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KIMBERLY OGNISTY
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February 28, 2018

VIA ELECTRONIC FILING AND REGULAR MAIL

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

Re: Turlock Irrigation District and Modesto Irrigation District
Don Pedro Hydroelectric Project No. 2299
Copy of Request for Trial-Type Hearing on Disputed Issues of Material Fact filed with the U.S. Department of the Interior

Dear Secretary Bose:

Turlock Irrigation District and Modesto Irrigation District (collectively, the "Districts"), owners and licensees of the Don Pedro Hydroelectric Project No. 2299 ("Project"), are herein providing the Federal Energy Regulatory Commission ("FERC") with a copy of their submission to the Department of the Interior's ("Interior") Office of Environmental Policy and Compliance containing their (1) Request for Trial-Type Hearing on Disputed Issues of Material Fact ("TTH Request") pertaining to certin preliminary Section 4(e) conditions filed with FERC by Interior's Bureau of Land Management on January 29, 2018, and (2) Notices of Appearance related thereto. Because Interior's regulations do not permit the filing of only an electronic copy of the TTH Request with FERC, the Districts are submitting this filing to FERC via electronic filing and regular mail.

Please contact the undersigned with any questions or concerns regarding this filing.

Respectfully submitted,

/s/ Kimberly Ognisty
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ATTORNEY FOR TURLOCK IRRIGATION DISTRICT AND MODESTO IRRIGATION DISTRICT

Enclosures

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February 28, 2018

VIA HAND DELIVERY

Office of Environmental Policy and Compliance
U.S. Department of the Interior
1849 C Street, N.W.
Mail Stop 2462
Washington DC 20240

Re: Turlock Irrigation District and Modesto Irrigation District
Don Pedro Hydroelectric Project No. 2299
Request for Trial-Type Hearing on Disputed Issues of Material Fact

Dear Sir or Madam:

Pursuant to Section 4(e) of the Federal Power Act, 16 U.S.C. § 797(e), and Part 45 of the regulations of the Department of the Interior ("Interior"), 43 C.F.R. § 45.12, Turlock Irrigation District and Modesto Irrigation District (collectively the "Districts"), hereby submit to Interior's Office of Environmental Policy and Compliance the attached Request for Trial-Type Hearing on Disputed Issues of Material Fact pertaining to certain preliminary Section 4(e) conditions filed by Interior's Bureau of Land Management with the Federal Energy Regulatory Commission ("FERC") on January 29, 2018, for inclusion in any new license for the Don Pedro Hydroelectric Project No. 2299 ("Project"). Also included are Notices of Appearance in the proceeding. The Districts are the current owners and licensees of the Project.

Attached to the hearing request are copies of documents relied upon by the Districts that are not included in the FERC record. The Districts' hearing request relies upon, *inter alia*, certain video files that are already included in the FERC record.

In accordance with 43 C.F.R. § 45.12(b)(1)(i), this submission includes one original and two copies of the Districts' hearing request. The certificate of service below indicates that the Districts' hearing request and Notices of Appearance have been served on FERC and each "license party" to the FERC licensing proceeding for Project No. 2299.

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Policy & Compliance

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If you have any questions regarding this filing or require additional information, please contact me.

Respectfully submitted,

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ATTORNEY FOR THE TURLOCK IRRIGATION DISTRICT AND MODESTO IRRIGATION DISTRICT

Enclosures

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UNITED STATES OF AMERICA
BEFORE THE
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Turlock Irrigation District and Modesto Irrigation District	)	**Docket No. _____** **(Don Pedro Hydroelectric Project No. 2299)**

NOTICE OF APPEARANCE FOR THE REQUEST OF TURLOCK IRRIGATION DISTRICT AND MODESTO IRRIGATION DISTRICT FOR TRIAL-TYPE HEARING ON DISPUTED ISSUES OF MATERIAL FACT PERTAINING TO CERTAIN PRELIMINARY SECTION 4(e) CONDITIONS SUBMITTED BY THE BUREAU OF LAND MANAGEMENT FOR THE DON PEDRO HYDROELECTRIC PROJECT NO. 2299

Pursuant to 43 C.F.R. §§ 45.10 and 45.11, I am filing this Notice of Appearance, in the above-referenced proceeding, on behalf of Turlock Irrigation District (P. O. Box 949, Turlock, CA 95381) and Modesto Irrigation District (P. O. Box 4060, Modesto, CA 95352).

I am a member in good standing of the District of Columbia Bar Association and am admitted to practice before the U.S. Courts of Appeal for the D.C., Second, Fourth, and Ninth Circuits.

Respectfully submitted,

JOHN A. WHITTAKER IV

By: John A. Whittaker IV
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ATTORNEY FOR TURLOCK AND MODESTO IRRIGATION DISTRICTS

Dated: February 28, 2018

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UNITED STATES OF AMERICA
BEFORE THE
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Turlock Irrigation District and Modesto Irrigation District	)	**Docket No. _____** **(Don Pedro Hydroelectric Project No. 2299)**

NOTICE OF APPEARANCE FOR THE REQUEST OF TURLOCK IRRIGATION DISTRICT AND MODESTO IRRIGATION DISTRICT FOR TRIAL-TYPE HEARING ON DISPUTED ISSUES OF MATERIAL FACT PERTAINING TO CERTAIN PRELIMINARY SECTION 4(e) CONDITIONS SUBMITTED BY THE BUREAU OF LAND MANAGEMENT FOR THE DON PEDRO HYDROELECTRIC PROJECT NO. 2299

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Respectfully submitted,

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Dated: February 28, 2018

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Respectfully submitted,

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Dated: February 28, 2018

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UNITED STATES OF AMERICA
BEFORE THE
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Turlock Irrigation District and Modesto Irrigation District	)	**Docket No. _____** **(Don Pedro Hydroelectric Project No. 2299)**

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I am a member in good standing of the District of Columbia Bar Association.

Respectfully submitted,

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Dated: February 28, 2018

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UNITED STATES OF AMERICA
BEFORE THE
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Attention: **Office of Environmental Policy and Compliance**
U.S. Department of the Interior
1849 C Street, N.W.
Mail Stop 5538
Washington, D.C. 20240

Turlock Irrigation District and Modesto Irrigation District	)	**Docket No. _____ (Don Pedro Hydroelectric Project No. 2299)**

REQUEST OF TURLOCK IRRIGATION DISTRICT AND MODESTO IRRIGATION DISTRICT FOR A TRIAL-TYPE HEARING ON DISPUTED ISSUES OF MATERIAL FACT PERTAINING TO CERTAIN PRELIMINARY SECTION 4(e) CONDITIONS SUBMITTED BY THE BUREAU OF LAND MANAGEMENT FOR THE DON PEDRO HYDROELECTRIC PROJECT NO. 2299

Pursuant to Section 4(e) of the Federal Power Act ("FPA"),[1] and Part 45 of the regulations promulgated by the United States Department of the Interior ("Interior") related thereto,[2] Turlock Irrigation District and Modesto Irrigation District (collectively, the "Districts") hereby request a trial-type hearing before an Administrative Law Judge ("ALJ") to resolve disputed issues of material fact arising from certain preliminary conditions for the Don Pedro Hydroelectric Project, FERC Project No. 2299 (the "Project") filed with the Federal Energy Regulatory Commission ("FERC") by Interior's Bureau of Land Management ("BLM").

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[1] 16 U.S.C. § 797(e).

[2] 43 C.F.R. Part 45.

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I. BACKGROUND

A. The Project

The Districts are publicly-owned, not-for-profit irrigation districts that supply irrigation and drinking water and electric power to homes, farms, and businesses in the Central Valley of California. The Districts are the licensees and owners of the Project, which is located on the Tuolumne River in Tuolumne County, California. The reservoir formed by the Project dam extends upstream to approximately river mile 80.8 and has a gross storage capacity of 2,030,000 acre feet of water.

After securing a license from the Federal Power Commission (now FERC), the Districts began constructing Don Pedro Dam in the late 1960s. Construction was completed in 1971.[3]

The Project serves a variety of purposes. Primarily, it provides water to municipal and business customers and to irrigate local farms. Approximately 8,000 area farmers rely on water from Don Pedro Reservoir to grow crops on almost 210,000 acres of orchards and farmland. The Project also generates hydroelectric power—a renewable resource—and provides flood control.[4] Because of these multiple demands, the elevation level of Don Pedro Reservoir is designed to be capable of fluctuating over 200 feet.

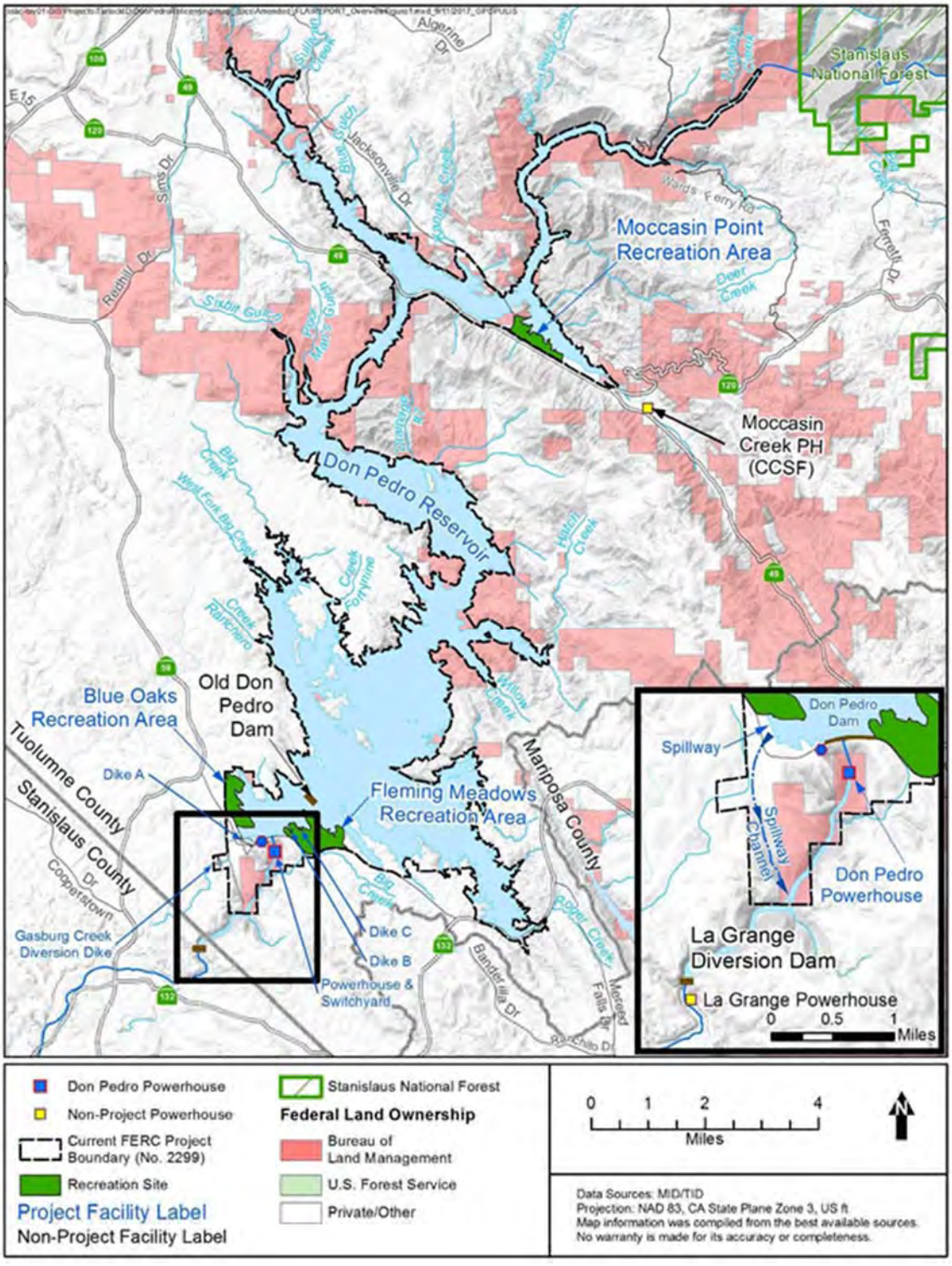
Don Pedro Reservoir further offers recreation on almost 13,000 surface acres of water and 160 miles of shoreline and islands. Over 400,000 people use the reservoir each year to boat, water ski, jet ski, swim, hike, and camp. A large number of people also fish in the reservoir, which harbors warm and cold water game species. The Don Pedro Recreation Agency ("DPRA") oversees recreational activities on the lake, including assessing a variety of user fees.

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[3] *See* Ex. A, Amended Final License Application, Exhibit A — Don Pedro Project Description.

