reclassified as threatened, while the status of threatened remained in effect for the five other States (60 FR 36000). On August 8, 2007, the USFWS ruled to delist the bald eagle (72 FR 37346). In the ruling, USFWS indicated that a reduction or elimination of threats, as well as habitat protection led to an increase in breeding pairs from an estimated 487 in 1963 to approximately 9,789 in 2007 in the 48 contiguous States (72 FR 37346).

Within California, the bald eagle was listed under the California Endangered Species Act (CESA) as endangered on June 27, 1971.

Section 86 of the California Fish and Game Code (F.G.C.) defines "take" to mean "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

In 1971, the State of California also assigned the status of Fully Protected Birds to bald eagle (F.G.C. § 3511). Section 3511 of the F.G.C. states:

Except as provided in Section 2081.7 or 2835, fully protected birds or parts thereof may not be taken or possessed at any time. No provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected bird, and no permits or licenses heretofore issued shall have any force or effect for that purpose. However, the department may authorize the taking of those species for necessary scientific research, including efforts to recover fully protected, threatened, or endangered species, and may authorize the live capture and

³ Endangered Species Preservation Act of 1966 was amended in 1969 by the Endangered Species Conservation Act of December 5, 1969 (P.L. 91-135, 83 Stat. 275), which was repealed by the ESA of 1973 (16 U.S.C. 1531-1544).

relocation of those species pursuant to a permit for the protection of livestock.

Additional protections for bald eagle in California exist under F.G.C. Sections 3503, 3503.5, and 3513, which make it unlawful to take, possess, or needlessly destroy birds' nests or eggs; take possess, or destroy raptors and their eggs and nests; and take or possess any migratory non-game bird or part thereof, designated in the Migratory Bird Treaty Act of 1918 (MBTA) (16 United States Code [U.S.C.] 703-712; Ch. 128; July 13, 1918; 40 Stat 755) as amended).⁴

Since delisting, federal protection of the bald eagle has continued under the MBTA, and the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d), as amended.

The MBTA provides protection to migratory birds and includes agreements between the United States, Great Britain on behalf of Canada, Mexico, Japan and Russia for the protection of such birds. The MBTA and its implementing regulations provide authority for the conservation of bald eagles and protect against take if the ESA protections are removed. The MBTA protects most native species of birds in the United States, including those likely to occur in the Project Vicinity (50 C.F.R. 10.13). In short, the MBTA, unless permitted by regulation, prohibits:

... taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests except as authorized under a valid permit (50 C.F.R. 21.11)

...pursuit, hunt, capture, take, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation of carriage, or export at any time, or in any manner, any migratory bird, included in the terms of the convention...for the protection of migratory birds...or any part, nest, or egg of such bird." (16 U.S.C. 703).

The MBTA language is clear that actions resulting in a "taking" of a protected species are violations of the MBTA. The MBTA does not specifically authorize the incidental take of migratory birds, and the USFWS does not issue permits authorizing the incidental take of migratory birds⁵. In the absence of a permit from USFWS, the temporary or permanent possession of protected migratory birds and their carcasses is also a violation of the MBTA.

The BGEPA protects bald and golden eagles (*Aquila chrysaetos*),⁶ except under specific conditions, from take and includes their parts (feathers), nests or eggs. Under BGEPA, "take" is

⁴ Take under F.G.C. Section 3513 defers to the "rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act."

⁵ On December 22, 2017 the Department of the Interior issued a legal memorandum that declared that the MBTA applies only to the purposeful actions that kill migratory birds, not to "incidental take" (U.S. DOI 2017). This memorandum is currently under litigation.

⁶ Bald Eagle Protection Act of 1940 was amended in 1978 (P.L. 95-616 [92 Stat. 3114]) to include golden eagles.

defined as "*pursue, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.*" Furthermore, disturb is defined as:

...to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding or sheltering behavior.

The BGEPA authorizes the USFWS to permit the take of eagles for certain purposes and under certain circumstances, including scientific or exhibition purposes, religious purposes of Native American tribes, and the protection of wildlife, agricultural, or other interests, so long as that take is compatible with the preservation of eagles (16 U.S.C. 668a). On December 14, 2016, the USFWS announced a final rule revising the regulations for permits for incidental take of eagles and take of eagle nests. The USFWS analyzed various alternative management options and rule revisions, including the final rule revisions, in a programmatic environmental impact statement (PEIS).

Among other revisions, the final rule addresses criteria for permit issuance, compensatory mitigation requirements, permit duration, and data standards for submitting permit applications. See https://www.fws.gov/birds/management/managed-species/eagle-management.php

The USFWS carries out its mission to protect wildlife and plant resources by fostering relationships with entities that have taken effective steps to avoid take, by encouraging others to implement measures to avoid take, and through investigations and enforcement when appropriate. The USFWS encourages companies to work closely with the USFWS to identify available protective measures when developing project plans to safeguard wildlife and to implement those measures where applicable. In addition, USFWS strongly encourages companies to apply for permits authorizing otherwise prohibited activity, including eagle programmatic take permits where eagle take is possible.

The development and implementation of an avian plan to avoid take of migratory birds, including bald and golden eagles, does not limit or preclude the USFWS from exercising its authority under any law, statute, or regulation. However, the USFWS Office of Law Enforcement focuses its resources on investigating and prosecuting those individuals and companies that do not identify and implement all reasonable, prudent and effective measures to avoid the take of migratory birds (including eagles) and then subsequently take individuals of such species.

Ideally, a high quality, scientifically valid, and robust avian protection plan that is implemented in a timely and effective manner, and regularly reviewed and revised as needed, will maximize avoidance of species protected under various federal laws while allowing for project development in the most environmentally conscientious ways practicable. Ultimately, it is the responsibility of those involved with the planning, design, construction, operation, maintenance, and decommissioning of projects to conduct relevant wildlife and habitat evaluation and determine, which, if any, species may be affected, and to seek and obtain necessary permits to avoid liability.

Violation of the BGEPA can result in criminal penalties that can result in a fine of \$100,000 for an individual (\$200,000 for organizations), imprisonment for 1 year, or both, for a first offense. Penalties increase for additional offenses, and a second offense is a felony.

2.1.2 Physical Characteristics

The bald eagle is a large raptor with a wingspan between 6 and 8 ft, and can weigh up to 14 pounds. According to McCollough (1989), bald eagles molt through five plumage phases. These five phases are important for establishing the age of an individual as well as distinguishing them from golden eagles. The five plumage phases are:

- Juvenile (first year) mostly dark including head and beak.
- Basic I (second year) mottled with white belly and inverted triangle on back and head crown is tan.
- Basic II (third year) body is mottled and variable with the head having a light crown and throat and dark eye stripe similar to an osprey's (*Pandion haliaetus*) head.
- Basic III (fourth year) plumage is mostly adult like with brown flecking on head and fading eye stripe, mostly yellow beak, some white flecking on belly and chest, and a brown terminal band on an otherwise white tail.
- Basic IV (fifth year) often indistinguishable from adult plumage, but does contain some brown flecking on the head and tail.

In addition to the plumage phases listed above, bald eagles may be further distinguished from golden eagles by their proportionately larger head and bill.

2.1.3 Life History

2.1.3.1 Nesting and Breeding

Bald eagles typically nest within 1 mile of water bodies. Their nests are large structures (i.e., approximately 6 ft in diameter), and are constructed with sticks. Nests are often found in the upper third of live, dominant or co-dominant trees, with some canopy above the nest that provides shade.⁷ Most nest trees exceed 100 ft in height. A single pair will use the same nest each year, and will often have alternate nests within their breeding territory (USFWS 2011).

Bald eagles can breed as early as 4 to 5 years of age, but in healthy populations may not breed until much older (USFWS 2011). The breeding period for bald eagles varies throughout their

⁷ Dominant or co-dominant trees are the most significant trees, in terms of size, within a stand of timber.

range and can often be influenced by weather but typically begins between January and mid-March with courtship and nest initiation, and ends when young fledge sometime in June or July (Jackman and Jenkins 2004). Table 2.2-1 outlines breeding chronology in northern California.

Breeding Activity	Dec/Jan	Feb	Mar	Apr	May	June	July	Aug		
Courtship, Nest Initiation	X ¹	Х	Х							
Egg Laying		Х	Х							
Incubation		Х	Х	Х						
Hatching			Х	Х	X					
Nestlings			Х	Х	X	Х	Х			
Fledging						Х	Х			
Post Fledging						Х	Х	Х		
Migration							Х	Х		

 Table 2.2-1. Bald eagle breeding chronology in Northern California.

Source: Jackman and Jenkins 2004

¹ X indicates the month in which breeding, nesting or rearing activities generally occur.

According to Stalmaster (1987), bald eagles lay one to three eggs asynchronously, 2 to 4 days apart. Eggs typically require 35 days of incubation and nestlings remain in the nest for about 12 weeks until they are fledged. After they are fully fledged juvenile birds remain in the vicinity of the nest for about 1 month.

2.1.3.2 Foraging

Bald eagles are opportunistic feeders and will forage on fish, waterfowl, small mammals, and carrion. Generally, foraging occurs in the morning and evening hours. Hunting perches are used and have the following attributes: close proximity to potential prey; isolation from disturbance; good visibility of surrounding terrain; and accessibility for landing and departing (Stalmaster 1987). Caton et al. (1992) believed that the location of a hunting perch relative to shallow water was very important at deep water lakes because shallow water tends to concentrate fish and makes them more visible and accessible to bald eagles.

