Monitoring Program 2021 Final Annual Report

Sacramento Municipal Utility District

Hydro License Implementation • June 2022

Upper American River Project

FERC Project No. 2101

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ACRONYMS AND ABBREVIATIONS

Acronym	Definition
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CVRWQCB	Central Valley Regional Water Quality Control Board
DWR	California Department of Water Resources
ENF	El Dorado National Forest
FERC	Federal Energy Regulatory Commission
ft	feet
FYLF	foothill yellow-legged frog
GIS	Geographic Information System
GPS	Global Positioning System
LWD	large woody debris
mm	millimeters
new license	The FERC License for the Upper American River Project 2101 issued July 2014 for which new flow regimes and other terms and conditions were implemented beginning in October 2014
old license	The original FERC License for Upper American River Project 2101 which concluded in July 2014 for which a different minimum flow regime and other terms and conditions were in place
Plan(s)	Bald Eagle Monitoring Plan, Amphibian and Aquatic Reptile Monitoring Plan, Bear Monitoring Plan, Large Woody Debris Monitoring Plan, and Water Temperature Monitoring Plan
PG&E	Pacific Gas and Electric Company
QA/QC	quality assurance/quality control
Report	Annual Monitoring Report
SFAR	South Fork American River
SMUD	Sacramento Municipal Utility District
SWAMP	Surface Water Ambient Monitoring Program
SWRCB	State Water Resources Control Board
UARP	Upper American River Project
USFS	U.S. Department of Agriculture, Forest Service
USFWS	U.S. Fish and Wildlife Service
VESs	visual encounter surveys
WPT	western pond turtle
YOY	Young-of-year

1.0 INTRODUCTION AND BACKGROUND

This Annual Monitoring Report (Report) addresses monitoring requirements set forth in Sacramento Municipal Utility District's (SMUD) Bald Eagle Monitoring Plan, Amphibian and Aquatic Reptile Monitoring Plan, Bear Monitoring Plan, Large Woody Debris Monitoring Plan, and Water Temperature Monitoring Plan (Plans).[1] Requirements of the Plans are found in State Water Resources Control Board (SWRCB) Conditions 8 and 10, and U.S. Department of Agriculture, Forest Service (USFS) 4(e) Condition 31 and 35, located in Appendices A and B, respectively, of the Federal Energy Regulatory Commission's (FERC) Order Issuing New License for the Upper American River Project (UARP; FERC Project No. 2101), dated July 23, 2014 (FERC 2014) and the USFS section 4(e) Conditions 14 and 15 for the Slab Creek Flow Facility Project License Amendment (USFS 2015). The Plans were developed in consultation with the SWRCB, USFS, California Department of Fish and Wildlife (CDFW), and U.S. Fish and Wildlife Service (USFWS). This Report presents the results of implementing the Plans in 2021.

SMUD owns and operates the UARP which is licensed by FERC. The UARP lies within El Dorado and Sacramento counties, primarily within lands of Eldorado National Forest (ENF). The UARP consists of three major storage reservoirs: Loon Lake, Union Valley, and Ice House (with a combined capacity of approximately 379,000 acre-feet), eight smaller regulating or diversion reservoirs, and eight powerhouses. The UARP also includes recreation facilities containing over 700 campsites, five boat ramps, hiking paths, and bicycle trails at the reservoirs.

All minimum streamflows required by the 2014 FERC License were implemented in October 2014; therefore, Year 1 as it pertains to the Monitoring Program is 2015. Pre- and post-2014 minimum streamflow requirements (i.e., "old" license and "new" license) are provided in Appendix A1.

This Report summarizes results of Monitoring Year 7 (2021). Refer to Section 1.2 of this report for information about the frequency of resource-specific monitoring efforts required by the License. Some monitoring activities have specific reporting requirements and deadlines in lieu of this Report.

For context in considering the monitoring results, the California Department of Water Resources (DWR) May Bulletin 120 forecast the 2021 water year type as Critically Dry. Because the preceding (i.e., 2020) water year type was Dry, the UARP was operated under a Super Dry scenario for the remainder of the water year, in accordance with the License conditions. The final 2021 water year type remained classified as Critically Dry based on DWR's Full Natural Flow record for the American River at Folsom in October 2021.

[1] Results of implementing the Water Quality Monitoring Plan (SMUD 2021) are provided in the Water Quality Monitoring Report 2021.

1.1 MONITORING SITES

Monitoring sites are depicted in Figure 1-1 through Figure 1-3 for all 2021 study locations.

1.2 MONITORING FREQUENCY

The Monitoring Program covers monitoring to be conducted during all years until a new license is issued. Table 1-1 describes the monitoring frequencies for the first eight years of the License. As noted in Section 1.3, some monitoring activities have specific reporting requirements and deadlines in lieu of this Report.

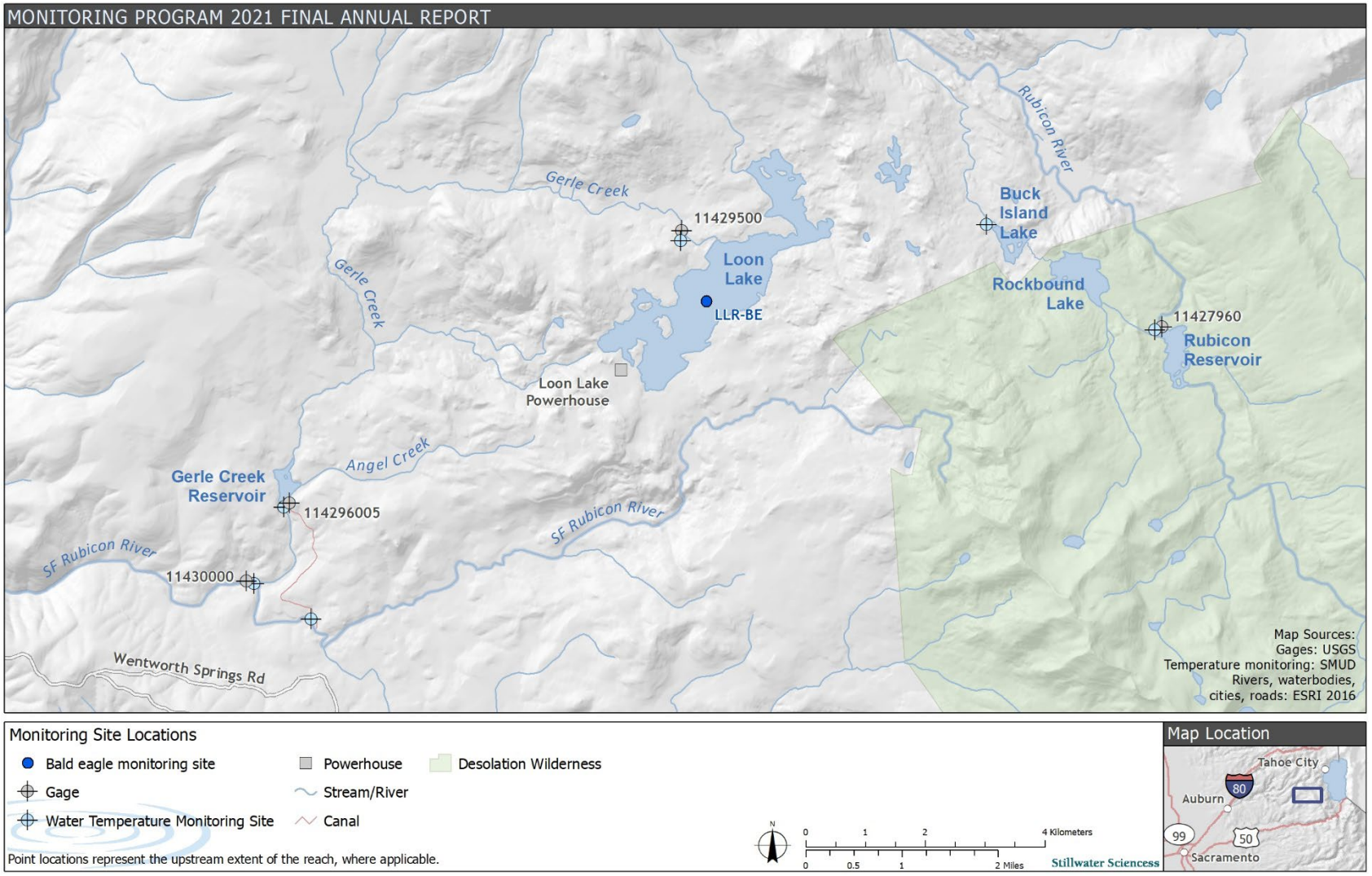

Figure 1-1. Monitoring locations downstream of Rubicon Reservoir, Rockbound Lake, Loon Lake, and Gerle Creek Reservoir.

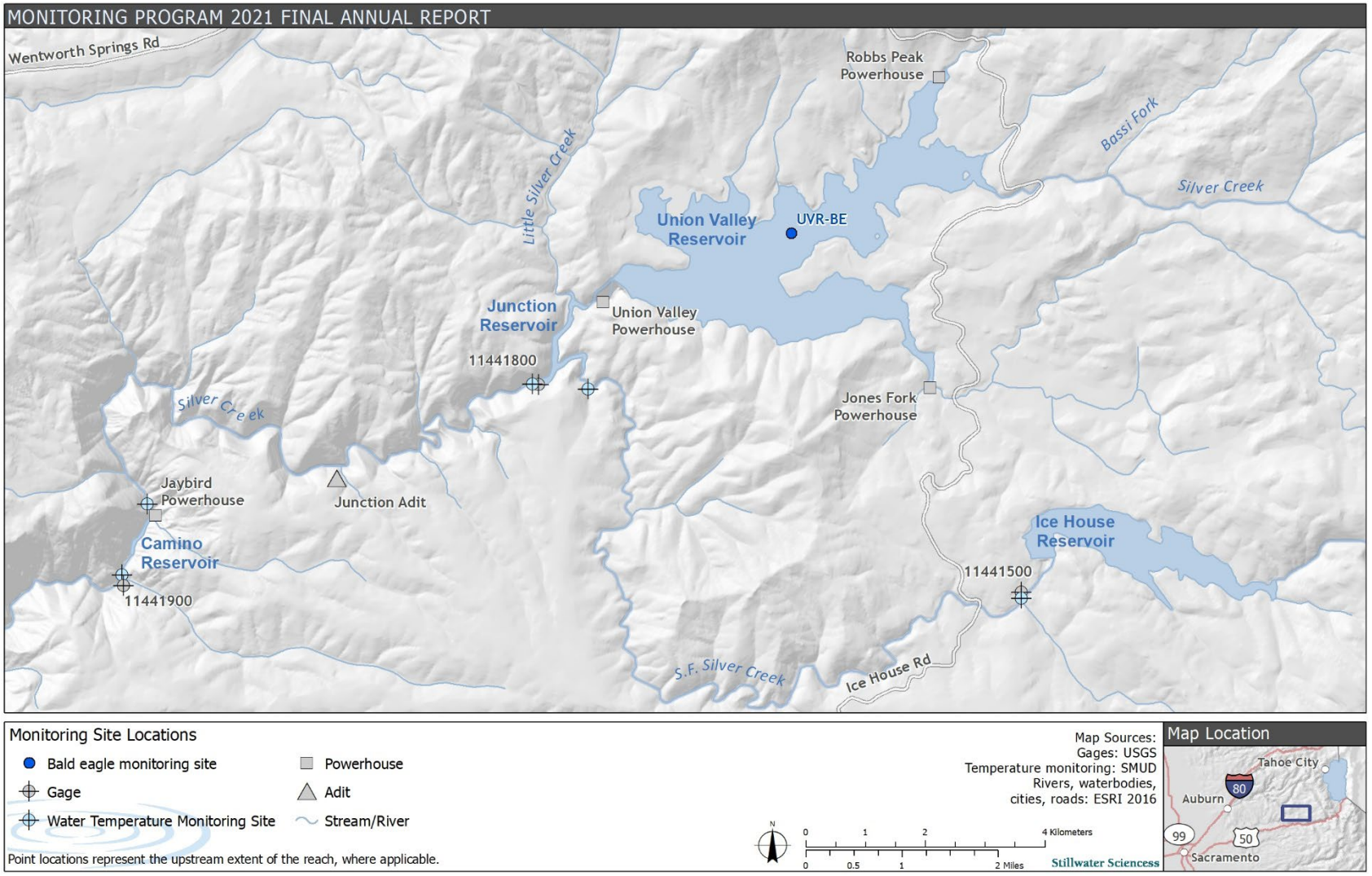

Figure 1-2. Monitoring locations downstream of Ice House Reservoir, Union Valley Reservoir, Junction Reservoir, and Camino Reservoir.

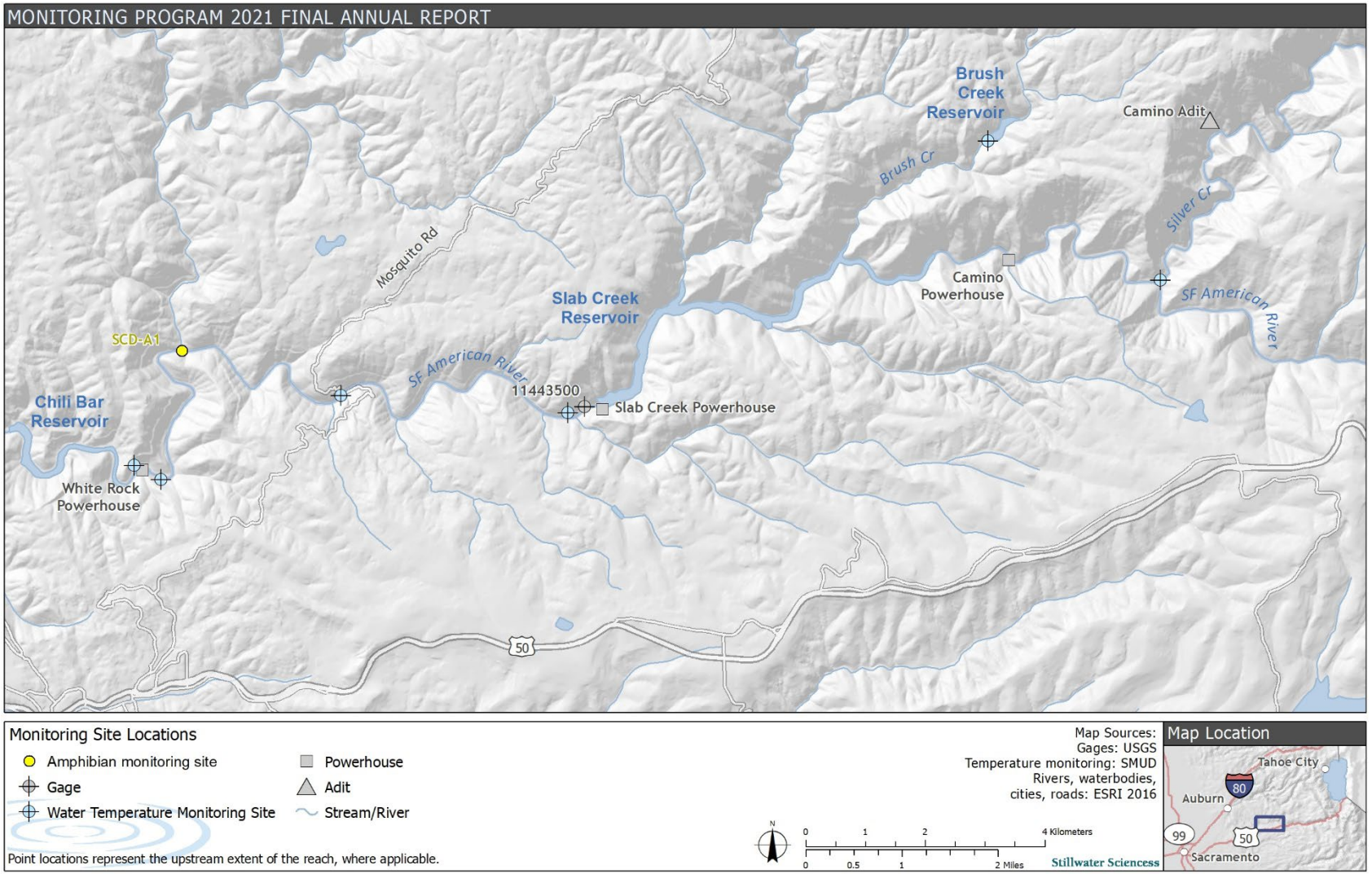

Figure 1-3. Monitoring locations downstream of Camino Reservoir (continued), Brush Creek Reservoir, and Slab Creek Reservoir.

Table 1-1. Monitoring Program Frequency First Eight Years.

Monitoring Effort	License Monitoring Year							
	1	2	3	4	5	6	7	8
	(2015)	(2016)	(2017)	(2018)	(2019)	(2020)	(2021)	(2022)
Trout Population Monitoring					X	X		
Hardhead Population Monitoring		X	X		X	X		
Aquatic Macroinvertebrate					X	X		
Amphibian and Aquatic Reptile Monitoring (including Foothill Yellow-legged Frog) [1]		X	X	X	X	X	X	
Sierra Nevada Yellow-legged Frog (formerly Mountain Yellow-legged Frog) Monitoring					X			
Riparian Vegetation Monitoring					X			
Algae Species Identification and Monitoring		X						
Geomorphology (Sensitive Site Investigation and Mitigation Plan Development)	X	X						
Geomorphology (Continuing Evaluation of Representative Channel Areas)					X			
Water Temperature		X	X	X	X	X	X	X
In Situ Water Quality	X	X	X	X	X	X	X	X
Bacteria Monitoring	X	X	X	X	X	X	X	X
Metals bioaccumulation		X					X	
Water General Chemistry			X					X
Robbs Peak Powerhouse Entrainment	X	X	X					

Monitoring Effort	License Monitoring Year							
	1	2	3	4	5	6	7	8
	(2015)	**(2016)**	**(2017)**	**(2018)**	**(2019)**	**(2020)**	**(2021)**	**(2022)**
Bear Management Monitoring		X	X	X	X	X	X	X
Bald Eagle Monitoring		X	X	X	X	X	X	X
Large Woody Debris	X	X	X	X	X	X	X	X

[1] Amphibian and Aquatic Reptiles Monitoring began in 2016.

1.3 LITERATURE CITED

FERC (Federal Energy Regulatory Commission). 2014. Federal Energy Regulatory Commission Order 148 FERC 62,070 Issuing New License for the Sacramento Municipal Utility District Upper American River Hydroelectric Project No. 2101. Issued July

2.0 BALD EAGLE

2.1 MONITORING PLAN OBJECTIVES

The primary objectives of the bald eagle (*Haliaeetus leucocephalus*) monitoring program are to document bald eagle nesting activity in the study area (see Section 1.0) and ensure that bald eagle nest sites are not adversely affected by activities related to the UARP. Results are intended to inform future bald eagle management in the UARP area (SMUD 2015).

2.2 METHODS

Observations at Union Valley Reservoir during the 2021 breeding season were made primarily via the cameras and microphone installed in 2019 by SMUD and USFS at the previously used bald eagle nest in Sunset Campground. Surveyors also periodically visited other locations on the reservoir during the breeding season to collect supplemental data on bald eagle activity.

Field surveys for bald eagle were performed during the 2021 breeding season at Loon Lake Reservoir in accordance with protocols described in the *Protocol for Evaluating Bald Eagle Habitat and Populations in California* (Jackman and Jenkins 2004) and *Bald Eagle Breeding Survey Instructions* (California Department of Fish and Game [CDFG] 2010). A detailed summary of bald eagle observations made during field surveys was submitted to CDFW at the end of the breeding season (Appendix B1). Access at Loon Lake was limited during the first half of the breeding season (February through mid-April) due to snow and road conditions. The first of three required breeding season surveys was performed in late April with two subsequent surveys occurring in May and June.

Nest and roost sites documented during previous survey years (i.e., 2016–2020) were revisited at each reservoir (SMUD 2021), and other areas with suitable habitat surrounding the reservoirs were evaluated for signs of bald eagle nesting activity. Observations were made using binoculars and/or a spotting scope from a boat and/or land-based vantage points (Figure 2-1). Detailed notes were taken on the location, age class, activity, movement, and behavior of bald eagles, as well as on recreational activity at each reservoir. Notable features (e.g., bald eagle perches, roosts) located during the surveys were mapped using a handheld field tablet equipped with a Global Positioning System (GPS). Incidental observations of other avian species were also recorded (Appendix B2).

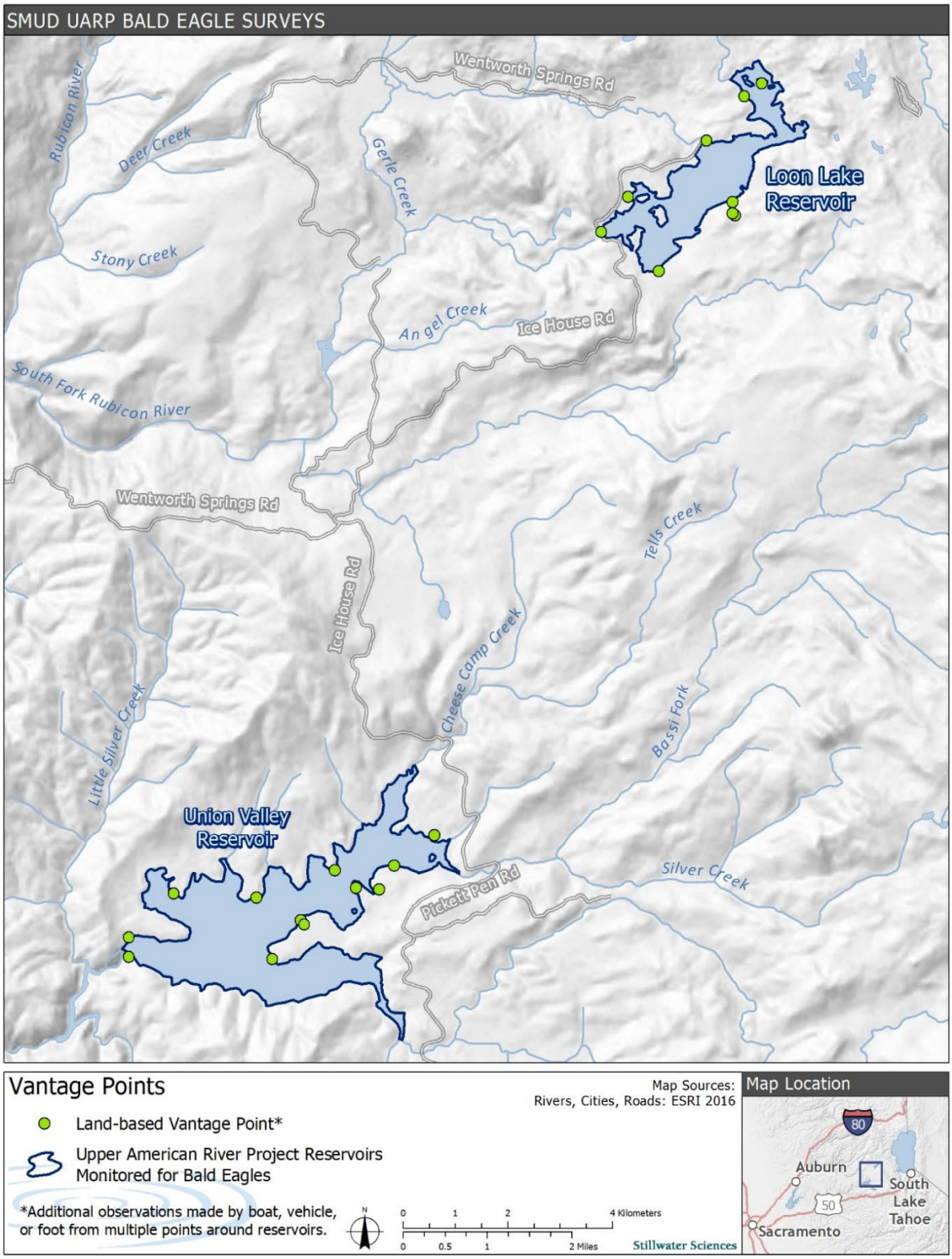

Figure 2-1. Land-based vantage points on Loon Lake Reservoir and Union Valley Reservoir used for monitoring in the Upper American River Project bald eagle study area.

2.3 RESULTS

2.3.1 Union Valley Reservoir

Adult bald eagles were observed via camera (Section 2.2) at the previously used (2016–2020) nest within a ponderosa pine (*Pinus ponderosa*) in Sunset Campground on Union Valley Reservoir consistently throughout the 2021 breeding season (Figures 2-2 through 2-6). Although nest-building activity was observed during the early breeding season, no additional reproductive activity was documented. An individual or pair of adult bald eagle typically visited the nest at or near dusk, suggesting nearby roosting. Periodic ground checks were performed at Union Valley Reservoir during the 2021 breeding season, during which no evidence of bald eagle nesting was observed elsewhere on the reservoir.

Figure 2-2. Adult bald eagles at the nest in Sunset Campground on Union Valley Reservoir (April 2021).

Figure 2-3. Adult bald eagles at the nest in Sunset Campground on Union Valley Reservoir (April 2021).

Figure 2-4. Adult bald eagles at the nest in Sunset Campground on Union Valley Reservoir (April 2021).

Figure 2-5. Adult bald eagle at the nest tree in Sunset Campground on Union Valley Reservoir (May 2021).

Figure 2-6. Adult bald eagles at the nest in Sunset Campground on Union Valley Reservoir (May 2021).

2.3.2 Loon Lake Reservoir

Surveys for bald eagles during the 2021 breeding season were conducted at Loon Lake Reservoir on 29 April, 10 May, and 30 June. During the first breeding season survey, two adult bald eagles were observed perching on the south side of the reservoir in the vicinity of the Jeffrey pine (*Pinus jeffreyi*) used for nesting from 2016–2018 and in 2020 (Table 2-1 and Figure 2-7). No signs of the nest were visible within the tree (Figure 2-8); however, a large mass of sticks appearing to consist largely of nest remnants was located at its base. Additionally, many recently fallen trees were observed along the nearby hiking trail (Rubicon Trail) and off-trail areas used to access the tree. Although bald eagles were observed during subsequent surveys, they were not seen again in the vicinity of the previously used nest tree, and no evidence of reproductive activity was observed elsewhere on Loon Lake Reservoir during the 2021 breeding season surveys. Table 2-1 summarizes bald eagle observations made during the surveys; additional detail regarding surveys conducted at Loon Lake Reservoir in 2021 is provided in Appendix B1.

Table 2-1. Bald Eagle Observations During the 2021 Breeding Season Surveys at Loon Lake Reservoir.

Date (Time)	Number of Eagles	Age Class	Notes
04/29/21 (09:24)	1	Adult	Adult (female) departing perch on south side of reservoir and flying eastward.
04/29/21 (09:39)	2	Adult	Two adults (male and female) perching in dead snag on south shoreline of reservoir for approximately 2 minutes before departing to the southeast.
04/29/21 (09:59)	2	Adults	Two adults (male and female) perching in pine immediately downslope of previously used nest tree.
05/10/21 (09:55)	2	Adults	Two adults (male and female) flying east to west from Pleasant Lake over the hills north of the spillway; observed soaring for approximately 10 minutes before disappearing over western end of reservoir near dam.
06/30/21 (11:15)	1	Adult	Adult flying south-southeast from Pleasant Lake beyond granite peak to the south.
06/30/21 (12:00)	1	Adult	Adult perching on northeast end of Pleasant Lake.
06/30/21 (13:15)	1	Sub-adult	Sub-adult (likely third year) flying north-northeast and perching in pine along east edge of Pleasant Lake.
06/30/21 (13:25)	1	Sub-adult	Sub-adult (likely third year) relocating to alternate perch along east edge of Pleasant Lake and departing to the south-southeast approximately 1 minute later.
06/30/21 (14:50)	1	Adult	Adult flying east to west near the dam before disappearing over the ridge to the north.