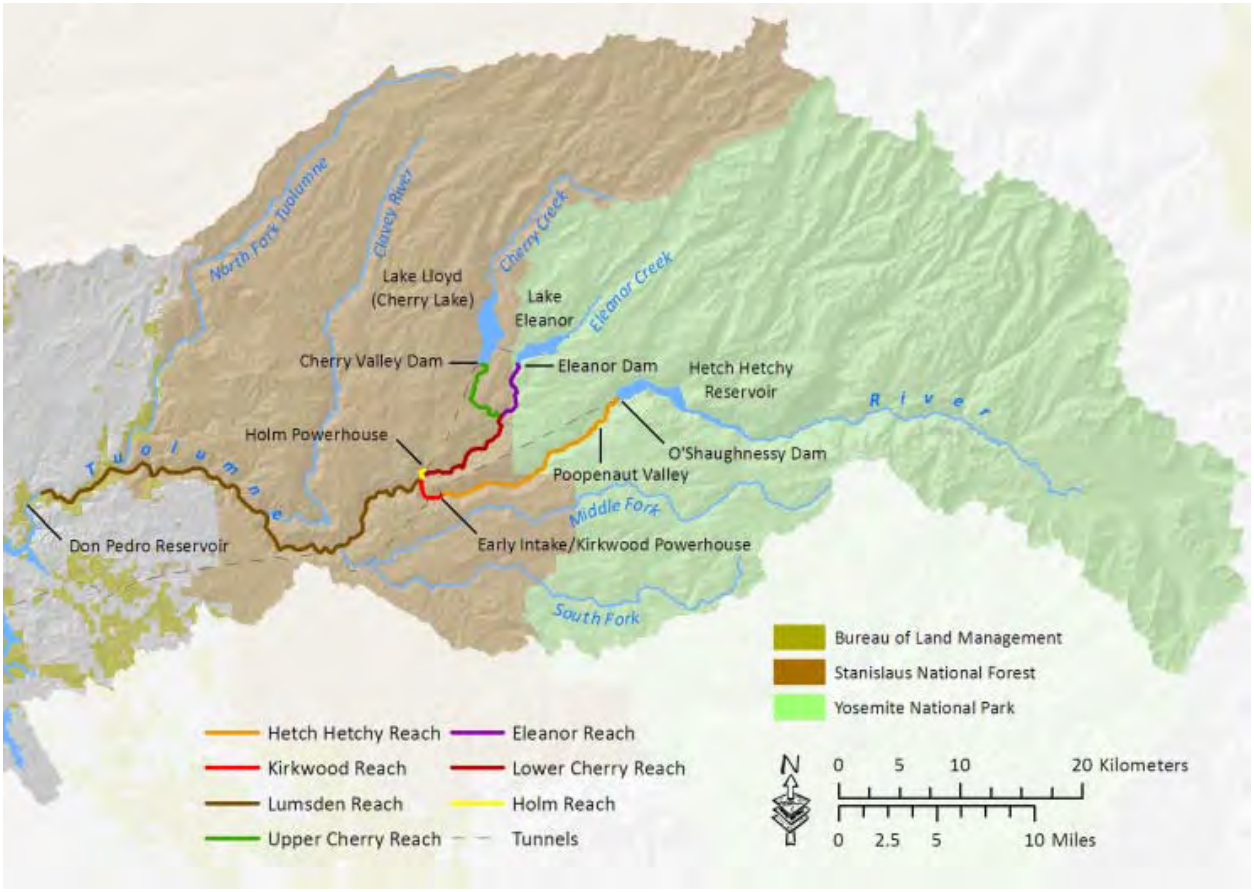
[4] Under regulations promulgated by the U.S. Army Corps of Engineers, the Districts are required to "operate Don Pedro Dam and Reservoir in the interest of flood control." 33 C.F.R. § 208.82.

The licensed upstream Project boundary ("Project Boundary") is approximately two miles upstream of Wards Ferry Bridge. The Project Boundary, recreation areas, and nearby landowners are shown in Figure 1:



B. Supervision of the Tuolumne River Upstream of Don Pedro Reservoir

The U.S. government supervises activities on the Tuolumne River upstream of Don Pedro Reservoir. The Tuolumne River originates in Yosemite National Park and flows west through Stanislaus National Forest and then largely through approximately two miles of land managed by BLM, as shown in Figure 2:[5]



In 1984, Congress designated several stretches of the Tuolumne River upstream of the Project Boundary as "wild and scenic" under the Wild and Scenic Rivers Act to protect them from development and to manage recreational use by the public.[6] In 1988, the U.S. Forest Service, a

[5] The Districts and private landowners own some parcels abutting the Tuolumne River upstream of Wards Ferry Bridge.

[6] Public Law 98-425 (1984), 16 U.S.C. § 1271 *et seq.*

component of the Department of Agriculture ("Forest Service"), developed a management plan for the wild and scenic sections of the Tuolumne River ("1988 Management Plan").[7] Later, the Forest Service and BLM entered into a cooperative agreement under which BLM ceded management responsibilities for the wild and scenic sections of the Tuolumne River to the Forest Service.[8]

As recognized in the 1988 Management Plan, one of the main attractions of the Tuolumne River is whitewater boating.[9] The Tuolumne River presents a series of whitewater rapids and wilderness scenery that has become popular with commercial and private rafters and kayakers.[10]

Notably, rafting began in significant numbers only after Don Pedro Reservoir had substantially filled. According to the Forest Service, rafting "evolved from a humble beginning. During the early 1970's only a few hardy souls tried to float the river."[11] By 1975, "an estimated 1,200 persons annually were making the trip."[12]

According to BLM, approximately 5,000 persons per year now float the section of the river beginning at Meral's Pool, which is adjacent to Lumsden Campground.[13] Part of the allure of the

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[7] Ex. B, U.S. Forest Service, *Tuolumne River Wild and Scenic Management Plan* (May 1988).

[8] Ex. C, U.S. Forest Service, *Tuolumne Wild and Scenic River, Draft Comprehensive Management Plan and Environmental Impact Study* (Jan. 2013) ("2013 NPS Management Plan"), p. 2-17, *available at*: https://www.nps.gov/yose/learn/management/upload/TRP-DEIS_Volume_1-January2013.pdf. The Districts have been unable to locate the cooperative agreement online.

[9] *Id.*, p. 8.

[10] BLM proclaims on its website that "the river contains some of the most noted whitewater in the high Sierras and is extremely popular with rafters. Class IV and V rapids, chutes, and pools by the score create the ultimate river adventure, a journey both exciting and pristine." Ex. 1, BLM, Tuolumne Wild and Scenic River, *available at*: https://www.blm.gov/programs/national-conservation-lands/california/tuolumne-wsr.

[11] Ex. 2, U.S. Forest Service, Stanislaus National Forest, Tuolumne Wild & Scenic River, *available at*: https://www.fs.usda.gov/recarea/stanislaus/recarea/?recid=14975.

[12] *Id.*

[13] Ex. D, U.S. Department of the Interior, *Comments, Recommendations, Preliminary Terms and Conditions, and Preliminary Prescriptions*, p. 132.

Tuolumne River for whitewater rafters is the dependability of water flows. In the spring, snowmelt is sometimes sufficient to assure adequate water flows. But water flows are usually augmented by releases from the Holm Powerhouse, which is upstream of Meral's Pool, as shown in Figure 2. The City and County of San Francisco operate the Holm Powerhouse to generate hydropower for the San Francisco area. Water is released for power generation in the summer months on a schedule and shape that ensures a satisfying rafting experience.[14] Whitewater companies generally arrange their rafting trips around the timing of the scheduled Holm Powerhouse flows.[15]

C. The Wards Ferry Bridge Take-Out

Most rafters and kayakers exit the Tuolumne River at Wards Ferry Bridge. The trip from Meral's Pool to Wards Ferry Bridge is 18 river miles and generally takes up to eight hours by raft. The put-in at Meral's Pool and Wards Ferry Bridge are identified on Figure 3:



[14] By contrast, the rafting season on the Merced River typically lasts only a few months coinciding with the snow melt. *See* Ex. 3, CaCreeks.com, *Merced River below El Portal*, *available at*: http://www.cacreeks.com/mercd140.htm.

[15] Ex. E, AFLA Environmental Report, Ex. E ("AFLA Env. Report"), pp. 2-16, 5-39 – 5-40.

At the Wards Ferry Bridge, individuals get out of their rafts or kayaks and walk up foot paths to the bridge. Private boaters carry their rafts and kayaks up the foot paths. Commercial rafting companies position trucks on Wards Ferry Bridge and hoist their rafts off the river.

Boaters travel by automobile or bus out of the river canyon via Wards Ferry Road. Wards Ferry Bridge is one of the few bridges across the Tuolumne River in a relatively remote region of Tuolumne County. Wards Ferry Bridge crosses the Tuolumne River through a steep canyon, as shown in Figure 4:



Although the Districts own land on each side of the river adjacent to Wards Ferry Bridge, the bridge is maintained by Tuolumne County.[16] The County also is responsible for law enforcement and road use ordinances in the area.

[16] Interior owns a small piece of land directly underneath Wards Ferry Bridge and part of the uplands currently used to walk from the river to the bridge, as discussed below.

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The Forest Service regulates the number of rafters by issuing permits to float the Tuolumne River during peak boating season (May 1 through October 15).[17] The Forest Service requires permits to boat the river from Meral's Pool downstream to the terminus of the wild and scenic river corridor, which is located approximately two miles upstream from Wards Ferry Bridge.[18] Individual boaters must pay a fee to reserve a one-time permit, while commercial entities purchase an annual permit.[19] The Districts receive no portion of the reservation or permit fees.[20]

D. Government Failures to Improve the Wards Ferry Take-Out

The 1988 Management Plan called for BLM and the Forest Service to "improve and maintain launch site at Holm," "develop and maintain day use parking at the South Fork Bridge capable of serving as an alternate launch site for boaters," and "prevent congestion at [the Lumsden] whitewater boating launch site."[21] The 1988 Management Plan also called for planning "for recreation improvements at Wards Ferry," and estimated a budget of over $250,000 towards that goal.[22] The 1988 Management Plan stated that improvements at Wards Ferry Bridge would be addressed in a separate study. The Districts have been unable to verify that this study was ever conducted.

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[17] Ex. 4, U.S. Forest Service, *Recreation Passes & Permits, Tuolumne Wild & Scenic River Permit Reservations, available at*: https://go.usa.gov/xnMV3.

[18] *Id*.

[19] *Id.*; *see also* Ex. 5, U.S. Forest Service, *Tuolumne Wild & Scenic River Non-Commercial Boating Permit Application, available at*: https://go.usa.gov/xnMV8.

[20] The Districts charge commercial rafters for special use permits to access the Project. The fee is $1 per customer. Private boaters are not charged. The total amount collected by the Districts typically is from $3,000-$4,000 per year. *See* Ex. 6, Don Pedro Rec Agency Special Use Permits, 2017 Season.

[21] Ex. B, 1988 USFS Management Plan at 32, 34 37.

[22] *Id*.

The Forest Service later prepared a schedule of improvements to recreational facilities serving or near the Stanislaus National Forest over the 1991-2001 time period.[23] The Forest Service budgeted $500,000 in 2001 for a boat take-out at Ward Ferry Bridge.[24] It never constructed such a take-out. Indeed, neither BLM nor the Forest Service has built *any* recreational facilities at Wards Ferry Bridge.

Tuolumne County also has taken no steps to improve the take-out at Wards Ferry Bridge, despite its complaint that the take-out site is "less than impressive" and thus detracts from "one of the premier whitewater rafting rivers in the world."[25] The County has every incentive to make those improvements. Not only does it maintain Wards Ferry Bridge and Wards Ferry Road, it also derives a substantial amount of revenue from whitewater rafting on the Tuolumne River. The small town of Groveland in Tuolumne County alone receives an estimated annual net economic benefit of $8 million from rafting-generated tourism dollars.[26]

II. THE DISTRICTS' LICENSE OBLIGATIONS

A. Wards Ferry Bridge

FERC's predecessor (the Federal Power Commission) issued an initial license for the Project to the Districts in 1964.[27] The license required the Districts to build some recreational facilities, but not at Wards Ferry Bridge. In 1987, FERC amended the license to authorize an

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[23] Ex. F, U.S. Forest Service, *Stanislaus National Forest, Forest Plan Direction* (Mar. 2017) ("Forest Plan Direction"), *available at*: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd535378.pdf.

[24] *Id.*, p. 163.

[25] Ex. G, Comments of Board of Supervisors, County of Tuolumne, FERC Docket No. P-2299, Jan. 16, 2018, p. 2.

[26] Ex. H, Comments of Conservation Groups, FERC Docket No. P-2299 (Jan. 29, 2018), p. 86 (citing 1995 study completed by the Highway 120 Association).