2.1.3.3 Wintering

Prior to the onset of winter, many bald eagles will migrate from colder northern climates to warmer southern climates or from higher elevations that experience complete ice coverage of water bodies to lower elevations where water bodies remain ice free. During the winter bald eagles spend the night in a roost. Paired adults will night roost within their nesting territory, and have been observed roosting in the tree containing their nest (Jackman and Jenkins 2004, Merced Irrigation District 2010).⁸ According to the USFWS (2011) and Keister et al. (1987), communal roosts: 1) are areas where bald eagles gather and perch overnight, and sometimes during the day during inclement weather; 2) are in stands of trees that contain the largest, oldest, and most open-structured trees available; 3) are as close as possible to food; 4) may be used year after year; and 5) may be occupied by non-breeding migrant birds, both adult and subadult.

⁸ A nest stand is a patch of timber that includes the tree on which a bald eagle nest was constructed.

2.1.4 Distribution

2.1.4.1 California

Bald eagles range throughout California and can be found at most lakes, reservoirs, rivers, and some rangelands and coastal wetlands. The largest concentration of wintering bald eagles has historically been in the Klamath Basin, located on the border of California and Oregon. A majority of breeding pairs are found in northern California, while a smaller number of pairs can be found in the central and southern Sierra Nevada mountains and foothills, the Central Coast range and inland southern California. Breeding pairs are also found on Santa Catalina Island. (CDFW 2016).

2.1.4.2 Camp Far West Hydroelectric Project

SSWD completed the *Special Status Wildlife – Raptors* study as part of the relicensing. Specifically, SSWD identified and mapped known nest sites for three special-status raptor species: bald eagle, golden eagle, and Swainson's hawk (*Buteo swainsoni*) and conducted nesting surveys. Surveys included an area up to approximately 0.25-mile inland from the edge of the shoreline of Camp Far West Reservoir. Nesting bald eagle surveys were performed according to the *Bald Eagle Breeding Survey Instructions* (CDFW 2017) and *Protocol for Evaluating Bald Eagle Habitat and Populations in California* (Jackman and Jenkins 2004).

Bald eagle surveys were conducted on December 20-22, 2016; January 16-18; February 15, 23-24; March 16; April 6, 25; May 2; and June 16, 2017.

Forty-seven bald eagle occurrences (including multiple at the same site) were observed during surveys. Two active bald eagle nests were found within the proposed FERC Project Boundary in 2017. One nest is historic, previously found on the Bear River Arm of Camp Far West Reservoir in adjacent trees. It was previously documented in a 2013 report by Sycamore Associates. A second active bald eagle nest was found on the Rock Creek Arm of the reservoir, east of the North Shore Recreation Area boat ramp. Figure 2.2-1 shows recorded special-status raptor sightings on Camp Far West Reservoir during the 2017 surveys.



Figure 2.2-1. Bald Eagle Sightings and Nests Located During 2017 Surveys.

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SECTION 3.0 BALD EAGLE PROTECTION

3.1 Bald Eagle Protection Guidelines

SSWD will conduct surveys and implement protection guidelines described in this Plan to ensure that Project-related activities do not result in the take of bald eagles.

3.1.1 Surveys

SSWD will conduct nesting surveys via boat on Camp Far West Reservoir in the first calendar year after license issuance and in years 10, 20, 30⁹, and thereafter. Nesting surveys will be conducted in general accordance with the *Bald Eagle Breeding Survey Instructions* (CDFW 2017) and the *Protocol for Evaluating Bald Eagle Habitat and Populations in California* (Jackman and Jenkins 2004). The bald eagle nesting survey will occur in April or early May (as weather conditions allow) to ensure capturing the mid-point of a typical nesting season.

All data collected during nesting surveys will be recorded on the California Bald Eagle Nesting Territory Survey Form (CDFW 2017, Attachment A). Data collected at each site will include: 1) presence of adults; 2) courtship behavior; 3) evidence of nest repair or construction; 4) incubation; and 5) observation of old nests. Location data will be recorded, and photographs will be taken for all nests observed in a manner that does not disturb the breeding pair.

3.1.2 Establish Buffers and Limited Operating Periods

Upon completion of the nest survey, SSWD will develop a map showing a 0.25 mile buffer around all documented active bald eagle nests for implementation of buffers by SSWD operators/staff, except as noted or otherwise agreed to by SSWD, USFWS and CDFW. The buffer will encompass all SWWD-owned land and water that falls within the FERC Project Boundary in an approximate 0.25 mile radius of a documented nest or logical topographical boundary. SSWD will place markers along the shoreline (markers to be placed every 500 feet along the shoreline buffer area within the FERC Project Boundary, in a manner that would be expected to be durable) indicating that no watercraft are to be brought onto shore or anchored in the area, and pedestrians are not permitted on the shore.

The Bear River Arm nest will be protected from recreational uses and other Project activities with a 660 foot buffer within the FERC Project Boundary. SSWD will place permanent signage in the Camp Far West Reservoir approximately 660 feet downstream of the nest stating 'no wake and quiet zone.'

In years when nesting surveys do not occur throughout the Project (e.g., License Years 2-9, 11-19, and 21-29), SSWD will visit each nest identified during the previous survey to establish if the nest is active for the given year. If it is active, SSWD will establish the buffers and limited

⁹ Surveys will continue every 10 years if SSWD receives a license for a term greater than 30 years.

operating periods (LOPs) described in this Plan. If it is inactive, SSWD will document that for the report.

Beginning January 1 through August 31 of each year where there is a nest(s) with an established buffer, SSWD will institute a LOP for all SSWD Project-related activities, as well as restrict public access, on SSWD land within the buffer areas in the FERC Project Boundary. If a new nest is documented, SSWD will institute a LOP and implement buffers for that nest as soon as practicable, but not more than 7 working days after the initial sighting. If more time is required, SSWD will consult with the CDFW and USFWS.

Additional water barriers (e.g., buoys and signage) and land barriers (e.g., fencing and signage) around known occupied bald eagle nests will be installed within the FERC Project Boundary reservoir and SSWD-owned land (i.e., not on private land without the approval of the landowner), as determined appropriate by the CDFW and USFWS, to delineate the buffers in order to restrict Project O&M and recreation activities in the vicinity of nests. The buffers may be expanded to 1 mile for Project-related activities requiring the use of helicopters or blasting. The 1 mile buffer may be adjusted (i.e., reduced) in consideration of logical topographical boundaries. It is recognized that SSWD cannot control the activities of other parties (i.e., SSWD does not have enforcement authority) within the buffer areas during the LOP period.

Nest buffers may be removed, adjusted or new buffers may be established if subsequent nesting surveys demonstrate that a nesting territory is no longer occupied or new nests are identified. Additionally, any information provided to SSWD by USFWS or CDFW regarding previously unidentified or existing nests will be used to inform the establishment of nest buffers. Requests to remove established nest buffers at any time will be submitted to USFWS and CDFW for approval. Requests to remove a nest buffer shall include a justification for the removal, including dates of eagle surveys/checks and results from that year.

SSWD O&M staff will be trained to recognize nesting bald eagles exhibiting signs of disturbance or distress and to be knowledgeable of bald eagle LOPs and associated buffers. If SSWD O&M staff incidentally observe signs of disturbance or distress to bald eagles in response to conducting routine Project O&M activities, staff will immediately cease the activities that are causing the disturbance/distress and contact SSWD Management. SSWD Management will send a qualified biologist to the area where the disturbed/distressed eagles were observed to determine if there is a nest in the area. If an active nest is detected, SSWD will establish a buffer and LOP around the nest. SSWD will contact the USFWS's FERC Coordinator or BGEPA Coordinator, as well as the CDFW's FERC Coordinator, within 1 business day after the biologist completes an assessment. The activities that disturbed/distressed the bald eagles may resume with USFWS and CDFW approval or in 1 week, whichever occurs first, if no active nest is observed.

If non-routine Project activities are scheduled on or near the Camp Far West Reservoir where an active nest is not known during the normal LOP, SSWD will survey for active nests within a 1 mi radius no more than a week prior to the start of Project activities. If an active nest is located, a buffer will be established for the remainder of the LOP.

SSWD shall annually review this Plan with Operations staff, focusing on: 1) the locations and purpose of bald eagle protection measures; 2) potential signs and identification of bald eagles; and 3) the reporting of any newly discovered individual sightings or nests.

3.2 Incidental Sightings

SSWD shall record incidental observations of other nesting raptors within and just outside (within 500 ft) the FERC Project Boundary area while conducting bald eagle nest surveys and performing O&M activities. An incidental sighting should include approximate coordinates (if possible) or a description of the location, any behavior observed, and a photograph (if possible). The purpose of this effort is to opportunistically gather data through incidental observations, not to expand the specific monitoring described in this Plan, or for SSWD staff to perform additional surveys. SSWD shall maintain a map of incidentally observed nesting raptors within the Project.