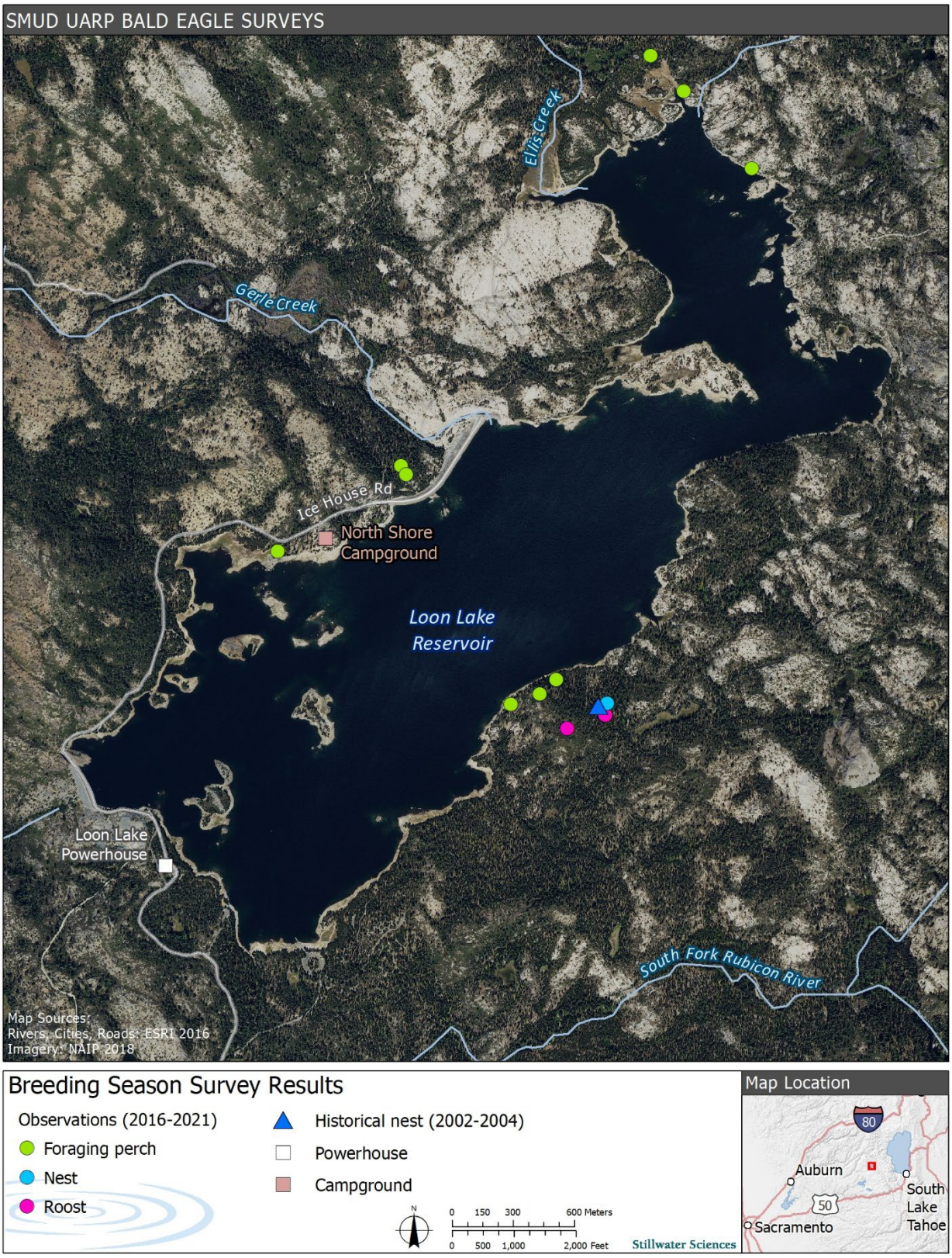

Figure 2-7. Bald eagle activity sites at Loon Lake Reservoir.

Figure 2-8. Former nest location in Jeffrey pine on south side of Loon Lake Reservoir (May 2021).

2.4 DISCUSSION

2.4.1 Union Valley Reservoir

Bald eagles continue to use the habitat surrounding Union Valley Reservoir, although they did not successfully reproduce in 2021. Bald eagles were observed both individually and together at the nest in Sunset Campground regularly over the course of the breeding season, but there was no indication of reproductive activity beyond nest repair. Frequent visits around dusk suggest that they were roosting nearby.

Weather conditions during the breeding season were mild relative to previous years, with cumulative precipitation in 2021 at approximately 45% of average for the region (NOAA 2021). As measured at Moratinni Flat approximately 7 miles to the east, cumulative precipitation during the breeding season was approximately 11 inches (DWR 2021b [Station ID: MFT]). Most precipitation fell in the early breeding season between mid-February and late March, and less than 3 inches accumulated afterward over the remainder of the breeding season. Snowpack (as measured by water content) reached a peak of approximately 22 inches in mid-March, after which it declined rapidly and melted completely by the end of March (DWR 2021b [Station ID: RBP]). Despite drier than normal conditions in the region in 2021, reservoir levels during the breeding

season ranged between 4,812 and 4,836 feet (ft) above mean sea level and were consistent with levels recorded in recent years of varying water year types (DWR 2021b [Station ID: UNV]). Minimum air temperatures were also typical for the region, beginning to regularly exceed freezing in April (DWR 2021b [Station ID: RBP]).

Recreational activity on and around Union Valley Reservoir during the 2021 breeding season was generally moderate and consisted primarily of fishing and boating. Projects involving noise-generating equipment began near the reservoir in May and continued through the end of the breeding season; these projects included improvements at West Point and Yellowjacket campgrounds and an extension of the existing bike trail along the northern perimeter of the reservoir. However, eagles were not observed exhibiting agitation or appearing disturbed due to noise activity at Sunset Campground or elsewhere around the reservoir.

2.4.2 Loon Lake Reservoir

There is a limited season of suitable bald eagle reproductive habitat around Loon Lake Reservoir due to its high elevation (approximately 6,500 ft). The duration of this season varies with weather conditions from year to year. The 2021 water year was critically dry in the UARP area (DWR 2021a); cumulative precipitation at Loon Lake Reservoir during the 2021 breeding season totaled just over 7 inches, with the majority (4.5 inches) occurring over a two-week period in early to mid-March (DWR 2021b [Station ID: LON]). Wind speeds reaching 56 miles per hour were recorded during mid-January at the Big Hill Met Station approximately 10 miles southwest of Loon Lake Reservoir; the maximum wind speed recorded subsequently during the breeding season was 32 miles per hour (DWR 2021b [Station ID: BHS]). Snowpack (as measured by water content) at the nearby Van Vleck Gage (DWR 2021b [Station ID: VVL]) averaged approximately 30 inches throughout the early breeding season and peaked at 32 inches on 25 March. The snowpack began to melt in early April as minimum air temperatures began to exceed freezing (DWR 2021b [Station ID: LON]) and dissipated entirely by mid-May (DWR 2021b [Station ID: VVL]). Reservoir levels during the 2021 breeding season remained relatively consistent, ranging from approximately 6,376 to 6,403 ft above mean sea level (DWR 2021b [Station ID: LON]), and were therefore unlikely to have affected eagle reproductive activity.

Bald eagles were seen at Loon Lake Reservoir, including in the vicinity of the previously used nest tree, during all surveys conducted in the 2021 breeding season; however, there were no observations indicating a reproductive attempt. The large number of fallen trees observed along the south side of the reservoir and the likely nest remnants at the base of the Jeffrey pine used for nesting in prior years suggest that strong winds in the area may have blown the nest out of the tree prior to the first breeding season survey in April. The bald eagles either made no attempt to breed in 2021 or initiated a reproductive attempt early in the season prior to the loss of the nest. In either case, no indication of nest rebuilding or other reproductive activity was observed during the 2021 surveys.

Recreational activity on or around the reservoir was low during the first and second surveys and moderate during the late breeding season survey (Appendix B1). Maintenance activities performed by SMUD during the 2021 breeding season were routine and did not involve significant noise generation. No observations of bald eagles exhibiting agitation or appearing disturbed due to recreational or maintenance activity at Loon Lake Reservoir were noted during the surveys.

2.5 LITERATURE CITED

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DWR (California Department of Water Resources). 2021a. Bulletin 120. Summary of Water Conditions. Sacramento, CA. May 1. https://cdec.water.ca.gov/snow/bulletin120/index2.html

DWR. 2021b. Precipitation, snow water content, temperature, and reservoir level data from the following stations in California: Big Hill Met (Station ID: BHS), Loon Lake Reservoir (Station ID: LON), Morattini Flat (Station ID: MFT), Robbs Powerhouse (Station ID: RBP), Union Valley Reservoir (Station ID: UNV), and Van Vleck Bunkhouse (Station ID: VVL). California Data Exchange Center, DWR, Sacramento, California. https://cdec.water.ca.gov/staInfo.html

Jackman, R.E. and J.M. Jenkins. 2004. Protocol for Evaluating Bald Eagle Habitat and Populations in California. Report prepared for USFWS. Sacramento, CA.

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SMUD (Sacramento Municipal Utility District). 2015. Bald Eagle Monitoring Plan. Hydro License Implementation for the Upper American River Project (FERC Project No. 2101). https://www.smud.org/en/Corporate/Environmental-Leadership/Power-Sources/Upper-American-River-Project/Hydro-License-Compliance.

SMUD. 2021. Bald Eagle Monitoring Report. Hydro License Implementation for the Upper American River Project (FERC Project No. 2101). https://www.smud.org/en/Corporate/Environmental-Leadership/Power-Sources/Upper-American-River-Project/Hydro-License-Compliance.

3.0 AMPHIBIAN AND AQUATIC REPTILE

3.1 MONITORING PLAN OBJECTIVES

The main objectives of the Amphibian and Aquatic Reptile Monitoring Plan (SMUD 2016a) are to monitor for and document the presence and distribution of sensitive amphibians and aquatic reptiles, focused primarily on foothill yellow-legged frog (*Rana boylii*) (FYLF) and western pond turtle (*Actinemys marmorata*) (WPT), over the term of the License (SMUD 2016a). Monitoring is being conducted to help determine if populations of these species in Project-affected streams are increasing or decreasing in response to higher minimum streamflows required by the 2014 License conditions or other streamflow fluctuations; additional details of the objectives are presented in the monitoring plan.

3.2 FIELD METHODS

3.2.1 Monitoring Sites

In accordance with the monitoring plan, one monitoring site within one Project reach[2] was surveyed during License Year 7 (2021; 6th year of license implementation studies), as listed in Table 3-1 and illustrated in Figure 1-3. Site SCD-A1 includes locations with potential habitat for FYLF, as described in the monitoring plan. FYLF and WPT observed in Site SCD-A1 during relicensing studies (2003–2004) and license implementation studies (2016–2021) are documented in Table 3-2.

[2] "Project reach" is a term used in this report to describe a segment of stream downstream of a dam (e.g., "Camino Dam Reach" is Silver Creek downstream of Camino Dam).

Table 3-1. Amphibian and Aquatic Reptile Monitoring Sites, 2021.

Project Reach	Site Code	Site Description	UTM Coordinates[1]		Site Length[2,3]	Elevation[2,4]
			Downstream End	Upstream End		
Slab Creek Dam Reach	SCD-A1	South Fork American River below Slab Creek Reservoir Dam	4292873 N/ 692573 E	4295022 N/ 692931 E	10,404 ft/ 2.0 mi	1,007 ft

[1] Projection: North American Datum 1983 (NAD83) Universal Transverse Mercator (UTM) Zone 10 North, N = Northing, E = Easting
[2] Site lengths and elevations are calculated in geographic information systems (GIS) (projection: NAD83 UTM Zone 10 North)
[3] Site lengths are reported in feet (ft) and miles (mi)
[4] Elevation is for the most downstream survey location at the site

Table 3-2. Foothill Yellow-legged Frog and Western Pond Turtle Observations at Amphibian and Aquatic Reptile Monitoring Site SCD-A1.

Project Reach	Site Code	Foothill Yellow-legged Frogs Observed[1]							Western Pond Turtles Observed[1]						
		2003/ 2004	2016	2017	2018	2019	2020	2021	2003/ 2004	2016	2017	2018	2019	2020	2021
Slab Creek Dam Reach	SCD-A1	No	No	No	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes

[1] Relicensing studies (2003–2004), and the first 6 years of license implementation studies (2016–2021)

3.2.2 Foothill Yellow-legged Frog

3.2.2.1 Visual Encounter Surveys

Visual Encounter Surveys (VESs) were performed in all safely accessible and permissible areas of the site, following protocols outlined in the Visual Encounter Survey Protocol for *Rana boylii* in Lotic Environments (Peek et al. 2017), as well as protocols like those outlined in Heyer et al. (1994), Lind (1997), and Pacific Gas and Electric Company (PG&E) (2002a, 2002b). In addition to FYLF, all other amphibian and reptile species observed during the surveys were recorded, as well as any potential predators (e.g., fish, crayfish, bullfrogs). The survey methodology follows methods first described in the monitoring plan (SMUD 2016a) and expanded on in the 2017 and 2018 Annual Monitoring Reports (SMUD 2018 and 2019).

Five focused VESs were conducted in 2021 as follows:

- one egg mass survey during the late breeding and early tadpole development period (June),
- two tadpole surveys during the tadpole development period (between July and August), and
- two surveys for newly metamorphosed (young-of-year [YOY][3]) FYLF in fall (between September and October).

Survey dates for Site SCD-A1 are listed in Table 3-3. VESs were conducted once crews were able to safely navigate study reaches downstream of dam infrastructure without risk of uncontrolled spill events. The survey initiated on 17 August 2021 did not cover the entire site as the survey crew had to evacuate the Project reach in response to the Caldor Fire. A fifth survey was conducted on 19 October 2021 to compensate for the incomplete survey in August.

[3] An individual was classified as a young-of-year (YOY) based on size (snout-to-vent length which can measure from 22 to 27 millimeters [mm] [0.8 to 1 inch], but typically from 22 to 24 mm [0.8 to 0.9 inch] [Nussbaum et al. 1983, Zeiner et al. 1988, PG&E 2002a]) and possible evidence of tail absorption; in addition, YOY are present in fall only.

Table 3-3. Amphibian and Aquatic Reptile Monitoring Survey Dates, 2021.

Site Code	Site Description	Visual Encounter Survey (VES) Date (2021)				
		VES 1	VES 2	VES 3	VES 4	VES 5
SCD-A1	South Fork American River below Slab Creek Reservoir Dam	6/15	7/15[a]	8/17[a, b]	9/14	10/19

[a] Focused western pond turtle (WPT) surveys were conducted during July and August surveys (though incidental WPT sightings were recorded during all VESs)
[b] Survey incomplete; crew had to evacuate the area in response to the Caldor Fire

3.2.2.2 Adaptive Management Monitoring

As part of adaptive management, the Amphibian and Aquatic Reptile Monitoring Plan outlines requirements for SMUD to monitor FYLF following spill events at Camino and Slab Creek reservoirs, and during flow fluctuations from Camino Dam (SMUD 2016a). Monitoring for effects to FYLF includes looking for evidence of damage, displacement, or scouring of egg mass or larvae, as well as evidence of egg mass or larval stranding/desiccation. There were no spill events during License Year 7 that triggered adaptive management monitoring; thus, no adaptive management monitoring was conducted in 2021.

SMUD's Block of Water Plan (SMUD 2016b) describes possible requirements to monitor for FYLF if block water releases are required in wet water year types to maintain water temperatures in Silver Creek below Camino Reservoir Dam. No block of water release was required in License Year 7; thus, no FYLF monitoring was conducted per the Block of Water Plan in 2021.

3.2.3 Western Pond Turtle

Focused WPT surveys where two dedicated surveyors looked for WPT were conducted concurrently with the summer (July and August) FYLF VESs (Table 3-3). In addition, any incidental WPT sightings (and morphological data for captured turtles) were recorded during all other VESs. The survey methodology follows methods first described in the monitoring plan (SMUD 2016a) and expanded on in the 2017 and 2018 annual monitoring reports (SMUD 2018 and 2019).

3.3 RESULTS

Table 3-4 provides survey start and end times, along with water and air temperatures recorded during each VES. Representative monitoring site and habitat photos are included in Section 3.3.1.1.

Table 3-4. Foothill Yellow-legged Frog and Western Pond Turtle Survey Conditions, 2021.

Site Code	Survey Date (2021)	VES #	Time		Temperature Ranges	
			Start Time (hours)	End Time (hours)	Water (°C)	Air (°C)
SCD-A1	6/15	1	1030	1655	15–19	24–30
	7/15	2	920	1539	17.5–21.5	24–32
	8/17	3	935	1116	15[a]	24[a]
	9/14	4	930	1602	15[b]–17	20–26
	10/19	5	940	1515	10–11	6–16

VES # = Visual Encounter Survey number
°C = degrees Celsius
[a] Survey incomplete, temperature collected at survey start only.
[b] Lower temperature is estimated based on survey end temperature due to a thermometer malfunction.

3.3.1 Foothill Yellow-legged Frog

No FYLFs were observed at Site SCD-A1 (South Fork American River [SFAR] below Slab Creek Reservoir Dam) in 2021 or in any prior monitoring years. FYLFs have only been documented at sites CD-A3 and CD-A4 during relicensing studies (2003–2004) and during the first five years of license implementation studies (2016–2020, License Years 2–6) (Table 3-2).

Habitat conditions along Site SCD-A1 were similar to conditions observed during 2017 through 2020 monitoring years (SMUD 2018, 2019, 2020, and 2021a). Decreased cover along the channel and banks caused by the scour from high stream flows during the wet water year in 2017 persisted in 2021. However, with the absence of large scouring events in the last few years, willow seedlings (*Salix* spp.) have established along the banks of Site SCD-A1 (Figure 3-1). Stream flows in 2021 were similar to the low flows in 2020 (Super Dry and Dry years, respectively[4]), resulting in less connectivity to side channels and pools and less standing water on the banks of the channel. Suitable FYLF habitat at SCD-A1 is shown in Figure 3-2, and representative habitat photos for Site SCD-A1 are shown in Figure 3-3 and Figure 3-4.

[4] Following the water year type definitions stated in the License, 2021 was a “Super Dry” water year type because it was a “Critically Dry” water year preceded by a “Dry” water year in 2020 (SMUD 2021b).

Figure 3-1. Photo of willow saplings along Site SCD-A1, 15 June 2021.

Figure 3-2. Representative photo of suitable foothill yellow-legged frog habitat along Site SCD-A1, 15 June 2021.

Figure 3-3. Representative photo of Site SCD-A1, 14 September 2021.

Figure 3-4. Representative photo of Site SCD-A1, 17 August 2021.

3.3.2 Western Pond Turtle

WPT survey conditions are documented in Table 3-4. The weather and associated survey conditions were good to ideal during all WPT surveys, with warm temperatures, sunny/clear skies, and no wind to a light breeze. Air quality and associated visibility during the 17 August 2021 survey was slightly hazy due to the Caldor Fire.

A total of five adult WPTs (no recaptures[5]) were observed at monitoring Site SCD-A1 (SFAR below Slab Creek Reservoir Dam) in 2021 (Table 3-9, Figure 3-5); all were hand-captured and morphological data recorded. All five individuals were observed underwater while snorkeling.

The WPTs were located throughout the monitoring reach at depths ranging from 0.5–1.9 m (1.6–6.2 ft). The WPTs were all found perched underwater on a variety of substrates including willows, sedges, small boulders, bedrock, and sand. There were no WPT found basking above water or on land in 2021. Four of the WPTs observed were female (Figure 3-6 through Figure 3-9) and one WPT was male (Figure 3-10). Scute rings were counted for each individual and ranged from the youngest[6] with 7 scute rings to the oldest with scute rings that were too worn to be counted.[7]

In 2021 there was one location on the reach where two WPTs (both females) were observed and captured together on 15 June. This female pair was observed underwater amongst willow branches and in a small boulder-filled pool.

[5] No recaptures based on morphological characteristics including size, sex, scute rings, and markings.
[6] Evidence suggests that scute rings can be used to determine the approximate age of a turtle, by the assumption that one ring is deposited per year up to a certain age (Ashton et al. 2012).
[7] Scute rings for older WPT can become worn down and beveled over time (Bury et al. 2012); additionally, when turtles are older (greater than 12 scute rings), individuals will no longer deposit new scute rings (Germano and Bury 1998, Bury and Germano 1998).

Table 3-5. Western Pond Turtle Observation Locations and Data at Site SCD-A1, 2021.

Location Description	Date (2021)	Life stage/ Sex	Carapace		Number of Scute Rings	Habitat
			Length mm (in)[1]	Width mm (in)[1]		
South Fork American River below Slab Creek Reservoir Dam (Site SCD-A1)	6/15	Adult/ Female[2]	140 (5.5)	110 (4.3)	8	Vegetation-filled pool
		Adult/ Female[2]	150 (5.9)	120 (4.7)	8	
		Adult/ Female	135 (5.3)	100 (3.9)	7	Sedge and rock outcrop
	8/17	Adult/ Female	135 (5.3)	112 (4.4)	9	Bedrock sheer face
	10/19	Adult/ Male	132 (5.2)	124 (4.9)	--[a]	Sand shelf of pool

[1] mm = millimeters, in = inches
[2] Individuals were observed together
[a] Scute rings were worn and not visible

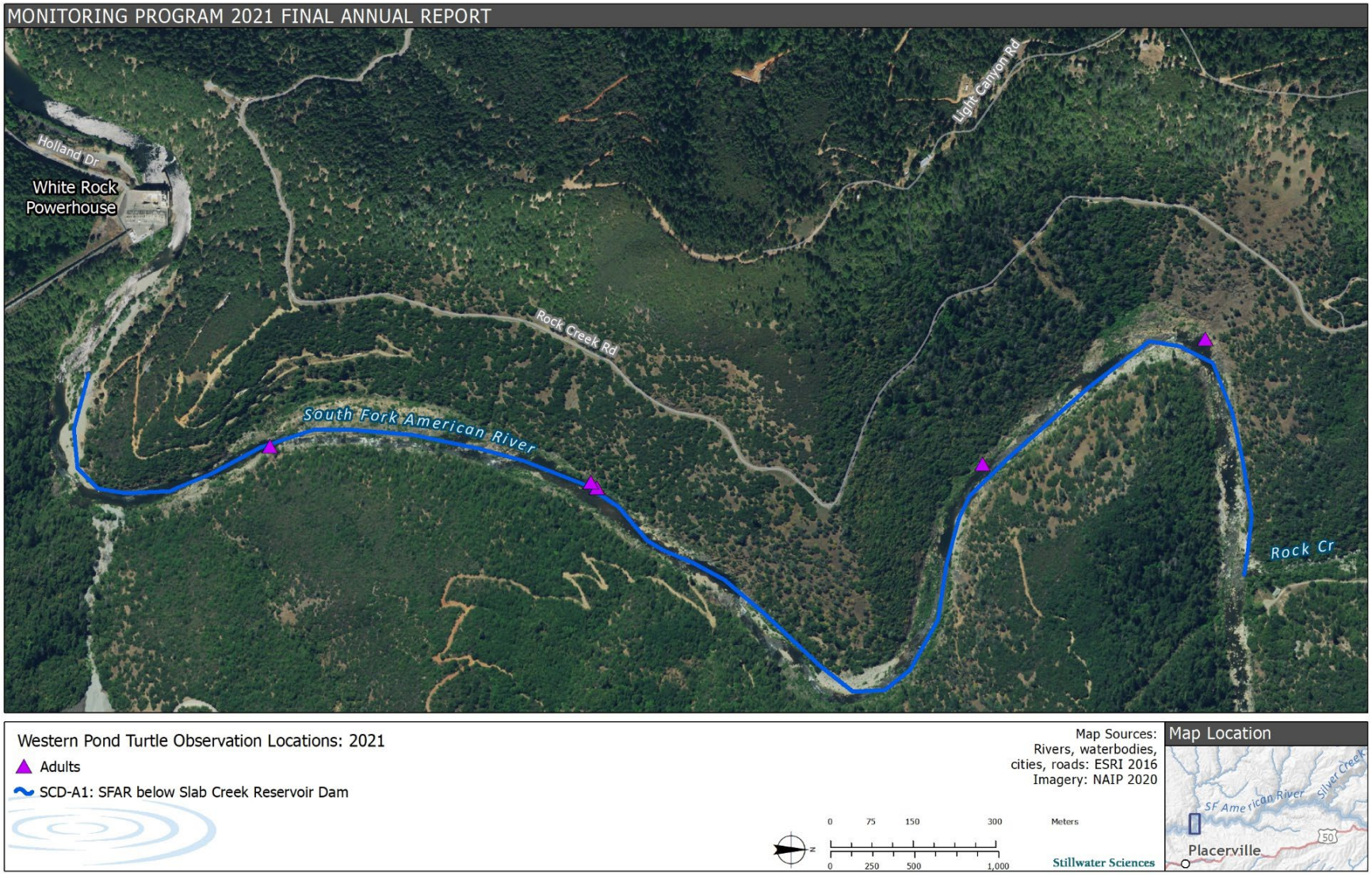

Figure 3-5. Western pond turtle observation locations at Site SCD-A1, 2021.

Figure 3-6. Adult female western pond turtle and pair (bottom left) at Site SCD-A1, 15 June 2021.

Figure 3-7. Adult female western pond turtle and habitat at Site SCD- A1, 15 June 2021 (pair found in habitat at bottom left).

Figure 3-8. Adult female western pond turtle and habitat at Site SCD- A1, 15 June 2021.

Figure 3-9. Adult female western pond turtle and habitat at Site SCD- A1, 17 August 2021.

Figure 3-10. Adult male western pond turtle and habitat at Site SCD- A1, 19 October 2021.

3.3.3 Other Amphibian and Aquatic Reptile Species

Four non-special-status amphibian and reptile species were observed throughout the reach during VESs, as summarized in Table 3-10 by species and life stage. American bullfrog (*Lithobates catesbeianus*) tadpoles and juveniles were observed in 2021; this species is non-native, invasive, and known to negatively interact with native herpetofauna including FYLF and WPT.

Table 3-6. Additional Herpetofauna Species Observed at Site SCD-A1, by Life Stage, 2021.

Species Common Name (*Scientific name*)	Life Stage		
	Larvae	Young-of-Year	Juvenile/ Adult
Amphibians			
Sierran treefrog (*Pseudacris sierra*)	X	X	X
Western toad (*Anaxyrus boreas*)	X		
American bullfrog (*Lithobates catesbeianus*)	X		X
Reptiles[1]			
Sierra garter snake (*Thamnophis couchii*)			X

X = Observed
[1] Incidental sightings of common terrestrial lizards (e.g., western fence lizard [*Sceloporus occidentalis*]) not included

3.4 DISCUSSION

No FYLFs were found at Site SCD-A1 in 2021, consistent with all prior monitoring years (SMUD 2017, 2018, 2019, 2020, and 2021a).