[27] 31 FPC 510.

additional generating unit and to add several conditions, including Article 53, which required the Districts to build and maintain a small toilet at Wards Ferry Bridge.[28] Article 53 did not mandate any other improvements at the Wards Ferry Bridge site. Article 52 of the license obligated the Districts to develop a plan to periodically remove logs and woody debris that washed downstream and accumulated near Wards Ferry Bridge.[29] The Districts developed the plan, which was approved by FERC in 1988.[30]

The Districts complied with both conditions. The Districts originally built a portable toilet at Wards Ferry Bridge, as directed by Article 53, on February 1, 1988. On April 13, 1988, the Districts informed FERC that the toilet had been damaged by gunshots within two weeks of installation.[31] Two weeks after the initial episode, the door panel was shot with a shotgun, and three weeks later, the door latch and toilet seat were found to be missing.[32] In January 1989, the Districts discovered that "the top half of the toilet facility was cut off with a chain saw and thrown in the ravine below. Subsequently, the bottom half was burned out and destroyed."[33]

In 1990, the Districts reported to FERC that the replacement toilet "had been destroyed and thrown down the ravine."[34] The Districts installed a third toilet in 1990, and told FERC that they were "guardedly optimistic that no more incidences" would occur.[35] That optimism proved to be misplaced.

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[28] Ex. I, *Turlock and Modesto Irrigation Dists.*, 38 FERC ¶ 61,097, Art. 53 (1987).

[29] *Id.*, Art. 52.

[30] *Turlock and Modesto Irrigation Dists.*, 43 FERC ¶ 62,160 (1988).

[31] Ex. AB, Districts Letter to FERC (July 9, 1990).

[32] *Id.*

[33] *Id.*

[34] *Id.*

[35] *Id.*

After more acts of vandalism, the Districts built a concrete vault toilet with a fortified door and window. In the past several years, vandals have tried to destroy that as well, typically by firing at it with shotguns, attempting to burn it down, or using hand-made bombs.[36] Here is a photo showing the door of the toilet after a bombing attempt (Ex. 9):



[36] *See, e.g.*, Ex. 7 (photo of shotgun damage); Ex. 10 (same); Exs. 8 – 9 (photos of bomb damage).

Vandals also frequently spray-paint the exterior of the toilet structure, typically with profanities.[37] Here is one of the tamer examples of tags on the toilet (Ex. 11):



[37] *See* Exs. 7-8, Exs. 11-15.

Wards Ferry Bridge also is a common target of taggers (Ex. 16):



Individuals further occasionally use the bridge as a base for shotgun practice (Ex. 17):



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As to Article 52, since 1988, the Districts have disposed of debris that floats downstream from land managed by BLM and the Forest Service. That debris can cover scores of acres, particularly after major fires and wet years. Typically, the Districts gather the debris at the edge of Don Pedro Reservoir and hold it in place with booms.[38] In the fall, when Don Pedro Reservoir levels drop and the fire threat decreases, the Districts have burned the woody debris.[39] Because of the difficult terrain on the Districts' land, the Districts have burned the debris on BLM-managed land consistent with the Log and Debris Removal Plan filed with and approved by FERC in 1988 pursuant to Article 52.

B. The Districts' Payment of Annual Fees

The Districts' licensing obligations include paying two sets of annual fees to FERC under Section 10(e)(1) of the FPA. The first fee is intended to defray the costs incurred by the United States—not just FERC—in administering the terms of the license.[40] Reimbursable costs covered by the annual fee include "any reasonable and necessary costs incurred by Federal and State fish and wildlife agencies and other natural and cultural resource agencies in connection with studies or other reviews carried out by such agencies for purposes of administering their responsibilities under this subchapter."[41] For fiscal year 2016, the annual charge paid by the Districts for FERC's administrative charges was $153,726; the annual charge paid by the Districts for the administrative charges of other federal agencies was $57,159.[42]

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[38] Ex. E (AFLA Env. Report), p. 2-1.

[39] *Id.*

[40] 16 U.S.C. § 803(e)(1).

[41] *Id.*

[42] Ex. 52, FERC, Office of the Chief Financial Officer, 2016 Actual FERC Administrative Charges, 2016 Actual Non-FERC Administrative Charges.

The second set of fees paid by licensees like the Districts under Section 10(e)(1) is "for recompensing [the United States] for the use, occupancy, and enjoyment of its lands or other property." For fiscal year 2016, the Districts paid annual land use charges of $176,564.39.[43]

C. The Districts' Relicensing Application

The Project license expired in 2016 and FERC has since issued annual licenses to allow the Project to continue operating pending conclusion of the relicensing proceeding. The Districts prepared a draft license application for a new license in 2013, timely filed a final license application in 2014, and filed an amended final license application in 2017. In connection with their application for a new license, the Districts prepared and submitted 36 studies analyzing the potential social, economic, and environmental impacts of the Project. The studies covered topics such as spawning and rearing habitat for salmonids, stream and reservoir temperatures, wetland habitats, noxious weed surveys, and reservoir fish populations.

The Districts also sponsored a study analyzing the feasibility of improving the take-out at Wards Ferry.[44] As part of the study, the Districts examined alternative locations for a whitewater boater take-out location, given the challenges presented by the steep terrain at Wards Ferry Bridge and the competition for space between (1) anglers and locals stationed at the river's edge and (2) boaters and kayakers trying to exit the river. The study determined that modest improvements to the Wards Ferry Bridge site were technically feasible, as was the alternative of towing rafts downstream to the Moccasin Point Recreation Area.[45] The Districts proposed to undertake certain limited Wards Ferry Bridge improvements in their 2014 final license application. They estimated

[43] Ex. 77, FERC Government Land Charges Invoice (2016).

[44] *See* Ex. J, *Whitewater Boating Take-Out Improvement Feasibility Study Report* (Dec. 2013).

[45] *Id*., p. 6-1.

the cost of the improvements to be approximately $1 million—twice the amount budgeted by the Forest Service in 2001.[46]

In 2017, the Districts amended their final license application. The application did not include any improvements at Wards Ferry Bridge, because the Districts own neither the bridge nor the road there and whitewater rafting on the Tuolumne River is unrelated to the Don Pedro Project. As the Districts explained to FERC, "Ward's Ferry is at the end of the whitewater trip. The Ward's Ferry Bridge just happens to be the first take-out location downstream of the Wild & Scenic reach of the upper Tuolumne River. Ward's Ferry Bridge is not a Project facility, but crosses over Don Pedro Reservoir near the upper end of the impoundment."[47]

The Districts nevertheless offered an off-license enhancement for the Wards Ferry Bridge site with their amended final license application in 2017. Under the enhancement, the Districts would build a platform to support up to three truck-mounted cranes and associated vehicles, thereby allowing equipment and rafts to be extracted from the river without blocking the Wards Ferry Bridge roadway.[48] The Districts also offered to relocate the existing bathroom to facilitate access to the platform.

In response to questions from FERC, the Districts estimated the capital cost of the proposed Wards Ferry Bridge enhancements would be approximately $6 million, with an annual operating and maintenance cost of $250,000 thereafter.[49] This capital cost is over ten times the $500,000

[46] *Compare* Ex. K (Final License Application, Draft Recreation Resource Management Plan) at 49 *with* Ex. F, Forest Plan Direction at 163.

[47] Ex. L (District's Response of Nov. 27, 2017 to FERC Deficiency Letter), at 40. Other bridges that cross Don Pedro Reservoir also are not part of the Project.

[48] *Id.*

[49] *Id.* at 39-40.

proposed by the Forest Service for a boat ramp in 2001. The Districts also proposed to recoup those costs through reasonable user fees.

Included with the Districts' 2017 amended license application was a Woody Debris Management Plan ("Woody Debris Plan").[50] The plan aims to ensure the continued public safety benefit of disposing of woody debris while limiting any adverse effects on local resources.[51] Under the Woody Debris Plan, the Districts would obtain necessary air quality and burn permits from state agencies, file a burn plan with BLM, and avoid burning near protected species.[52]

On November 30, 2017, FERC issued public notice that it had accepted for filing the Districts' amended final license application and was ready to conduct a formal environmental analysis of the application. That notice triggered deadlines for intervention in the licensing proceeding and for other agencies, including BLM, to, *inter alia*, submit preliminary conditions for inclusion in the licenses for the Project pursuant to Section 4(e) of the FPA.

III. BLM SECTION 4(e) CONDITIONS

FERC has the sole regulatory authority to issue licenses for hydroelectric projects, including the imposition of terms and conditions that may govern the license. Section 4(e) of the FPA allows FERC to license hydroelectric projects that occupy any part of a reservation of the United States if FERC finds "that the license will not interfere or be inconsistent with the purpose for which such reservation was created or acquired."[53] The statute also provides that any license "shall be subject to and contain such conditions as the Secretary of the department under whose supervision such reservation falls shall deem necessary for the adequate protection and utilization

[50] Ex. M, AFLA, Ex. E - Environmental Report, Appendix E-5 (Woody Debris Management Plan).

[51] *Id.*, p. 2-1.

[52] *Id.*

[53] 16 U.S.C. § 797(e).

of such reservation." Section 18 of the FPA also obligates FERC to include in a license "such fishways as may be prescribed by the Secretary of the Interior or the Secretary of Commerce, as appropriate."[54] Section 10(j) of the FPA further grants agencies the opportunity to recommend terms and conditions for a hydroelectric license.[55]

As noted above, Don Pedro Reservoir occupies public land managed by BLM.[56] Located further upstream from the Project Boundary is the Stanislaus National Forest, which is managed by the Forest Service. *See* Figures 1 and 2.

FERC's November 30, 2017 Notice gave the Secretaries of Commerce, Agriculture, and Interior 60 days to submit preliminary Section 18 fishway prescriptions and Section 4(e) conditions for the Project, and any Section 10(a) and (j) recommended terms and conditions. On January 29, 2018, BLM filed with FERC 44 preliminary Section 4(e) conditions for the Project.

A. The Mandated Improvements at Wards Ferry Bridge

Most of BLM's mandatory conditions are reasonably related to the purpose of the purported reservation.[57] Three are not. The most onerous is Condition 13. Rather than accept the Districts' proposed off-license enhancements to the Wards Ferry Bridge take-out facilities, BLM's preliminary Section 4(e) condition requires the Districts to undertake significantly more arduous—and expensive—upgrades.

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[54] 16 U.S.C. § 811.

[55] 16 U.S.C. § 803(j).

[56] For purposes of this filing, the Districts are not challenging the question of whether certain BLM lands, such as those withdrawn under the Taylor Grazing Act, Executive Order 6910, or Section 24 of the FPA (power site withdrawals) are in fact "reservations" under the FPA. The Districts reserve the right to contest the applicability of BLM's conditioning authority under Section 4(e) as to any BLM-administered lands within the Project Boundary that may be found not to be "reservations" under the FPA.

[57] The Districts are not seeking a trial-type hearing on those conditions.

Left unexplained by BLM is why it took it upon itself to issue any mandatory conditions with respect to Wards Ferry Bridge. Although BLM claims that it is trying to promote whitewater boating on the Tuolumne Wild and Scenic River,[58] BLM long ago ceded management responsibility over that to the Forest Service.[59] Moreover, the final "Wild and Scenic" segment of the Tuolumne River ends two miles *upstream* of Wards Ferry Bridge.

1. BLM has not justified the need or scope of the facilities

BLM also has not demonstrated the need for the facilities. Absent from BLM's submission are any studies analyzing recreational activities at Wards Ferry Bridge or cost-benefit analyses. BLM instead relies largely on the comments of commercial rafting companies—all of which have a financial interest in having the Districts subsidize their for-profit operations—and the selective musings of a Forest Service ranger.

Although BLM decries the allegedly unsafe conditions at Wards Ferry Bridge for boaters, it offers no statistical or empirical evidence of any safety risk from how boaters take out there. BLM does not point to any significant injuries, much less deaths, at Wards Ferry Bridge, associated with recreational activities. Indeed, the boaters are at far greater risk when they are rafting on the Tuolumne River than when trying to exit it. According to one tally, seven people have died while whitewater rafting on the Tuolumne River upstream of Wards Ferry.[60]

BLM also has not defended the extravagant scope of the demanded facilities at Wards Ferry Bridge, which it wishes to anoint as a "Day Use Area." The mandated facilities appear to surpass anything BLM or its sister agencies have built for similar recreational activities, such as at

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[58] Ex. D (DOI), pp. 132, 139.

[59] *See* Ex. B (1988 USFS Management Plan), at 15; Ex. C (2013 NPS Management Plan), at 55.

[60] *See* Ex. 18, American Whitewater, *Accident Database*, *available at*: https://www.americanwhitewater.org/content/Accident/.

Lumsden.[61] Nor has BLM explained how the Districts are supposed to prevent the facilities from suffering the same vandalism that afflicts the current toilet and Wards Ferry Bridge.