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SECTION 4.0 REPORTING, CONSULTATION AND PLAN REVISIONS

4.1 **Reporting and Consultation**

By December 31 of each year in which surveys were conducted or buffers and LOPs were implemented under this Plan, SSWD will provide to the USFWS and CDFW a draft annual report for that calendar year. The report will include five components. The first component will include the results of all surveys that occurred in that calendar year, including: 1) a description of the surveys and methods; 2) the results of those surveys, including maps with occurrence information for each species and their nests surveyed or incidentally observed including alternate, unused nests within the territory; and 3) if nesting is documented, a description of the proposed buffers and LOPs. The second component will be a summary of observed disturbance or distress to bald eagles recorded during that calendar year. The third component will be a brief summary of results from all previous surveys conducted. The fourth component will be any additional, relevant information regarding bald eagle and nesting within the FERC Project Boundary and adjacent areas that was provided to SSWD by the USFWS and CDFW at least 45 days in advance of the report preparation. This information is intended to inform potential changes to existing buffers and LOPs, if appropriate. The last component of the report will be a summary of specific protection measures that were applied to Project O&M and construction activities, as appropriate, during that calendar year and include a discussion of the effectiveness of those protection measures, including vandalism of signs and buoys, during the bald eagle nesting season. This will also contain a description of emergency activities undertaken, if any, within a nest buffer area during the LOP. The report will also include an appendix containing information regarding incidental sightings of special-status raptors.

In the event that an emergency activity is undertaken within an active nest buffer area, SSWD shall notify USFWS and CDFW as soon as practicable once the emergency has been identified, but not more than 48 hours after the emergency has been identified. Unless otherwise approved by CDFW and USFWS, an Avian biologist will be present during all emergency activities that take place within the buffer, or shall be present as soon as practicable after the emergency has begun. When reporting on the emergency activity during the end of year summary, SSWD shall include all observed behaviors of the nesting eagles and young during the activities, distance from the nest for any activities that occurred within the buffer, and number of young known to have fledged or likely to have fledged.

Sixty days will be allowed for the USFWS and CDFW to comment before SSWD files the final report with FERC. SSWD will include all relevant documentation of coordination/consultation with the report filed with FERC. If SSWD does not adopt a particular recommendation made by CDFW or USFWS, the filing would include the reasons for not doing so, based on Project-specific information.

4.2 Plan Revisions

SSWD, in consultation with CDFW and USFWS, will review, update, and/or revise the Plan, as needed, when significant changes in the existing conditions occur, which may include, but not be limited to: changes in the State or Federal listing status of bald eagle; changes in the occurrence of bald eagles within the Project vicinity; changes in accepted survey protocols for bald eagle; changes in State and/or Federal laws or management plans related to bald eagle; changes in Project O&M activities; and repairs to existing or new construction of Project facilities.

Sixty days will be allowed for CDFW and USFWS to comment and make recommendations before SSWD files the updated plan with FERC for FERC's approval. SSWD would include all relevant documentation of coordination/consultation with the updated Plan filed with FERC. If SSWD does not adopt a particular recommendation by CDFW and USFWS, the filing would include the reasons for not doing so, based on Project-specific information. SSWD will implement the Plan as approved by FERC.¹⁰

¹⁰ The Plan will not be considered revised until FERC issues its approval.

SECTION 5.0 **REFERENCES CITED**

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South Sutter Water District Camp Far West Hydroelectric Project FERC Project No. 2997

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Attachment A

California Bald Eagle Breeding Survey Instructions and Nesting Territory Survey Form

STATE OF CALIFORNIA THE RESOURCE AGENCY DEPARTMENT OF FISH AND WILDLIFE

BALD EAGLE BREEDING SURVEY INSTRUCTIONS

BACKGROUND

The breeding season of Bald Eagles in California extends primarily from February through July. In past years, cooperating agencies, organizations, and private individuals participated in monitoring this species statewide to document nesting activities at each nesting territory. Though a coordinated monitoring is no longer occuring, the California Department of Fish and Wildlife continues to track nesting territory status based on reported data.

Breeding season surveys are an important part of the population recovery effort. Survey information is used by resource agencies to aid breeding territory management or protection activities. Additionally, population status and trends can be monitored to provide the data needed for assessing population recovery.

SURVEY TIMING AND INSTRUCTIONS

Territories should be checked at least three times during the nesting season, although more frequent checking is preferred. Emphasis should be placed on checking during incubation and early nesting periods.

- 1. Early March (early incubation) Territories in northern California should be checked in the first half of March, if possible, or as soon thereafter as road or weather conditions allow. The purpose of the first check is to determine whether a territory is occupied (record presence of adults, courtship behavior, evidence of nest repair or construction, incubation).
- 2. Late April or early May (early nesting period) This check is needed to confirm that a territory is unoccupied, or if occupied in March, to determine whether the breeding pair is still tending the nest (incubating eggs or tending young nestlings).
- 3. **Mid June (late nesting period)** The main purpose of this check is to determine how many nestlings are approaching fledgling age.

Survey dates maybe modified from these recommended time periods if the territories can be checked more frequently or if particular breeding pairs are known to begin nesting especially early or late in the season.

We recommend that observers report the stage of development of nestlings in accordance with <u>An Illustrated Guide for</u> <u>Identifying Developmental Stages of Bald Eagle Nestlings in the Field</u>, by G.P. Carpenter (April 1990). This booklet is available from the San Francisco Zoological Society, Sloat Blvd. At the Pacific Ocean, San Francisco, CA 94132 (415-753-7080).

SUBMITTION OF SURVEY FORMS

Please report observations on the **CALIFORNIA BALD EALGE NESTING TERRITORY FORM (revised 4/2010)**. Electronic forms can be found at <u>http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html</u>.Forms will be maintained in Department files and annual survey results will be compiled on the basis of these reports.

Please email completed forms by September 1 of survey year to <u>Carie.Battistone@wildlife.ca.gov</u>, or mail them to:

California Department of Fish and Wildlife Wildlife Branch 1812 Ninth Street Sacramento, CA 95814 ATTN: Carie Battistone

In place of field forms, you may also submit data using the Department's Online Field Entry Form – found here: <u>http://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data</u>. This application allows users to submit data online to CNDDB. First time users will need to set up a free account. The appleiation contains a mapping tool, allows users to generate reports of their data submissions, and saves all past and current submissions with your account. When entering data, if there are no field that exactly match to the data you wish to submit (e.g. # of young fledged, # of adults incubating, etc.), please include this information in the notes field.

If you have any questions please contact Carie Battistone at the above address or at Carie.Battistone@wildlife.ca.gov.

California Department of Fish and Game CALIFORNIA BALD EAGLE

NESTING TERRITORY SURVEY FORM

Territory Code:		
County:	Survey Year:	
Property Owner:	If USFS:	National Forest
Name (or general location of territory)	:	
Name of nearest water body:		
Location of Nest Site: LAT:	LONG:	
Other location info:		
No. of nests in territory - Intact:	Remnant:	
Nest Tree: Species:	Year last Used:	
Nest: Year last used		
NOTE: Please attach a map showing th	ne location of any newly o	documented nest tree.
Describe tree and nest condition and size	ze, and add other remar	ks:

For each visit to a territory, note, in detail, the times, number and age of birds, behavior of birds (lying, perching, etc.), evidence of nesting (nest maintenance, courtship, incubation posture), disturbances, and other pertinent information:

Initials of Observer	Date of Visit	Observations

Revised 9/2017

Initials of Observer	Date of Visit	Observations

(Attach additional pages, if necessary)

General Remarks:

PLEASE SUMMARIZE:

A. Successful Nestings: No. of young known fledged _____ or probably fledged _____

B. If no fledglings were produced this season please answer the following:

How many adults were seen in the territory?	
Was there evidence of nest repair or construction? Yes No	
Were adults seen in the nest? Yes No	
Were adults in incubating posture? Yes No	
Number of nestlings observed?	
Failed during incubation: or nestling stage:	
Other remarks:	
Observer(s) name:	
Affiliation:	
Address:	
Phone: () Fax: () Email:	

Mail all completed forms by September 1 of survey year to: ATTN: Carie Battistone, California Department of Fish and Wildlife, Wildlife Branch, 1812 Ninth Street, Sacramento, CA 95814. Or email completed forms to Carie.Battistone@wildlife.ca.gov.

ADDITIONAL OBSERVATIONS:

Te	rritory:	
TC	I I ICOI J .	

Territory:		Year:
Initials of Observer	Date of Visit	Observations (continued)

APPENDIX E2

Attachment 2

Recreation Facilities Plan

<u>Application for New License</u> <u>Major Project – Existing Dam</u>

Recreation Facilities Plan

Security Level: Public

Camp Far West Hydroelectric Project FERC Project No. 2997



Prepared by: South Sutter Water District 2464 Pacific Avenue Trowbridge, CA 95659 <u>www.southsutterwd.com</u>

June 2019

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None.