WPTs were observed in five out of six monitoring years along the Slab Creek Dam Reach of the SFAR. There was no observation of breeding in the reach in 2021 (e.g., nests or juveniles), but the continued presence of the species throughout the monitoring years indicates that the SFAR continues to provide suitable WPT habitat. Future monitoring will continue to provide coarse data on population trends.

Individuals observed in 2021 were of a similar age group based on the carapace size (length range 132–150 millimeters [mm]; width range 100–124 mm) and number of countable scute rings (8, 8, 7, and 9). One WPT captured in 2021 had scute rings that could not be counted, as the carapace was smooth without any notable rings (Figure 3-10). WPTs without detectable scute rings are thought to be greater than 10 years of age (Germano and Bury 1998), as the rings and scute edges are worn down over time. Additionally, older individuals may no longer be depositing new rings because their growth rate has decreased (Ashton et al. 2012, Germano and Bury 1998).

WPT observations were distributed throughout Site SCD-A1 during 2021 and in prior years, which indicates the population is using various suitable habitats throughout the reach (Figure 3-5). A few clustered WPT observations across monitoring years suggest that some habitats throughout the reach may be preferred (Figure 3-11).

Surprisingly, most turtles (18 of 21) found during all monitoring years were detected underwater during snorkeling efforts and would not have likely been detected by traditional VES methods (e.g., scanning bank and basking habitats with or without binoculars). The higher number of detections by snorkeling is likely due to turtle "basking" behavior in the SFAR. The high summer air temperatures elevate shallow side channel pool and surface water temperatures, perhaps causing turtles to remain in the water to thermoregulate rather than basking out of the water.[8] This behavior was observed by snorkelers; for example, some turtles were observed perched on vegetation in the upper part of the water column which was perceptibly warmer. The reduced frequency of turtles basking out of the water is consistent with behavior of WPTs in the Central Valley, California, where turtles have been observed thermoregulating submerged in shallow-water habitats (e.g., ponds, marshes), floating in in the upper water column, sitting on algal mats, and burrowing under algal mats in the shallows (Bury et al. 2012).

[8] Bury et al. (2012) refers to this as "aerial basking".

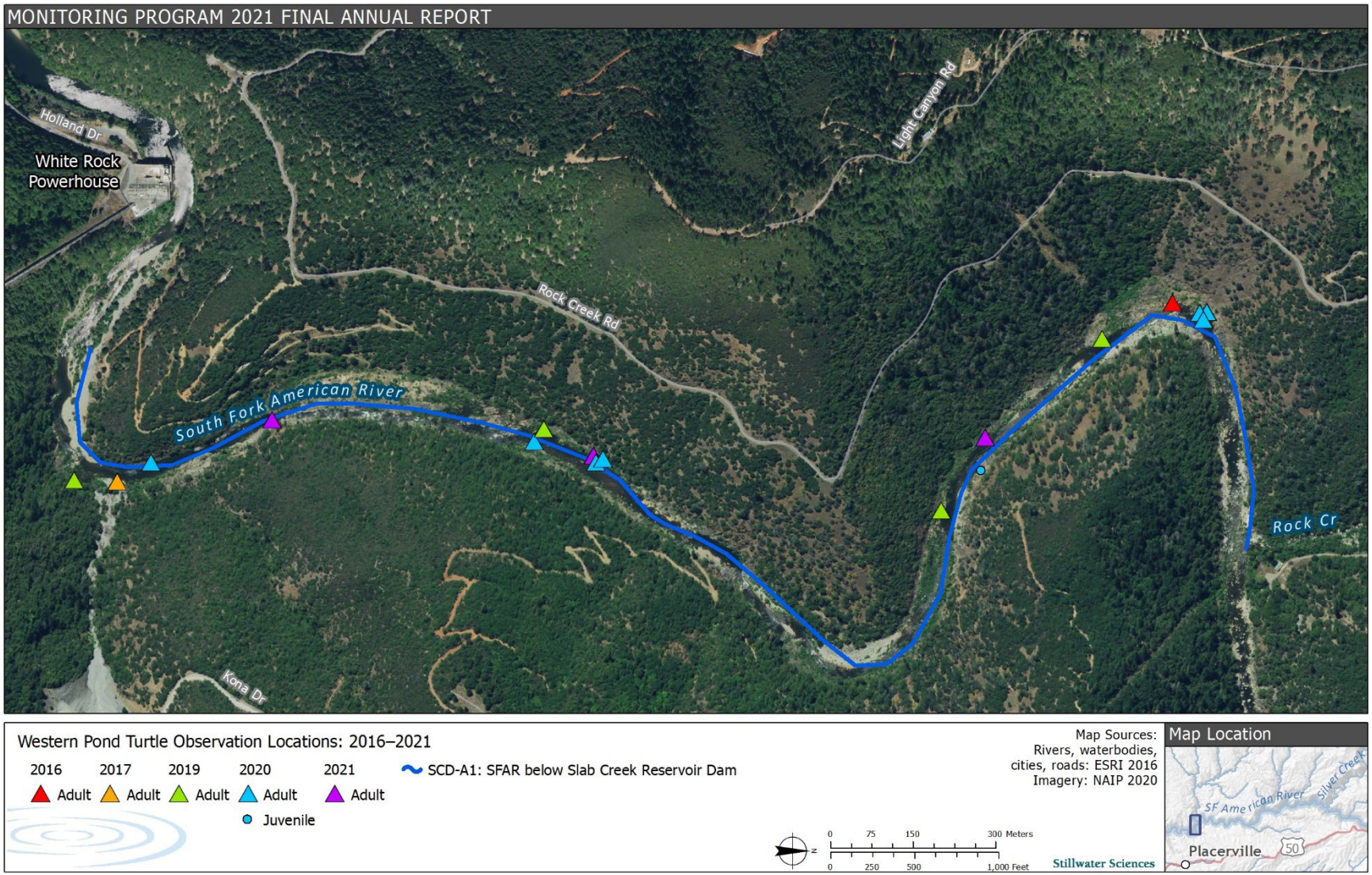

Figure 3-11. Western pond turtle observations at Site SCD- A1 in 2016 through 2021.

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4.0 BEAR MANAGEMENT MONITORING

This Bear-Human Interaction Monitoring Report addresses monitoring set forth in Condition Number 31 of Appendix B (USFS section 4(e) conditions of the new license issuance order (FERC 2014) for the UARP, owned and operated by SMUD. The UARP lies within El Dorado and Sacramento counties, primarily within lands of the Eldorado National Forest. The UARP consists of three major storage reservoirs: Loon Lake, Union Valley, and Ice House (with a combined capacity of approximately 379,000 acre-feet), eight smaller regulating or diversion reservoirs, and eight powerhouses. The UARP also includes recreation facilities containing over 700 campsites, five boat ramps, hiking paths, and bicycle trails at the reservoirs.

In consultation with stakeholders and the resource agencies, SMUD developed a Bear-Human Interaction Monitoring Plan (SMUD 2015). The monitoring described by this Plan will be used to determine if the measures (primarily installation of bear-proof food and trash lockers and public education) implemented by the resource agencies are successful in decreasing the number of bear incidents in the UARP. Additionally, the monitoring will help inform resource managers where there are still problems that may need to be addressed with additional bear management measures. Results of bear-human interaction monitoring conducted during the 2021 recreation season are provided in this report.

4.1 MONITORING PLAN OBJECTIVES

The primary objectives and rationale for the bear management monitoring program, as described in the Plan are:

> *Monitor effectiveness of measures related to bear management using a method acceptable to FS, FWS, and CDFG.*

This monitoring will help determine if bear management measures used to keep bear populations away from recreation sites within the UARP are effective. As described in Settlement Agreement Article 1-6.10:

> *If, over a 5-year period, monitoring indicates that the number of bear/human interaction incidents does not decline or decrease in severity, the licensee shall work with FS, FWS, and CDFG to identify and implement additional measures necessary to reduce such problems.*

Additionally, the results of this monitoring may be useful to SMUD and the USFS when planning and prioritizing locations to install bear-proof food lockers.

4.2 STUDY AREA AND SAMPLING LOCATIONS

As was done since the program began in 2016, monitoring was carried out at developed, UARP-related recreation facilities within the Project area (Figure 4-1 and Table 4-1). These included both day-use and overnight facilities; hosted and unhosted.

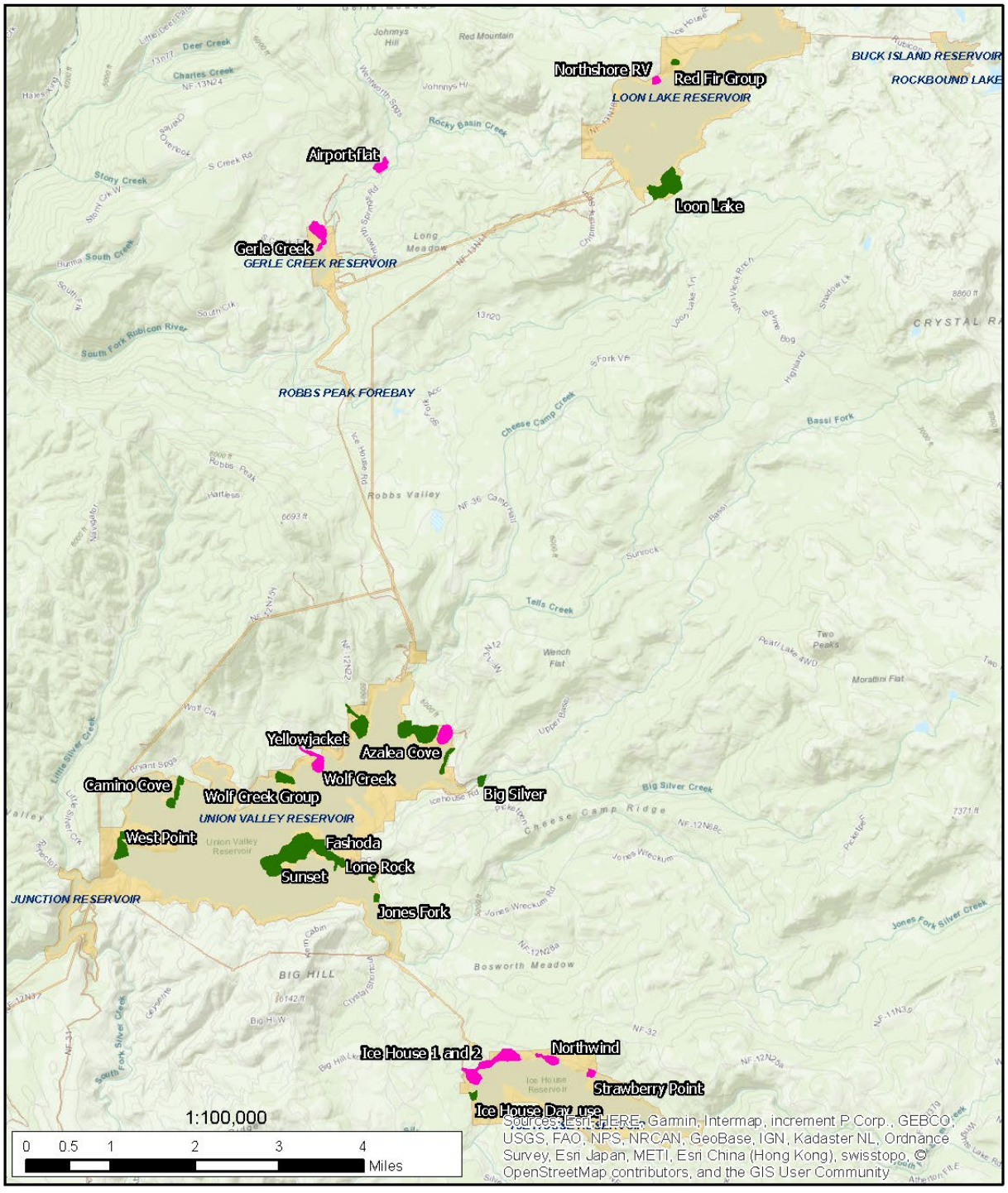

Figure 4-1. Bear-human interaction monitoring locations.

Table 4-1. Sites Associated with the UARP Bear-Human Interaction 2021 Monitoring Program.

Facility	Existing Lockers/ Trash	Hosted Site	Monitored	Comment
Northshore CG	Y	Y	Y	
Loon Lake Family CG; Boat Launch RV CG; Equestrian CG; Group CG; and Equestrian Group CG	Y	Y	Y	Host administering multiple LL facilities was responsible for collecting forms
Red Fir CG	Y	N	Y	Monitoring form box installed
Pleasant Boat In CG	Y	N	N	Monitoring Box not deployed here
Airport Flat CG	Y	N	Y	Monitoring form box installed
Gerle Creek CG	Y	Y	Y	Host supplied with forms
Sunset Family CG	Y	Y	Y	Host supplied with forms
Fashoda CG	Y	Y	Y	Host supplied with forms
West Point CG	Y	N	N	Campground closed for season due to construction
Yellowjacket CG	Y	Y	N	Campground closed for season due to construction
Wench Family and Group CG	Y	Y	Y	Host supplied with forms
Wolf Creek Family and Group CG	Y	Y	Y	Host supplied with forms
Azalea Cove CG	Y	N	Y	Monitoring form box installed
Big Silver Group CG	Y	N	Y	Monitoring form box installed
Camino Cove CG	Y	N	N	Campground closed for season due to construction
Jones Fork CG	Y	N	Y	Monitoring form box installed
Lone Rock CG	Y	N	Y	Monitoring form box installed
Ice House Family CG	N	Y	Y	Host supplied with forms
Northwind CG	Y	N	Y	Monitoring form box installed
Strawberry Point CG	Y	N	Y	Monitoring form box installed
Day-use Areas				
Angel Creek	Y	N	Y	Monitoring form box installed

Facility	Existing Lockers/ Trash	Hosted Site	Monitored	Comment
Gerle Creek	Y	Y	Y	Host supplied with forms
Ice House	N	Y	Y	Host supplied with forms
Fashoda	Y	Y	Y	Host supplied with forms
Jones Fork Bike Trailhead	N	N	Y	Monitoring form box installed at CG
Big Silver Bike Trailhead	N	N	Y	Monitoring form box installed at CG
Wench Creek Bike Trailhead	Y	Y	Y	Host supplied with forms
Loon Lake – Desolation Wilderness	N	N	Y	Monitoring form box installed at TH
Silver Creek Day Use	Y	N	N	New site

4.3 METHODS

The methods of this monitoring are outlined in the Bear-Human Interaction Monitoring Plan prepared by SMUD in consultation with the USFS and CDFW in 2015. SMUD has prepared a form to be used to collect standardized data. The form is supplied to the USFS at the outset of each recreation season, and the USFS distributes the forms to campground hosts and to form boxes supplied by SMUD for non-hosted sites. The USFS collects forms from the boxes and hosts throughout the season and provides them to SMUD for reporting purposes. Data can be provided by the visiting public or hosts who have interviewed campers.

Impacts to the monitoring program due to the COVID-19 pandemic were much less significant in 2021 than 2020, but there were likely some minor effects related to staffing and communication that may have impacted results. The annual kickoff meeting with USFS staff and the recreation concessionaire was not held in 2021, so SMUD was not able to communicate with the concessionaire group as a whole to discuss the monitoring program. This meeting is typically a great opportunity to tell all the parties involved in helping collect data about the program and how they are critical to its success. As seen in Table 4-1, most of the facilities were open throughout the recreation season in 2021 except for a few closures related to construction projects. In 2021 the USFS staff stocked the monitoring form boxes and collected forms throughout the year. Concessionaire Camp Hosts were also supplied with forms which were collected at the end of the season.

4.4 RESULTS AND DISCUSSION

SMUD received 19 completed forms (Appendix C1) from the USFS for the 2021 recreation season, the results of which are summarized in the table located in

Appendix C2. Completed report forms came from the following developed campgrounds: Fashoda (2), Ice House (7), Jones Fork (1), Northwind (3), Red Fir (1), Strawberry Point (1), Sunset (1), Wolf Creek Group (1), and an un-named site (1). Additionally, one report was submitted for a dispersed camp near Bassi Falls.

Since monitoring started in 2016, the number of reported incidents has fluctuated from a high of 43 in 2017 to 11 in 2020. Reported incidents have come from across the Crystal Basin. Locations of bear interactions appear to fluctuate every year, with new hot spots developing at different locations. Many of the bears seem to be habituated to humans and are not easily deterred, particularly when there are numerous incidents in one area. As of 2021 all campground locations have bear-resistant trash and food storage containers and most day use areas have bear-resistant trash containers (Table 4-1).

In 2021 there were bear interactions at ten different areas across the Crystal Basin (Appendix C1). Aside from the one report from a dispersed camp area near Bassi Falls, all of the sites have bear-proof food storage lockers and trash receptacles. Looking at the information from the report, 11 of the 19 incidents involved food stored outside of the bear lockers, and many of these bears were rewarded with the food they were able to get before running off. Other incidents involved bears attracted to food odor, trash, or bears passing through camps to other sites with food. In one case at Ice House Campground, a bear broke a vehicle window trying to get food stored in the car. While there were seven reports from Ice House, five of those reports were from five different groups on the same night. As indicated in previous reports, continuing efforts at education and enforcement are always needed so that visitors understand that ***all food, trash, or scented products*** need to be stored in bear-proof food lockers or trash receptacles. This message needs to be heavily reinforced by the USFS and its concessionaire hosts.

Based on observations and the monitoring results to-date, SMUD makes the following recommendations:

1. SMUD, CDFW, and the USFS should continue to present information on the monitoring program to the concessionaire's campground hosts during an annual meeting and emphasize the importance of proper food storage.
2. SMUD and USFS should meet briefly once toward the middle of the recreation season to discuss the need for more forms, cooperation of concessionaire staff, how often boxes are being checked, and whether signage is adequate, among other things.
3. The USFS should continue to emphasize the need for concessionaire staff to talk to the public about proper food storage and make regular rounds to see if food is being left out.

SMUD will continue to provide the results of the monitoring to the USFS and CDFW, and any management decisions or actions will be at the discretion of those agencies with jurisdiction over the resource. SMUD may assist in any management decisions, as appropriate.

4.5 UPCOMING SURVEY PLANS

In accordance with the Plan, monitoring will occur annually during the recreation season (approximately Memorial Day through the end of September). For 2022, SMUD, with the help of the USFS, will ensure that each site to be monitored, including hosted sites, has adequate signage to educate the public about bears and to inform visitors of the monitoring program. SMUD will attend the annual kick-off meeting (if it occurs) with the recreation concessionaire and the USFS to present the details of the monitoring program and enlist the support and assistance of the camp hosts and USFS recreation staff. At this meeting additional forms will be provided to the USFS. For the monitoring to be effective, it will be imperative to make sure the visiting public knows about the monitoring program and their need to fill out forms following any incidents. It is equally important that all sites have forms available throughout the year and that all forms are collected and returned to SMUD at the close of the season.

4.6 LITERATURE CITED

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SMUD (Sacramento Municipal Utility District). 2015. Bear-Human Interaction Monitoring Plan. Hydro License Implementation for the Upper American River Project (FERC Project No. 2101).

5.0 LARGE WOODY DEBRIS

No large woody debris meeting the size requirement was passed in 2021 at Robbs Forebay, Junction, Camino, or Slab Creek reservoirs.

6.0 WATER TEMPERATURE

The Water Temperature Monitoring Plan was developed in consultation with the SWRCB, USFS, CDFW, and USFWS. FERC approved the monitoring plan on September 30, 2015 (SMUD 2015).

6.1 MONITORING PLAN OBJECTIVES

The primary objectives and rationale for the water temperature monitoring program, as described in the Plan, are as follows:

> *Annual water temperature monitoring at specified stream sites will provide information needed to determine whether cold freshwater resource objectives are being met and will provide an evaluation of breeding conditions for sensitive amphibian species. Stream temperature monitoring results will also be used to determine whether water temperature profiles within the reservoirs are needed to better understand cold water availability. An adaptive approach to water temperature monitoring will allow the removal of specific monitoring sites if results indicate water temperatures are adequate at those specific locations (Condition 8.I.).*

This monitoring will help determine if water temperatures in UARP waters meet the Basin Plan beneficial use of Cold Freshwater Habitat (Central Valley Regional Water Quality Control Board [CVRWQCB] 1998) and other identified habitats/species needs. If such a study is inconclusive, reservoir temperature profile monitoring may be required to assist in the decision-making process. Currently, the Plan requires water temperature monitoring in stream reaches throughout the duration of the license term or until *"the Licensee can demonstrate to the satisfaction of the Deputy Director that operation of the UARP reasonably protects the 'cold freshwater' beneficial use at any site for which the Licensee seeks modification to the temperature monitoring requirement*."

These data are also utilized to direct the following requirements of the new license:

- Adaptive management decisions regarding initiation of FYLF breeding
- Cancellation of recreational boating releases due to FYLF breeding
- Temperature monitoring related to the "block of water" releases on Silver Creek
- Response of aquatic resources to spill events and pulse flows after thresholds have been reached
- Requirement of the Basin Plan that "At no time or place shall the temperature of COLD or WARM intrastate waters be increased more than 5°F above the natural receiving water temperature"

6.2 METHODS

6.2.1 Study Area and Sampling Locations

Continuous water temperature monitoring of stream reaches occurred in 2021 at 19 sites throughout the UARP area utilizing fixed stations or dataloggers. In general, these sites measured water temperatures in diverted stream reaches downstream of UARP reservoirs. Table 6-1 describes the locations and characteristics of each site. Final site development at a local scale was determined using proximity to release point, presence of isothermal water column, logistics, and channel morphology. Figure 1-1 through Figure 1-3 depict the monitoring site locations relative to the UARP and primary streams and rivers.

Table 6-1. UARP Water Temperature Monitoring Site Locations.

Site Name	Site Description	UTM (NAD 83)		Sensor Type	Data	Thresh-old	Complete
		Easting	Northing				
RR5	Rubicon River immediately below Rubicon Reservoir Dam	740501	4319200	CS450L	Telemetry	None	Yes
LRR3	Little Rubicon River immediately below Buck	737558	4320907	CS450L	Telemetry	None	Yes
RR1	Rubicon River below confluence of Little Rubicon River at the Project boundary	736593	4323887	Onset data-logger	Manual	None	Yes
GC7	Gerle Creek immediately below Loon Lake Reservoir Dam	732455	4320776	CS450L	Telemetry	None	Yes
GC8	Gerle Creek immediately below Gerle Creek Reservoir	725745	4316219	CS107 or CS450L	Telemetry	None	Yes
SFRR5	South Fork Rubicon River immediately below Robbs Peak Reservoir	726202	4314316	CS450L	Fiber Optic Network	None	Yes
SFRR6	SF Rubicon River below confluence of Gerle Creek at the Project	725256	4314907	CS450L	Telemetry	None	Yes

Site Name	Site Description	UTM (NAD 83)		Sensor Type	Data	Thresh-old	Complete
		Easting	Northing				
SFRR7	South Fork Rubicon River immediately upstream of the confluence with the Rubicon	719438	4316236	Onset data-logger	Manual	None	Yes
SFSC7	South Fork Silver Creek immediately below Ice House	728745	4299871	CS450L	Telemetry	None	Yes
SFSC8	South Fork Silver Creek immediately upstream of	721498	4303358	CS450L	Telemetry	7DMAVG*	Yes
SC5	Silver Creek immediately below Junction Reservoir Dam	720466	4303467	CS 450L	Fiber Optic Network	None	Yes
SC6	Silver Creek immediately above Camino Reservoir Dam	714119	4301407	CS450L	Telemetry	DAVG*	Yes
SC7	Silver Creek immediately below Camino Reservoir Dam1	713631	4300155	CS450L	Fiber Optic Network	None	Yes
SC8	Silver Creek immediately upstream of South Fork American River	709310	4296208	CS450L	Telemetry	DAVG*	Yes
BC4	Brush Creek immediately below Brush Creek Reservoir	706407	4298536	CS451	Fiber Optic Network	None	Yes
SFAR13	South Fork American River immediately below Slab Creek Reservoir Dam	699644	4294054	CS450L	Fiber Optic Network	None	Yes
SFAR7	South Fork American River at Mosquito Rd	695572	4294304	Onset Data-logger	Manual	None	Yes

Site Name	Site Description	UTM (NAD 83)		Sensor Type	Data	Thresh-old	Complete
		Easting	Northing				
SFAR15	South Fork American River approximately ½ mile upstream of White Rock Powerhouse	692576	4292875	CS450L	Telemetry	7DMAVG*	Yes
SFAR16	South Fork American River to record White Rock Powerhouse	692212	4293046	CS450L	Fiber Optic Network	None	Yes

7DMAVG = Seven-Day Moving Average
DAVG = Daily Average
NAD = North American Datum
UTM = Universal Transverse Mercator

6.2.2 Temperature Data at Fixed-Stations

Sixteen of the 19 sites were monitored for water temperature using fixed stations. Monitoring compliance at these sites was accomplished using gaging stations located at weirs, stilling wells, or powerhouse tailraces. Each fixed station site utilized a Campbell Scientific datalogger and a redundant pair of temperature sensors. Sensor cables were contained inside conduit, and the sensors were placed as close as possible to the stream thalweg where water is well mixed. A solar shield helped prevent exposure to direct sunlight. Depending on the site, power was supplied either by photovoltaic panels and DC batteries or through an existing power supply. Data transfer occurred through radio telemetry or fiber optic network. At the fixed stations, temperature readings were collected at 15-minute intervals and telemetered to SMUD databases, where the data were summarized to hourly means and calculated to daily statistics.

6.2.3 Temperature Data at Datalogger Stations

Simple, non-permanent, calibrated temperature dataloggers (ONSET HOBO Water Temperature Pro V2) were deployed prior to 15 March 2021, at the remaining three sites (“Manual” sites in Table 6-1). The sensors were inserted into perforated metal framed housings that allowed for adequate water movement throughout.

Each housing was secured to large boulders or bedrock using hardened 3/8-inch chain and placed to assure that the sensor remained submerged and was not exposed to direct sunlight (Figure 6-1). Two dataloggers were installed at each site to protect against data loss in the event of equipment failure or drift. Dataloggers were deployed in habitat strata where the water was well mixed, typically at the head of a pool just below a riffle input. Table 6-2 describes the equipment specifications for all sensors selected for water temperature monitoring.

Hourly data from HOBO loggers were manually downloaded using Onset Computer Corporation software. All water temperature data are stored in a database designed for this purpose.

Figure 6-1. Photograph of the water temperature datalogger housing, Rubicon River below confluence of Little Rubicon River.

Table 6-2. Specifications for Monitoring Equipment.

Sampling Equipment	Accuracy	Range	Calibration Interval
Campbell Scientific 107L	<±0.2°C from 0°to 50°C	-35° to +50°C	Annual
Campbell Scientific 450L	±0.2°C from 0°to 50°C	0° to 60°C	Biennial
Onset Computer Corp. HOBO®	±0.2°C from 0° to 50°C	-40° to 50°C	Annual

°C = degrees Celsius

6.3 QUALITY ASSURANCE/QUALITY CONTROL

Raw data were reviewed on a routine basis. Temperature trends inspected include physical range limits, practical range limits, and rates of temperature change. Data

obtained from the fixed stations were checked for validity using procedures that run every 24 hours following data download. A report was generated and sent to pertinent SMUD staff via email for any suspected erroneous data. The same procedures were run manually following download from the data loggers. Erroneous temperature values were adjusted manually; however, the original raw data were maintained in the database.

This review, along with graphical analysis and routine equipment inspection, ensured that sensors were functioning and recording properly throughout the monitoring period. For fixed stations, this allowed for a timely response if the need arose. Any equipment malfunction that required a field visit was addressed during normal business hours, under safe conditions. Repairs were made in as timely a manner as possible.