BLM further has not explained why it is demanding the building of facilities that may be torn down or rendered unusable in a few years. On the same day that BLM issued its preliminary Section 4(e) conditions, the National Marine Fisheries Service of the Department of Commerce ("NMFS") submitted a filing to FERC in which NMFS reserved the right to mandate construction of a fishway by the Districts.[62] A study sponsored by NMFS determined that building a fish collection system adjacent to Wards Ferry Bridge was the most attractive alternative.[63] Construction of the facilities proposed in the study, which include a 70 foot tall dam, would essentially disable most, if not all, of the Wards Ferry Bridge take-out improvements mandated by BLM.[64]

Last, BLM has failed to consider whether the surrounding infrastructure can support the construction vehicles needed to build the mandated facilities and the users who would visit the facilities. Notably, Tuolumne County recently declared that Wards Ferry Road leading to and from Wards Ferry Bridge is "dangerous."[65] The County also noted that large trucks and trailers used by the commercial rafters "make it unsafe for other vehicles traveling on the road."[66] Despite

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[61] Notably, boaters described Lumsden as having a "[l]oose, steep, and dangerous ramp [] to enter Meral's Pool." *See* Ex. 75, Tuolumne River Trust, Meral's Pool Ramp, Whitewater Put-in-Revitalization, *available at* https://www.flipcause.com/secure/cause_pdetails/MTY0MTQ=#lightbox[group]/0/. The ramp was not repaired until 2017, and only because of private donations and volunteer labor. *Id*.

[62] Ex. N, U.S. Department of the Interior, National Marine Fisheries Service, *NOAA Fisheries' Resource Management Goals and Objective, et al.* (Jan. 29, 2018).

[63] Ex. O, Anchor QEA, *Conceptual Engineering Plans for Fish Passage at La Grange an Don Pedro Dams on the Tuolumne River* (Oct. 2017).

[64] Ex. 61, Drawing of NMS Pseudo Dam Concept.

[65] Ex. G, Comments of Board of Supervisors, County of Tuolumne, FERC Docket No. P-2299 (Jan. 16, 2018), at 2.

[66] *Id.* at 3.

BLM's professed concern over safety, its filing never addresses the condition of Wards Ferry Road and whether adding the improvements that BLM demands would increase the hazards on that road.

2. BLM has not cited support for its objectives

According to BLM, the demanded improvements for the "Ward's Ferry Day Use Area" must fulfill 12 stated objectives.[67] Those objectives include:

- Constructing a gated exit ramp that can *simultaneously* accommodate 36 rafts at all water levels and overseeing use of the ramp by the public from 2 p.m. to dusk during the entire rafting season;
- Building and maintaining separate access paths for pedestrians and automobiles and loading zones within the narrow canyon;
- Installing and maintaining four toilets and cleaning them daily during the rafting season;
- Paving and supervising use of 20-25 parking spots;
- Finding a location in the canyon away from boaters for a picnic area, complete with three wire meshed picnic tables that must withstand attempted theft and preferably be in the shade;
- Adding 6-10 bear-proof garbage containers; and
- Installing kiosk signs and replacing them when vandalized or stolen.

The Districts must plan and erect all of these facilities in consultation with a myriad of groups and ensure that the facilities are "aesthetically pleasing and environmentally appropriate."[68]

[67] Condition 13 can be found in Ex. D (DOI), at pp. 130-146.

[68] *Id.*, p. 132.

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BLM Condition No. 13 relies on several faulty assertions and/or assumptions that can be grouped into four categories: (1) that the Don Pedro Project caused the alleged problems at Wards Ferry Bridge; (2) that extensive upgrades are needed to address allegedly unsafe conditions and to accommodate multiple recreational users at Wards Ferry Bridge; (3) that the construction and maintenance of the required facilities are technically feasible; and (4) that the mandated facilities are cost-effective. As explained below, none of BLM's assertions/assumptions is accurate. For example, the decision of rafters to exit the Tuolumne River at Wards Ferry Bridge, and the rafting schedules they follow, are not compelled by how the Districts operate the Don Pedro Project. BLM also has inaccurately characterized the conditions at Wards Ferry Bridge, inflated estimates of how many rafters take out at Wards Ferry, and inaccurately discounted alternate take-out sites. BLM further has made false assumptions as to the technical and cost feasibility of constructing all of the specified facilities in a narrow canyon within the allotted time frame.

3. BLM is denying the Districts cost recovery

The cost of erecting and maintaining the Wards Ferry Bridge facilities under BLM Condition No. 13 will fall largely on the shoulders of the Districts' customers, if BLM has its way. Even though the mandated facilities primarily benefit private, for-profit rafting companies, BLM's Condition No. 13 attempts to bar the Districts from recouping any of the capital costs of the mandated facilities from those companies or other users. Condition No. 13 evidently would only allow the Districts to charge maintenance fees.

This restriction is contrary to FERC's policy authorizing the recovery of both capital and operating and maintenance costs with respect to recreational facilities: "The Commission will not object to licensees and operators of recreational facilities within the boundaries of a project charging reasonable fees to users of such facilities in order to help defray the costs of constructing,

operating, and maintaining such facilities."[69] BLM's demand that the not-for-profit Districts subsidize for-profit commercial rafting operations also is contrary to the U.S. government's own standards, which require that "user charges will be sufficient to recover the full cost to the Federal Government,"[70] and BLM criteria, which call for "a fair return for commercial recreational use of the public lands."[71] BLM has offered no justification for flouting FERC's stated policy and deviating from its own standards regarding cost recovery.

B. BLM Condition No. 4 – Woody Debris Removal

Another objectionable Section 4(e) condition is BLM Condition No. 4.[72] It requires the Districts to "develop and implement a BLM-approved Large Woody Debris Material Management Plan for BLM administered lands within Don Pedro Reservoir."[73] Rather than simply adopt the management plan proposed by the Districts, BLM imposed its own management plan. BLM Condition No. 4 mandates that the Districts "must include at all times a navigable waterway directly downstream of the Tuolumne Wild and Scenic River Boundary to the proposed Ward's Ferry Day Use Area and provide a safe accessible takeout area for whitewater boaters at all times." The condition further requires the District to secure BLM approval for the plan before submitting it to FERC.

The Districts have no objections to securing regulatory approvals for their yearly burns. The rub arises from BLM's demand that its employees personally oversee the burning (at the Districts' expense). The stated rationale for the mandatory condition confirms that BLM expects

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[69] 18 C.F.R. § 2.7.

[70] Ex. 37, OMB Circular No. A-25 Revised.

[71] Ex. P, Department of the Interior, Bureau of Land Management, H-8320-1 – Planning for Recreation and Visitor Services, 8/22/2014.

[72] Condition 4 can be found in Ex. D (DOI), at pp. 108-111.

[73] *Id.*, p. 108.

to oversee yearly disposal of woody debris. As a trial-type hearing will establish, however, BLM has demonstrated that it is incapable of acting quickly enough so debris can be burned when conditions are suitable.

C. BLM's Demand to Double-Bill the Districts

BLM Condition No. 12 obligates the Districts to "annually pay BLM Mother Lode Field Office for their staff's involvement in participating in monitoring and oversight of Licensees' project operations on BLM land.[74] Licensees will pay for all costs incurred by BLM, including labor, vehicle use, gas, travel, and lodging, etc. All BLM costs associated with ensuring the Licensees are adhering to license articles in their license that affect BLM land."[75]

As the Districts will show at a hearing, this will result in the double-billing of the Districts. The Districts already pay to FERC annual fees that reimburse federal agencies like BLM for their cost of administering the FPA and to compensate BLM "for the use, occupancy, and enjoyment of its lands or other property."[76]

IV. THE DISTRICTS' RIGHT TO A TRIAL-TYPE HEARING

The Supreme Court ruled in 1984 that FERC has no power to reject or alter conditions imposed by federal land management agencies under Section 4(e) of the FPA.[77] The Ninth Circuit similarly held in 1999 that FERC has no right to reject or modify fishway prescriptions filed by Interior's Fish and Wildlife Service or the U.S. Department of Commerce's NMFS under Section

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[74] Condition 12 can be found in Ex. D, at pp. 129-30.

[75] *Id.*, p. 129.

[76] 16 U.S.C. § 803(e)(1).

[77] *Escondido Water Co. v. La Jolla Indians*, 466 U.S. 765 (1984).

18.[78] FERC thus will include all prescriptions and conditions in any license it issues, while reserving the right to express its disagreement with the prescriptions or conditions.[79]

Section 4(e) did not originally contain any such limitation on what federal land management agencies could require as a condition of a hydroelectric license. After licensees protested that the agencies were acting unreasonably in exercising their discretion, Congress amended Sections 4(e) and 18 in 2005 to grant licensees the right to a trial-type hearing on the factual underpinnings for the conditions or prescriptions. Under the revision to Section 4(e), "The license applicant . . . shall be entitled to a determination on the record, after opportunity for an agency trial-type hearing of no more than 90 days, on any disputed issues of material fact with respect to such conditions." Congress made a similar change to Section 18. Congress also gave licensees the right to propose alternatives to the proposed conditions or prescriptions when it added Section 33 to the FPA.[80] The Districts' alternatives to BLM's Section 4(e) Condition No. 13 for the Don Pedro Project are set forth in a separate submission.[81]

Congress directed Interior and the Departments of Agriculture and Commerce to establish procedures for such expedited trial-type hearings, including rules for discovery and cross-examination of witnesses. On March 31, 2015, the three Departments jointly issued a set of revised

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[78] *American Rivers v. FERC*, 201 F.3d 1186, 1206-1211 (9th Cir. 1999).

[79] Public Utility District No. 1 of Pend Oreille County, Washington, 130 FERC ¶ 62,148, ¶ 32 (2010).

[80] 16 U.S.C. § 823d(b).

[81] The Districts are only seeking a trial-type hearing on, and proposing alternatives to, conditions submitted by BLM with respect to the Don Pedro Project. Under Interior's regulations, the Districts are precluded from seeking a hearing on topics where Interior merely reserved the authority to later impose conditions. The Districts retain the right to seek a trial-type hearing if Interior later chooses to prescribe a fishway under Section 18.

interim rules, along with a common preamble.[82] These rules were made final on November 23, 2016.[83] Interior's rules are contained in 43 C.F.R. Part 45.

Interior's regulations define a "material fact" as one "that, if proved, may affect a Department's decision whether to affirm, modify, or withdraw any condition or prescription." 43 C.F.R. § 45.2. The ALJ will decide all disputed issues of material fact. The ALJ's decision is binding on all parties.

Within 20 days of the ALJ issuing his decision, the Districts have a right to amend their proposed alternatives to the BLM preliminary conditions.[84] BLM then must decide whether to accept the proposed alternatives or to modify its conditions. The regulations requires BLM to take into account the ALJ decision, the cost of implementing the condition, and other comments.[85] Under Section 33 of the FPA, BLM must accept the Districts' alternatives if they will cost significantly less to implement than the preliminary conditions and will provide for the adequate protection and utilization of the reservation.[86]

V. DISPUTED ISSUES OF MATERIAL FACT AND EXHIBIT AND WITNESS LISTS

Appendix A sets forth a list of the disputed issues of material facts in this case. In accordance with Interior's regulations, each issue identifies the specific factual assertion made, implied, or relied upon by BLM that the Districts dispute, along with an explanation of why BLM's assertion is wrong and why the dispute is material. Appendix A also identifies the scientific

[82] Resource Agency Hearings and Alternatives Development Procedures in Hydropower Licenses, 80 Fed. Reg. 17156 (March 31, 2015).

[83] 81 Fed. Reg. 84389 (Nov. 23, 2016).

[84] 43 C.F.R. § 45.72(a).

[85] 43 C.F.R. § 45.74.

[86] 16 U.S.C. § 823d(a).

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studies, literature, and other documented information on which the Districts presently rely to demonstrate the fallacy of BLM's assertions.[87]

Appendix B is the Districts' list of exhibits, along with a notation whether each exhibit is contained in the FERC record. Exhibits not currently contained in the FERC record are attached to Appendix B. Appendix C identifies the witnesses the District presently intend to provide testimony at the hearing. Appendix C also includes each witness' contact information and qualifications and gives a brief narrative summary of each witness' expected testimony.

The Districts reserve the right to amend or supplement their exhibit list and witness list. The Districts also reserve the right to introduce additional exhibits at the hearing, even if not previously identified, for impeachment or rebuttal purposes. The Districts further reserve the right to call impeachment and rebuttal witnesses, even if not previously identified.

The Districts consent to being served by electronic mail on the individuals identified below.

[Signatures on Following Page]

[87] Although the Districts have attempted to identify the supporting exhibits relevant to each disputed issue, they reserve the right to rely on other exhibits on their exhibit list in support of each disputed issue.

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Respectfully submitted,

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APPENDIX A

DISPUTED ISSUES OF MATERIAL FACT

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I. LIST OF DISPUTED ISSUES OF MATERIAL FACT

(43 C.F.R. § 45.21)

A. Condition No. 13 (Wards Ferry Day Use Recreation Area)

The Project's role in creating the alleged problems the 4(e) mandatory condition seeks to address.