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GLOSSARY - DEFINITION OF TERMS, ACRONYMS AND ABBREVIATIONS

ac	acre		
Application	Application for New License		
Capital Improvement	The construction, installation, or assembly of a new fixed asset, or the significant alteration, expansion, or extension of an existing fixed asset to accommodate a change of purpose.		
DBAW	California Department of Boating and Waterways		
Design Narrative	Describes the management objectives, design criteria, and constraints associated with the development or major rehabilitation of a recreation facility. The Design Narrative should include: (a) management objectives; (b) design criteria, including criteria on type and color of materials and accessibility; (c) existing physical conditions; (d) any rehabilitation and new construction; (e) anticipated management problems that design may minimize; (f) site capacity, durability, and protection; (g) user safety; and (h) interpretive services.		
FERC	Federal Energy Regulatory Commission		
ft	feet or foot		
Major Rehabilitation Replacement Recondition Reconstruction	Making capital improvements and reconditioning or replacing an existing fixed asset or any of its components in order to restore the functionality or life of the asset. Replacement is the substitution or exchange of an existing fixed asset or component with one having essentially the same capacity and purpose. The decision to replace or rehabilitate a fixed asset or component is usually reached when replacement is more cost effective or more environmentally sound. Replacement of an asset or component usually occurs when it nears or has exceeded its useful life.		
SSWD	South Sutter Water District		
mi	mile		
Minor Rehabilitation	Minor rehabilitation includes repairs, and replacement of parts that result in fewer breakdowns and fewer premature replacements, and help achieve the expected life of the fixed asset. Minor rehabilitation does not include construction of new facilities or the replacement of an existing fixed asset. Minor rehabilitation activities will arrest deterioration and appreciably prolong the life of a property. Examples include: installing a new roof, new floor, or new siding, replacing electrical wiring or heating systems, repairing or replacing pipes, pumps and motors, and repairing the paths, walks, or walls of recreation facilities.		
Non-Peak Season	Non-peak season extends from January up to the Memorial Day holiday weekend and after Labor Day through December.		
NMWSE	Normal Maximum Water Surface Elevation		
Operational Maintenance	Keeping fixed assets in acceptable condition, including repairs, painting, replacement of minor parts and minor structural components. Operation maintenance, or reconditioning, neither materially adds to the value of the property nor appreciably prolongs its life. Operational maintenance excludes activities aimed at expanding the capacity of an asset or otherwise upgrading it to serve needs different from, or significantly greater than those originally intended. The work serves only to keep the facility in an ordinary, efficient operation condition. Examples include: interior painting, repair of broken windows, light bulb replacement, cleaning, unplugging drains, greasing, servicing, inspecting, oiling, adjusting, tightening, aligning, sweeping, and general snow removal. Maintenance activities may include: work needed to meet laws, regulations, codes, and other legal direction (such as compliance with ADA) as long as the original intent or purpose of the fixed asset is not changed.		
O&M	operation and maintenance		
Peak Season	Peak season extends from the Memorial Day to Labor Day holiday weekends.		
RA	Recreation Area		
RD	Recreation Day: Each visit by a person to a development for recreation purposes during any portion of a 24-hour period.		

South Sutter Water District Camp Far West Hydroelectric Project FERC Project No. 2997

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SECTION 1.0 INTRODUCTION

1.1 <u>Background</u>

In June 2019, the South Sutter Water District (SSWD), pursuant to Sections (§§) 5.17 and 5.18 of Title 18 of the Code of Federal Regulations (C.F.R.), plans to file with the Federal Energy Regulatory Commission (FERC) an Application for a New License for Major Project – Existing Dam for SSWD's 6.8 megawatt Camp Far West Hydroelectric Project (Project), FERC Project No. 2997. The initial license for the Project was issued by FERC to SSWD on July 2, 1981, effective on July 1, 1981. In its Application for New License (Application), SSWD proposes to continue operating the Project for the next 40 years with one modification to the spillway, a reservoir pool raise of 5 feet (ft) (from 300.0 ft [Normal Maximum Water Surface Elevation] NMWSE to 305.0 ft NMWSE), and the adoption of the resource management measures proposed in its license application.

The existing and Proposed Project consists of one development - Camp Far West – that, in total, includes: one main dam; one powerhouse with an associated switchyard with a capacity of 6.8 megawatts; and appurtenant facilities and structures, including recreation facilities and gages. Table 1.1-1 summarize key information for the Project's reservoir.

Tuble III II IIej	mormano	n regaranng	Cump I ul 1	(ebe my an		Jeer repervo	
Project Reservoir	NMWSE (ft)	Gross Storage ¹ (ac-ft)	Usable Storage ² (ac-ft)	Surface Area (ac)	Maximum Depth (ft)	Shoreline Length (mi)	Drainage Area At Dam (sq mi)
Camp Far West	300	93,737	92,430	1,886	155	29	284

Table 1.1-1. Key information regarding Camp Far West Hydroelectric Project reservoirs.

The proposed FERC Project Boundary¹ encompasses 2.674.0 acres (ac) of land in Nevada, Yuba, and Placer counties in northern California. Within the boundary, SSWD is the major landholder with 2,515.2 ac (94.8% of the area within the FERC Project Boundary). The remaining lands (146.7 ac) are privately-owned lands. Neither the existing FERC Project Boundary nor the proposed FERC Project Boundary includes federal lands. Figure 1.1-1 shows the Project Vicinity,² Project facilities, and the proposed FERC Project Boundary.

¹ The Federal Energy Regulatory Commission (FERC) Project Boundary encompasses all Project facilities and features as well as all land needed by SSWD for the normal operation and maintenance (O&M) of the Project. The boundary is shown in Exhibit G of SSWD's Application for New License.

² In this Plan, "Project Vicinity" refers to the area surrounding the Project on the order of United States Geological Survey (USGS) 1:24,000 scale topographic quadrangle.



Figure 1.1-1. Camp Far West Hydroelectric Project and Project Vicinity.

1.2 Purpose of the Recreation Facilities Plan

As part of its Application, SSWD will continue to maintain and operate recreation facilities on the Project. Specifically, SSWD will include the following requirement in a new license for the Project: SSWD will implement this Recreation Facilities Plan (Plan), as outlined within to maintain, rehabilitate, and upgrade the existing Project recreation facilities over the course of the new license term. This Plan describes SSWD's responsibilities regarding recreation facilities under the new Project license.

1.3 Goals and Objectives of the Recreation Facilities Plan

The primary goal of the Plan is to guide public recreation use of the Project's recreation facilities over the term of the license, while minimizing recreation use impacts to natural, historic, and prehistoric resources within the Project Area. The Plan includes the following objectives to help achieve this goal:

- 1. To provide a description and plan for recreation facilities that meet the needs of Project recreation users and are designed to meet federal, state, and local legal requirements, as applicable.
- 2. To describe in detail SSWD's responsibilities regarding recreation facilities under the new license.

1.4 <u>Contents of the Recreation Facilities Plan</u>

- <u>Section 1.0. Introduction</u>. This section includes introductory information, including the purpose and goal of the Plan.
- <u>Section 2.0.</u> Existing Recreation Use and Facilities. This section describes the existing Project recreation facilities, including condition, land ownership, and 2017 use levels.
- <u>Section 3.0.</u> Facility Operation and Rehabilitation. This section describes the recreational facility annual operational maintenance and major rehabilitation guidelines.
- <u>Section 4.0. Reporting and Plan Revisions.</u> This section describes the Plan revision process.
- <u>Section 5.0. References Cited.</u> This section provides a bibliography of the references listed in this exhibit.

South Sutter Water District Camp Far West Hydroelectric Project FERC Project No. 2997

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SECTION 2.0 EXISTING RECREATION USE AND FACILITIES

The Project provides developed and undeveloped recreation opportunities at Camp Far West Reservoir. Water-related recreational opportunities include water skiing, wakeboarding, power boating, jet-skiing, wildlife viewing, non-motorized boating and warmwater fishing. Boating use and launching occurs year-round. Yuba County Ordinance 8.51.010 limits the speed of boats to 20 miles per hour on the reservoir (Yuba County 2010). Camp Far West Reservoir offers anglers shoreline and boat-based fishing opportunities for smallmouth bass, largemouth bass, striped bass, catfish and panfish (CDFW 2018a). The reservoir does not have any site-specific fishing regulations or limits (CDFW 2018b). Historically, Cal Fish and Wildlife stocked Camp Far West Reservoir with warmwater game fish species from 1964 to 1985 (CDFW 2015).

Land-based recreation opportunities provided in the Project Vicinity include camping, wildlife viewing, hiking, biking and horseback riding. Facilities developed to support camping and other land-based recreation activities are described below. While the recreation areas (RA) do not provide formal trails for hiking, biking and horseback riding, the dispersed use areas provide a network of unpaved roads that provide a trail experience for visitors. In addition, informal trails occur within the FERC Project Boundary, primarily near the NMWSE, which are a result of non-Project cattle and ranch trails as well as Project user-created trails and paths due to the gentle sloping terrain adjacent to the shoreline. Dispersed camping is allowed outside the developed RAs.

The concessionaire that operates the two developed RAs at Camp Far West Reservoir provides numerous and varied events at the RAs and reservoir, including bi-monthly fishing tournaments, boating and fishing club events, equestrian events and other group events.

As a condition of its FERC license, SSWD provides recreational opportunities and facilities within the FERC Project Boundary. Below is a description of the developed facilities and recreation opportunities at Camp Far West Reservoir. SSWD owns and maintains two developed recreation areas at Camp Far West Reservoir – the North Shore Recreation Area (NSRA) and South Shore Recreation Area (SSRA) (Table 2.0-1). The NSRA and SSRA are the only public vehicular access points to the reservoir for recreation due to private lands. Outside of the RAs, the remaining shoreline is only accessible by foot or boat. All of these facilities are located on SSWD-owned land and operated through a concessionaire. The recreation facilities were originally constructed using Davis-Grunsky Act funding and the NSRA boat ramp was reconstructed in 2005 using the California Division of Boating and Waterways (DBAW) boat launching facilities grant funding.

Facility	Amenity	North Shore Recreation Area	South Shore Recreation Area	
Family Campgrounds	No. Sites (standard)	70	67	
	Sites (RV with hookups)	10	none	
	Parking Spurs	1 spur per site	1 spur per site	
	Overflow Parking Spaces	None	18 single	

Table 2.0-1.	Summary	of the Cam	n Far West	Hydroelectric P	Project recreation	facilities.
1 abic 2.0-1.	Summary	or the Cam	prar vicsi	inyui ociccuite i	10 jett retration	racinucs.