6.4 DECISION-MAKING THRESHOLDS

SMUD will use real-time water temperature information to make efforts to protect endangered species and Cold Freshwater Habitat. Eventually the 12°C seven-day moving average (7DMAVG) temperature trigger thresholds may be adjusted on a site-specific basis if data from the FYLF monitoring support such a change. In particular, SMUD will:

- Use water temperature thresholds to protect FYLF breeding activities by canceling recreational boating flows in the following reaches when the 7DMAVG exceeds 12°C at:
    - South Fork Silver Creek below Ice House Dam (if FYLF are found in this reach).
    - SFAR below Slab Creek Reservoir.
- Monitor for effects to aquatic resources following spills that occur at Camino and Slab Creek reservoirs when the 7DMAVG exceeds 12°C.
- Monitor other temperature thresholds to protect the Cold Freshwater Habitat requirements on Silver Creek, as described in the 401 (SWRCB 2013). This involves informing the release of an additional “block of water” during wet water year types when the daily average temperature (DAVG) exceeds 20°C.
- Compare water temperature trends over time with other annual climatic conditions collected by SMUD. This will assist in determining whether the UARP is protecting the Basin Plan beneficial use of Cold Freshwater Habitat (CVRWQCB 1998).

6.5 ADAPTIVE MANAGEMENT

Four thresholds that are connected to various UARP adaptive management conditions were crossed during the monitoring period (Table 6-3). The exact dates are listed below. None triggered an adaptive management action.

For water temperature monitoring at Slab Creek Dam (SFAR13), no spills occurred after the 7DMAVG exceeded the 12°C threshold. For water temperature monitoring at Silver

Creek at Camino Gaging Station (SC7), no spills occurred after the 7DMAVG exceeded the 12°C threshold.

Table 6-3. Crossed Threshold.

Site Name	Site Description	Date Crossed Threshold
SFSC8	South Fork Silver Creek immediately upstream of Junction Reservoir	May 16, 2021
SC8	Silver Creek immediately upstream of SF American River	June 27, 2021
SFAR15	South Fork American River approximately ½ mile upstream of White Rock	April 17, 2021
SC6	Silver Creek immediately above Camino Reservoir Dam	July, 11, 2021

At Silver Creek upstream of the SFAR Confluence (SC8), the average daily water temperature crossed the 20°C threshold on 27 June and two more times through 20 September; however, it was a critically dry water year type, so no action was required.

At Silver Creek immediately above Camino Reservoir Dam (SC6), the average daily water temperature crossed the 20°C threshold on 11 July; however, it was a critically dry water year type, so no action was required.

At South Fork Silver Creek immediately upstream of Junction Reservoir (SFSC8), the 7DMAVG exceeded the 12°C threshold on 16 May and one more time through September. No FYLF were found in this reach.

At SFAR approximately ½ mile upstream of White Rock (SFAR15), the 7DMAVG exceeded the 12°C threshold on 17 April and remained above for the remainder of the measuring period. No FYLF were found in this reach.

6.6 RESULTS

Data were analyzed at varying frequencies depending on the format of data retrieval (real-time opposed to manually retrieved/downloaded). All data were summarized to include values for daily mean, minimum, and maximum temperatures. Further analysis included calculating the highest seven-day moving average temperature (7DMAVG). In a typical year, sites associated with trigger thresholds (Table 6-1), daily minimum, maximum, average, and seven-day moving average values were determined to notify SMUD staff if these thresholds were being exceeded. These processes are automated in the SMUD License Implementation database, which includes a notification process when threshold triggers have been reached.

Water temperature data are presented graphically in Appendix D. It is impractical to place hourly data for all sites into this report, although these data will be made available upon request.

6.7 LITERATURE CITED

CVRWQCB (Central Valley Regional Water Quality Control Board). 1998. Water Quality Control Plan (Basin Plan) for the Central Valley Region. Sacramento River and San Joaquin River Basins (Basin Plan). Published by the California Regional Water Quality Control Board, Central Valley Region and the State Water Resources Control Board, Sacramento, CA.

FERC (Federal Energy Regulatory Commission). 2014. New License for the continued operation of the Upper American River Project, No. 2101. Federal Energy Regulatory Commission, Washington, D.C.

SMUD (Sacramento Municipal Utility District). 2015. Temperature Monitoring Plan for the Upper American River Project. Sacramento, CA.

SWRCB (State Water Resources Control Board). 2013. Water Quality Certification for the Upper American River Project. FERC Project No. 2101. State Water Resources Control Board. Sacramento, CA.

APPENDIX A1

Pre- and Post-License Minimum Streamflow Requirements for the Upper American River Project (FERC P-2101)

Table A1-1. Summary of minimum streamflow requirements prior to the 2014 UARP FERC license.

USGS Gaging Station	TYPE 1 - Years when less than 1 million acre-ft annual inflow is forecasted for Folsom Reservoir	FERC Article 29 Ref.	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Comments
11427960	Rubicon River Below Rubicon Dam	(a)	6	6	6	6	6	6	6	6	6	6	6	6	See Note 1
11428400	Little Rubicon River Below Buck Island Dam	(b)	1	1	1	1	1	1	1	1	1	1	1	1	See Note 2
11429500	Gerle Creek below Loon Lake Dam	(c)	8	8	8	8	8	8	8	8	8	8	8	8	
11430000	South Fork Rubicon River below Robbs Peak Dam	(d) (g)	1	1	1	1	1	1	1	1	1	1	1	1	See Notes 3,8
11430000	Gerle Creek below Gerle Creek Dam	(d) (g)	4	4	4	4	4	4	4	4	4	4	4	4	See Notes 3,8
11441500	South Fork Silver Creek below Ice House Dam	(e) (g)	5	5	5	5	5	5	5	5	5	5	5	5	See Note 4
11441800	Silver Creek below Junction Dam	(f) (g)	5	5	5	5	5	5	5	5	5	5	5	5	See Note 3
11441900	Silver Creek below Camino Dam	(g)	5	5	5	5	5	5	5	5	5	5	5	5	See Note 3
11442700	Brush Creek below Brush Creek Dam	(I)	2	4	4	4	4	4	4	4	2	2	2	2	See Notes 5, 6
1143500	South Fork American River below Slab Creek Dam	(h)	36	36/10	10	10	10	10	10	10	36	36	36	36	See Notes 6, 7
USGS Gaging Station	**TYPE 2 - Years when 1.0-1.499 million acre-ft annual inflow is forecasted for Folsom Reservoir**	**FERC Article 29 Ref.**	**OCT**	**NOV**	**DEC**	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**Comments**
11427960	Rubicon River Below Rubicon Dam	(a)	6	6	6	6	6	6	6	6	6	6	6	6	See Note 1
11428400	Little Rubicon River Below Buck Island Dam	(b)	1	1	1	1	1	1	1	1	1	1	1	1	See Note 2
11429500	Gerle Creek below Loon Lake Dam	(c)	8	8	8	8	8	8	8	8	8	8	8	8	
11430000	South Fork Rubicon River below Robbs Peak Dam	(d) (g)	1	1	1	1	1	1	1	1	1	1	1	1	See Notes 3,8

11430000	Gerle Creek below Gerle Creek Dam	(d) (g)	4	4	4	4	4	4	4	4	4	4	4	4	See Notes 3,8
11441500	South Fork Silver Creek below Ice House Dam	(e) (g)	5	5	5	5	5	5	5	5	5	5	5	5	See Note 4
11441800	Silver Creek below Junction Dam	(f) (g)	10	6	6	6	6	6	6	10	10	10	10	10	See Note 3
11441900	Silver Creek below Camino Dam	(g)	10	6	6	6	6	6	6	10	10	10	10	10	See Note 3
11442700	Brush Creek below Brush Creek Dam	(i)	2	4	4	4	4	4	4	4	2	2	2	2	See Notes 5, 6
11443500	South Fork American River below Slab Creek Dam	(h)	36	36/10	10	10	10	10	10	10	36	36	36	36	See Notes 6,7

Notes:

1. 6 cfs or the natural flow, whichever is less, plus storage provided by stream flow maintenance dams of the CDFG in Lakes Clyde, Schmidell, Lois, and Middle Velma.
2. 1 cfs at all times in addition to the storage releases from stream flow maintenance dams of the CDFG in Rockbound and Highland Lakes as determined by that dept.
3. Requirements are based on the 4/1 CDWR Bulletin 120 forecasted "Water Year Unimpaired Runoff" for the Folsom Reservoir (which is deemed to be the same as American River at Fair Oaks).
4. Requirements are based on the CDWR Bulletin 120 forecasted "Water Year Unimpaired Runoff" to Folsom Reservoir, beginning with the 4/1 bulletin and applying in turn the 5/1 bulletin as it is issued.

   The 5/1 bulletin shall apply until 4/1 bulletin of the succeeding year is issued.
5. Requirements are as specified or natural flow, whichever is less.
6. Based on the CDWR Bulletin 120 forecasted "Water Year Unimpaired Runoff" to Folsom Reservoir, beginning with the 3/1 bulletin and applying in turn the 4/1 & 5/1 bulletins as they are issued.

   The 5/1 bulletin shall apply until 3/1 bulletin of the succeeding year is issued.
7. From November 1 - November 15, releases are 10 cfs. From November 16- November 30, releases are 4 cfs.
8. Combined releases should be either 10 cfs or 5 cfs (distributed as noted in this chart), measured on the South Fork Rubicon River below the mouth of Gerle Creek.

Table A1-2. Summary of minimum streamflow requirements included in the current 2014 UARP FERC license.

USGS Gaging Station	Above Normal years when 2.6 to 3.5 MAF water year unimpaired inflow was forecast for Folsom Lake	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Notes
11427690	Rubicon Dam	6*	6*	15	20	35	15	6*	6*	6*	6*	6*	6*	
11428400	Buck Island Dam	1*	1*	3	5	8	3	1*	1*	1*	1*	1*	1*	
11429500	Loon Lake Dam	23	27	37	49	49	27	27	17	17	20	20	22	
	Gerle Creek Dam	6	6	9	9	15	15	15	12	10	10	6	6	(4)
	Robbs Peak Dam	7	8	9	10	13	13	13	11	6	3	3	4	(4)
11441500	Ice House Dam	18	18	24	41	68	46	30	15	15	15	8	11	
11441800	Junction Dam	20	20	25	42	68	59	35	18	18	15	20	20	
11441900	Camino Dam	20	20	25	42	68	59	35	18	18	15	20	20	
11442700	Brush Creek Dam	9*	9*	9*	9*	9*	9*	5*	4*	3*	4*	9*	9*	
11443500	Slab Creek Dam	80	80	110-130-150-180	188-197-213-222	229-236-247-263	228-193-158-123	90	70	70	80	80	80	(2)
USGS Gaging Station	**Wet years when more than 3.5 MAF water year unimpaired inflow was forecast for Folsom Lake**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Notes**
11427690	Rubicon Dam	6*	6*	15	20	35	15	6*	6*	6*	6*	6*	6*	
11428400	Buck Island Dam	1*	1*	3	5	8	3	1*	1*	1*	1*	1*	1*	
11429500	Loon Lake Dam	28	32	44	58	58	32	32	20	20	23	23	26	
	Gerle Creek Dam	6	6	9	9	15	15	15	12	10	10	6	6	(4)
	Robbs Peak Dam	7	8	9	10	13	13	13	11	6	3	3	4	(4)
11441500	Ice House Dam	18	18	24	41	68	46	30	15	15	15	8	11	
11441800	Junction Dam	20	20	25	42	68	59	35	18	18	15	20	20	
11441900	Camino Dam	20	20	25	42	68	59	35	18	18	15	20	20	
11442700	Brush Creek Dam	10*	10*	10*	10*	10*	9*	5*	4*	3*	4*	9*	10*	

11443500	Slab Creek Dam	90	90	110-130-150-180	188-197-213-222	229-236-247-263	228-193-158-123	90	70	70	90	90	90	(2)

* Or natural inflow if less, but in all cases not less than 1 cfs

Notes

1. The water year total volume of unimpaired inflow to Folsom Lake is used to determine the water year. The California DWR makes forecasts of this volume, in units of thousands of acre-feet (TAF). One million acre feet (MAF) equal 1,000 TAF. DWR publishes Bulletin 120 or posts the forecast on its web site several days after February 1, March 1, April 1, and May 1 each year. The value forecasted in May applies until mid October. DWR also computes the actual water year unimpaired inflow and post this value on its web site in mid October. The value posted in October applies until the subsequent February 1 forecast is published.
2. Flows listed for Slab Creek Dam apply during the first five years of the license.
3. MAF denotes million acre-feet. Bulletin 120 gives forecasts in TAF, thousand acre-feet. 1,000 TAF = 1 MAF
4. New USGS gages to be installed in 2008 or 2009

APPENDIX B1

Incidental Observations of Avian Species in the Study Area (2016–2021)

Table B1-1. Incidental Observations of Avian Species in the Study Area (2016–2021)

Common Name	Scientific Name
Canada goose	*Branta canadensis*
cinnamon teal	*Spatula cyanoptera*
mallard	*Anas platyrhynchos*
bufflehead	*Bucephala albeola*
common merganser	*Mergus merganser*
mountain quail	*Oreortyx pictus*
pied-billed grebe	*Podilymbus podiceps*
red-necked grebe	*Podiceps grisegena*
eared grebe	*Podiceps nigricollis*
western grebe	*Aechmophorus occidentalis*
band-tailed pigeon	*Patagioenas fasciata*
mourning dove	*Zenaida macroura*
common nighthawk	*Chordeiles minor*
Vaux's swift	*Chaetura vauxi*
killdeer	*Charadrius vociferus*
spotted sandpiper	*Actitis macularius*
common loon	*Gavia immer*
turkey vulture	*Cathartes aura*
osprey	*Pandion haliaetus*
sharp-shinned hawk	*Accipiter striatus*
Cooper's hawk	*Accipiter cooperii*
northern goshawk	*Accipiter gentillis*
red-tailed hawk	*Buteo jamaicensis*
California spotted owl	*Strix occidentalis occidentalis*
red-breasted sapsucker	*Sphyrapicus ruber*
hairy woodpecker	*Dryobates villosus*
white-headed woodpecker	*Dryobates albolarvatus*
northern flicker	*Colaptes auratus*
pileated woodpecker	*Dryocopus pileatus*
American kestrel	*Falco sparverius*
peregrine falcon	*Falco peregrinus*
olive-sided flycatcher	*Contopus cooperi*
western wood-pewee	*Contopus sordidulus*
dusky flycatcher	*Empidonax oberholseri*
Pacific-slope flycatcher	*Empidonax difficilis*
black phoebe	*Sayornis nigricans*
Cassin's vireo	*Vireo cassinii*
warbling vireo	*Vireo gilvus*
Steller's jay	*Cyanocitta stelleri*
Clark's nutcracker	*Nucifraga columbiana*
American crow	*Corvus brachyrhynchos*

Common Name	Scientific Name
common raven	*Corvus corax*
mountain chickadee	*Poecile gambeli*
tree swallow	*Tachycineta bicolor*
northern rough-winged swallow	*Stelgidopteryx serripennis*
bushtit	*Psaltriparus minimus*
golden-crowned kinglet	*Regulus satrapa*
red-breasted nuthatch	*Sitta canadensis*
white-breasted nuthatch	*Sitta carolinensis*
brown creeper	*Certhia americana*
rock wren	*Salpinctes obsoletus*
American dipper	*Cinclus mexicanus*
mountain bluebird	*Sialia currucoides*
Townsend's solitaire	*Myadestes townsendi*
hermit thrush	*Catharus guttatus*
American robin	*Turdus migratorius*
evening grosbeak	*Coccothraustes vespertinus*
purple finch	*Haemorhous purpureus*
Cassin’s finch	*Haemorhous cassinii*
chipping sparrow	*Spizella passerina*
fox sparrow	*Passerella iliaca*
dark-eyed junco	*Junco hyemalis*
California towhee	*Melozone crissalis*
rufous-crowned sparrow	*Aimophila ruficeps*
green-tailed towhee	*Pipilo chlorurus*
spotted towhee	*Pipilo maculatus*
red-winged blackbird	*Agelaius phoeniceus*
brown-headed cowbird	*Molothrus ater*
Brewer’s blackbird	*Euphagus cyanocephalus*
orange-crowned warbler	*Leiothlypis celata*
Nashville warbler	*Leiothlypis ruficapilla*
MacGillivray's warbler	*Geothlypis tolmiei*
yellow warbler	*Setophaga petechia*
yellow-rumped warbler	*Setophaga coronata*
hermit warbler	*Setophaga occidentalis*
Wilson's warbler	*Cardellina pusilla*
western tanager	*Piranga ludoviciana*
black-headed grosbeak	*Pheucticus melanocephalus*

APPENDIX B2

Bald Eagle Nesting Survey Forms

California Department of Fish and Game
CALIFORNIA BALD EAGLE NESTING

TERRITORY SURVEY FORM

Revised 4/2010

Territory Code: LLR

County: El Dorado **Survey Year:** 2021

Property Owner: USFS **If USFS:** El Dorado National Forest

Name (or general location of territory): Loon Lake Reservoir

Name of nearest water body: Loon Lake Reservoir

Location of Nest Site:

UTM E: 733613 **UTM N**: 4319278 **Zone:** 10S

No. of nests in territory - **Intact:** _____ **Remnant:** 1

Nest Tree: Species: Jeffrey Pine **Year Last Used:** 2020

NOTE: Please attach a map showing the location of any newly documented nest tree.

Describe tree and nest condition and size and add other remarks: Dominant Jeffrey pine located on south side of Loon Lake west of the summer camp: successful nesting in 2018, nest unused in 2019, failed reproductive attempt in 2020, and nest unused in 2021.

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:

Observers	Date	Observations/Notes
Steven Wood Emily Applequist	04.29.21 (07:30 to 12:30)	Early Breeding Season Survey: • 07:30 – No activity observed from spillway. • 08:30 – Two surveyors depart Loon Lake Campground on foot and hike along Rubicon Trail toward nest tree. • 09:24 – Adult BAEA (female) departing foraging perch in pine and flying east along S shoreline. • 09:39 – Pair of adult BAEA perched in snag on S shoreline for ~2 minutes, then departing to the SE. • 09:59 – Pair of adult BAEA perched in pine immediately downslope of previously used nest tree (nest structure no longer present). • No further BAEA activity observed; nest determined to be unoccupied. • Recreational activity low (~2 fishing boats); no BAEA disturbance observed.

Observers	Date	Observations/Notes
Krista Orr Steven Wood	05.10.20 (07:00 to 13:45)	<u>Mid Breeding Season Survey:</u> • 07:00 – Surveyors alternate observations from dam and spillway. • No BAEA activity observed over lake or at nest site for ~2 hours. • 09:55 – Pair of adult BAEA flying E to W from Pleasant Lake over hills N of spillway; pair observed soaring for ~10 minutes before disappearing over W end of reservoir near dam. • 11:00 – Surveyors depart Loon Lake Campground on foot and hike along Rubicon Trail toward nest tree, checking perches occupied during early breeding season survey. • Evidence of heavy winds (i.e., many fallen limbs and trees) observed along trail near nest tree. • No further BAEA activity observed; nest determined to be unoccupied. • Recreational activity: low (~3 fishing boats and ~5 jeepers); no BAEA disturbance observed.

Observers	Date	Observations/Notes
Emily Applequist Krista Orr	06.30.20 (06:45 to 16:00)	Late Breeding Season Survey: • 06:45 – Surveyors alternate observations from dam and spillway. • No BAEA activity observed over lake or at nest site for ~2.5 hours. • 10:00 – Surveyors depart via boat from launch W of spillway. • 11:15 – Adult BAEA flying SSE from Pleasant Lake beyond granite peak to S. • 12:00 – Adult BAEA observed in perch on NE end of Pleasant Lake. • 13:15 – Sub-adult BAEA (second or third year) flying NNW over Pleasant Lake and perching in pine along E edge of Pleasant Lake. • 13:25 – Sub-adult BAEA moved to alternate perch along E edge of Pleasant Lake, remained for ~1 min, and departed SSE. • 14:00 – surveyors depart Pleasant Lake via boat. • 14:50 – Adult BAEA flying E to W near dam, disappearing over ridge to N. • 15:30 – Surveyors return to launch W of spillway. • No further BAEA activity observed. • Recreational activity moderate (~4 fishing boats, ~5 jeepers, and ~8 kayakers); no BAEA disturbance observed.

SUMMARY:

A. Successful Nestings: 0 **No. of young known fledged:** 0 **or probably fledged:** N/A

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

How many adults seen in the territory? 2

Was there evidence of nest repair or construction? No

Were adults seen in the nest? No

Were adults in incubating posture? No

Number of nestlings observed? 0

Failed during incubation or nesting stage? N/A

Other remarks: Nest repair may have occurred in very early breeding season and been hindered by wind; no evidence of further reproductive activity was observed.

Observer Contact Information:

Surveys conducted by Stillwater Sciences, contractors for the Sacramento Municipal Utility District. For additional information contact Ethan Koenigs, SMUD Project Manager (Ethan.Koenigs@smud.org).

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APPENDIX C1

Bear Encounter Forms

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KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 9/3/21

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

Use a separate form for each individual incident. *For example, if the same bear enters two campsites while people are present, a person from each campsite should report the specifics of their encounter. Give completed forms to campground hosts. If your recreation site has no host, forms should be placed in the appropriate receptacle at the site or dropped off at the Crystal Basin Information Station on Ice House Road between Ice House Reservoir and Union Valley Reservoir.*

1. Person(s) involved:

Name: Taylor Hardiman, Alexandria Beam (925) 667-8038

2. Describe yourself:

a. Visitor
b. Camp host
c. USFS employee
d. Contractor
e. Other _____

3. Visitor activity:

a. Camping – developed campground
b. Camping – undeveloped campsite/wilderness
c. Day use area
d. Hiking on maintained trail
e. Other _____

4. Group size: 6
(number of people who encountered the bear)

5. Time of encounter: Month: Aug. Day: 11 Year: 2021 Time: 8:00 am/pm

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch
Other _____

7. Number and description of bears (how many, what color, size, adult or cub, sex?):

1 black bear, approx. ~~300~~ lb. had scars on face, recent scars

8. What was the bear doing when you first saw it?

trying to get into our cooler

9. Did you react to the bear?

yes, yelling and other loud noises

10. How did the bear react to your response?

seemed unphased, walked away slow

11. Was human food present?

a. Some food/trash NOT in bear resistant container
b. All food/trash in bear resistant container
c. No food present/ordor only
d. Food hung in tree
e. Unknown
f. Some food in vehicle

12. Did the bear eat any human food?

a. No b. Yes (what?)
c. Unknown _____

13. Did the bear damage property?

a. No b. Yes (list property and estimate costs) $100

14. Did the bear(s) harm anyone?

a. No b. Yes* (describe) _____

15. Details of bear-human interaction (optional):

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

SPCG

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

Use a separate form for each individual incident. *For example, if the same bear enters two campsites while people are present, a person from each campsite should report the specifics of their encounter. Give completed forms to campground hosts. If your recreation site has no host, forms should be placed in the appropriate receptacle at the site or dropped off at the Crystal Basin Information Station on Ice House Road between Ice House Reservoir and Union Valley Reservoir. Forms also can be dropped off at the Pacific Ranger Station at 7887 Highway 50, Pollock Pines, CA 95726.*

1. Person(s) involved:

Name: Vera, Tony, Linda, Vadim, Max, David, Oleg

Address: _____

City: _____ State: _____

Zip code: _____ Phone: 916 276 8946

Country: _____

2. Describe yourself:

a. Visitor
(b) Camp host
c. USFS employee
d. Contractor
e. Other _____

3. Visitor activity:

(a) Camping – developed campground
b. Camping – undeveloped campsite/wilderness
c. Day use area
d. Hiking on maintained trail
e. Other _____

4. Group size: 7 people
(number of people who encountered the bear)

5. Time of encounter: Month: 8 Day: 10 Year: 2021 Time: 3:30 (am) pm

For office use only:

Report collected by: P. Wertpilay (USFS/camp host)

Date: 9-5-21

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
(r.) Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch
Other _____

7. Number and description of bears (how many, what color, size, adult or cub, sex?):

1 black bear, 7.5ft, Yes Adult

8. Did the bear(s) harm anyone?

a. No b. Yes* (describe) No

9. What were you doing before you saw the bear?

Every stepping we woke up and we heard noises

10. What was the bear doing when you first saw it?

Digging for Food

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

11. How did the bear react to you?

He left Nothing Really

12. What did you do then?

Tony Ran at him and started Barking

13. How did the bear react to your response?

He left

14. How close did you come to the bear (how many feet)**?**

About 30ft

15. Was human food present?

(a.) Food not in bear resistant container
b. Food in bear resistant container
c. Food odor only
d. Food hung in tree
e. No food present
f. Unknown

16. Did the bear eat any human food?

a. No b. Yes (what?) Yes, Grapes
c. Unknown

17. Did the bear damage property?

a. No b. Yes (list property and estimate costs) Yes Food Tent Ripped everywhere $100

18. Details of bear-human interaction (optional):

No harm happened
The tent just Ripped we saw bear claws on Tent we heard pots and Pans and bunch of Ripped places everywhere when we came out the tent was flipped

KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 8/1/21

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

Use a separate form for each individual incident. *For example, if the same bear enters two campsites while people are present, a person from each campsite should report the specifics of their encounter. Give completed forms to campground hosts. If your recreation site has no host, forms should be placed in the appropriate receptacle at the site or dropped off at the Crystal Basin Information Station on Ice House Road between Ice House Reservoir and Union Valley Reservoir. Forms also can be dropped off at the Pacific Ranger Station at 7887 Highway 50, Pollock Pines, CA 95726.*

1. Person(s) involved:

Name: Dillinn Coyle

Address: 11306 N Guinevere Dr

City: Spokane State: WA

Zip code: 99218 Phone: 509-768-7618

Country: USA

2. Describe yourself:

a. Visitor
b. Camp host
c. USFS employee
d. Contractor
e. Other _____

3. Visitor activity:

a. Camping – developed campground
b. Camping – undeveloped campsite/wilderness
c. Day use area
d. Hiking on maintained trail
e. Other _____

4. Group size: 1 + 2 DOGS
(number of people who encountered the bear)

5. Time of encounter: Month: 07 Day: 27 Year: 2021 Time: 3:00 am/pm

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch
Other Bass Creek Dispersed Camp
BASSI FALLS?