1. Whether the presence or operation of the Project causes whitewater rafts to converge at Wards Ferry Bridge over a short period of time.
2. Whether annual fluctuations in the Don Pedro Reservoir level is causing erosion of the unpaved take-out/access paths near Wards Ferry Bridge.
3. What was the frequency of whitewater rafting that took place on the upper Tuolumne River before Don Pedro Reservoir was filled.
4. Whether conditions at Wards Ferry have caused a decline in non-commercial boating on the upper Tuolumne River since the mid-1980s.
5. Whether rafts and kayaks could be taken out during the rafting season at locations other than Wards Ferry.
6. Whether the unpaved take-out/access paths at Wards Ferry are on BLM-administered land.

Need for the BLM-mandated improvements.

7. Whether the Wards Ferry take-out is highly unsafe for boaters.
8. Whether the take-out/access paths at Wards Ferry are almost impassable in places.
9. Whether an adequate take-out at Wards Ferry needs to be able to simultaneously accommodate six groups of rafters, with up to six rafts each.
10. Whether 20-25 parking spots at the two ends of Wards Ferry Bridge and multiple toilets are needed to adequately accommodate recreational users of the Project or BLM-administered land.

Feasibility of the Section 4(e) mandatory condition.

11. Whether the facilities required under the BLM mandatory condition can feasibly be planned and built at Wards Ferry within the schedule specified in the BLM mandatory condition.
12. Whether the Districts can feasibly maintain and coordinate different uses of the proposed facilities and ensure the facilities are used in an orderly and safe fashion.
13. Whether Wards Ferry Road can safely handle the traffic that would be generated by the construction and operation of the proposed improvements at Wards Ferry.

Cost of the BLM-mandated improvements to Wards Ferry.

14. Whether the cost of constructing the improvements required by the mandatory condition will be approximately $52.7 million.
15. Whether the annual cost of operating and maintaining the Wards Ferry facilities will be at least $282,000.

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B. Condition No. 12 (Operation, Maintenance, and Administration Agreement)

16. Whether BLM's recovery of operation, maintenance, and administration costs from the Districts would result in a double-billing of the Districts.

C. Condition No. 4 (Large Woody Debris Material Management Plan)

17. Whether BLM was aware before 2017 of the Districts disposing of woody debris on land managed by BLM.
18. Whether the Districts can feasibly keep the Tuolumne River navigable and the Wards Ferry take-out accessible, as required under BLM's mandatory condition, if BLM must supervise removal and disposal of the woody debris that accumulates in the Tuolumne River.

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II. SUPPORTING INFORMATION FOR EACH DISPUTED ISSUE OF MATERIAL FACT

A. Condition No. 13 (Wards Ferry Day Use Recreation Area)

Disputed Issue of Material Fact No. 1:

Whether the presence or operation of the Project causes whitewater rafts to converge at Wards Ferry Bridge over a short period of time.

a. Specific factual assertions made, implied, or relied upon by BLM.

- "[M]any of the whitewater boaters arrive at the Ward's Ferry Bridge over a relatively short period of time resulting in substantial congestion at and on the bridge."[1]
- "To infer that Project operations doesn't affect whitewater boating within Don Pedro Reservoir is inaccurate."[2]
- "[A] nexus does exist" between "whitewater boating take-out issues" and the Project.[3]

b. Why BLM's statements are unfounded or erroneous.

While there can occasionally be congestion at Wards Ferry Bridge, it is neither substantial nor chronic. Perhaps more importantly, whitewater rafts arrive at Wards Ferry not because of any constraints imposed by the Project but rather because of the launching and exit schedules chosen by the whitewater rafting companies and individuals. Most rafting companies and individuals put in upstream at Meral's Pool in the morning and time their trips to take advantage of flows from the Holm Powerhouse, which is far upstream of the Project. The Forest Service also controls through its permit system how many boaters are on the Tuolumne River at any one time; if it desired, it could reduce any perceived congestion at the Wards Ferry Bridge site by reducing the number of permits.

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1 Ex. D (DOI), at 138 (quoting Ex. E (AFLA Env. Report), at pp. 5-39 – 5-41).

2 Ex. D, p. 139.

3 *Id*., p. 162.

c. Why the factual dispute is material.

The purpose of Section 4(e) conditions is to provide for the "adequate protection and utilization of the [affected] reservation."[4] BLM's Section 4(e) condition requires the Districts to build, maintain, and operate recreational facilities at Wards Ferry, at significant cost, ostensibly to offset the alleged effects of the Project on the utilization of BLM-administered land. BLM alleges that the Project is somehow responsible for the convergence of whitewater rafters at Wards Ferry Bridge. If the Project is not a cause of the convergence of whitewater rafters at Wards Ferry Bridge, then BLM's justification for its condition evaporates. A finding that the Project is not a cause of congestion may cause BLM to revisit the propriety of the mandated improvements at Wards Ferry Bridge.[5]

d. Specific citations to information relied on by the Districts.

- Ex. B, U.S. Forest Service, Tuolumne Wild and Scenic River Management Plan (May 1988).
- Ex. E, Amended Final License Application, Exhibit E — Environmental Report.
- Ex. Q, AFLA Attachment C – Ward's Ferry Take-Out 2016 Observations Technical Memorandum.
- Exs. R – T, Videos Taken During the July 2016 Observations.
- Ex. AA, Susan Norman, U.S. Forest Service, Tuolumne River Whitewater Recreation Use Analysis and Monitoring Evaluation (Jan. 29, 2001).
- Ex. 4, U.S. Forest Service, *Recreation Passes & Permits, Tuolumne Wild & Scenic River Permit Reservations, available at*: https://go.usa.gov/xnMV3.
- Ex. 20, American Whitewater, *Tuolumne, California, Lumsden Campground (Meral's Pool) to Wards Ferry Bridge, available at*: https://www.americanwhitewater.org/content/River/detail/id/326/.

[4] 16 U.S.C. § 797(e).

[5] 43 C.F.R. § 45.2.

- Ex. 21, CaCreeks.com, *Tuolumne River below Lumsden, available at*: http://www.cacreeks.com/tuol-lum.htm.

- Ex. 38, California Whitewater, *Flows, Tuolumne River, available at*: http://www.californiawhitewater.com/rivers/tuolumne/flows/.

- Ex. 39, Dreamflows Tuolumne, *Cherry Creek Confluence Release Schedule (June 2018-Sept. 2018), available at*: http://www.dreamflows.com/Pages/TuolumneSchedule.php.

- Ex. 40, Tuolumne River Flow Charts (1990-2014).

- Ex. 62, Letter from Stephen Welch, President of Tuolumne River Expeditions Inc. (Apr. 25, 1995).

Disputed Issue of Material Fact No. 2:

Whether annual fluctuations in the Don Pedro Reservoir level is causing erosion of the unpaved take-out/access paths near Wards Ferry Bridge.

a. Specific factual assertions made, implied, or relied upon by BLM.

- "Currently, the takeout path/access road is almost impassable in places due to the continued erosion caused from the water fluctuations of the reservoir on an annual basis."[6]
- "To infer that Project operations doesn't affect whitewater boating within Don Pedro Reservoir is inaccurate."[7]
- "[A] nexus does exist" between "whitewater boating take-out issues" and the Project.[8]

b. Why BLM's statements are unfounded or erroneous.

Don Pedro Reservoir is not causing continued erosion of the takeout and access paths. *First*, little erosion has taken place in recent years. The lake was filled over 40 years ago. Since then, its operation has resulted in fluctuating water levels in the Wards Ferry Bridge area. Any erosion from water fluctuations ended in the first few years given the rock and thin soil conditions of the steep canyon walls at Wards Ferry. *Second*, any minor erosion of access paths is occurring *above* the maximum elevation of the Reservoir and thus is not Project-related. *Third*, any limited continued erosion below the maximum water line results from non-Project factors, such as boat and jet ski wakes and the characteristics of the rock and soil.

c. Why the factual dispute is material.

The purpose of Section 4(e) conditions is to provide for the adequate protection and utilization of the affected reservation. BLM alleges that the Project is somehow responsible for

[6] Ex. D (DOI), p. 132.

[7] *Id.*, p. 139.

[8] *Id.*, p. 162.

the erosion of take-out and access paths, thereby interfering with utilization of BLM-managed land. If the Project is not a cause of this erosion, then BLM has no justification for requiring elaborate replacement of the paths, particularly when the paths are largely on the Districts' land, not BLM-managed land. A favorable finding by the ALJ may cause BLM to revisit the propriety of the mandated improvements at Wards Ferry Bridge.[9]

d. Specific citations to information relied on by the Districts.

- Ex. D (DOI).
- Ex. Q, AFLA Attachment C – Ward's Ferry Take-Out 2016 Observations Technical Memorandum.
- Exs. R – T, Videos taken During the July 2016 Observations.
- Ex. AA, Susan Norman, U.S. Forest Service, Tuolumne River Whitewater Recreation Use Analysis and Monitoring Evaluation (Jan. 29, 2001).
- Ex. 41, Photos of Erosion at Wards Ferry.
- Exs. 42 – 48, Photos of Wards Ferry c. 1980, 1981.
- Exs. 71 –73, February 2018 Photographs of Wards Ferry Bridge Area.
- Ex. [5-X] – [5-Y], Videos of Wards Ferry Bridge Area.

[9] 43 C.F.R. § 45.2.

Disputed Issue of Material Fact No. 3:

What was the frequency of whitewater rafting that took place on the upper Tuolumne River before Don Pedro Reservoir was filled.

a. Specific factual assertions made, implied, or relied upon by BLM.

- "Prior to the inundation from Don Pedro Dam whitewater boaters were taking out at other locations within the project boundary of Don Pedro Reservoir where the river was close enough to an existing road."[10]
- "To infer that Project operations doesn't affect whitewater boating within Don Pedro Reservoir is inaccurate."[11]
- "[A] nexus does exist" between "whitewater boating take-out issues" and the Project.[12]

b. Why BLM's statements are unfounded or erroneous.

The U.S. government has admitted that in the early 1970s "only a few hardy souls tried to float" the Tuolumne River. The location where those few hardy souls took out, Jacksonville, was inundated by Don Pedro Reservoir in June 1970, well before boating on the Tuolumne River became popular.

c. Why the factual dispute is material.

BLM is claiming that the Project is forcing rafters and kayakers to take out at Wards Ferry rather than at other sites. When considering the relicensing of a hydroelectric project, FERC uses current conditions as its baseline for evaluating project effects and alternatives. FERC does not consider pre-project conditions.[13] Thus, what other take-out locations may have existed before the filling of Don Pedro Reservoir is irrelevant.

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[10] Ex. D (DOI), p. 139

[11] *Id.*, p. 139.

[12] *Id.*, p. 162.

[13] *See American Rivers v. FERC*, 187 F.3d 1007, *amended and rehearing denied*, 201 F.3d 1186 (9th Cir, 1999); *Conservation Law Foundation v. FERC*, 216 F.3d 41 (D.C. Cir. 2000).

BLM, however, appears to be asserting that pre-project conditions are relevant to its determination whether to impose Section 4(e) Condition No. 13. In this situation, its assertion regarding a pre-project condition—that rafters were commonly using locations other than Wards Ferry to exit the Tuolumne River—is misplaced. The assertion therefore provides no basis for demanding that the Districts build and operate improvements to Ward Ferry 50 years later. There is no Project-related effect with respect to utilization of BLM-administered lands that BLM can claim needs to be addressed. A favorable finding on this issue by the ALJ may cause BLM to revisit the propriety of the mandated improvements at Wards Ferry Bridge.[14]

d. Specific citations to information relied on by the Districts.

- Ex. J, AFLA Attachment C – Whitewater Boating Take-Out Improvement Feasibility Study, Report RR-02.
- Ex. Z, Tuolumne Wild & Scenic River, Final Environmental Statement Study Report (Nov. 1979).
- Ex. 2, U.S. Forest Service, *Tuolumne Wild & Scenic River*, *available at*: https://www.fs.usda.gov/recarea/stanislaus/recarea/?recid=14975.
- Ex. 49, Greening of Paradise Valley – The First 100 Years of the Modesto Irrigation District, Chapter 17.
- Ex. 78, James Damschroder, The Union Democrat, *Low Reservoir Reveals Jacksonville*, (Dec. 2, 2008), *available at* http://www.uniondemocrat.com/csp/mediapool/sites/UnionDemocrat/LocalNews/story.csp?cid=3754087&sid=753&fid=151.

[14] 43 C.F.R. § 45.2.

Disputed Issue of Material Fact No. 4:

Whether conditions at Wards Ferry have caused a decline in non-commercial boating on the upper Tuolumne River since the mid-1980s.

a. Specific factual assertions made, implied, or relied upon by BLM.

- "The use numbers for non-commercial boaters have decreased since the mid 1980's because of the difficulty and safety issues with taking out at Ward's Ferry and because it is unsafe to leave your car overnight due to numerous break-ins."[15]

b. Why BLM's statements are unfounded or erroneous.