Facility	Amenity	North Shore Recreation Area	South Shore Recreation Area		
Family	Restrooms	2 flush	1 flush, 2 vault		
Campgrounds	Sility Amenity North mily grounds Restrooms 0.5 oup grounds Recreation Roads 0.5 oup grounds Sites 2, 1,50 Parking Spaces 2, 1,50 Parking Spaces 2, 1,50 Parking Spaces 2, 1,50 grounds Restrooms 4 p Recreation Roads 0.0 Picnic Sites 5 Swim Beaches 3 Recreation Roads 0.0 Parking Spaces 82 sin Recreation Roads 0.0 Number 1, Parking Spaces 82 sin Recreation Roads 0.2 rsed Use eas ⁶ Sites onal Water Sites Facilities KV Dump Station & Sewage Pond Onal Water Water Treatment Plant Recreation Roads 0 Parking Store 0 Entrance Station 0	0.8 mi, 20 ft wide, paved 0.3 mi, 12 ft wide, dirt	0.5 mi, 20 ft wide, paved 0.7 mi, 10 ft wide, paved		
	Sites	2, 25-person group sites, 1, 50-person horse camp site	1, 50-person group site		
FacilityAmenityNorth Shore RecreeFamily CampgroundsRestrooms2 flushRecreation Roads0.8 mi, 20 ft widCampgroundsRecreation Roads0.3 mi, 12 ft widGroup CampgroundsSites2, 25-person groGroup CampgroundsParking SpacesNonelParking Spaces0.05 mi, 10 ft widDay Use and Picnic Areas ³ Picnic Sites20Swim Beaches1Parking SpacesNone ⁴ Restrooms1 flushRecreation Roads0.05 mi, 20 ft widAreas ³ Restrooms1 flushBoat RampsNumber1, 4-lane concreParking Spaces82 single, 73 vehicleRestrooms1 flushRecreation Roads0.2 mi, 24 ft widRestrooms6 portable chemicRecreation Roads0.2 mi, 24 ft widRecreation Roads3.7 mi, 10 ft widRecreation Roads3.7 mi, 10 ft widRecreation Roads0.8 mi, 10 ft widRecreation Roads0.75 mi, 20 ft widRecreati	None ¹	10			
	Restrooms	4 portable chemical toilets	None ²		
	Recreation Roads	0.05 mi, 10 ft wide, paved	0.2 mi, 20 ft wide, paved		
	Picnic Sites	20	33		
Facility Family Campgrounds Group Campgrounds Day Use and Picnic Areas ³ Boat Ramps Dispersed Use Areas ⁶ Recreational Water System Facilities Entrance Facilities Other Facilities	Swim Beaches	1	1		
	Parking Spaces	None ⁴	44		
	Restrooms	1 flush	None ⁵		
	Recreation Roads	0.05 mi, 20 ft wide, paved	0.1 mi, 10 ft wide, paved (swim beach) 0.4 mi, 10 ft wide, dirt (picnic area)		
Boat Ramps	Number	1, 4-lane concrete ramp	1, 2-lane concrete ramp		
	Parking Spaces	82 single, 73 vehicle with trailer	52 vehicle with trailer		
	Restrooms	1 flush	1 flush		
	Recreation Roads	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	None (entrance road access facility)		
D' 111	Sites	2	2		
Areas ⁶	Restrooms	6 portable chemical toilets	2 flush1 flush, 2 vault20 ft wide, paved 0.5 mi , 20 ft wide, paved 12 ft wide, dirt 0.7 mi , 10 ft wide, pavederson group sites, son horse camp site $1, 50$ -person group siteNone ¹ 10 le chemical toiletsNone ² $10 \text{ ft wide, paved}$ 0.2 mi , 20 ft wide, paved 20 33 1 1 None ⁴ 44 1 flush None ⁵ $20 \text{ ft wide, paved}$ 0.1 mi , 10 ft wide, paved (swim beach) $20 \text{ ft wide, paved}$ 0.1 mi , 10 ft wide, dirt (picnic area)ne concrete ramp $1, 2$ -lane concrete ramp $13 \text{ vehicle with trailer}$ $52 \text{ vehicle with trailer}$ 1 flush 1 flush $24 \text{ ft wide, paved}$ None (entrance road access facility) 2 2 2 2 le chemical toilets 6 portable chemical toilets $i, 10 \text{ ft wide, dirt}$ $1.7 \text{ mi}, 10 \text{ ft wide, dirt}$ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 $10 ft wide, dirt$ 4 $1.0 \text{ ft wide, dirt$ 1 1		
Thous	Recreation Roads	3.7 mi, 10 ft wide, dirt	1.7 mi, 10 ft wide, dirt		
	RV Dump Station & Sewage Pond	1	1		
Boat Ramps Dispersed Use Areas ⁶ Recreational Water System Facilities	Water Treatment Plant	1	None ⁷		
	Water Storage Tank	1, 60,000-gallon tank	None ⁷		
	Recreation Roads	0.8 mi, 10 ft wide, dirt	0.1 mi, 10 ft wide, dirt		
Recreational Water System Facilities Entrance Facilities	Entrance Station	1	1		
	Store	1	1		
	Parking SpacesNone110Restrooms4 portable chemical toiletsNoneRecreation Roads0.05 mi, 10 ft wide, paved0.2 mi, 20 ft wide, pavedPicnic Sites2033Swim Beaches11Parking SpacesNone444Restrooms1 flushNoneRecreation Roads0.05 mi, 20 ft wide, paved0.1 mi, 10 ft wide, pavedNumber1, 4-lane concrete ramp1, 2-lane concParking Spaces82 single, 73 vehicle with trailer52 vehicle witeRestrooms1 flush1 flushRestrooms22Restrooms6 portable chemical toilets6 portable chemSites22Restrooms11Water Treatment Plant1NoneWater Storage Tank1, 60,000-gallon tankNoneRecreation Roads0.75 mi, 20 ft wide, paved0.5 mi, 20 ft wide, javedRecreation Roads0.75 mi, 20 ft wide, dirt0.1 mi, 10 ft wide, dirtRecreation Roads0.4 mi, 10 ft wide, dirt0.1 mi, 10 ft wide, dirtRecreation Roads0.4 mi, 10 ft wide, dirt0.1 mi, 10 ft wide, dirtRecreation Roads0.75 mi, 20 ft wide, paved0.5 mi, 20 ft wide, pavedRecreation Roads0.75 mi, 20 ft wide, dirt0.3 mi, 10 ft wide, dirt	0.5 mi, 20 ft wide, paved			
Other Facilities	Concessionaire Trailers	2	1		
Other Facilities	Recreation Roads	0.4 mi, 10 ft wide, dirt	0.3 mi, 10 ft wide, dirt		

¹ Parking is available in open areas adjacent to the group sites, but is not designated or defined.

² The group campsites use the adjoining family campground restroom building.

³ At NSRA, the picnic sites and swim beach are combined at one site; therefore, the site is categorized as a "day use area". At SSRA, the picnic sites and swim beach are separate sites on opposite sides of the recreation area; therefore, each site is called a "picnic area" and a "swim beach", respectively.

⁴ The day use area (picnic area and swim beach) uses the adjoining boat ramp parking area for parking.

 5 The picnic area uses the adjoining boat ramp restroom building.

⁶ The dispersed use areas provide day use and overnight opportunities with minimal facilities (roads, portable chemical toilets and trash cans).

⁷ Water is piped under the reservoir to South Shore Recreation Area from the North Shore Recreation Area treatment plant and storage tank.

2.1 <u>Existing Project Recreation Use Levels</u>

All of the Project's recreation facilities occur at the two Project RAs, and include overnight camping, picnicking, swimming and boating facilities. Recreation activities within the FERC Project Boundary are numerous and varied and include, but are not limited to, camping, fishing, boating, swimming, hiking, picnicking, sightseeing and wildlife viewing.

In 2017, the total Project recreation use was 78,641 Recreation Days (RDs) with the majority of that use occurring in the peak season (66.6% or 52,397 RDs) compared to the non-peak season (33.4% or 26,244 RDs) (Table 2.1-1). Day-use (70.6% or 55,5181RDs) accounted for the

majority of total use as compared to overnight use (29.4% or 23,123 RDs); and this day-use-toovernight use ratio was similar during both the peak and non-peak season. When comparing use by day type overall, total use was highest on the weekends (39,599 RDs) as compared to weekdays (26,217 RDs) and holidays (12,825 RDs). When comparing overall use by recreation, NSRA accounted for the highest percentage of use (81.9% or 64,429 RDs) compared to the SSRA (18.1% or 14,212 RDs), which was open on a limited bases in 2017 on select weekdays, weekends and holidays during the peak season. The SSRA was closed during the non-peak season.

Recreation Area	Day Type	Use Estimate in Recreation Days (RDs)								
		Peak Season		Non-peak Season			Overall ¹			
		Overnight Use	Day Use	Total Use	Overnight Use	Day Use	Total Use	Overnight Use	Day Use	Total Use
North Shore Recreation Area	Overall	10,690	27,495	38,185	7,267	18,977	26,244	17,957	46,472	64,429
	Weekday	5,602	7,665	13,267	4,214	5,417	9,631	9,816	13,082	22,898
	Weekend	2,937	12,207	15,144	3,053	13,560	16,613	5,990	25,767	31,757
	Holiday	2,151	7,623	9,774	n/a	n/a	n/a	2,151	7,623	9,774
~	Overall	5,166	9,046	14,212	closed	closed	closed	5,166	9,046	14,212
South Shore Recreation Area	Weekday	2,408	911	3,319	closed	closed	closed	2,408	911	3,319
	Weekend	1,820	6,022	7,842	closed	closed	closed	1,820	6,022	7,842
	Holiday	938	2,113	3,051	closed	closed	closed	938	2,113	3,051
Project Total	Overall	15,856	36,541	52,397	7,267	18,977	26,244	23,123	55,518	78,641
	Weekday	8,010	8,576	16,586	4,214	5,417	9,631	12,224	13,993	26,217
	Weekend	4,757	18,229	22,986	3,053	13,560	16,613	7,810	31,789	39,599
	Holiday	3,089	9,736	12,825	n/a	n/a	n/a	3,089	9,736	12,825

Table 2.1-1. Project recreation use estimate in Recreation Days by season and day type.