7. Number and description of bears (how many, what color, size, adult or cub, sex?):

1 DEAD cub - Fresh

8. Did the bear(s) harm anyone?

a. No b. Yes* (describe) ______

9. What were you doing before you saw the bear?

______

10. What was the bear doing when you first saw it?

______

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

11. How did the bear react to you?

______

12. What did you do then?

______

13. How did the bear react to your response?

______

14. How close did you come to the bear (how many feet)**?**

______

15. Was human food present?

a. Food not in bear resistant container
b. Food in bear resistant container
c. Food odor only
d. Food hung in tree
e. No food present
f. Unknown

16. Did the bear eat any human food?

a. No b. Yes (what?) ______
c. Unknown

17. Did the bear damage property?

a. No b. Yes (list property and estimate costs) ______

18. Details of bear-human interaction (optional):

FOUND THIS 30-40 lbs CUB Partly
DISEMBOWLED NO RIGOR NO maggots
REPORTED to Wench Creek Camp Host [illegible]

KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 7/17/2021

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

Use a separate form for each individual incident. *For example, if the same bear enters two campsites while people are present, a person from each campsite should report the specifics of their encounter. Give completed forms to campground hosts. If your recreation site has no host, forms should be placed in the appropriate receptacle at the site or dropped off at the Crystal Basin Information Station on Ice House Road between Ice House Reservoir and Union Valley Reservoir. Forms also can be dropped off at the Pacific Ranger Station at 7887 Highway 50, Pollock Pines, CA 95726.*

1. Person(s) involved:

Name: Aaron Harrison

Address: _____

City: _____ State: _____

Zip code: _____ Phone: 707 617-5179

Country: _____

2. Describe yourself:

a. Visitor
(b) Camp host
c. USFS employee
d. Contractor
e. Other _____

3. Visitor activity:

(a) Camping – developed campground
b. Camping – undeveloped campsite/wilderness
c. Day use area
d. Hiking on maintained trail
e. Other _____

4. Group size: 1
(number of people who encountered the bear)

5. Time of encounter: Month: July Day: 7 Year: 2021 Time: 12 AM am/pm

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch
Other _____

7. Number and description of bears (how many, what color, size, adult or cub, sex?):
1 bear Cub

8. Did the bear(s) harm anyone?
a. No b. Yes* (describe) NO

9. What were you doing before you saw the bear?
BBQ

10. What was the bear doing when you first saw it?
Trash Can Diving

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

11. How did the bear react to you?
He Did Not Want to Play Catch

12. What did you do then?
Watched

13. How did the bear react to your response?
left

14. How close did you come to the bear (how many feet)**?**
100 FT

15. Was human food present?
a. Food not in bear resistant container
b. Food in bear resistant container
c. Food odor only
d. Food hung in tree
e. No food present
f. Unknown

16. Did the bear eat any human food?
a. No b. Yes (what?)_____
c. Unknown

17. Did the bear damage property?
a. No b. Yes (list property and estimate costs) NO

18. Details of bear-human interaction (optional):
Keep his Distance

KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 7/7/2021

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

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1. Person(s) involved:

Name: MORALES, LIC

Address: 7019 REMO WAY

City: SACTO, CA. State: CA

Zip code: 95822 Phone: 9165196184

Country: _____

2. Describe yourself:

a. Visitor
b. Camp host
c. USFS employee
d. Contractor
e. Other _____

3. Visitor activity:

a. Camping – developed campground
b. Camping – undeveloped campsite/wilderness
c. Day use area
d. Hiking on maintained trail
e. Other _____

4. Group size: 2
(number of people who encountered the bear)

5. Time of encounter: Month: 07 Day: 07 Year: 2021 Time: 3AM am/pm

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/
boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch
Other _____

7. Number and description of bears (how many, what color, size, adult or cub, sex?)**:**

_____

8. Did the bear(s) harm anyone?

a. No b. Yes* (describe) _____

9. What were you doing before you saw the bear?

_____

10. What was the bear doing when you first saw it?

_____

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

11. How did the bear react to you?

_____

12. What did you do then?

_____

13. How did the bear react to your response?

_____

14. How close did you come to the bear (how many feet)**?**

_____

15. Was human food present?

a. Food not in bear resistant container
b. Food in bear resistant container
c. Food odor only
d. Food hung in tree
e. No food present
f. Unknown

16. Did the bear eat any human food?

a. No b. Yes (what?) _____
c. Unknown

17. Did the bear damage property?

a. No b. Yes (list property and estimate costs) _____

18. Details of bear-human interaction (optional)**:**

_____

_____

_____

KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 7/7/2021

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

Use a separate form for each individual incident. *For example, if the same bear enters two campsites while people are present, a person from each campsite should report the specifics of their encounter. Give completed forms to campground hosts. If your recreation site has no host, forms should be placed in the appropriate receptacle at the site or dropped off at the Crystal Basin Information Station on Ice House Road between Ice House Reservoir and Union Valley Reservoir. Forms also can be dropped off at the Pacific Ranger Station at 7887 Highway 50, Pollock Pines, CA 95726.*

1. Person(s) involved:

Name: PAUL ROBERTS

Address: 3811 FAIRWAY DRIVE

City: CAMERON PARK, [redacted] State: CA

Zip code: 95682-8655 Phone: (530) 672-2941

Country: USA

2. Describe yourself:

(a.) Visitor
b. Camp host
c. USFS employee
d. Contractor
e. Other _____

3. Visitor activity:

(a.) Camping – developed campground
b. Camping – undeveloped campsite/wilderness
c. Day use area
d. Hiking on maintained trail
e. Other _____

4. Group size: 6
(number of people who encountered the bear)

5. Time of encounter: Month: 7 Day: 8 Year: 2021 Time: 10:00 a.m. [redacted] (a.m.) p.m.

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch
Other _____

7. Number and description of bears (how many, what color, size, adult or cub, sex?)**:**

1 BEAR, BROWN, LOOKED YOUNG BUT NEAR FULL GROWN, UNKNOWN SEX

8. Did the bear(s) harm anyone?

a. No b. Yes* (describe) _____

9. What were you doing before you saw the bear?

VISITING IN THE CAMP AREA

10. What was the bear doing when you first saw it?

GOT INTO AN ICE CHEST

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

11. How did the bear react to you?

RAN OFF ~~UNKNOWN~~ AFTER FAST CLIMBING A TREE AT CAMPSITE

12. What did you do then?

GROUP DISCUSSION OF THE INCIDENT AT THE SITE

13. How did the bear react to your response? DID NOT APPROACH US & RAN OFF WHEN WE YELLED AT IT.

ABOUT 30 MINUTES THE BEAR RETURNED & WATCHED US AT A DISTANCE.

14. How close did you come to the bear (how many feet)**?**

ABOUT A HUNDRED FEET.

15. Was human food present?

a. Food not in bear resistant container
b. Food in bear resistant container
c. Food odor only
d. Food hung in tree
e. No food present
f. Unknown

16. Did the bear eat any human food?

a. No b. Yes (what?) ASIAN SALAD
~~c. Unknown~~

17. Did the bear damage property?

a. No b. Yes (list property and estimate costs) _____

18. Details of bear-human interaction (optional)**:**

MOST OF GROUP LEFT THE AREA AFTER THAT ENCOUNTER. 3 PEOPLE STAYED IN GROUP AREA. BEAR AGAIN APPEARED ABOUT 3:00 P.M. BY THE RESTROOM. PEOPLE SCARED OFF BEAR. SOMETIME THAT NIGHT, BEAR PROBABLY RETURNED. IT WAS NOT SEEN OR HEARD, BUT PAPER TOWEL ROLL WAS SHREDDED & DRAINAGE AREA AT WATER FAUCET WAS DUG UP. NO FOOD WAS OUT.

KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 6/27/2021

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

Use a separate form for each individual incident. *For example, if the same bear enters two campsites while people are present, a person from each campsite should report the specifics of their encounter. Give completed forms to campground hosts. If your recreation site has no host, forms should be placed in the appropriate receptacle at the site or dropped off at the Crystal Basin Information Station on Ice House Road between Ice House Reservoir and Union Valley Reservoir.*

1. Person(s) involved:

Name: Michael Dryden

2. Describe yourself:

a. Visitor

b. Camp host

c. USFS employee

d. Contractor

e. Other _____

3. Visitor activity:

a. Camping – developed campground #8 NCCG

b. Camping – undeveloped campsite/wilderness

c. Day use area

d. Hiking on maintained trail

e. Other _____

4. Group size: 1
(number of people who encountered the bear)

5. Time of encounter: Month: 06 Day: 22 Year: 2021 Time: 6AM (am)/pm

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch
Other North wind

7. Number and description of bears (how many, what color, size, adult or cub, sex?):

8. What was the bear doing when you first saw it?

9. Did you react to the bear?

10. How did the bear react to your response?

11. Was human food present?

a. Some food/trash NOT in bear resistant container
b. All food/trash in bear resistant container
c. No food present/ordor only
d. Food hung in tree
e. Some food in vehicle
f. Unknown

12. Did the bear eat any human food?

a. No b. Yes (what?) butter, dog food
c. Unknown

13. Did the bear damage property?

a. No b. Yes (list property and estimate costs) _____

14. Did the bear(s) harm anyone?

a. No b. Yes* (describe)

15. Details of bear-human interaction (optional):

heard the bear, sounded smaller in size

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 6/27/2021

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

Use a separate form for each individual incident. *For example, if the same bear enters two campsites while people are present, a person from each campsite should report the specifics of their encounter. Give completed forms to campground hosts. If your recreation site has no host, forms should be placed in the appropriate receptacle at the site or dropped off at the Crystal Basin Information Station on Ice House Road between Ice House Reservoir and Union Valley Reservoir.*

1. Person(s) involved:

Name: Rob Rocti

2. Describe yourself:

a. Visitor
b. Camp host
c. USFS employee
d. Contractor
e. Other _____

3. Visitor activity:

a. Camping – developed campground
b. Camping – undeveloped campsite/wilderness
c. Day use area
d. Hiking on maintained trail
e. Other _____

4. Group size: 1
(number of people who encountered the bear)

5. Time of encounter: Month: 06 Day: 23 Year: _____ Time: 4AM am/pm

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch
Other Northwind #129

7. Number and description of bears (how many, what color, size, adult or cub, sex?):

One bear, black, adult ~~2~~ 3 feet tall

8. What was the bear doing when you first saw it?

coming into my campsite, bumped my truck

9. Did you react to the bear?

yelled at it

10. How did the bear react to your response?

ran away

11. Was human food present?

a. Some food/trash NOT in bear resistant container
(b.) All food/trash in bear resistant container
c. No food present/ordor only
d. Food hung in tree
e. Some food in vehicle
f. Unknown

12. Did the bear eat any human food?

(a.) No b. Yes (what?) _____
c. Unknown

13. Did the bear damage property?

(a.) No b. Yes (list property and estimate costs) _____

14. Did the bear(s) harm anyone?

a. (No) b. Yes* (describe) _____

15. Details of bear-human interaction (optional):

Bear came into campsite & I yelled & scared him off

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 6/27/2024

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

Use a separate form for each individual incident. *For example, if the same bear enters two campsites while people are present, a person from each campsite should report the specifics of their encounter. Give completed forms to campground hosts. If your recreation site has no host, forms should be placed in the appropriate receptacle at the site or dropped off at the Crystal Basin Information Station on Ice House Road between Ice House Reservoir and Union Valley Reservoir.*

1. Person(s) involved:

Name: MICHAEL DRYDEN

2. Describe yourself:

a. Visitor
b. Camp host
c. USFS employee
d. Contractor
e. Other Camper

3. Visitor activity:

(a.) Camping – developed campground
b. Camping – undeveloped campsite/wilderness
c. Day use area
d. Hiking on maintained trail
e. Other _____

4. Group size: 1
(number of people who encountered the bear)

5. Time of encounter: Month: 6 Day: 25 Year: _____ Time: 11:00 am/pm

Site 8

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch

Other _____

7. Number and description of bears (how many, what color, size, adult or cub, sex?):

1 — 20' Around My Camp Site

8. What was the bear doing when you first saw it?

Moving Back + Forth

9. Did you react to the bear?

Yes Turned on my Flood Lights

10. How did the bear react to your response?

Run

11. Was human food present?

a. Some food/trash NOT in bear resistant container
b. All food/trash in bear resistant container
c. No food present/ordor only
d. Food hung in tree
e. Some food in vehicle
f. Unknown

12. Did the bear eat any human food?

a. No b. Yes (what?) _____
c. Unknown

13. Did the bear damage property?

a. No b. Yes (list property and estimate costs) _____

14. Did the bear(s) harm anyone?

a. No b. Yes* (describe) _____

15. Details of bear-human interaction (optional):

Moving R + L About 20' Around My Camp Site

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 7/11/2021

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

Use a separate form for each individual incident. *For example, if the same bear enters two campsites while people are present, a person from each campsite should report the specifics of their encounter. Give completed forms to campground hosts. If your recreation site has no host, forms should be placed in the appropriate receptacle at the site or dropped off at the Crystal Basin Information Station on Ice House Road between Ice House Reservoir and Union Valley Reservoir. Forms also can be dropped off at the Pacific Ranger Station at 7887 Highway 50, Pollock Pines, CA 95726.*

1. Person(s) involved:

Name: Jed Vreeland

Address: _____

City: _____ State: _____

Zip code: _____ Phone: _____

Country: _____

2. Describe yourself:

a. (Visitor)
b. Camp host
c. USFS employee
d. Contractor
e. Other _____

3. Visitor activity:

a. (Camping – developed campground)
b. Camping – undeveloped campsite/wilderness
c. Day use area
d. Hiking on maintained trail
e. Other _____

4. Group size: 4
(number of people who encountered the bear)

5. Time of encounter: Month: 07 Day: 06 Year: 2021 Time: 12 (am)/pm

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ boat launch/day use area (Lakes Loop)
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch
Other _____

7. Number and description of bears (how many, what color, size, adult or cub, sex?)**:**

1 black with yellow around eyes, big bear

8. Did the bear(s) harm anyone?

a. No b. Yes* (describe) _____

9. What were you doing before you saw the bear?

sitting around the campfire

10. What was the bear doing when you first saw it?

it was breaking into my car, broke the window

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

11. How did the bear react to you?

it ran away the minute we yelled at it

12. What did you do then?

went to look at the destruction

13. How did the bear react to your response?

_____

14. How close did you come to the bear (how many feet)**?**

~20ft

15. Was human food present?

a. Food not in bear resistant container
b. Food in bear resistant container
c. Food odor only (in the car)
d. Food hung in tree
e. No food present
f. Unknown

16. Did the bear eat any human food?

a. No b. Yes (what?) ~~lots packs of fruit cups, cereal, peanut butter~~
c. Unknown

17. Did the bear damage property?

a. No b. Yes (list property and estimate costs) broke my window, dented my car

18. Details of bear-human interaction (optional)**:**

We heard the window break and got up and yelled at it. It was a huge bear.

KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 7/10/2021

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

Use a separate form for each individual incident. *For example, if the same bear enters two campsites while people are present, a person from each campsite should report the specifics of their encounter. Give completed forms to campground hosts. If your recreation site has no host, forms should be placed in the appropriate receptacle at the site or dropped off at the Crystal Basin Information Station on Ice House Road between Ice House Reservoir and Union Valley Reservoir. Forms also can be dropped off at the Pacific Ranger Station at 7887 Highway 50, Pollock Pines, CA 95726.*

1. Person(s) involved:

Name: Kane + Trish Laek

Address: 4842 Carrige Dr. Na

City: Santa Rosa State: CA.

Zip code: 95403 Phone: 707-332-1060

Country: U.S.

2. Describe yourself:

a. Visitor
b. Camp host
c. USFS employee
d. Contractor
e. Other a

3. Visitor activity:

a. Camping – developed campground
b. Camping – undeveloped campsite/wilderness
c. Day use area
d. Hiking on maintained trail
e. Other a

4. Group size: ~~X~~ 2
(number of people who encountered the bear)

5. Time of encounter: Month: 7 Day: 7 Year: 2020 Time: 1:30. am/pm

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ upper + lower boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch
Other _____

7. Number and description of bears (how many, what color, size, adult or cub, sex?)**:**

1 - BLACK

8. Did the bear(s) harm anyone?

a. No b. Yes* (describe) _____

9. What were you doing before you saw the bear?

Sleeping

10. What was the bear doing when you first saw it?

getting into Ice chest

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

11. How did the bear react to you?

not Skidish

12. What did you do then?

Pushed car alarm

13. How did the bear react to your response?

Ran - Then came back

14. How close did you come to the bear (how many feet)**?**

40

15. Was human food present?

a. Food not in bear resistant container
b. Food in bear resistant container
c. Food odor only
d. Food hung in tree
e. No food present
f. Unknown

16. Did the bear eat any human food?

a. No b. Yes (what?) Sweets
c. Unknown

17. Did the bear damage property?

a. No b. Yes (list property and estimate costs) _____

18. Details of bear-human interaction (optional)**:**

KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 7/16/2021

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

Use a separate form for each individual incident. *For example, if the same bear enters two campsites while people are present, a person from each campsite should report the specifics of their encounter. Give completed forms to campground hosts. If your recreation site has no host, forms should be placed in the appropriate receptacle at the site or dropped off at the Crystal Basin Information Station on Ice House Road between Ice House Reservoir and Union Valley Reservoir. Forms also can be dropped off at the Pacific Ranger Station at 7887 Highway 50, Pollock Pines, CA 95726.*

1. Person(s) involved:

Name: Ciaran DelBonta-Smith

Address: 111 Gilbert Ct.

City: Santa Cruz State: CA

Zip code: 95065 Phone: 831-479-1215

Country: ~~A~~ USA

2. Describe yourself:

(a.) Visitor
b. Camp host
c. USFS employee
d. Contractor
e. Other _____

3. Visitor activity:

(a.) Camping – developed campground
b. Camping – undeveloped campsite/wilderness
c. Day use area
d. Hiking on maintained trail
e. Other _____

4. Group size: 5
(number of people who encountered the bear)

5. Time of encounter: Month: 07 Day: 13 Year: 2021 Time: 4 am (pm)/pm

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch
Other North wind

7. Number and description of bears (how many, what color, size, adult or cub, sex?)**:**

1, Black bear, adult,

8. Did the bear(s) harm anyone?

(a.) No b. Yes* (describe) _____

9. What were you doing before you saw the bear?

Sleeping

10. What was the bear doing when you first saw it?

eating my food

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

11. How did the bear react to you?

ran away after entire group yelled

12. What did you do then?

Stayed up for bear

13. How did the bear react to your response?

ran

14. How close did you come to the bear (how many feet)**?**

10 to 15 feet

15. Was human food present?

(a.) Food not in bear resistant container
b. Food in bear resistant container
c. Food odor only
d. Food hung in tree
e. No food present
f. Unknown

16. Did the bear eat any human food?

a. No (b.) Yes (what?) hot dogs, butter, brie,
c. Unknown

17. Did the bear damage property?

a. No (b.) Yes (list property and estimate costs) cooler 10ft

18. Details of bear-human interaction (optional)**:**

took ~~a~~ awhile for bear to leave campsite

JFCG

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

Use a separate form for each individual incident. *For example, if the same bear enters two campsites while people are present, a person from each campsite should report the specifics of their encounter. Give completed forms to campground hosts. If your recreation site has no host, forms should be placed in the appropriate receptacle at the site or dropped off at the Crystal Basin Information Station on Ice House Road between Ice House Reservoir and Union Valley Reservoir.*

1. Person(s) involved:

Name: Chelsea Weihs

2. Describe yourself:

a. Visitor

b. Camp host

c. USFS employee

d. Contractor

e. Other _____

3. Visitor activity:

a. Camping – developed campground

b. Camping – undeveloped campsite/wilderness

c. Day use area

d. Hiking on maintained trail

e. Other _____

4. Group size: 10 people one I saw bear
(number of people who encountered the bear)

5. Time of encounter: Month: 7 Day: 15 Year: 2021 Time: 12:30 am/pm

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 7/23/2021

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch

Other _____

7. Number and description of bears (how many, what color, size, adult or cub, sex?):

1 Black Bear Small to medium in size

8. What was the bear doing when you first saw it?

I had forgot one of the Ice chests and it flipped to get marshellows & Chocolate I was

9. Did you react to the bear?

Made myself look Big the maybe a yelling growling noise I scared it off

10. How did the bear react to your response?

I ran away very quickly.

11. Was human food present?

a. Some food/trash NOT in bear resistant container
b. All food/trash in bear resistant container
c. No food present/ordor only
d. Food hung in tree
e. Some food in vehicle
f. Unknown

12. Did the bear eat any human food?

a. No b. Yes (what?) marshmellows & a candy bar
c. Unknown

13. Did the bear damage property?

a. No b. Yes (list property and estimate costs) _____

14. Did the bear(s) harm anyone?

a. No b. Yes* (describe) _____

15. Details of bear-human interaction (optional):

I first yelled from the tent to scare off the bear. It only move to the street. So I took two lights and held them over my head then made a loud yelling growl type noise and it ran off really fast.

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 7/26/2024

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

Use a separate form for each individual incident. For example, if the same bear enters two campsites while people are present, a person from each campsite should report the specifics of their encounter. Give completed forms to campground hosts. If your recreation site has no host, forms should be placed in the appropriate receptacle at the site or dropped off at the Crystal Basin Information Station on Ice House Road between Ice House Reservoir and Union Valley Reservoir. Forms also can be dropped off at the Pacific Ranger Station at 7887 Highway 50, Pollock Pines, CA 95726.

1. Person(s) involved:

Name: E HAYES

Address: 1505 JETTY DR

City: RICHMOND State: CA

Zip code: 94804 Phone: (510) 928-1884

Country: CONTRA COSTA

2. Describe yourself:

(a.) Visitor
b. Camp host
c. USFS employee
d. Contractor
e. Other _____

3. Visitor activity:

(a.) Camping – developed campground
b. Camping – undeveloped campsite/wilderness
c. Day use area
d. Hiking on maintained trail
e. Other _____

4. Group size: MANY
(number of people who encountered the bear)

5. Time of encounter: Month: 7 Day: 16 Year: 21 Time: 3 (am)/pm

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch
Other _____

7. Number and description of bears (how many, what color, size, adult or cub, sex?):

1 BLACK 150lbs

8. Did the bear(s) harm anyone?

a. No b. Yes* (describe) _____

9. What were you doing before you saw the bear?

SLEEPING

10. What was the bear doing when you first saw it?

BREAKING INTO CONTAINERS

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

11. How did the bear react to you?

LIKE I WAS UNIMPORTANT

12. What did you do then?

FLASHED LIGHT / MADE LOTS NOISE

13. How did the bear react to your response?

LIKE I WAS UNIMPORTANT

14. How close did you come to the bear (how many feet)**?**

8 FT

15. Was human food present?

a. Food not in bear resistant container
b. Food in bear resistant container
c. Food odor only
d. Food hung in tree
e. No food present
f. Unknown

16. Did the bear eat any human food?

a. No b. Yes (what?) _____
c. Unknown

17. Did the bear damage property?

a. No b. Yes (list property and estimate costs) _____

18. Details of bear-human interaction (optional):

NOT REALLY

KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 7/26/2021

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

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1. Person(s) involved:

Name: Scott Sawyer and family

Address: 111 Donna Court

City: Santa Cruz State: CA

Zip code: 95060 Phone: 831-239-7757

Country: USA

2. Describe yourself:

(a.) Visitor
b. Camp host
c. USFS employee
d. Contractor
e. Other _____

3. Visitor activity:

(a.) Camping – developed campground
b. Camping – undeveloped campsite/wilderness
c. Day use area
d. Hiking on maintained trail
e. Other _____

4. Group size: 5
(number of people who encountered the bear)

5. Time of encounter: Month: July Day: 16 Year: 2021 Time: 0230 (am)/pm

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
(h.) Ice House campground/ boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch
Other _____

7. Number and description of bears (how many, what color, size, adult or cub, sex?):

1 large black(?) bear.

8. Did the bear(s) harm anyone?

(a.) No b. Yes* (describe) _____

9. What were you doing before you saw the bear?

sleeping

10. What was the bear doing when you first saw it?

pulling open ~~attacking~~ a large cooler and stole food

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

11. How did the bear react to you?

he ran off to other campsites

12. What did you do then?

moved food from cooler to locker

13. How did the bear react to your response?

he was gone

14. How close did you come to the bear (how many feet)**?**

6 feet

15. Was human food present?

(a.) Food not in bear resistant container
b. Food in bear resistant container
c. Food odor only
d. Food hung in tree
e. No food present
f. Unknown

16. Did the bear eat any human food?

a. No (b.) Yes (what?) bread
c. Unknown

17. Did the bear damage property? 175~

a. No (b.) Yes (list property and estimate costs) _____

18. Details of bear-human interaction (optional):

We were sleeping & heard the bear pry open/break the lid to our cooler. I yelled at the bear & it ran away with a loaf of bread in its mouth. It did the same thing at other campsites over a few hours & we heard other campers yelling at it & banging pots or pans.

KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 7/26/2021

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

Use a separate form for each individual incident. *For example, if the same bear enters two campsites while people are present, a person from each campsite should report the specifics of their encounter. Give completed forms to campground hosts. If your recreation site has no host, forms should be placed in the appropriate receptacle at the site or dropped off at the Crystal Basin Information Station on Ice House Road between Ice House Reservoir and Union Valley Reservoir.*

1. Person(s) involved:

Name: Amber Priveth

2. Describe yourself:

(a. Visitor)

b. Camp host

c. USFS employee

d. Contractor

e. Other _____

3. Visitor activity:

(a. Camping – developed campground)

b. Camping – undeveloped campsite/wilderness

c. Day use area

d. Hiking on maintained trail

e. Other _____

4. Group size: ~~2~~ 0 in camp ~~just~~
(number of people who encountered the bear)

5. Time of encounter: Month: 7 Day: 16 Year: 2021 Time: 1:15 am/pm

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch

Other _____

7. Number and description of bears (how many, what color, size, adult or cub, sex?):

1 Bear I think

8. What was the bear doing when you first saw it?

I didnt see it got in my empty Ice chest that used to have food in it

9. Did you react to the bear?

no

10. How did the bear react to your response?

0

11. Was human food present?

a. Some food/trash NOT in bear resistant container
b. All food/trash in bear resistant container
c. No food present/ordor only
d. Food hung in tree
e. Unknown
f. Some food in vehicle

12. Did the bear eat any human food?

a. No b. Yes (what?)
c. Unknown not in my camp site

13. Did the bear damage property?

a. No b. Yes (list property and estimate costs) $5 Broke ice chest strap

14. Did the bear(s) harm anyone?

a. No b. Yes* (describe)_____

15. Details of bear-human interaction (optional):

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 7/30/2021

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

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1. Person(s) involved:

Name: MORALES L

Address: 7019 RENO WY

City: SACTO. State: CA

Zip code: 95822 Phone: 916 5196184

Country:

2. Describe yourself:

a. Visitor
b. Camp host
c. USFS employee
d. Contractor
e. Other _____

3. Visitor activity:

a. Camping – developed campground
b. Camping – undeveloped campsite/wilderness
c. Day use area
d. Hiking on maintained trail
e. Other _____

4. Group size: 21
(number of people who encountered the bear)

5. Time of encounter: Month: 07 Day: 22 Year: 2021 Time: 12 am/pm

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch
Other _____

7. Number and description of bears (how many, what color, size, adult or cub, sex?):

_____

8. Did the bear(s) harm anyone?

a. No b. Yes* (describe) _____

9. What were you doing before you saw the bear?

_____

10. What was the bear doing when you first saw it?

_____

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

11. How did the bear react to you?

_____

12. What did you do then?

_____

13. How did the bear react to your response?

_____

14. How close did you come to the bear (how many feet)**?**

_____

15. Was human food present?

a. Food not in bear resistant container
b. Food in bear resistant container
c. Food odor only
d. Food hung in tree
e. No food present
f. Unknown

16. Did the bear eat any human food?

a. No b. Yes (what?) _____
c. Unknown

17. Did the bear damage property?

a. No b. Yes (list property and estimate costs) _____

18. Details of bear-human interaction (optional)**:**

_____

_____

_____

KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 7/26/2021

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring Crystal Basin Recreation Area

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1. Person(s) involved:

Name: Joseph Stidman

Address: 9336 Orangevale Ave

City: Orangevale State: CA

Zip code: 95662 Phone: 916 2476229

Country: Sacramento

2. Describe yourself:

a. Visitor (circled)
b. Camp host
c. USFS employee
d. Contractor
e. Other _____

3. Visitor activity:

a. Camping – developed campground (circled)
b. Camping – undeveloped campsite/wilderness
c. Day use area
d. Hiking on maintained trail
e. Other _____

4. Group size: 4
(number of people who encountered the bear)

5. Time of encounter: Month: 7 Day: 16 Year: 2021 Time: 12:30 am/pm (pm circled)

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch
Other _____

7. Number and description of bears (how many, what color, size, adult or cub, sex?)**:**

1 Adult Black

8. Did the bear(s) harm anyone?

a. No b. Yes* (describe) _____

9. What were you doing before you saw the bear?

Sleeping

10. What was the bear doing when you first saw it?

Breaking into chest

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

11. How did the bear react to you?

Stared at us looked annoyed

12. What did you do then?

Yelled

13. How did the bear react to your response?

continued to stare evently walked away

14. How close did you come to the bear (how many feet)**?**

15 maybe

15. Was human food present?

a. Food not in bear resistant container
b. Food in bear resistant container
c. Food odor only
d. Food hung in tree
e. No food present
f. Unknown

16. Did the bear eat any human food?

a. No b. Yes (what?) Hot dogs
c. Unknown

17. Did the bear damage property?

a. No b. Yes (list property and estimate costs) #5

18. Details of bear-human interaction (optional)**:**

I yelled at the bear, he stared at me for a short time before walking into the woods.