There is no causal link between the Project and Wards Ferry, on the one hand, and any perceived decrease in whitewater rafting, on the other. In fact, there is not even a correlation.

First, the number of non-commercial boaters initially *increased* after Don Pedro Reservoir began filling in 1970, as the statistics relied upon by BLM show.[16] The decline in boaters began over 30 years after the Reservoir began filling.

Second, an earlier Forest Service study did not conclude that a decrease in non-commercial boating was attributable to the conditions at Wards Ferry. The study instead blamed "the presence of micro-trash, food scraps, and urine odor" in Forest Service campsites.[17] The Board of Supervisors of Tuolumne County also noted in FERC comments that travel on Wards Ferry Road is dangerous, particularly because of large trucks hauling rafts. That danger may be discouraging non-commercial rafters from boating the river and using the take-out at Wards Ferry. The difficulty of putting-in at Meral's Pool also is likely a contributing factor.

[15] Ex. D (DOI), p. 138.

[16] *Id.*, p. 144.

[17] Ex. AA, Susan Norman, USDA Forest Service, *Tuolumne River Whitewater Recreation Use Analysis and Monitoring Evaluation*, Jan. 29, 2001, p. 8.

Third, the decrease in the popularity of rafting is not a phenomenon unique to the Tuolumne River. Rafting has become been less attractive throughout the United States in the past two decades.[18] Reflecting this decline, sales of kayaks nationally have fallen 43% since 2001.[19]

Fourth, even if vandalism of cars parked at Wards Ferry contributed to a decline in the popularity of non-commercial rafting on the Tuolumne River, that decline is not Project-related. The Project does not encourage vandalism—that can be attributed to the remote location of Wards Ferry Bridge and inadequate law enforcement by BLM, the Forest Service, and Tuolumne County.

c. Why the factual dispute is material.

BLM is justifying the mandated condition in part on the premise that the conditions at Wards Ferry (which BLM insists are Project-related) are suppressing whitewater rafting on the Tuolumne River. Findings that (1) BLM's assertion of some causal link between project-caused conditions at Wards Ferry and a decrease in non-commercial rafting is not supported by any evidence and (2) reduced non-commercial rafting is likely caused by non-Project factors, could prompt BLM to withdraw or modify the condition.[20]

d. Specific citations to information relied on by the Districts.

- Ex. G, Comments of the Tuolumne County Board of Supervisors (Jan. 16, 2018).
- Ex. U, AFLA Exhibit H – Plans and Ability of Applicants to Operate the Don Pedro Hydroelectric Project
- Ex. AA, Susan Norman, U.S. Forest Service, Tuolumne River Whitewater Recreation Use Analysis and Monitoring Evaluation (Jan. 29, 2001).

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[18] *See, e.g.*, Ex. 50, Dave Lavender, The Herald Dispatch, *Outdoor Tourism Changes with Whitewater Declines* (Feb. 20, 2017), *available at*: http://bit.ly/2CGcN28 (quoting local rafting company as saying that "the numbers of rafters have decreased since the heyday back in mid-to-late 1990s and early 2000s, when as many as 225,000 visitors would come to whitewater raft in West Virginia.").

[19] *See* Ex. 51, Statista, *Total Number of Kayaks Sold in the U.S. from 2011 to 2013*, *available at*: https://www.statista.com/statistics/215488/total-kayak-units-sold-in-the-us/.

[20] 43 C.F.R. § 45.2.

- Exs. AC-AE, Videos of Lumsden Campground (taken Feb. 24, 2018).

- Exs. AF-AM, Videos of Wards Ferry Bridge Area (taken Feb. 24, 2018).

- Ex. 50, Dave Lavender, The Herald Dispatch, *Outdoor Tourism Changes with Whitewater Declines* (Feb. 20, 2017), *available at*: http://www.herald-dispatch.com/features_entertainment/outdoor-tourism-changes-with-whitewater-declines/article_0acc8055-29c2-5c16-9c48-1e4d8b3eadd3.html.

- Ex. 51, Statista, *Total Number of Kayaks Sold in the U.S. from 2011 to 2013, available at*: https://www.statista.com/statistics/215488/total-kayak-units-sold-in-the-us/

- Ex. 60, Aggregation of Annual Rafters on the Upper Tuolumne River Using Commercial Rafting Services (2007-2017).

- Ex. 75, Tuolumne River Trust, Meral's Pool Ramp, Whitewater Put-in-Revitalization, *available at* https://www.flipcause.com/secure/cause_pdetails/MTY0MTQ=#lightbox[group]/0/.

Disputed Issue of Material Fact No. 5:

Whether rafts and kayaks could be taken out during the rafting season at locations other than Wards Ferry.

a. Specific factual assertions made, implied, or relied upon by BLM.

- "Takeout Issues at Moccasin: Sand and siltation navigability issues. Time it takes to get to Moccasin. Analysis of River Channel Sediments at Upper End of Don Pedro Reservoir."[21]
- "This incident stopped further study of the feasibility for towing out watercraft from the Tuolumne river to Moccasin."[22]

b. Why BLM's statements are unfounded or erroneous.

BLM's demand that the Districts pay for exorbitant take-out facilities at Wards Ferry is premised in large part on the assertion that no other take-out point for boaters exists. The Districts noted in their 2013 study that towing rafts to Moccasin Point was a viable alternative. BLM has rejected that view, alleging "takeout issues" with Moccasin Point.

During most of the rafting season, Moccasin Point is a suitable, and in some ways superior, alternative to Wards Ferry. Notably, the websites of a whitewater trade group and a commercial rafting company alert their customers to the alternative of having boats towed to Moccasin Point. The commercial rafter notes, "An easier take-out is at Moccasin Marina."[23] The trade group extols Moccasin Point as having much easier derigging and unloading.[24] The Districts' consultant, HDR, observed several rafts being towed, presumably to Moccasin Point, when it was onsite at Wards

[21] Ex. D (DOI), p. 145.

[22] *Id.*, p. 146.

[23] Ex. 21, CaCreeks.com, *Tuolumne River below Lumsden*, *available at*: http://www.cacreeks.com/tuol-lum.htm.

[24] Ex. 20, American Whitewater, *Tuolumne, California, Lumsden Campground (Meral's Pool) to Wards Ferry Bridge*, *available at*: https://www.americanwhitewater.org/content/River/detail/id/326/.

Ferry in 2016. Notably, some of the rafts were being towed by the Forest Service—the same entity that BLM cites for the proposition that towing to Moccasin Point is not feasible.

No one has suggested that any improvements would be needed at Moccasin Point to accommodate the whitewater boaters who currently take out at Wards Ferry. Indeed, Moccasin Point already has all of the amenities that BLM is demanding be constructed at Wards Ferry.[25]

c. Why the factual dispute is material.

BLM's mandatory condition inaccurately assumes that Wards Ferry is the only viable take-out point for boaters on the Tuolumne River. A finding that boaters can also take out at Moccasin Point may cause BLM to revisit the propriety of the mandated improvements at Wards Ferry. As noted above, Interior's regulations define a "material fact" as one "that, if proved, may affect a Department's decision whether to affirm, modify, or withdraw any condition or prescription."[26]

d. Specific citations to information relied on by the Districts.

- Ex. J, AFLA Attachment C – Whitewater Boating Take-Out Improvement Feasibility Study, Report RR-02.
- Ex. Q, AFLA Attachment C – Ward's Ferry Take-Out 2016 Observations Technical Memorandum.
- Ex. 20, American Whitewater, *Tuolumne, California, Lumsden Campground (Meral's Pool) to Wards Ferry Bridge, available at*: https://www.americanwhitewater.org/content/River/detail/id/326/.
- Ex. 21, CaCreeks.com, *Tuolumne River below Lumsden, available at*: http://www.cacreeks.com/tuol-lum.htm.
- Ex. 22, Don Pedro Lake, *Recreation Area, available at*: http://www.donpedrolake.com/recreation.

[25] Ex. 22, Don Pedro Lake, *Recreation Area, available at*: http://www.donpedrolake.com/recreation ("Moccasin Point Recreation Area offers RV (full hookup) and tent camping, restrooms with hot showers (at no extra charge), RV sewage dump station, walking trails, picnic area, boat launch ramp, fish cleaning station and full service marina.").

[26] 43 C.F.R. § 45.2.

- Ex. 24, Dreamflows Bulletin Board, *Dave's Tuolumne River Tow Service, available at*: http://www.dreamflows.com/forums/viewTopic.php?topic=447.

Disputed Issue of Material Fact No. 6:

Whether the unpaved take-out/access paths at Wards Ferry are on BLM-administered land.

a. Specific factual assertions made, implied, or relied upon by BLM.

BLM's mandatory condition for Wards Ferry is predicated on the assumption that the property being used is BLM land, as indicated by the title: "BLM's Federal Power Act Preliminary Section 4(e) Conditions and 10(a) Recommendations for the Beneficial Use of BLM lands in and around Don Pedro Hydroelectric Project, FERC Project No. 2299."[27]

b. Why BLM's statements are unfounded or erroneous.

BLM's authority under Section 4(e) to impose conditions on a hydroelectric project depends on a finding that the conditions are necessary for the adequate protection and utilization of BLM-administered land. The land on which most of the access/take-out paths sit, and the land on which the vast majority of the improvements would be constructed, however, are not federal land managed by BLM. They are owned and managed by the Districts, as shown in a property survey conducted by the Districts. Further, only a short stretch of the Tuolumne River upstream of Wards Ferry Bridge (approximately two miles) is located on federal land managed by BLM, and BLM ceded management authority over the Wild and Scenic sections of the Tuolumne River to the Forest Service.

c. Why the factual dispute is material.

BLM's statutory authority is dependent on the condition being necessary for the adequate protection and utilization of BLM-managed land. Once BLM realizes that little, if any, BLM-managed land is involved, then BLM could withdraw or modify its condition.[28]

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[27] Ex. D (DOI), p. 100.

[28] 43 C.F.R. § 45.2.

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d. Specific citations to information relied on by the Districts

- Ex. C, National Park Service, Tuolumne Wild and Scenic River, Draft Comprehensive Management Plan and Environmental Impact Statement, Vol. I (Jan. 2013).
- Ex. Q, AFLA Attachment C – Ward's Ferry Take-Out 2016 Observations Technical Memorandum.
- Exs. R – T, Videos taken During the July 2016 Observations.
- Ex. 59, Survey of land nears Wards Ferry.

Disputed Issue of Material Fact No. 7:

Whether the Wards Ferry take-out is highly unsafe for boaters.

a. Specific factual assertions made, implied, or relied upon by BLM.

- "Unfortunately, the current existing whitewater boating takeout facility and access for both commercial and non-commercial boaters and general recreational users at Ward's Ferry is highly unsafe for boaters, creates a public safety hazard on the bridge for vehicles and pedestrians, and conflicts with other recreational uses."[29]

- "The current take-out facility at Ward's Ferry does not provide a safe area for commercials and private boaters to exit the river."[30]

- "I would say that the risk of harm to my employees or my clients is greatest from the time they step off the boat to the time they step on the bus to leave Ward's Ferry. That area is very dangerous with sliding rock, people up above dropping rocks down on you down below, and just carrying equipment on steep slopes with no horizontal trail is a prime [situation] for workmen's comp claims or for people spraining ankles. This is a very dangerous place. The take-out is way more dangerous than the rapids."[31]

b. Why BLM's statements are unfounded or erroneous.

BLM has offered no evidence to support its hyperbole about the safety of the take-out at Wards Ferry. In the 40 years that tens of thousands of boaters have been exiting the Tuolumne River at Wards Ferry Bridge, no fatalities or serious injuries have been reported to the Districts, who compile statistics on all such events within the Project Boundary. Local fire department records show only one medical dispatch to Wards Ferry in the past seven years, and that event apparently did not involve a whitewater boater. None of the scores of comments submitted in the FERC docket identified specific cases of recreational users being injured at Wards Ferry. By contrast, seven deaths have been reported from persons rafting or kayaking the upper Tuolumne

[29] Ex. D (DOI), p. 132.

[30] *Id.*, p. 164.

[31] *Id.*, pp. 141-142 (quoting focus group participant, Study RR-02 (Ex. J), p. 70).

River and over 30 deaths and serious injuries have been reported on other parts of Don Pedro Reservoir, as itemized in the Districts' amended final license application.

Neither of the two Forest Service reports that recommended that the government fund improvements to Wards Ferry cited safety as a reason for the improvements. And if safety were indeed a concern of BLM, one would have expected the Forest Service and BLM to have implemented the recommended improvements years ago.

c. Why the factual dispute is material.