Source: Camp Far West Reservoir recreation concessionaire entrance gate records (SSWD 2016). Legend: n/a = no holidays during non-peak season.

2.2 <u>Existing Project Recreation Facilities at Project</u> <u>Reservoirs</u>

The following section includes a description of the existing Project recreation facilities and opportunities at each recreation area. This section also provides a brief summary of each primary recreation facility's (campground, picnic area, boat launch, etc.) condition based on a 2015 condition assessment by SSWD. Facilities and site elements (e.g., vehicle spurs, tables, fire rings, ramps) are in "good" condition if they are functional, well-maintained, showed no signs of deterioration and have the majority of their useful life remaining. Facilities and components are considered in "poor" condition if they are non-functional, had missing or broken parts and/or major structural damage is evident. A facility is considered to be in "fair" condition when it has some minor structural damage that could be repaired with ease or is functional, but shows signs of wear and tear (cracked wood, broken windows or door handles, etc.). Facilities in "fair" condition generally have a portion of their useful life remaining, but do not need immediate replacement.

2.2.1 North Shore Recreation Area

The NSRA is located on the north shoreline of the reservoir on a large peninsula. The NSRA is accessible by vehicle from the west and north via Camp Far West Road (Yuba Co. 42) and Spenceville Road. The access road is gated and an entrance station is located along the access road that regulates public access to the recreation area. The NSRA consists of a family campground, group campground, day use area with swimming beach, boat ramp and dispersed use areas (Figure 2.2-1). The NSRA also includes a general store at the entrance station for use by the public. The NSRA is open year-round for day use and overnight recreation opportunities. The NSRA is set in a partially wooded oak and grassland setting. The oak trees provide substantial shading throughout the recreation area, especially within the campgrounds. Due to the predominant grasses and lack of other ground-level vegetation, there is minimal screening between the individual sites with the campgrounds and day use areas.



Figure 2.2-1. Aerial site map of the North Shore Recreation Area.

2.2.1.1 Family Campground

The family campground is located in a semi-forested setting along the south shoreline of the NSRA. The facility consists of a total of 80 campsites including 70 standard sites and 10 recreational vehicle (RV) sites with hookups. Representative photographs are provided in Figure 2.2-2. Each of the standard campsites consists of a table (i.e., concrete or wood-metal construction), a rock fire ring, a parking spur (i.e., dirt or gravel), several tent pads and a trash can. Most of the sites also have a pedestal grill. Overall, the campsite amenities are in fair condition, with the exception of the remaining wood-metal construction tables and most pedestal grills that are aging and in poor condition. Potable water³ is provided at seven spigots dispersed throughout the campground. The facility includes two flush restroom buildings each with eight stalls (i.e., 7 toilets and 1 urinal) and four sinks; and both are in aging and in fair-to-poor condition. A typical campsite provides opportunities for tent or RV camping, but does not have hookups for water, electric or sewer. The circulation roads consist of one-way, 10-ft wide and two-way, 20-ft wide road segments; and are a combination of paved and dirt surfacing; and in fair condition overall (SSWD 2016).

The family campground also includes a loop with 10 RV sites each with full-service hookups including water, electric and sewer. In addition to the hookups, each site consists of a gravel spur, metal table, concrete fire ring, and a trash can. The RV campsites utilize a restroom facility at the adjacent standard campsite loop. The circulation roads consist of a one-way, 10-ft-wide dirt road (0.3 mi long) and a two-way, 20-ft-wide paved road (0.8 mi long). Overall, the RV camping facilities are new construction and in good condition (SSWD 2016).



³ Currently, temporary drinking restrictions are in place while SSWD completes water treatment infrastructure improvements.





Typical Circulation Roads

Figure 2.2-2. Photographs (dated 7/21/15) of the family campground at the North Shore Recreation Area.

2.2.1.2 Group Campground

The group campground is located in an open setting along the west shoreline of the NSRA to the north of the boat ramp and day use area. The facility consists of two group campsites (i.e., Tree and Point sites) serving 25 people–at–one-time. Each of the campsites consists of a concrete table, rock fire ring, water spigot, portable chemical toilet, and two trash cans. The Tree site also includes a cinder-block preparation/storage area that does not exist at the other group site. The access road to the sites is a 10-ft-wide, one way dirt surface road (0.05 mi long). Overall, the facilities are aging and in fair-to-poor condition (SSWD 2016). Representative photographs are provided in Figure 2.2-3.



Tree Site

Figure 2.2-3. Photograph (dated 7/21/15) of the group campsites at the North Shore Recreation Area.

Horse Camp

The Horse Camp is located in the midst of the Boss Point dispersed use area and is tailored specifically for equestrian use with hitch-and-post facilities; as well as two portable chemical toilets, a large concrete fire ring, and trash cans. Overall, the facilities provided are in good condition. A representative photograph is provided in Figure 2.2-4.



Horse Camp

Figure 2.2-4. Photograph (dated 7/21/15) of the dispersed use areas at the North Shore Recreation Area.

2.2.1.3 Day Use Area

The day use area is located in a semi-forested setting along the west shoreline of the NSRA to the north of the boat ramp. The facility consists of 20 picnic sites, a swim beach and shares a parking area with the boat ramp. Each picnic site consists of a table and a trash can. Pedestal grills and water spigots are also dispersed throughout the area. The swim beach is located between the picnic sites and the reservoir. The facility includes one flush restroom building with eight stalls (i.e., 7 toilets and 1 urinal) and four sinks. The short access road is a 20-ft-wide, two-way paved road (0.05 mi long). Overall, the facilities are aging and in fair condition (SSWD 2016). A representative photograph is provided in Figure 2.2-5.







Typical Picnic Site Amenities



Typical Restroom Building

Figure 2.2-5. Photographs (dated 7/21/15) of the day use area at the North Shore Recreation Area.

2.2.1.4 Boat Ramp

The boat ramp is located on the south shoreline between the family campground and the day use area. The facility consists of a boat launching ramp, parking area, restroom building and picnic site. The boat ramp is a 4-lane concrete ramp with a floating courtesy dock and a 4-lane boat preparation area. The end of the concrete ramp is at 236.0 ft elevation; however, informal boat launching is still available down to 188.0 ft elevation. The parking area is divided into three separate lots, all of which are paved with striped spaces; and provides a total of 82 single vehicle spaces, including two accessible spaces, and 73 vehicle with trailer spaces, including three accessible spaces. At lower water levels, parking is allowed adjacent to the boat ramp in dirt parking areas. The facility includes one flush restroom building with four stalls, each with a toilet and sink. A water spigot, water fountain and trash receptacles are located at the restroom building. The accessible restroom building area includes an accessible picnic table connected by an accessible ramp. The access road is a 24-ft-wide, two-way paved road (0.2 mi long). This facility was reconstructed in 2005 using a DBAW Boat Launch Facilities grant. The facilities are in good condition (SSWD 2016). Representative photographs are provided in Figure 2.2-6.



Figure 2.2-6. Photographs (dated 7/21/15) of the boat ramp facilities at the North Shore Recreation Area.
2.2.1.5 Dispersed Use Areas

The NSRA has two dispersed use areas within the recreation area, which are accessed by oneway and two-way dirt roads. Jet Ski Cove dispersed use area is located on the northwest portion of the recreation area. Facilities include two portable chemical toilets and trash cans dispersed In all, Jet Ski Cove dispersed use area encompasses 15 ac with throughout the area. approximately 0.5 mi of shoreline; all of which are accessed using a 12-ft-wide dirt road (0.6 mi in length). The second dispersed use area, Boss Point, is located in the northeast portion of the recreation area. Facilities include four portable chemical toilets and trash cans dispersed throughout the area. In all, Boss Point dispersed use area encompasses 55 ac with approximately 1.6 mi of shoreline; all of which are accessed using a network of 12-ft-wide dirt roads (3.1 mi in The dispersed use areas provide for largely undeveloped, dispersed day-use length). opportunities and overnight camping with minimal facilities and direct access to the reservoir shoreline. Overall, the few facilities provided are in good condition (SSWD 2016). Representative photographs are provided in Figure 2.2-7.



Typical View of the Boss Point Area Dispersed Use Area

Figure 2.2-7. Photographs (dated 7/21/15) of the dispersed use areas at the North Shore Recreation Area.