KEEP ME WILD

For office use only:

Report collected by: USFS (USFS/camp host)

Date: 7/26/2021

KEEP ME WILD

BEAR ENCOUNTER FORM

Bear Management Monitoring
Crystal Basin Recreation Area

Use a separate form for each individual incident. *For example, if the same bear enters two campsites while people are present, a person from each campsite should report the specifics of their encounter. Give completed forms to campground hosts. If your recreation site has no host, forms should be placed in the appropriate receptacle at the site or dropped off at the Crystal Basin Information Station on Ice House Road between Ice House Reservoir and Union Valley Reservoir.*

1. Person(s) involved:

Name: Krista Rondoni

2. Describe yourself:

a. Visitor

b. Camp host

c. USFS employee

d. Contractor

e. Other _____

3. Visitor activity:

a. Camping – developed campground

b. Camping – undeveloped campsite/wilderness

c. Day use area

d. Hiking on maintained trail

e. Other _____

4. Group size: 2
(number of people who encountered the bear)

5. Time of encounter: Month: 7 Day: 15 Year: 21 Time: 1:30 am/pm

6. Location of encounter:

a. Airport Flat campground
b. Angel Creek day use area
c. Azalea Cove campground
d. Big Silver group campground
e. Camino Cove campground
f. Fashoda campground
g. Gerle Creek campground complex
h. Ice House campground/ boat launch/day use area
i. Jones Fork campground
j. Junction Reservoir boat launch
k. Lone Rock campground
l. Loon Lake campground/boat ramp
m. Loon Lake chalet
n. Northshore campground
o. Northshore RV campground
p. Pleasant campground
q. Red Fir group campground
r. Strawberry Point campground
s. Sunset campground/boat launch
t. Union Valley bike trail
u. Wench Creek campground
v. Wench Creek group campground
w. West Point campground/boat launch
x. Wolf Creek campground
y. Wolf Creek group campground
z. Yellowjacket campground/boat launch
Other _____

7. Number and description of bears (how many, what color, size, adult or cub, sex?):

Olive bear

8. What was the bear doing when you first saw it?

eating out of neighbors ice chest

9. Did you react to the bear?

Yes

10. How did the bear react to your response?

it scurried away

11. Was human food present?

a. Some food/trash NOT in bear resistant container
b. All food/trash in bear resistant container
c. No food present/ordor only
d. Food hung in tree
e. Unknown
f. Some food in vehicle

12. Did the bear eat any human food?

a. No b. Yes (what?)
c. Unknown hot dogs, cake, beer

13. Did the bear damage property?

a. No b. Yes (list property and estimate costs) _____

14. Did the bear(s) harm anyone?

a. No b. Yes* (describe) _____

15. Details of bear-human interaction (optional):

* If there was a physical encounter with the bear or a bear was harmed in the incident, please report to the USFS Ranger and California Department of Fish and Wildlife.

APPENDIX C2

Bear Encounter Summary

Bear Encounter Form - Bear Management Monitoring, Crystal Basin Recreation Area - UARP, Eldorado National Forest

2021 Results Summary - Compiled by Ethan Koenigs, SMUD

1. Name	2. Description	3. Visitor Activity	4. Group Size	5. Date/Time of Encounter	6. Location	7. Number / description of bear(s)	8-14 - Description of interaction w/ bear	15. Food Present	16.Consumption by Bear	17. Property Damage	Comments
William Coyle	Visitor	Camping - dispersed	1	7/27/2021	Bassi Falls Area	1 cub - dead	Found dead cub	No	No	No	30-40 lb cub; partly disembowled, fresh
Aaron Harrison	Camp Host	Camping - developed	1	7/7/2021	Fashoda	1 cub	Bear going through trash	Food odor only	No	No	Bear was getting into trash then left
L. Morales	Camp Host	Camping - developed	NA	7/22/2021	Fashoda	NA	NA	NA	NA	NA	No details
Jed Vineyard	Visitor	Camping - developed	4	7/6/2021	Ice House	1 large, black adult	Bear broke car window trying to get food	Yes - no container	Yes	Yes	the bear broke into a car window and dented car
Trish Lack	Visitor	Camping - developed	2	7/7/2021	Ice House	1 - black	Bear was getting into cooler	Yes - no container	Yes	No	Bear getting into cooler; ran off and came back
E. Hayes	Visitor	Camping - developed	many	7/16/2021	Ice House	1 small black	Bear getting into food container	Yes - no container	unknown	no	Bear not scared off by campers
Scott Sawyer	Visitor	camping - developed	5	7/16/2021	Ice House	1 large black	Bear getting food out of cooler	Yes - no container	Yes	Yes	Bear ate some bread it got out of the cooler
Amber Privett	Visitor	Camping - developed		7/16/2021	Ice House	1	Bear in camp breaking into cooler	Food odor only	No	Yes	Bear got into cooler that was empty while camper was away from camp.
Joseph Stidman	Visitor	Camping - developed	4	7/16/2021	Ice House	1 Adult black	Breaking into cooler	Yes - no container	Yes	Yes	Bear ate hot dogs then walked off when camper yelled
Kristina Rondoni	Visitor	Camping - developed	2	7/16/2021	Ice House	1	Bear eating food from camp nextdoor	Yes - no container	Yes	No	Bear ran off
Chelsea Weihs	Visitor	Camping - developed	2	7/15/2021	Jones Fork	1 Smaller black	Bear was getting into cooler	Yes - no container	Yes	No	Bear ate candy and camper was able to scare off the bear
Michael Dryden	Visitor	Camping -developed	1	6/22/2021	Northwind	Unknown	Bear ate butter and dog food	Yes - no container	Yes	No	Bear was not seen
Rob Roati	Visitor	Camping - developed	1	6/23/2021	Northwind	1 black adult	Bear in camp; scared off by camper	Yes - in container	No	no	Bear ran off
Ciacran	Visitor	Camping - developed	5	7/13/2021	Northwind	1 - black adult	Bear came into camp and ate food that was out	Yes - no container	Yes	Yes	Cooler destroyed
Paul Roberts	Visitor	Camping - developed	6	7/8/2021	red fir	1 brown young adult	Bear getting into cooler	Yes - no container	Yes	No	Bear got into cooler; ate some salad; bear was scared off and climbed tree then left and returned later
Multiple	Camp Host	Camping - developed	7	8/10/2021	Strawberry Point	1 - large, black	Bear rummaging through camp; getting into cooler	Yes - no container	Yes	Yes	Bear damaged a canopy tent where food was stored
Lil Morales	Camp Host	Camping - developed	2	7/7/2021	Sunset CG	Unknown	NA	NA	NA	NA	No details
Michael Dryden	Visitor	Camping - developed	1	6/25/2021	Unknown	1	Bear moving through camp	Food odor only	No	Yes	Bear ran off
Taylor Hardiman	Visitor	Camping - developed	6	8/11/2021	Wolf Creek Group	1	Bear trying to get into cooler	No	no	Yes	Large black bear was unphased by noise; Cooler damaged

APPENDIX D

2021 Water Temperature Graphs

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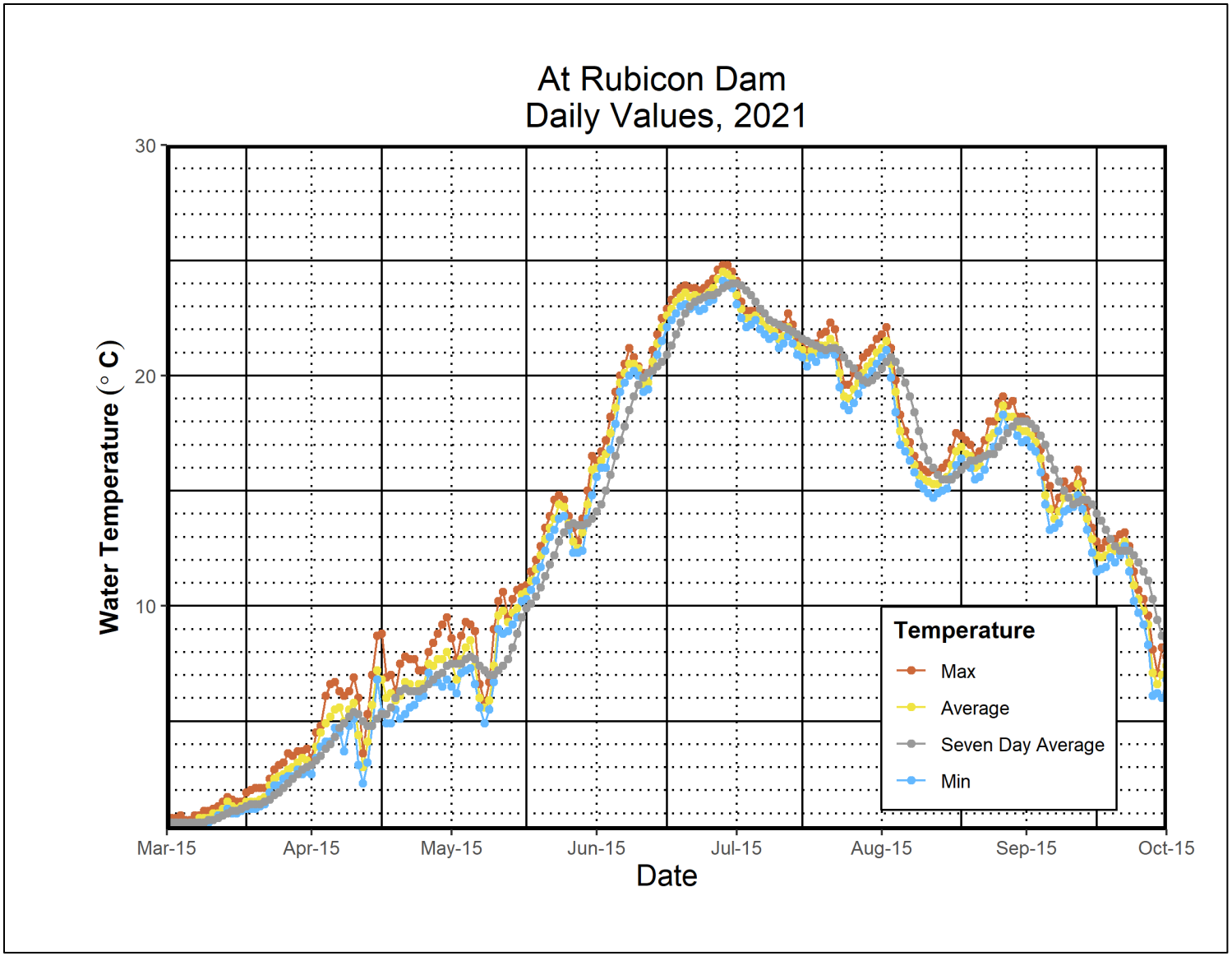

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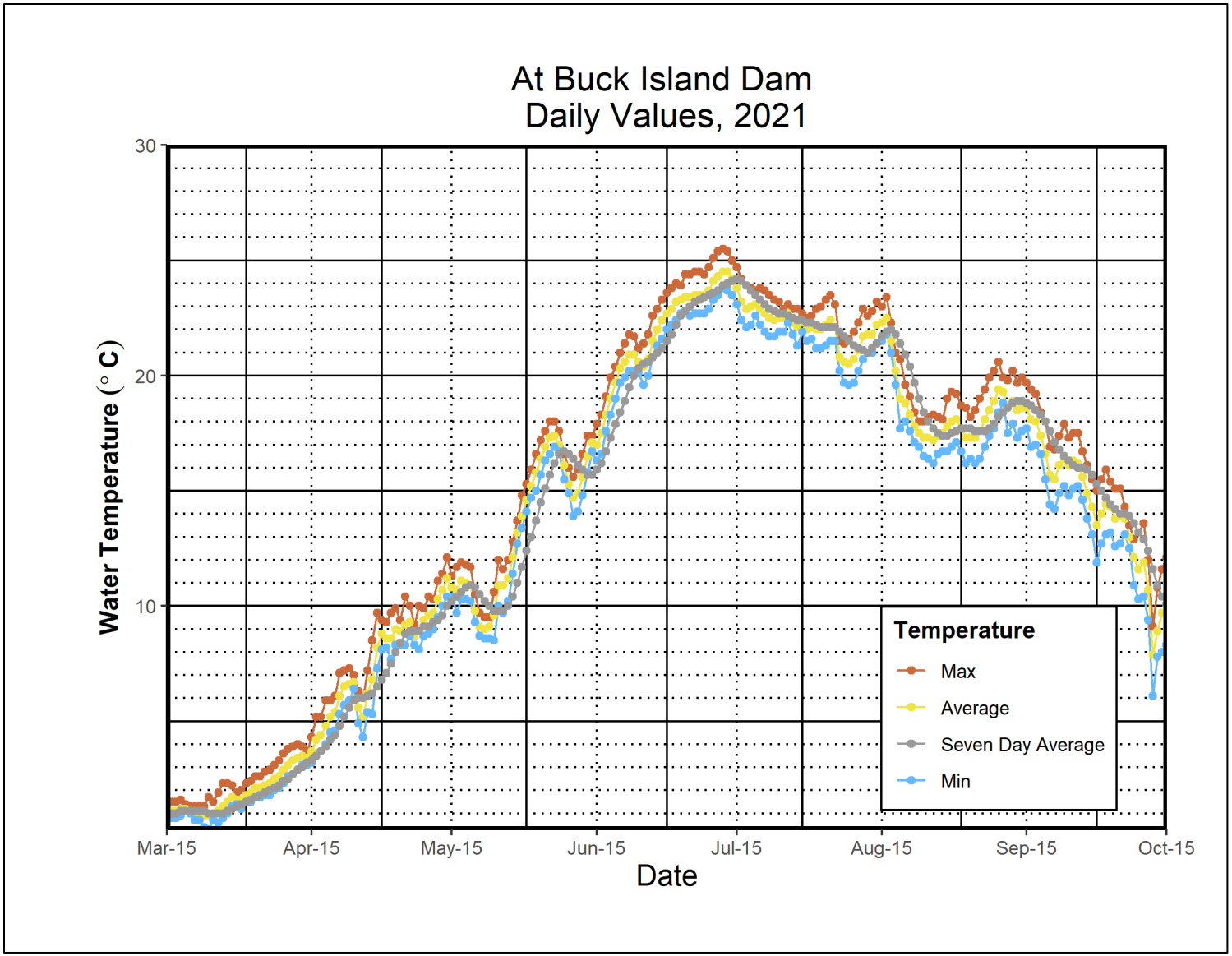
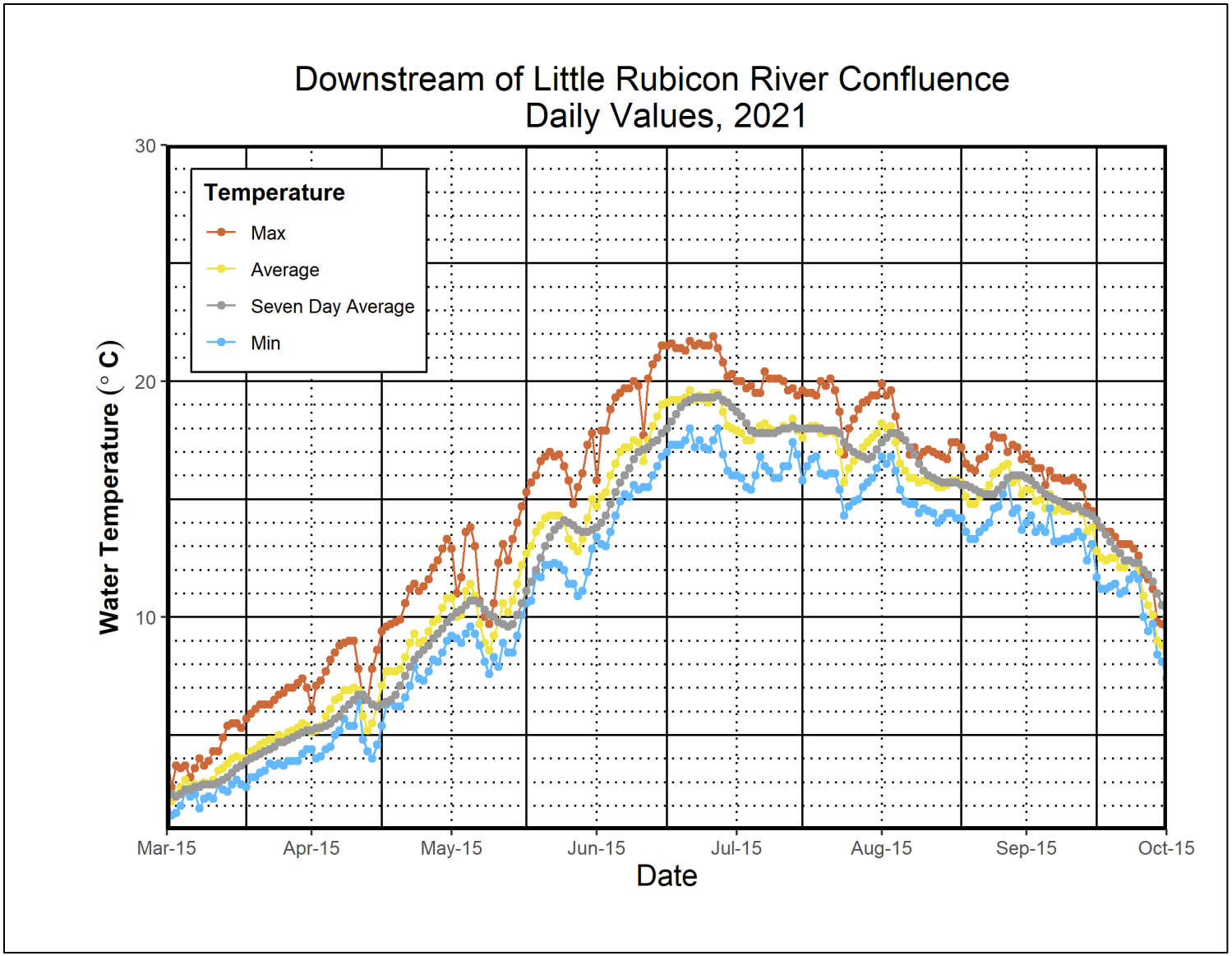
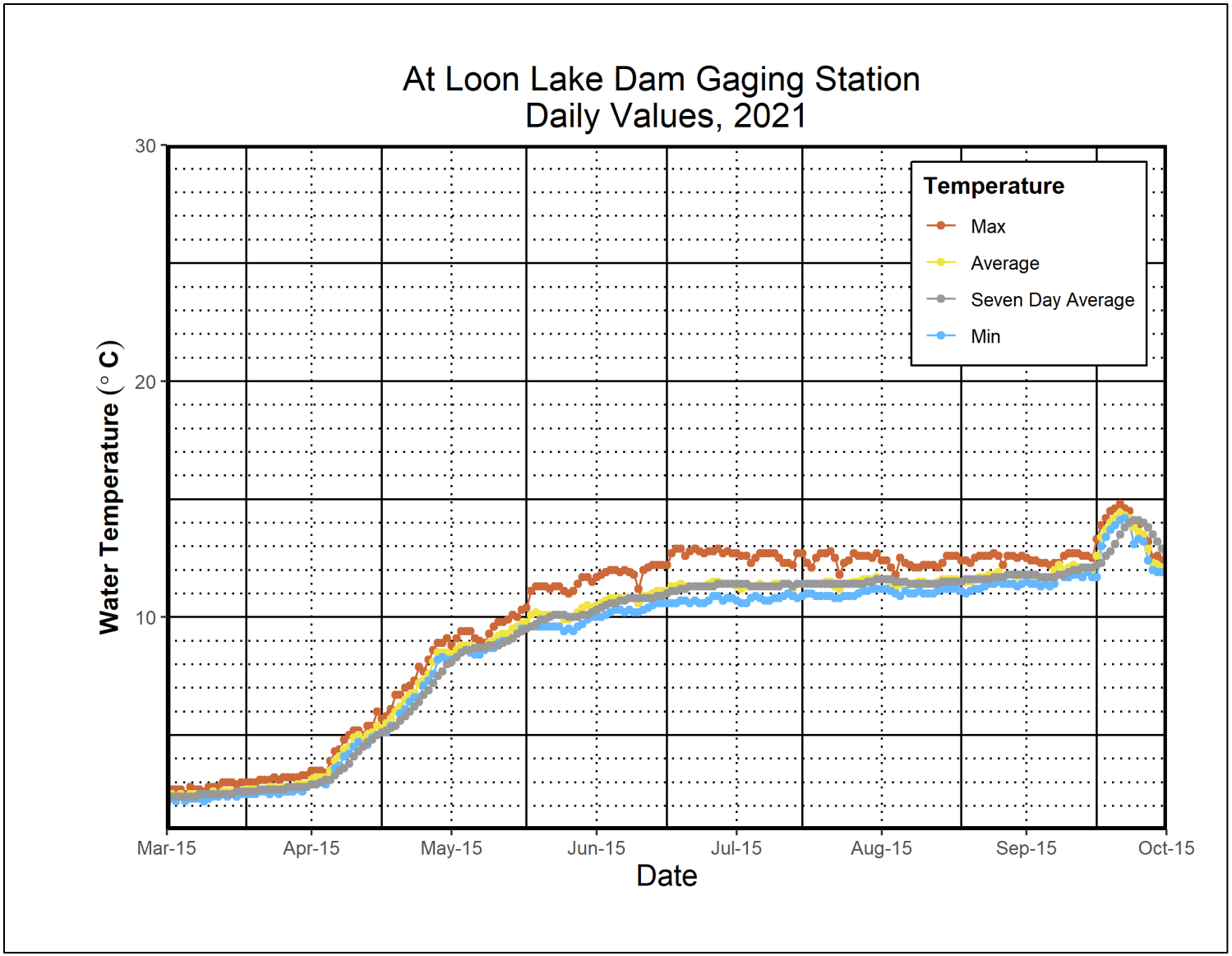
Upper American River Project
FERC Project No. 2101


At Buck Island Dam
Daily Values, 2021
Water Temperature (° C)
30
20
10
Mar-15
Apr-15
May-15
Jun-15
Jul-15
Aug-15
Sep-15
Oct-15
Date
Temperature
Max
Average
Seven Day Average
Min


Downstream of Little Rubicon River Confluence
Daily Values, 2021
Temperature
Max
Average
Seven Day Average
Min
Water Temperature (° C)
30
20
10
Mar-15
Apr-15
May-15
Jun-15
Jul-15
Aug-15
Sep-15
Oct-15
Date



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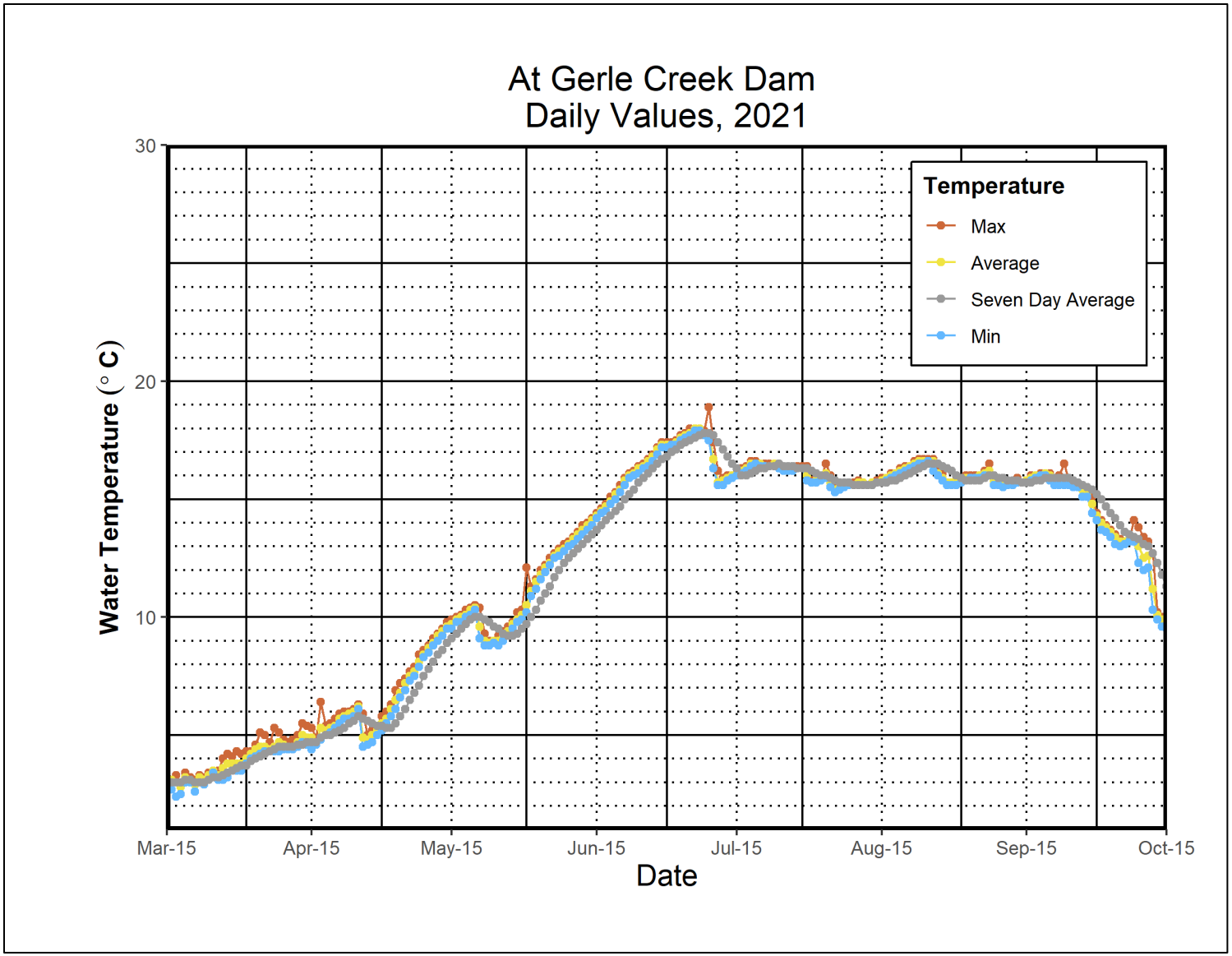
Upper American River Project
FERC Project No. 2101