The allegedly highly unsafe conditions at Wards Ferry is a key rationale for BLM's demand that the Districts fund elaborate improvements at the site. A finding that BLM's assertion is wrong could cause BLM to either withdraw or modify the mandatory condition.[32]

d. Specific citations to information relied on by the Districts

- Ex. B, U.S. Forest Service, Tuolumne Wild and Scenic River Management Plan (May 1988).
- Ex. F, U.S. Forest Service, Stanislaus National Forest, Forest Plan Direction (Mar. 2017).
- Ex. Q, AFLA Attachment C – Ward's Ferry Take-Out 2016 Observations Technical Memorandum.
- Exs. R – T, Videos taken During the July 2016 Observations.
- Ex. U, AFLA, Ex. H, Plans and Ability of Applicants to Operate the Don Pedro Hydroelectric Project, Table 2.1-1.
- Ex. AA, Susan Norman, U.S. Forest Service, Tuolumne River Whitewater Recreation Use Analysis and Monitoring Evaluation (Jan. 29, 2001).

[32] 43 C.F.R. § 45.2.

- Ex. AC, Videos (Aerial) of Lumsden Campground (taken Feb. 24, 2018).
- Exs. AF-AH Videos (Aerial) of Wards Ferry Bridge Area (taken Feb. 28, 2018).
- Exs. AJ-AM Videos (Ground) of Wards Ferry Bridge Area (taken Feb. 28, 2018).
- Ex. 18, American Whitewater, *Accident Database*, *available at*: https://www.americanwhitewater.org/content/Accident/.
- Exs. 25 – 27, Cal Fire Response Area Activity Report, 2010-2017.
- Ex. 28, Selection of Photos of Boaters Carrying Rafts up from the River.
- Ex. 75, Tuolumne River Trust, Meral's Pool Ramp, Whitewater Put-in-Revitalization, *available at* https://www.flipcause.com/secure/cause_pdetails/MTY0MTQ=#lightbox[group]/0/.

Disputed Issue of Material Fact No. 8:

Whether the take-out/access paths at Wards Ferry are almost impassable in places.

a. Specific factual assertions made, implied, or relied upon by BLM.

- "Currently, the takeout path/access road is almost impassable in places due to the continued erosion caused from the water fluctuations of the reservoir on an annual basis."[33]
- "Figure 2. Shows the takeout path/access road that is almost impassable in places."[34]

b. Why BLM's statements are unfounded or erroneous.

Pictures and videos of people actually using the paths at Wards Ferry illustrate that the paths are passable. Indeed, tens of thousands of boaters have used the take-out path in the past 40 years. The conditions of the paths above the reservoir water line are no different than one would encounter on trails in federally-managed parks.

c. Why the factual dispute is material.

The allegedly impassability of the paths underlies BLM's demand that the Districts carve new paths out of the hillsides in the canyon. A finding that BLM's assertion is wrong could prompt BLM to either withdraw or modify this component of the mandatory condition.[35]

d. Specific citations to information relied on by the Districts.

- Ex. Q, AFLA Attachment C – Ward's Ferry Take-Out 2016 Observations Technical Memorandum.
- Exs. R – T, Videos taken During the July 2016 Observations.
- Ex. U, AFLA Exhibit H – Plans and Ability of Applicants to Operate the Don Pedro Hydroelectric Project

[33] Ex. D (DOI), p. 132.

[34] *Id.*, p. 134.

[35] 43 C.F.R. § 45.2.

- Ex. AC, Videos (Aerial) of Lumsden Campground (taken Feb. 24, 2018).
- Exs. AF-AH Videos (Aerial) of Wards Ferry Bridge Area (taken Feb. 28, 2018).
- Exs. AJ-AM Videos (Ground) of Wards Ferry Bridge Area (taken Feb. 28, 2018).
- Ex. 28, Selection of Photos of Boaters Carrying Rafts up from the River.
- Exs. 71 – 74, February 2017 Photographs of Wards Ferry Bridge Area.
- Ex. 75, Tuolumne River Trust, Meral's Pool Ramp, Whitewater Put-in-Revitalization, *available at* https://www.flipcause.com/secure/cause_pdetails/MTY0MTQ=#lightbox[group]/0/.
- Exs. [X-X], February 2017 Videos of Wards Ferry Bridge Area.

Disputed Issue of Material Fact No. 9:

Whether an adequate take-out at Wards Ferry needs to be able to simultaneously accommodate six groups of rafters, with up to six rafts each.

a. Specific factual assertions made, implied, or relied upon by BLM.

- "Providing a launch/retrieval facility at Ward's Ferry Bridge that will accommodate at least six vehicles at reservoir/rivers edge at all pool elevations and down to river level appears to be the minimum action to solve the dangerous situation presently existing there (Stanley 2017)."[36]

- "The permit allows boaters to stay up to three days on this segment of river allowing up to 438 potential number of boaters (52 commercial and 90 non-commercial boaters per day times 3 days) that can be found on the river at any one time. This also equates to 17 large groups of people of 26 people per group and 101 boats that need to exit the river per day. In order to meet the potential number of users and water craft needing to exist the river safely before dark it is important to design a takeout facility large enough to handle this amount of use. Currently it takes a minimum of an hour and 15 minutes for 3 outfitters to pull up equipment and boats by crane and load them in their vehicles off the Wards Ferry Bridge. . . . With the potential of 4-6 commercial raft trips taking out on any given day it takes over 2.5 hours to complete."[37]

b. Why BLM's statements are unfounded or erroneous.

BLM's Section 4(e) Condition No. 13 is predicated on a need that does not exist. It also relies on inflated statistics. BLM quotes an alleged passage from the Tuolumne River Wild and Scenic Management Plan about the number of boaters on the river at any one time, but the document contains no such quote. And contrary to BLM's claim, 17 large groups of people of 26 people per group do not need to exit the Tuolumne River every day. Under the Forest Service's permit system, at most 90 private individuals—most of whom share rafts—may launch from Meral's Pool every day. Most of those permits go unused and few private rafters stay more than

[36] Ex. D (DOI), p. 146 (quoting Stanley 2017).

[37] *Id.*, pp. 139-140.

one day.[38] In addition, commercial rafters are limited to collectively launching two groups per day, with no more than 26 people per group.[39] It would take an unprecedented set of circumstances for over 400 boaters to exit the Tuolumne River at Wards Ferry Bridge on the same day, much less at the same time.

The observations of the Districts' consultant, HDR, of the rafts taking-out at Wards Ferry confirm that flotillas of rafts never converge at Wards Ferry at the same time. HDR was at Wards Ferry for a total of eight days but saw no private whitewater boaters on most of those days. The average number of commercial groups that arrived at Wards Ferry Bridge was 3.5. The greatest number of commercial groups that arrived at Wards Ferry on any one day was five, comprising a total of 17 rafts, and those groups arrived over a three-hour span. This spacing confirmed what the commercial rafters told HDR—that they coordinate arrival times.

c. Why the factual dispute is material.

BLM is mandating that the Districts build an elaborate take-out facility at Wards Ferry that is capable of simultaneous handling 36 rafts (six groups of rafters, with six rafts in each group). The rationale for a facility of this size is that the need exists for it. If that need is determined not to exist, then BLM could either withdraw or modify this component of the mandatory condition.[40]

d. Specific citations to information relied on by the Districts.

- Ex. B, U.S. Forest Service, Tuolumne Wild and Scenic River Management Plan (May 1988).
- Ex. F, U.S. Forest Service, Stanislaus National Forest, Forest Plan Direction (Mar. 2017).

[38] Ex. 29, River Management Society, *Allocating River Use, Appendices*, p. 115, *available at*: http://www.river-management.org/assets/docs/allocation%20sec%205.pdf.

[39] *Id*.

[40] 43 C.F.R. § 45.2.

- Ex. J, AFLA Attachment C – Whitewater Boating Take-Out Improvement Feasibility Study, Report RR-02.

- Ex. Q, AFLA Attachment C – Ward's Ferry Take-Out 2016 Observations Technical Memorandum.

- Exs. R – T, Videos taken During the July 2016 Observations.

- Ex. AA, Susan Norman, U.S. Forest Service, Tuolumne River Whitewater Recreation Use Analysis and Monitoring Evaluation (Jan. 29, 2001).

- Exs. AC-AE, Videos of Lumsden Campground (taken Feb. 24, 2018).

- Exs. AF-AH Videos (Aerial) of Wards Ferry Bridge Area (taken Feb. 28, 2018).

- Exs. AJ-AM Videos (Ground) of Wards Ferry Bridge Area (taken Feb. 28, 2018).

- Ex. 4, U.S. Forest Service, *Recreation Passes & Permits, Tuolumne Wild & Scenic River Permit Reservations, available at*: https://go.usa.gov/xnMV3.

- Ex. 29, River Management Society, *Allocating River Use, Appendices, available at*: http://www.river-management.org/assets/docs/allocation%20sec%205.pdf.

- Ex. 62, Letter from Stephen Welch, President of Tuolumne River Expeditions Inc. (Apr. 25, 1995).

- Ex. 75, Tuolumne River Trust, Meral's Pool Ramp, Whitewater Put-in-Revitalization, *available at* https://www.flipcause.com/secure/cause_pdetails/MTY0MTQ=#lightbox[group]/0/.

Disputed Issue of Material Fact No. 10:

Whether 20-25 parking spots at the two ends of Wards Ferry Bridge and multiple toilets are needed to adequately accommodate recreational users of the Project or BLM-administered land.

a. Specific factual assertions made, implied, or relied upon by BLM.

- "The need to meet public use demands requires at least two restroom facilities with two ports per facility. The current restroom facility is not adequate to accommodate the number of users. Parking is not defined and is inadequate."[41]
- "When over 400 people potentially can be using the Wards Ferry Day Use facility during the afternoons there is a significant need to provide for toilets."[42]

b. Why BLM's statements are unfounded or erroneous.

Just as BLM is inflating the take-out facilities needed to reasonably accommodate whitewater rafters, so too is it exaggerating the parking and restroom needs. BLM is demanding the construction of 20-25 parking spots. HDR's observation was that the existing parking spots were never full on *any* of the eight days observed.

One bathroom currently is available for use by the customers of the commercial rafters. Ample bathrooms are also available at Moccasin Point. Although BLM claims a need to provide bathrooms for the non-rafting public who may choose to fish or lounge by the Tuolumne River at Wards Ferry Bridge, it offers no explanation of how those activities are consistent with its program goals. Perhaps more importantly, BLM offers no evidence to support its supposition of 400 people potentially using the Wards Ferry Bridge site in an afternoon. Indeed, none exists. HDR tallied at most 136 boaters on one afternoon, arriving over the course of a three-hour plus period, plus an uncounted, but presumably smaller, number of persons on the banks. Other comments also

[41] Ex. D (DOI), p. 132.

[42] *Id.*, p. 142.

indicate that recreational users of the area clear out before the whitewater boaters arrive in the late afternoon.

c. Why the factual dispute is material.

BLM is requiring the Districts to pay for and maintain expansive parking and toilets based on the alleged public use demands. If those demands are found to be unnecessary or far less, then BLM could withdraw or modify the mandatory condition.[43]

d. Specific citations to information relied on by the Districts.

- Ex. B, U.S. Forest Service, Tuolumne Wild and Scenic River Management Plan (May 1988).
- Ex. F, U.S. Forest Service, Stanislaus National Forest, Forest Plan Direction (Mar. 2017).
- Ex. I, Turlock and Modesto Irrigation Districts, Order Amending License (1987).
- Ex. J, AFLA Attachment C – Whitewater Boating Take-Out Improvement Feasibility Study, Report RR-02.
- Ex. Q, AFLA Attachment C – Ward's Ferry Take-Out 2016 Observations Technical Memorandum.
- Exs. R – T, Videos taken During the July 2016 Observations.
- Ex. AA, Susan Norman, U.S. Forest Service, Tuolumne River Whitewater Recreation Use Analysis and Monitoring Evaluation (Jan. 29, 2001).
- Exs. AC-AE, Videos of Lumsden Campground (taken Feb. 24, 2018).
- Exs. AF-AM, Videos of Wards Ferry Bridge Area (taken Feb. 24, 2018).
- Ex. 30, Consultation Notes (Nov. 13, 1987).
- Ex. 75, Tuolumne River Trust, Meral's Pool Ramp, Whitewater Put-in-Revitalization, *available at* https://www.flipcause.com/secure/cause_pdetails/MTY0MTQ=#lightbox[group]/0/.

[43] 43 C.F.R. § 45.2.

Disputed Issue of Material Fact No. 11:

Whether the facilities required under the BLM mandatory condition can feasibly be planned and built at Wards Ferry within the schedule specified in the BLM mandatory condition.

a. Specific factual assertions made, implied, or relied upon by BLM.