2.2.1.6 Recreational Water System

A recreational water system provides water throughout the NSRA, excluding the dispersed use area. The water system source is the reservoir, where two pumps in the reservoir deliver water at 70 gallons/minute (5,000,000 gallons or 15.3 ac-ft per year) uphill via underground piping to the water treatment facility atop a hill within the NSRA. After being treated, the water is piped nearby to a 60,000-gallon storage tank constructed of belted steel and recently installed in 2011. From the storage tank, underground distribution piping sends the water throughout the NSRA, where water is accessible via water hydrants dispersed throughout the recreation area facilities. The system also includes a sewage pond with an aerator to handle the sanitary needs of the flush restroom buildings and the RV dump station. The sewage system uses a gravity-feed operation and is supplemented by a pump to get the sewage to the sewage pond. The recreational water system is accessed using 10-ft-wide dirt roads (0.8 mi in length). (Figure 2.2-8)

Overall, much of the major above-ground components (i.e., water treatment plants, water storage tank, sewage ponds and aeration facilities) are in good condition with the treatment plant and storage tank having been reconstructed or replaced recently (SSWD 2016). The below-ground components (i.e., distribution piping) are largely original construction are in fair condition; and the above-ground water hydrants and fountains are largely in poor condition (SSWD 2016).



Figure 2.2-8. Photographs (dated 4/2/18) of the recreational water system components.

2.2.1.7 Other Facilities

The NSRA also includes a general store, RV dump station, private ranger residences and maintenance buildings. The store is located near the entrance to the NSRA facilities and also serves as the entrance station for the NSRA. The RV dump station is located near the family campground and boat ramp; and provides a 1-lane facility connected to a sewer system for disposing of RV holding tanks. Overall, these facilities are in good condition (SSWD 2016). Private concessionaire residences are also located between the entrance station and the boat ramp facilities that include residences and maintenance buildings. Photographs of these facilities are provided in Figure 2.2-9.



Figure 2.2-9. Photographs (dated 7/21/15) of the entrance station and RV dump station at the North Shore Recreation Area.

2.2.2 South Shore Recreation Area

The SSRA is located on the southwest shoreline of the reservoir on a long narrow peninsula. The SSRA is accessible by vehicle from the north and south via McCourtney Road (Placer Co. C6037). The access road is gated and an entrance station is located after the gate that regulates public access to the recreation area. The SSRA consists of a family campground, group campground, day use area, swim beach, boat ramp and dispersed use areas (Figure 2.2-10). The SSRA also includes a general store at the entrance station for use by the public located. The SSRA is generally open seasonally from April through October for day use and overnight recreation opportunities.⁴ Similar to the NSRA, the SSRA is set in a partially wooded oak and grassland setting. The oak trees provide substantial shading throughout the recreation area. Due to the predominant grasses and lack of other ground-level vegetation there is minimal screening between the individual sites with the campgrounds and day use areas.

⁴ The NSRA is open year-round for public use.



Figure 2.2-10. Aerial site map of the South Shore Recreation Area.

2.2.2.1 Family Campground

The family campground is located in a semi-forested setting on the north end of the recreation area. The facility consists of 67 standard campsites for either tent or RV camping, but the sites do not provide RV hookups. Each campsite consists of a table (i.e., concrete or wood-metal construction), a rock fire ring, a parking spur (i.e., dirt or gravel), several tent pads and a trash can. Most of the sites also have a pedestal grill. Six of the sites include a pull-through parking spur, whereas the remaining sites utilize back-in parking spurs. Water is provided at 12 spigots dispersed throughout the campground. Overall, the campsite amenities are in good condition, with the exception of the wood-metal construction tables that are aging and in fair-to-poor condition (SSWD 2016). The facility also includes one flush restroom buildings (i.e., 7 toilets, 1 urinal and 4 sinks) and two vault restroom buildings (i.e., each with 4 toilets), all of which are aging and in fair condition overall. The facility includes two overflow parking areas (paved) for a total of 18 single vehicles. The circulation roads consist of one-way, 12-ft-wide, and two-way, 20-ft-wide paved roads (1.2 mi in length). The parking areas and roads are in good condition (SSWD 2016). Representative photographs are provided in Figure 2.2-11.



Figure 2.2-11. Photographs (dated 7/21/15) of the family campground at the South Shore

Recreation Area.

2.2.2.2 Group Campground

The group campground consists of a single group campsite located in a forested setting on a bluff along the west shoreline of the SSRA. The facility consists of one group campsite serving 50 people–at–one-time. This site consists of a wood-metal table, large concrete fire ring, large food preparation table/area, a pedestal grill, trash cans and a gravel parking area for 10 vehicles. The access road to the sites is a two-way paved road. A water spigot is located at the start of the access road to the group campsite. Overall, the amenities are in good condition, with the exception of the wood-metal construction table that is in poor condition (SSWD 2016). A restroom building is available at the nearby family campground. The access road is a 20-ft-wide, two-way paved road (0.2 mi in length). A representative photograph of the facility is provided in Figure 2.2-12.





Figure 2.2-12. Photograph (dated 7/21/15) of the group campsite at the South Shore Recreation Area.

2.2.2.3 Picnic Area

The picnic area is located in a semi-forested setting along the east shoreline of the SSRA. The facility consists of 33 picnic sites, each with a table, and a parking area for 44 single vehicles. Pedestal grills, water spigots and trash cans are dispersed throughout the area for picnickers. The facility utilizes the boat ramp's flush restroom building (i.e., 7 toilets, 1 urinal and 4 sinks) located at the top of the boat ramp facility. The circulation road is a 10-ft-wide, one-way dirt and paved asphalt road (0.4 mi in length). Overall, the facilities are in good condition (SSWD 2016). Representative photographs of the facilities are provided in Figure 2.2-13.



Picnic Area



Picnic Site Amenities



Figure 2.2-13. Photographs (dated 7/21/15) of the picnic area at the South Shore Recreation Area.

2.2.2.4 Swim Beach

The swim beach is located in an open setting along the west shoreline of the SSRA in a cove commonly referred to as "Quarter Mile Cove" (Figure 2.2-14). The site provides direct water access for swimming and other water play activities for the campground visitors. Trash cans are dispersed throughout the area. The circulation road is a 10-ft-wide, one-way dirt road (0.1 mi in length). Overall, the few facilities provided (i.e., trash cans) are in good condition (SSWD 2016). The facility utilizes the family campground's vault restroom buildings located near the swim beach area.



Figure 2.2-14. Photograph (dated 7/21/15) of the swim beach at the South Shore Recreation Area.

2.2.2.5 Boat Ramp

The boat ramp is located on the northeast shoreline between the family campground and the day use area. The facility consists of a boat launching ramp, parking area and restroom building. The boat ramp is a 2-lane concrete and asphalt ramp with a floating courtesy dock. The end of the concrete/asphalt ramp is at 220.0 ft elevation and boat launching below this level is not advisable. The concrete section of the ramp and the courtesy dock are in good condition; whereas the lower asphalt section of the ramp is in poor condition with eroding edges and extensive cracking (SSWD 2016). The parking area provides a total of 52 vehicles with trailer spaces in a gravel lot and paved lot paralleling the top of the ramp access road. The parking areas are in good condition (SSWD 2016). The facility includes one flush restroom building with seven toilets, one urinal and four sinks. The restroom building is in fair condition (SSWD 2016). The boat launch uses the main entrance access road is a 20-ft-wide, two-way paved road (0.5 mi in length), which is the main entrance road into the SSRA. Representative photographs of the facilities are provided in Figure 2.2-15.



Figure 2.2-15. Photographs (dated 7/21/15) of the boat ramp facility at the South Shore Recreation Area.

2.2.2.6 Dispersed Use Areas

The SSRA has two dispersed use areas located on the west shoreline (Quarter Mile Cove dispersed use area) and southeast shoreline adjacent to the entrance station (Entrance Gate dispersed use area). Both areas are accessed by 10-ft-wide dirt roads (1.7 mi in length). These

areas allow for dispersed day use and overnight camping, but provide minimal facilities – roads, trash cans and six portable chemical toilets. Overall, the facilities are good condition (SSWD 2016). Representative photographs of the facilities are provided in Figure 2.2-16.





Typical View of the Entrance Gate Dispersed Use Area

Figure 2.2-16. Photographs (dated 7/21/15) of the dispersed use areas at the South Shore Recreation Area.

2.2.2.7 Recreational Water System

A recreational water system provides water throughout the SSRA, excluding the dispersed use area. The SSRA receives water from the NSRA water treatment plant and storage tank via two pipes under the reservoir. The water is dispersed throughout the SSRA via underground distribution piping, where water is accessible via water hydrants dispersed throughout the recreation area facilities. The SSRA system also includes a sewage pond with an aerator to handle the sanitary needs of the flush restroom buildings and the RV dump station. The SSRA sewage system is a gravity-fed system. The sewage pond is accessed using a 10-ft-wide dirt road (0.1 mi in length). Overall, these facilities are in good condition (SSWD 2016).

2.2.2.8 **Other Facilities**

The SSRA also includes an entrance station, general store, RV dump station, and private ranger residences and maintenance buildings. The store is located near the entrance to the SSRA facilities and also serves as the entrance station for the recreation area. A fuel station is also located at the general store. The RV dump station is located across from the general store and provides a 1-lane facility connected to a sewer system for RV holding tank disposal. The main entrance access road is a 20-ft-wide, two way asphalt road (0.5 mi long). Overall, these facilities are in good-to-very good condition. Private ranger residences are also located between the entrance station and the boat ramp facilities that include residences and maintenance buildings, which is accessed by a 10-ft-wide, one way dirt road (0.3 mi long). Photographs of these facilities are provided in Figure 2.2-17.



RV Dump Station

Figure 2.2-17. Photographs (dated 7/21/15) of the entrance station and RV dump station at the South Shore Recreation Area.

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SECTION 3.0 FACILITY OPERATION & REHABILITATION

This section describes the recreation facility measures that will be implemented by SSWD for the Project during the new license. This section is divided into two sub-sections, including: 1) recreational facility annual operational maintenance and activities; and 2) recreational facility major rehabilitation.