At Gerle Creek Dam
Daily Values, 2021
Water Temperature (° C)
30
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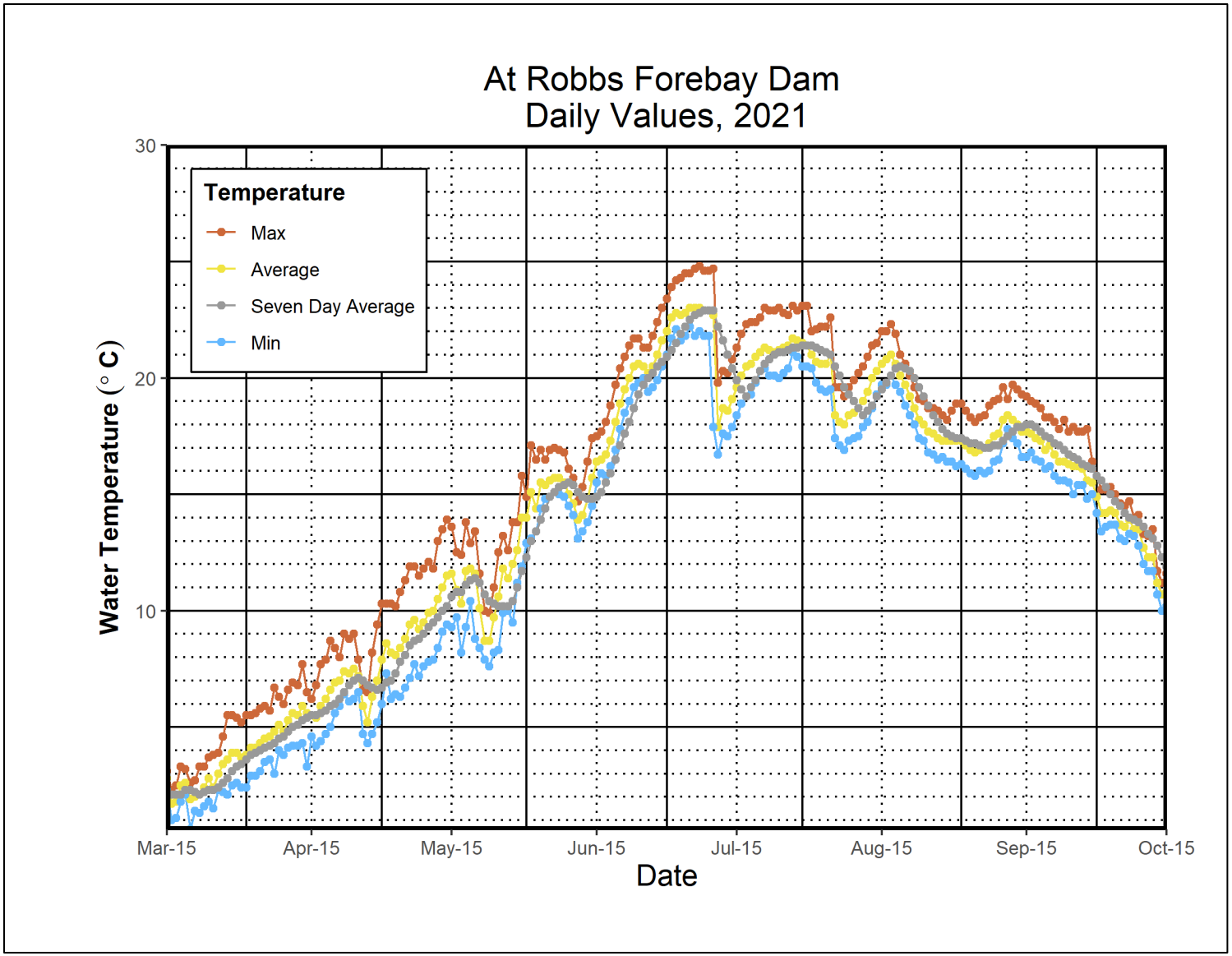
Mar-15
Apr-15
May-15
Jun-15
Jul-15
Aug-15
Sep-15
Oct-15
Date
Temperature
Max
Average
Seven Day Average
Min


At Robbs Forebay Dam
Daily Values, 2021
Temperature
Max
Average
Seven Day Average
Min
Water Temperature (° C)
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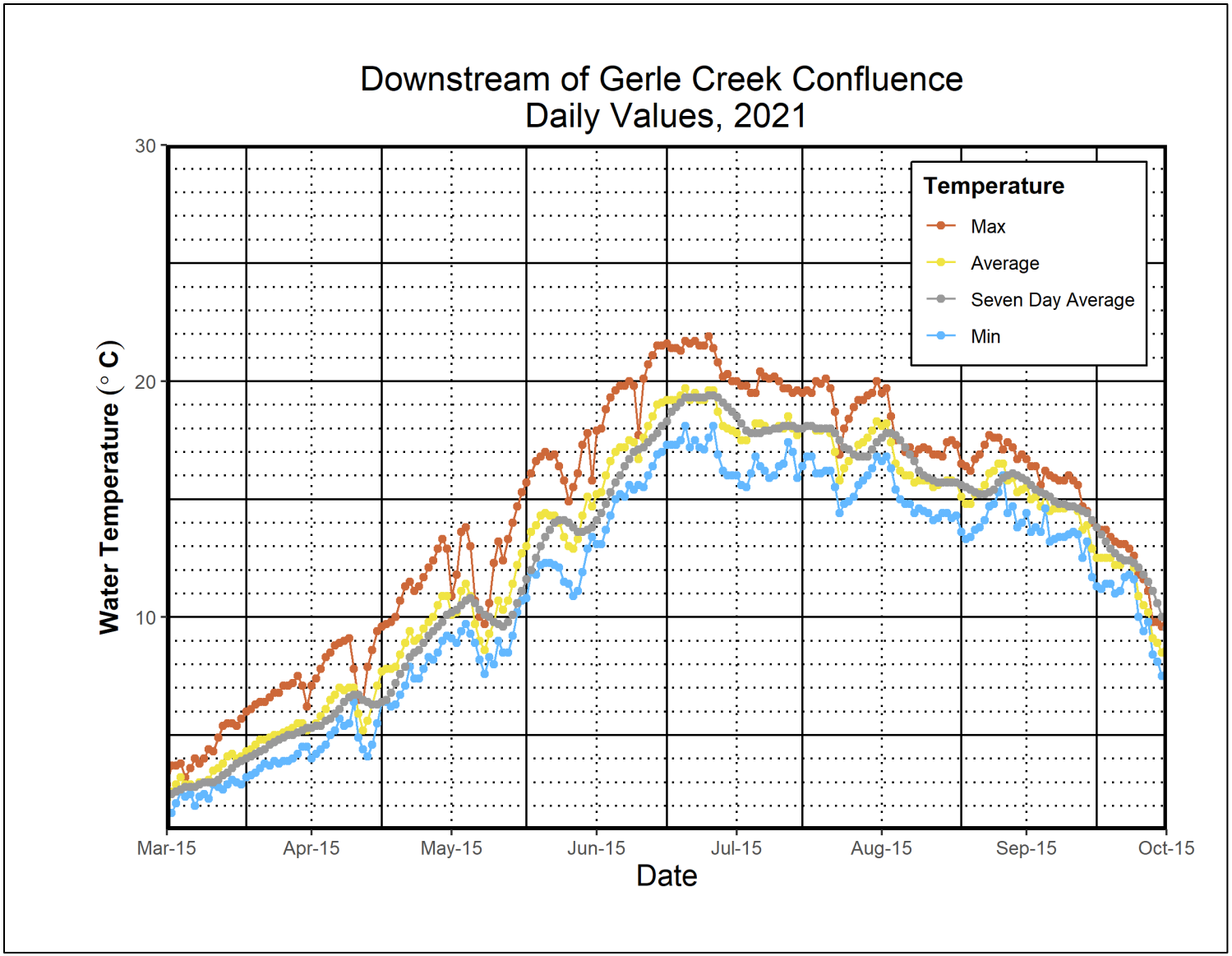
Mar-15
Apr-15
May-15
Jun-15
Jul-15
Aug-15
Sep-15
Oct-15
Date



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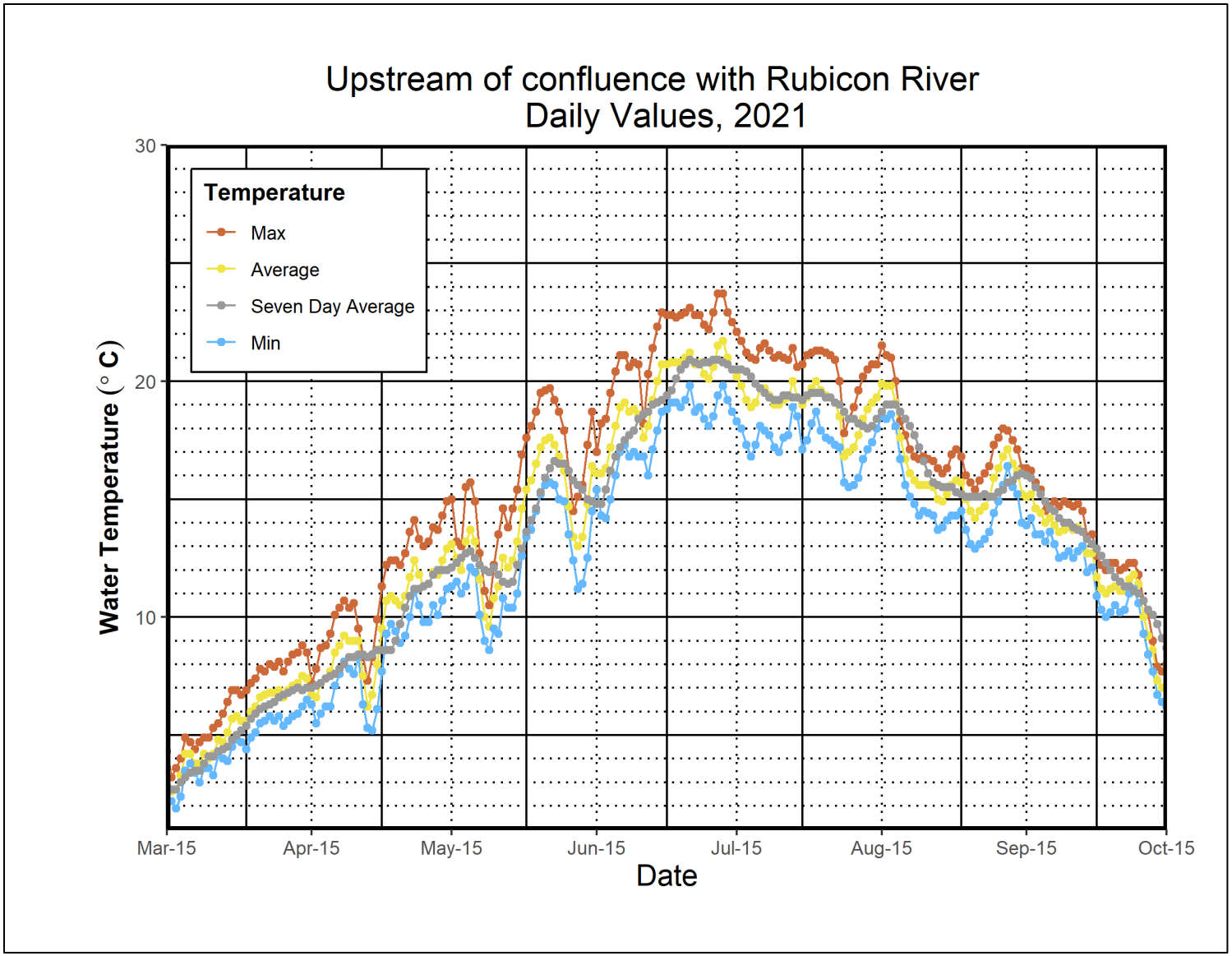
FERC Project No. 2101


Upstream of confluence with Rubicon River
Daily Values, 2021
Temperature
Max
Average
Seven Day Average
Min
Water Temperature (° C)
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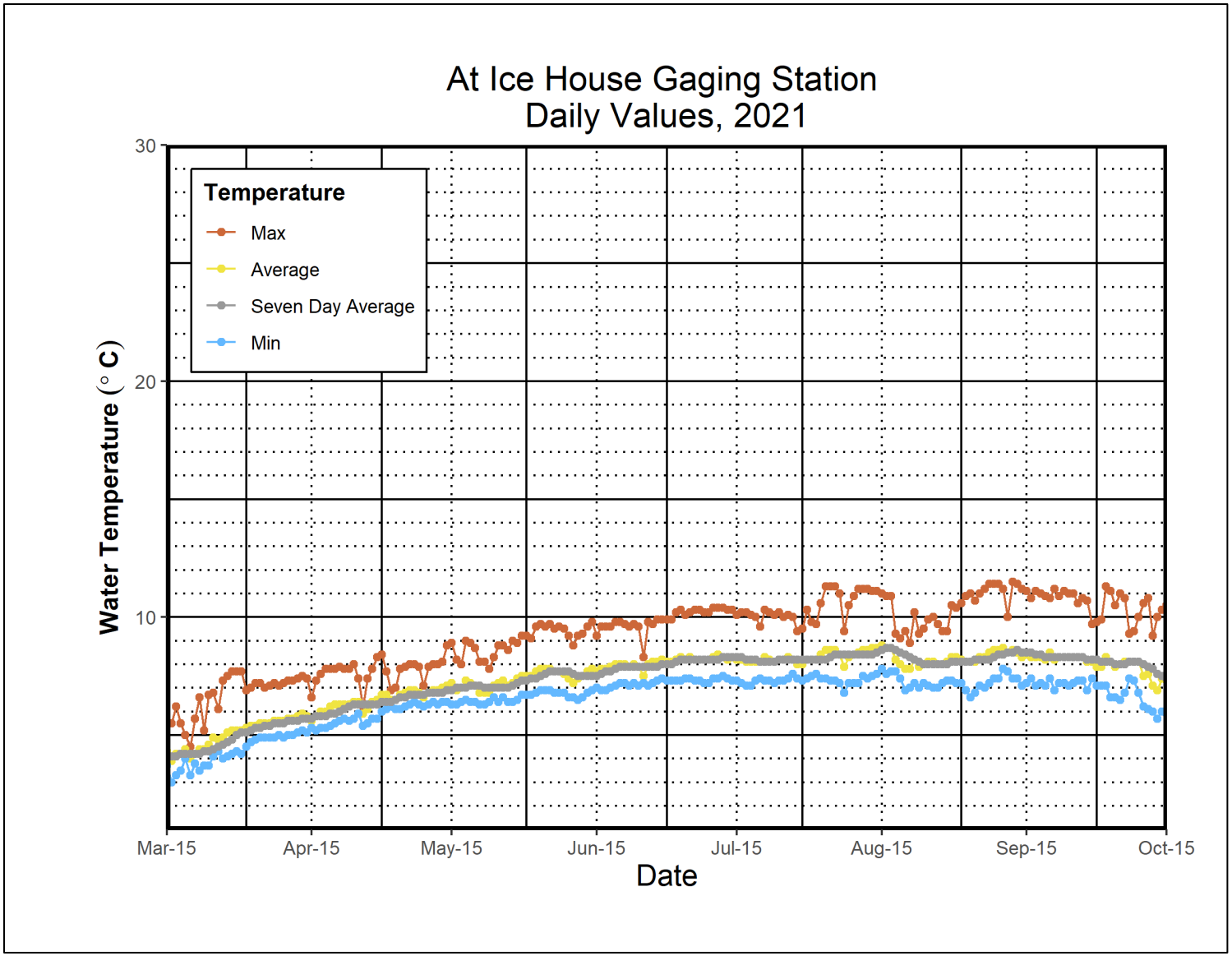
Mar-15
Apr-15
May-15
Jun-15
Jul-15
Aug-15
Sep-15
Oct-15
Date


At Ice House Gaging Station
Daily Values, 2021
Temperature
Max
Average
Seven Day Average
Min
Water Temperature (° C)
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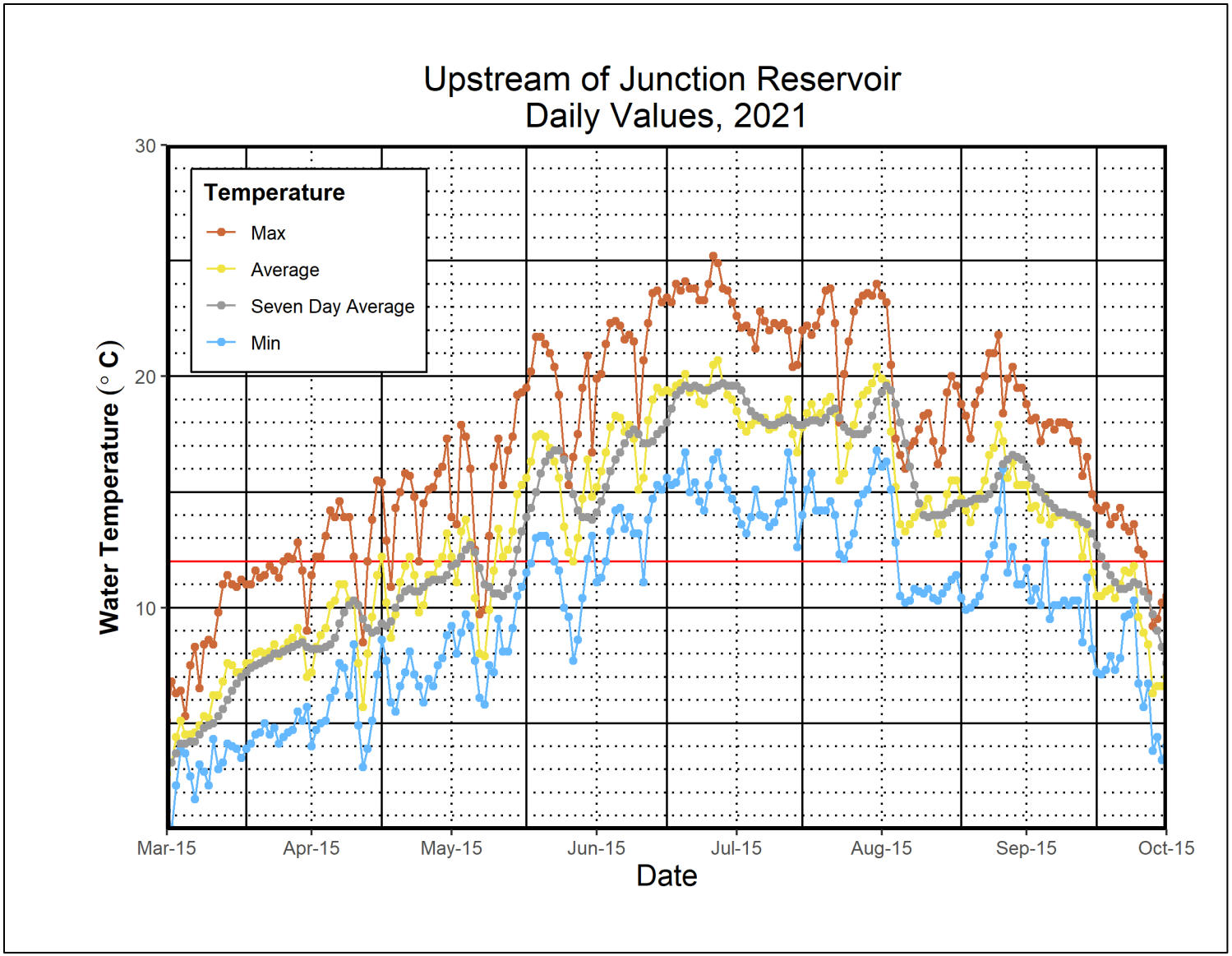
Mar-15
Apr-15
May-15
Jun-15
Jul-15
Aug-15
Sep-15
Oct-15
Date


Upstream of Junction Reservoir
Daily Values, 2021
Temperature
Max
Average
Seven Day Average
Min
Water Temperature (° C)
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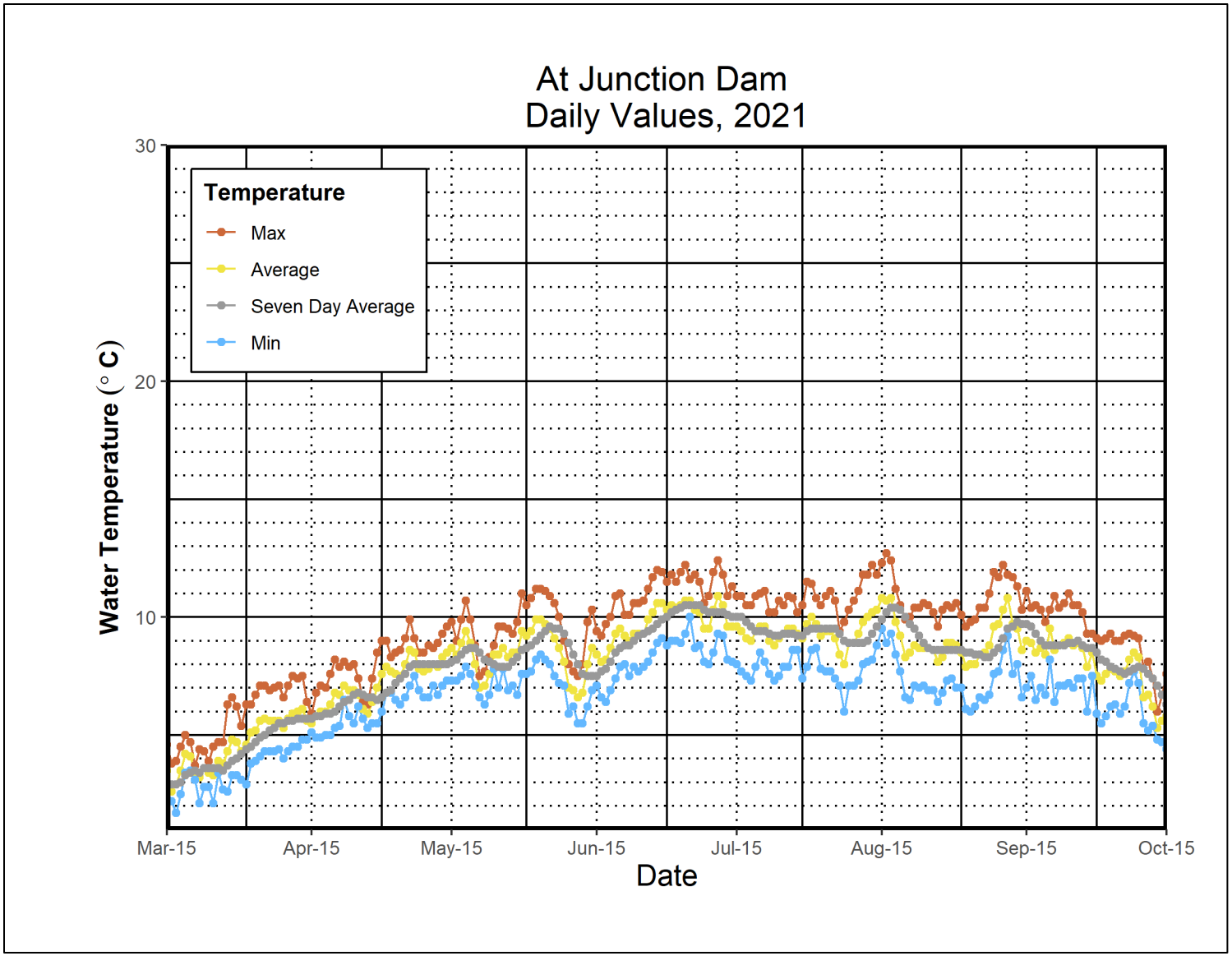
Mar-15
Apr-15
May-15
Jun-15
Jul-15
Aug-15
Sep-15
Oct-15
Date



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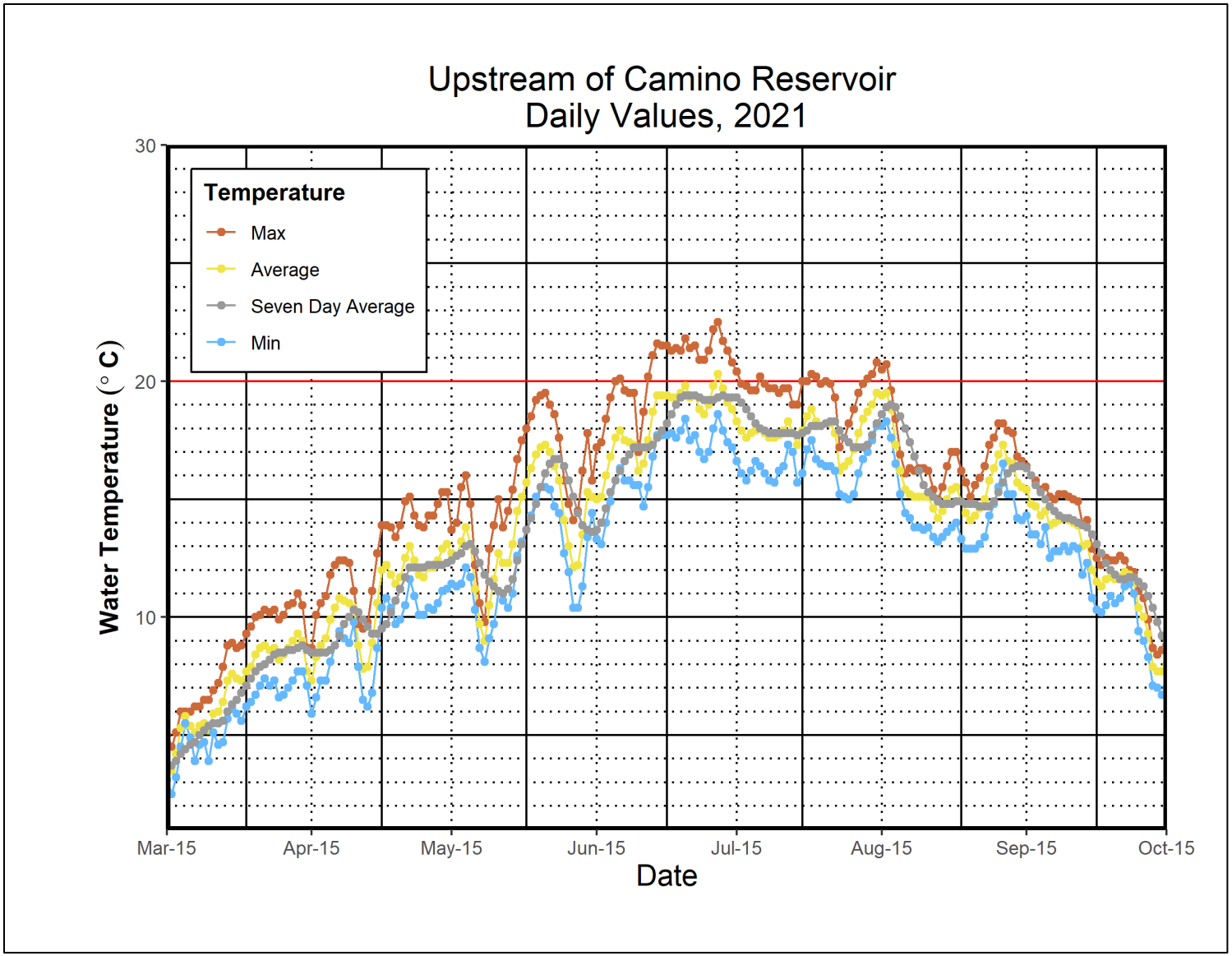
Upper American River Project
FERC Project No. 2101



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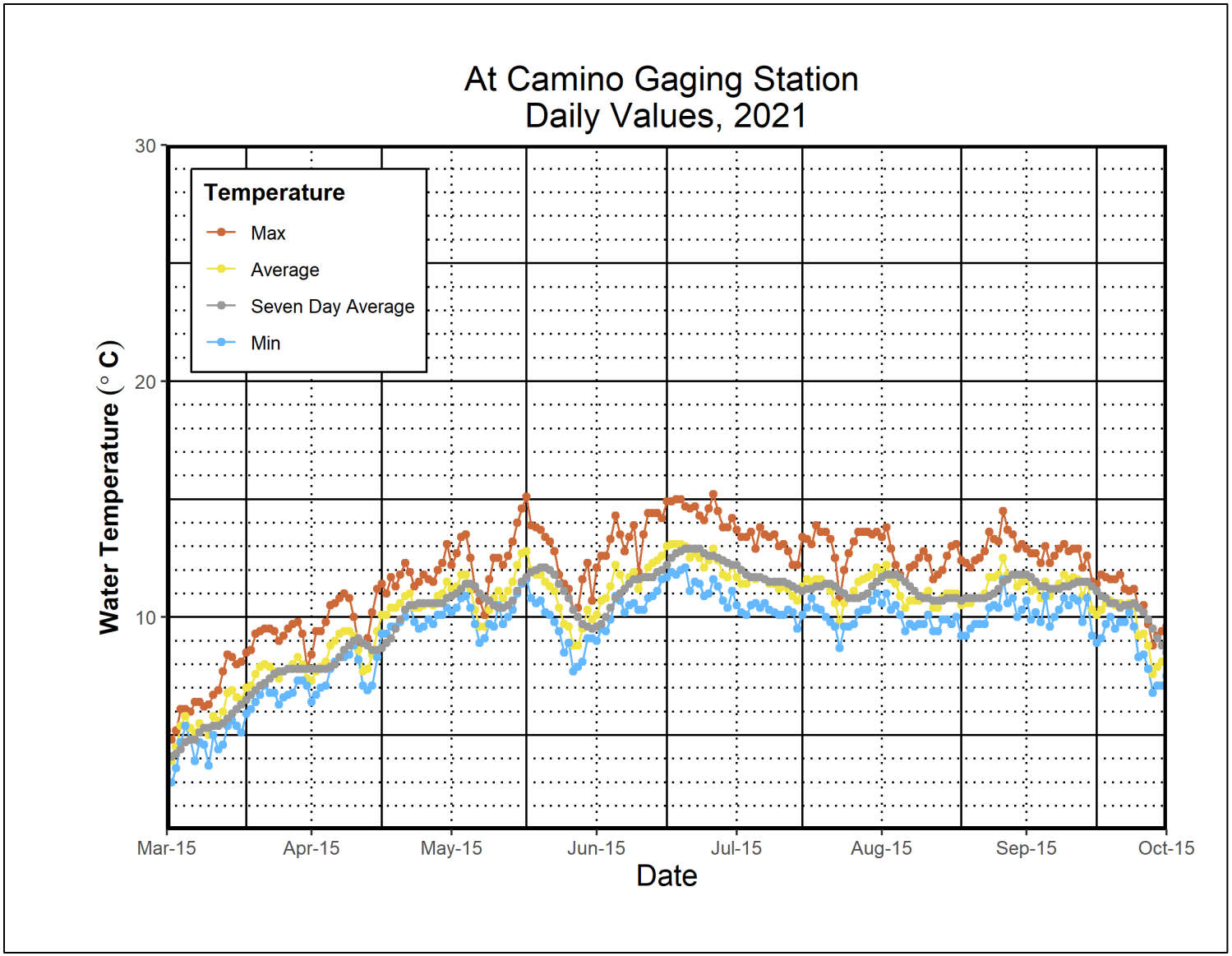
FERC Project No. 2101


At Camino Gaging Station
Daily Values, 2021
Temperature
Max
Average
Seven Day Average
Min
Water Temperature (° C)
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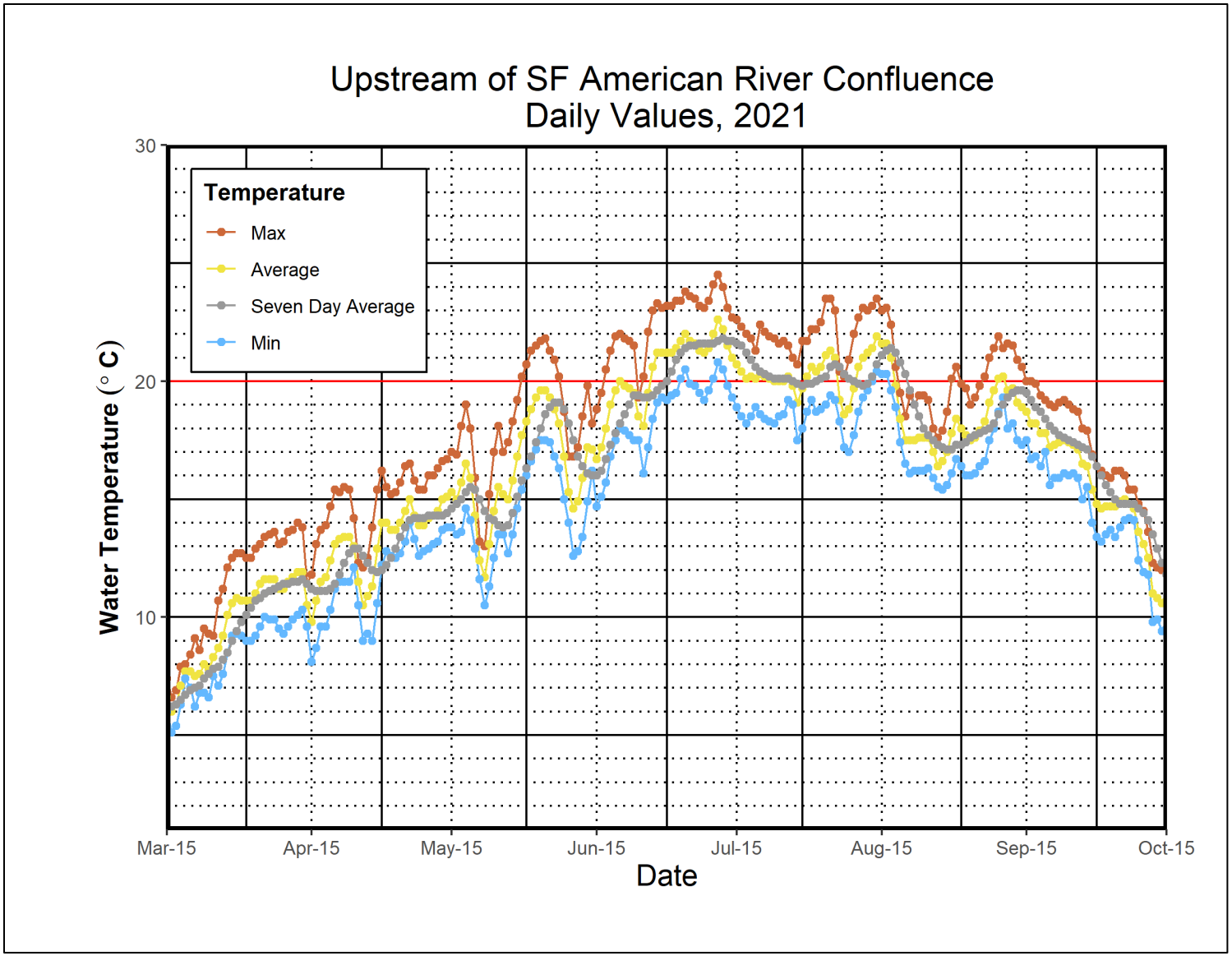
Date


Upstream of SF American River Confluence
Daily Values, 2021
Temperature
Max
Average
Seven Day Average
Min
Water Temperature (° C)
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Oct-15
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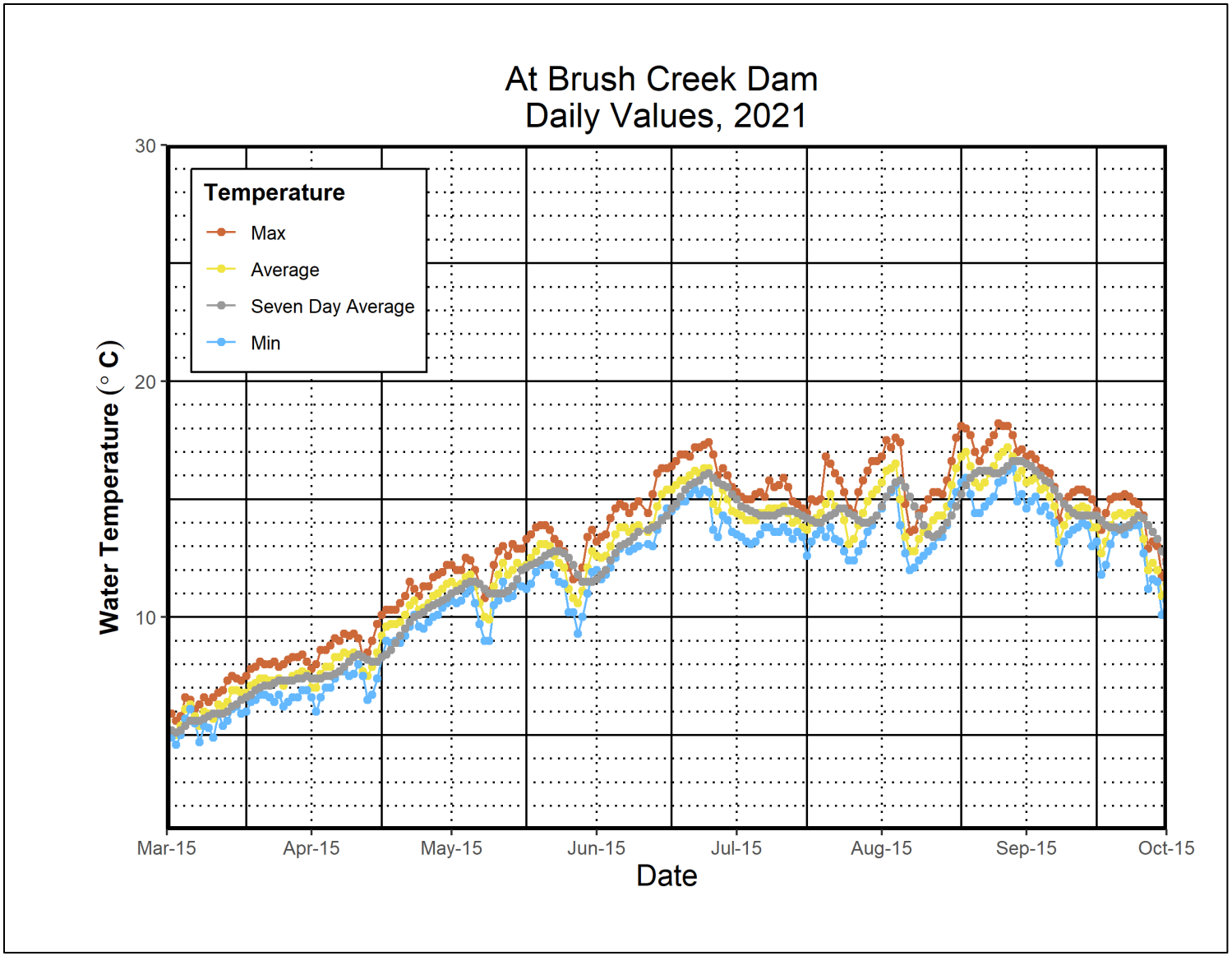
At Brush Creek Dam
Daily Values, 2021
Temperature
Max
Average
Seven Day Average
Min
Water Temperature (° C)
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Jun-15
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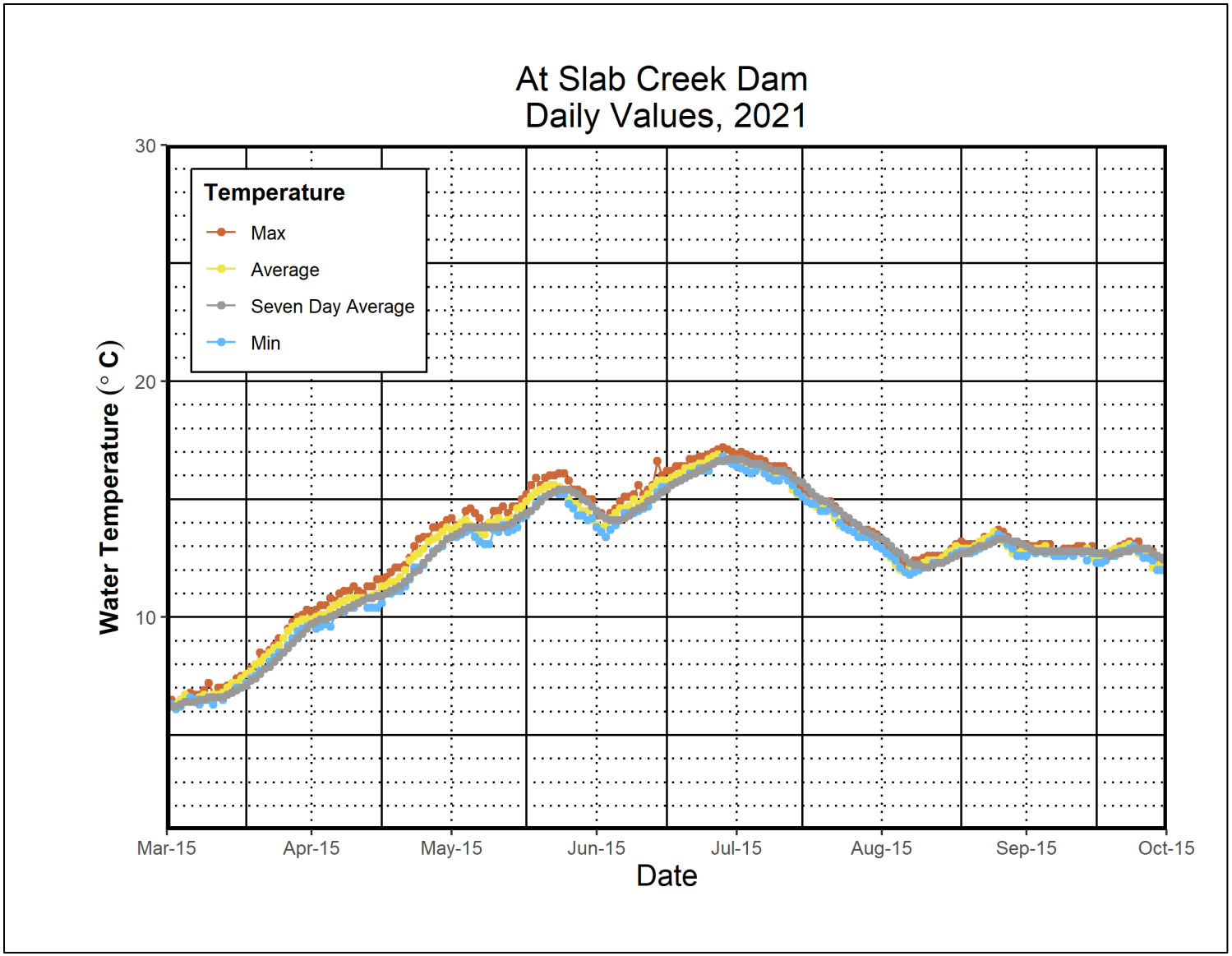
Oct-15
Date


At Slab Creek Dam
Daily Values, 2021
Temperature
Max
Average
Seven Day Average
Min
Water Temperature (° C)
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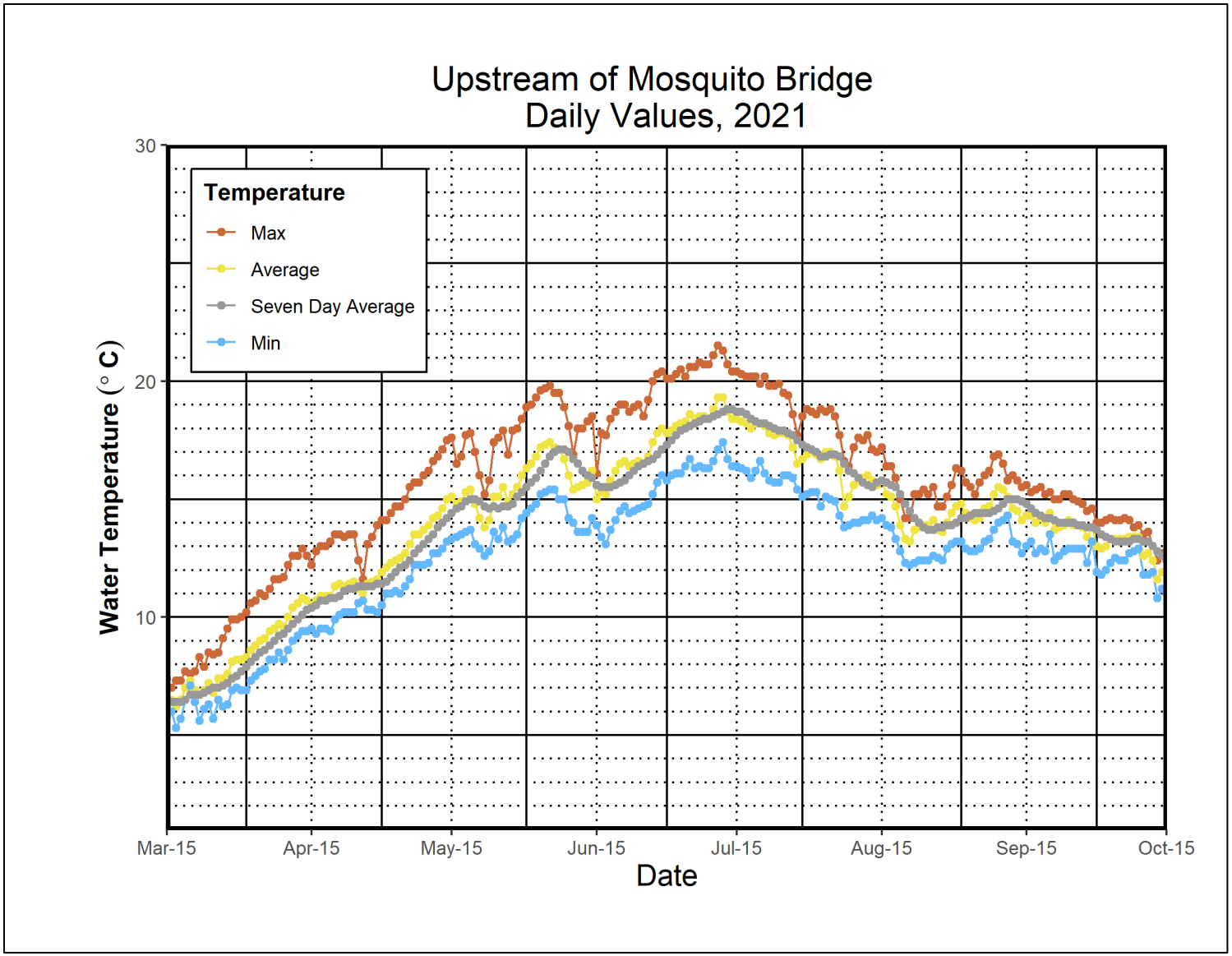
Oct-15
Date


Upstream of Mosquito Bridge
Daily Values, 2021
Temperature
Max
Average
Seven Day Average
Min
Water Temperature (° C)
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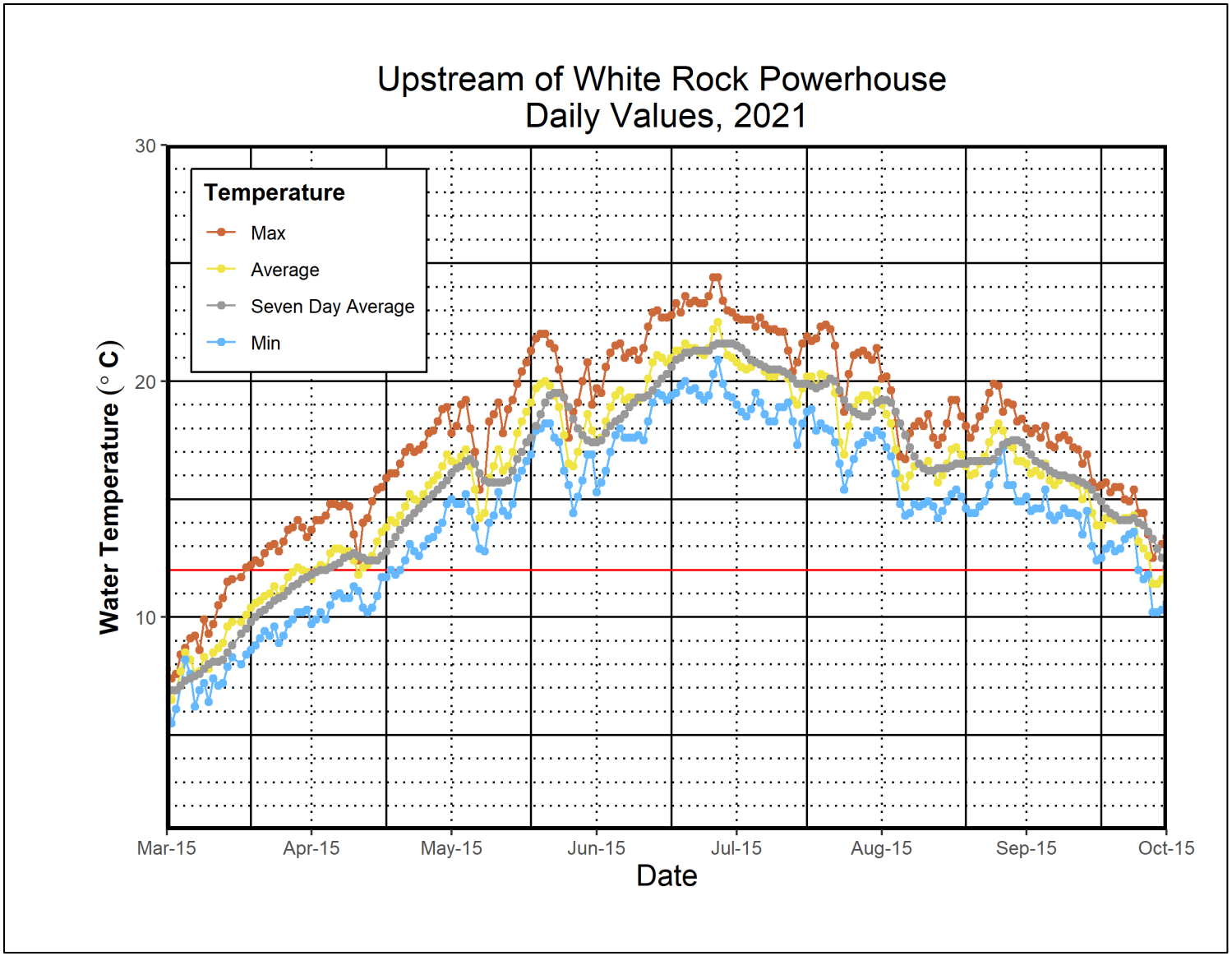
Oct-15
Date



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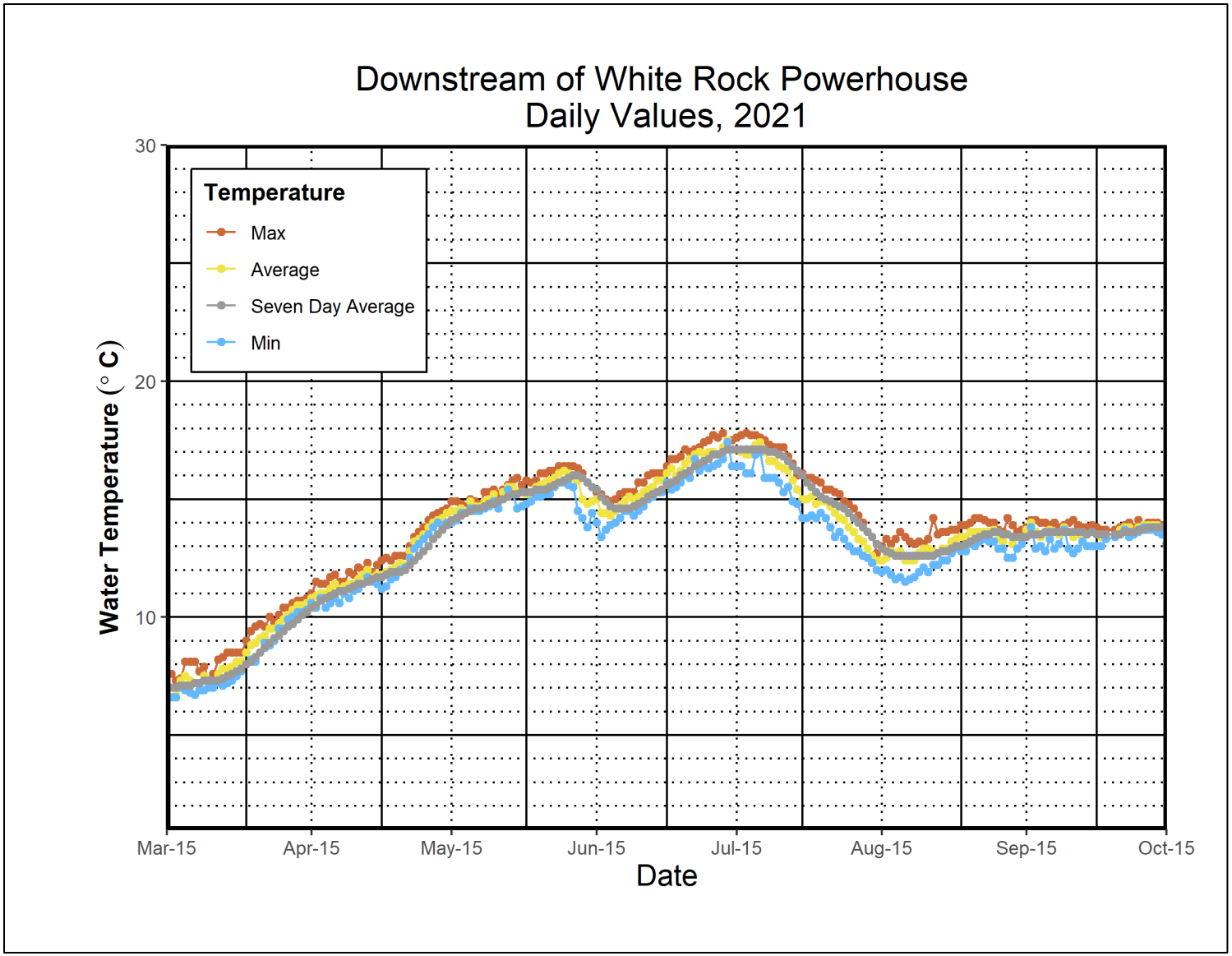
Downstream of White Rock Powerhouse
Daily Values, 2021
Temperature
Max
Average
Seven Day Average
Min
Water Temperature (° C)
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Oct-15
Date

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