3.1 <u>Recreational Facility Operational Maintenance</u>

3.1.1 Operational Maintenance Responsibility

SSWD shall be responsible for the annual maintenance, rehabilitation, and replacement of all the Project recreational facilities at the Camp Far West Reservoir Recreation Areas (RAs). SSWD intends to use a concessionaire for the administration, O&M of the Project's recreation facilities.

3.1.2 Operational Maintenance Activities

Operational maintenance activities keep permanent assets in an acceptable condition and include repairs, painting, replacement of minor parts and minor structural components. Operational maintenance, or reconditioning, neither materially adds to the value of the property nor appreciably prolongs its life. Operational maintenance excludes activities aimed at expanding the capacity of an asset or otherwise upgrading it to serve needs different from, or significantly greater than those originally intended. The work serves only to keep the facility in an ordinary, efficient operating condition.

Examples of regular or routine operational maintenance activities include, but are not limited to interior painting, repair of broken windows, light bulb replacement, cleaning, unplugging drains, greasing, servicing, inspecting, oiling, adjusting, tightening, aligning, sweeping and general snow removal. Maintenance activities may include work needed to meet applicable laws, regulations, codes, and other legal direction (such as compliance with the Americans with Disabilities Act) as long as the original intent or purpose of the fixed asset is not changed.

Annual operational maintenance includes those activities that are expected to occur on an annual or semi-annual schedule, as conditions warrant. Annual maintenance activities include, but are not limited to: straightening all vehicle barriers and signs, rehabilitating picnic tables, pumping or servicing vault or portable toilets, and conducting state and local required water quality testing of the water supply system.

3.1.3 Recreation Area Campfire Policy

SSWD will allow wood burning campfires when contained within approved fire containment "fire-rings" and/or burn-barrels, and may restrict such use based on existing conditions and other local agency fire restriction policies.

3.2 <u>Recreational Facility Major Rehabilitation</u>

This section identifies what and how SSWD will rehabilitate and replace the existing Project recreation facilities – all located on SSWD land. Rehabilitation includes reconditioning or replacing an existing fixed asset or any of its components in order to restore the functionality or life of the asset. Replacement is the substitution or exchange of an existing fixed asset or component with one having essentially the same capacity and purpose. The decision to replace or rehabilitate a fixed asset or component is usually reached when replacement is more cost effective or more environmentally sound. Replacement of an asset or component usually occurs when it nears or has exceeded its useful life.

SSWD shall be responsible for the full cost for major rehabilitation or replacement of existing recreation facilities listed in Section 2.2. SSWD shall be responsible for performing all needed rehabilitation activities through the provision of necessary personnel, equipment, materials and management. SSWD shall be responsible to replace/rehabilitate recreation features which currently exist at their recreation facilities. All the facilities are located on SSWD land, and all new, rehabilitated, and reconstructed Project recreation facilities will meet applicable standards in place at the time of design and construction including any applicable Americans with Disabilities Act guidelines and any other applicable accessibility guidelines at the time of design.

SSWD shall rehabilitate facilities the individual facilities and components at each Project RA facility in accordance with the specifications in Table 3.2-1 when the facilities near the end of their useful life.

Table 3.2-1.	Major rehabilitat	ion guidelines for	r Project recreat	ion facilities.
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Type of Facility	Major Rehabilitation Guidelines			
Roads, Parking Areas and Campground Vehicle Spurs	 As needed, SSWD shall rehabilitate all existing roads and parking areas within the Project RAs. Specifically, SSWD shall: Repave (asphalt) and re-stripe parking areas, including installing vehicle barriers at each parking area and accessible parking designation; Repave/overlay existing asphalt circulation roads with asphalt; and install vehicle barriers, where necessary; Grade all existing dirt circulation roads; and install vehicle barriers, where necessary. Where unpaved, gravel or dirt parking areas exist, re-grade and clear the parking area and re-install vehicle barriers, as needed; and Repave or overlay existing asphalt campsite spurs or grade existing dirt campsite spurs and install vehicle barriers at each new spur, as needed. Rehabilitation of roads, parking areas, and vehicle spurs shall occur on a site-by-site or facility-by-facility basis at all Project RAs. Roads, parking areas, and vehicle spurs shall be scheduled for rehabilitation near the end of their useful life based on the findings during regular programeal increastions. 			
Fire Rings, Grills, and Picnic Tables	SSWD will replace fire rings, grills, picnic tables, and other constructed features near the end of their useful life based on regular or annual inspections.			
Signs	SSWD shall replace all existing entrance signs, directional signs, information/bulletin signs and trailhead signs, as needed, near the end of their useful life based on regular or annual inspections. SSWD shall replace signs with a sign of a similar design, and at least to the same construction as currently exist. Alternative materials may be used (i.e. recycled plastic, metal, etc.).			

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Restroom and Sewage Pond Facilities	SSWD shall replace the existing restroom facilities, as needed, near the end of their useful life. Each restroom facility shall maintain the same general current footprint and number of toilets, sinks, and stalls, unless SSWD determines that the location and layout of the restroom facility should be modified. The flush restroom facilities throughout the Project RAs discharge to a sewer collection system that routes sewage to the respective RA sewage ponds. The sewage ponds are permitted by the State and include operating, monitoring and reporting requirements. Sewage ponds will be maintained in acceptable condition to meet permit requirements and upgraded as needed depending on equipment life and regulatory requirements.	
Recreation Area Water Systems	SSWD shall maintained the recreational water system (i.e., distribution piping, system connections, water hydrants, storage tanks and treatment facility) in condition to meet permit requirements and upgrade the facilities as needed depending on equipment life and regulatory requirements.	
	SSWD will replace segments or portions of the underground distribution piping as condition warrants or leaks or inefficiencies in the system are identified, which will occur on a case-by-case basis. Overall, SSWD anticipates that all of the underground distribution system will be replaced or rehabilitated before the end of the new license term.	
	SSWD will replace all the above-ground facilities (i.e., water hydrants and fountains) within the first 3 years of the new license based on the specific condition of each individual hydrant or fountain.	
Boat Launch Floating Boat Docks and Boat Ramps	SSWD shall replace the floating boat docks and concrete launch ramps as each facility nears the end of its useful life. At the NSRA boat launch facility (reconstructed in 2005 with DBAW grant funding), SSWD shall include the replacement of the existing floating boat dock and concrete launch ramp with structures that meet the DBAW standards at the time of design.	
	At the SSRA boat launch facility, SSWD shall include the replacement of the existing floating boat dock and launch ramp with structures that consider user demand, resource concerns, reservoir drawdown, and design standards of the time.	
Trash Receptacles and Dumpsters	SSWD shall replace the existing trash receptacles and dumpsters, as needed, near the end of their useful life. For the existing trash receptacles, SSWD will install attached lids to each receptacle within the first 2 years of the new license.	

Table 3.2-1. (continued)

Importantly, at any time during the new license when major rehabilitation is planned, the work and placement will not occur in sensitive resource areas (e.g. wetlands, culturally sensitive sites, critical wildlife habitats, sensitive botanical sites). In addition, for any ground disturbing work related to minor rehabilitation, major rehabilitation, or capital improvements, SSWD will follow the invasive weed prevention and vegetation management practices. Specifically, SSWD will follow all applicable measures related to invasive weed and aquatic invasive species prevention, revegetation of recreation facility lands, and sensitive resource buffers and/or limited operating periods.

3.3 <u>Replacement of Existing Facilities Due to Camp Far West</u> <u>Reservoir Pool Raise</u>

Construction of the Camp Far West Reservoir pool raise from 300 ft to 305 ft would inundate or impact the function of select recreational facilities along the shoreline at both the NSRA and SSRA. Overall, the pool raise would affect 104 recreational facilities or site features along the shoreline at the NSRA and SSRA. Most of the affected features would be directly affected by the pool raise by either partially or fully inundating the features (i.e., campsite living space and amenities, circulation road, etc.). Some of the features would be indirectly affected, whereby the pool raise would not inundate the feature, but would closely abut the feature likely resulting in flooding and/or erosion impacts to the features due to wind, wave or high flow events.

SSWD will replace all the impacted recreation facilities in-kind (i.e., one-to-one replacement) within each respective recreation area. SSWD anticipates that all of the affected facilities will be relocated within each existing respective recreation area boundary and FERC boundary. However, if necessary, SSWD would utilize lands outside the recreation area and FERC

boundary to replace all of the impacted facilities in-kind (and update the FERC boundary if necessary). The construction work to relocate, re-route or realign the affected features would be completed in one calendar year. Overall, the majority of the construction would occur outside the peak recreation season (i.e., Memorial Day through Labor Day holiday weekends). In instances where construction would be necessary during the peak season, the work would be restricted to select areas and conducted during low-use periods (i.e., weekdays) to minimize any impacts to the recreation facilities and visitor experiences. SSWD will comply with any pertinent sensitive resource buffers and/or limited operating periods (e.g., great blue heron rookery in the SSRA).

SECTION 4.0 PLAN REVISION

4.1 <u>Plan Revision</u>

SSWD will review, update, and/or revise the Plan if changes in recreation use or resources create the need to update the plan. A need may arise from day-to-day O&M of the Project, or, from other anticipated and unanticipated events that may arise during the license period. Examples of such events that may trigger a need to update the plan include unforeseen recreation needs, new recreation technologies, or significant changes in the amount and types of recreation uses.

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SECTION 5.0 **REFERENCES CITED**

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