- "Within one year of license issuance, Licensees shall finalize a Ward's Ferry Day Use Facility Engineered Plan approved by BLM . . . In designing the Ward's Ferry Day Use Recreation Facility, Licensees shall coordinate with all interested parties including agencies and NGO's that request to participate. . . Within four years of license issuance, Licensees shall complete the construction of a BLM approved Ward's Ferry Day Use Recreation Area Facility."[44]

- Elsewhere in its submission to FERC, Interior seeks actions by the Districts "where feasible." For example, Interior asks that "LWM pieces shall be placed within or adjacent to floodplain lowering and planting sites where feasible."[45] The absence of any such caveat in Condition 13 indicates that BLM has judged the requirements it is imposing to be feasible. The inference that BLM has determined that its prescribed facilities at Wards Ferry are technically feasible also is consistent with BLM's own Handbook on Planning for Recreation and Visitor Services, which anticipates that BLM will reject proposals that are not "technically or economically feasible."

b. Why BLM's statements are unfounded or erroneous.

It is highly unlikely that the Districts could meet BLM's schedule, particularly if it refuses to scale back the facilities it is insisting that the Districts construct. Determining a viable plan depends on doing extensive site and feasibility studies, determining how to fit all of the mandated facilities within a confined area, trying to plan any construction in such a confined space without major environmental impacts, and then consulting with a number of outside groups over the parameters of a plan as required by BLM, including the requirement that such facilities be "aesthetically pleasing." That alone will take far more than one year.

[44] Ex. D (DOI), p. 130.

[45] *Id.*, p. 75.

Constructing the take-out facilities (including access roads, ramps, and retaining walls), parking lot, and restrooms will entail digging and blasting into the canyon walls and building facilities which extend into the water well below the normal maximum water level of Don Pedro Reservoir. Before the Districts can begin that work, they will have to secure a number of federal and state permits. They also will need to install cofferdams in the Tuolumne River and may be required to close the river to all traffic for safety reasons. Coordinating and implementing all of those permitting and construction activities will be a multi-year effort that will take more than the four years mandated by BLM. The construction activities would also require extended closures of Wards Ferry Road and potentially improvements of the road by Tuolumne County.

c. Why the factual dispute is material.

A finding that the Districts are unable to comply with the time periods specified in the mandatory condition could convince BLM to either withdraw or modify the Section 4(e) condition.[46]

d. Specific citations to information relied on by the Districts.

- Ex. J, AFLA Attachment C – Whitewater Boating Take-Out Improvement Feasibility Study, Report RR-02.
- Ex. P, BLM Handbook H-8320-1 – Planning for Recreation and Visitor Services.
- Ex. 23, Example Whitewater Boating Put-In And Take-Out Facility Slopes.
- Ex. 31, HDR, Preliminary Drawings of Plan for BLM-Mandated Facilities at Wards Ferry Bridge.
- Ex. 32, BLM PowerPoint of Proposed Facilities.
- Ex. 63, Projected Timeline of Wards Ferry Improvements.
- Ex. 64, U.S. Forest Service, *Trail Design Parameters, Hiker/Pedestrian.*

[46] 43 C.F.R. § 45.2.

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- Ex. 65, U.S. Forest Service, *Trail Class Matrix*.
- Ex. 66, Seismicity and Seismic Ground Motion at Wards Ferry Bridge, Tuolumne County, CA.

Disputed Issue of Material Fact No. 12:

Whether the Districts can feasibly maintain and coordinate different uses of the proposed facilities and ensure the facilities are used in an orderly and safe fashion.

a. Specific factual assertions made, implied, or relied upon by BLM.

- "During the May 1st – October 15th mandatory USFS Tuolumne Wild and Scenic River permit season, Licensees shall provide maintenance, management, & staffing for the duration of license at the takeout facility to ensure that the takeout is being utilized in an orderly and safe fashion. Gates need to be open to the public and commercial outfitters from 2PM – dusk to accommodate vehicles accessing the takeout areas."[47]

- "Licensees shall be required to maintain daily regular cleaning and upkeep of toilet facilities."[48]

- "Licensee shall provide a BLM approved aesthetically pleasing and environmentally appropriate appearance at the Day Use facility."[49]

- "The area is unsafe at times because of a lack of law enforcement patrols."[50]

- "Figure 3: shows vandalism of areas."[51]

b. Why BLM's statements are unfounded or erroneous.

BLM's condition presumes that the Districts can ensure use of the Wards Ferry facilities in an orderly and safe fashion, and keep the facilities clean and aesthetically pleasing. Yet, a trial-type hearing will show that this is not possible. By BLM's own admission, the area is unsafe at times and is subject to vandalism. The crime and vandalism is not limited to Wards Ferry Bridge; vandals also continue to attack the existing restroom at the site and cars parked overnight. Any facilities that the Districts build will become instant targets for vandalism.

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[47] Ex. D (DOI), p. 131.

[48] *Id.*

[49] *Id.*, pp. 132, 143.

[50] *Id.*, p. 132.

[51] *Id.*, p. 136.

BLM does not explain how the Districts can deter vandalism or ensure that competing users of the facilities do not collide. The Districts do not have law enforcement authority; thus, they cannot arrest vandals or disorderly persons or compel competing users of Wards Ferry Bridge to play nicely. As acknowledged by BLM, the Districts cannot rely on existing law enforcement, given the lack of police patrols in that remote part of Tuolumne County.

c. Why the factual dispute is material.

A finding that the Districts are unable to carry out the duties in the mandatory condition could prompt BLM to either withdraw or modify its Section 4(e) condition.[52]

d. Specific citations to information relied on by the Districts.

- Ex. N, U.S. Dep't of Commerce, NOAA Fisheries' Resource Management Goals and Objectives; our Preliminary Federal Power Act § 18 Prescriptions, *etc.* (Jan. 29, 2018).
- Ex. O, Anchor QEA, *Conceptual Engineering Plans for Fish Passage at La Grange and Don Pedro Dams on the Tuolumne River* (Oct. 2017).
- Ex. AB, Districts letter to FERC regarding restroom vandalism (July 9, 1990).
- Ex. AI, Video of Wards Ferry Ground Graffiti (Taken Feb. 24, 2018).
- Ex 7., Exs. 10-15, Exs. 33-34, Ex. 58, Photos of vandalized restroom at Wards Ferry.
- Exs. 8-9, Photos of bomb damage at Wards Ferry restroom.
- Ex. 17, Photo Showing Empty Shotgun Shells on Wards Ferry Bridge.
- Ex. 20, American Whitewater, *Tuolumne, California, Lumsden Campground (Meral's Pool) to Wards Ferry Bridge*, *available at*: https://www.americanwhitewater.org/content/River/detail/id/326/.
- Ex. 32, BLM PowerPoint Showing Early Drawings of Proposed Facilities.
- Ex. 35, Don Pedro Recreation Agency, Park Ranger Rules & Regulations Enforcement Procedure.
- Ex. 61, Drawing of NMFS Pseudo Dam Concept.

[52] 43 C.F.R. § 45.2.

- Exs. 67-70, 76, Photos of Lumsden campground area.

Disputed Issue of Material Fact No. 13:

Whether Wards Ferry Road can safely handle the traffic that would be generated by the construction and operation of the proposed improvements at Wards Ferry.

a. Specific factual assertions made, implied, or relied upon by BLM.

- "Unfortunately, the current existing whitewater boating takeout facility and access for both commercial and non-commercial boaters and general recreational users at Ward's Ferry is highly unsafe for boaters, creates a public safety hazard on the bridge for vehicles and pedestrians, and conflicts with other recreational uses."[53]

- "Develop recreation sites that meet health and safety standards."[54]

- "Tuolumne County has provided a written comment letter explaining what they believe needs to be done in order to provide for safe parking at the Wards Ferry site."[55]

b. Why BLM's statements are unfounded or erroneous.

These statements imply that if the Districts complete the mandated Wards Ferry Bridge site improvements, any safety issues related to boater take-out will be resolved, including egress from Wards Ferry Bridge. In reality, the existing road infrastructure leading to and from Wards Ferry Bridge does not meet safety standards and is inadequate to handle traffic generated by construction work, whitewater boaters, and other recreational uses of the Bridge site. BLM cites only a portion of the letter from Tuolumne County; the remainder states that travel along Wards Ferry Road to and from the Bridge is "dangerous." The County notes that the large trucks and trailers used by the commercial rafters "make it unsafe for other vehicles traveling on the road." In fact, Wards Ferry Road is a narrow road—in many places one lane—with blind curves and few guardrails. It does not meet accepted safety standards.

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[53] Ex. D (DOI),p. 132

[54] *Id.* at 9 (citing BLM's Sierra Resource Management Plan and Record of Decision (Ex. V)).

[55] Ex. D (DOI), p. 142.

Neither BLM nor Tuolumne County is budgeting any improvements to Wards Ferry Road. BLM's Section 4(e) condition is mandating improvements that will generate even more traffic on Wards Ferry Road and thus increase safety risks to whitewater boaters, recreational users, and the general public, in violation of BLM's own stated objectives. In short, BLM is proposing the creation of an attractive nuisance.

c. Why the factual dispute is material.

A finding confirming that Wards Ferry Road cannot safely handle the traffic that would be generated by the construction and use of the improvements at the Wards Ferry Bridge site could prompt BLM to either withdraw or modify its Section 4(e) condition, if it wishes to stay true to its professed objectives.[56]

d. Specific citations to information relied on by the Districts.

- Ex. G, Comments of the Tuolumne County Board of Supervisors (Jan. 16, 2018).
- Ex. AN, Videos of Wards Ferry Road (Taken Feb. 24, 2018).
- Ex. 19, HDR, Google images of Wards Ferry Road.
- Ex. 57, Yosemite Chamber of Commerce, *Wards Ferry Bridge Swimming Hole Tuolumne River*, *available at*: https://www.sierranevadageotourism.org/content/wards-ferry-bridge-swimming-hole-tuolumne-river/sie9bc70f2af98d32a52.

[56] 43 C.F.R. § 45.2.

Disputed Issue of Material Fact No. 14:

Whether the cost of constructing the improvements required by the mandatory condition will be approximately $52.7 million.

a. Specific factual assertions made, implied, or relied upon by BLM.

- "[T]he 4(e) conditions and 10(a) recommendations will benefit public recreation, aquatic resources, riparian resources, terrestrial resources, wildlife resources, and cultural resources while balancing water and power objectives."[57]
- "Maintain existing campground, trail, and day use facilities to accepted BLM Standards."[58]
- "Facilities: 1. Provide a cost-effective transportation and maintenance plan to protect and enhance Wild and Scenic River values, life and property."[59]
- "If the Licensee charges fees at the Ward's Ferry Day Use Recreation Area they must be fair and reasonable maintenance use fees for the duration of license."[60]

b. Why BLM's statements are unfounded or erroneous.

The total cost of the mandated improvements at Wards Ferry will be almost $53 million. This amount dwarfs the $500,000 earlier budgeted by the Forest Service for improvements at this site. The reason for the discrepancy is simple: BLM is mandating improvements that far exceed accepted BLM standards and what the U.S. government itself provides at comparable sites, such as at Lumsden Campground. The primary beneficiaries of these improvements would be for-profit rafting companies, rather than the general public.

The mandatory condition is not cost-effective, in violation of the Forest Service's Wild and Scenic Management Plan, which BLM relies upon in part for its "Resource Objectives," as it

[57] Ex. D (DOI), p. 101.

[58] *Id.*, p. 9.

[59] Ex. V, BLM, *Sierra Resource Management Plan and Record of Decision*, at 9 (relied upon by DOI to define Resource Objectives).

[60] Ex. D (DOI), p. 132.

imposes a cost that far exceeds the benefits. The mandatory condition also fails to balance public recreation with water and power objectives. BLM is proposing to bar the Districts from recouping any of the $52.7 million of capital costs and to limit the Districts only to recovery of maintenance costs. Thus, the capital costs for the Wards Ferry improvements will be borne by the Districts' public water and power customers, even though they will receive little, if any, benefit from the improvements.

c. Why the factual dispute is material.

The Forest Service budgeted $500,000 for improvements to Wards Ferry. A finding that the cost of the mandated improvements at Wards Ferry would cost almost $53 million could cause BLM to either withdraw or modify its Section 4(e) condition, as it would demonstrate that the improvements fail any cost-benefit analysis. Not only does the Wild and Scenic Management Plan require cost-effective improvements, BLM's own Handbook on Planning for Recreation and Visitor Services anticipates that BLM will reject proposals that are not "technically or economically feasible." In addition, Section 33 of the FPA requires BLM to take the cost of its Section 4(e) condition into consideration, as it must accept any alternative proposed by the Districts if the alternative condition provides for the adequate protection and utilization of the affected reservation and costs significantly less to implement than BLM's preliminary condition.[61] Either of the two alternative conditions the Districts are proposing in their contemporaneous Section 33 alternative conditions submittal will provide for the adequate protection and utilization of BLM-managed lands and will cost significantly less to implement than BLM's Condition No. 13. Therefore, BLM must adopt one of the Districts' two alternatives.

[61] 16 U.S.C. § 823d(a)(2)(B)(i).

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d. Specific citations to information relied on by the Districts.

- Ex. F, U.S. Forest Service, Stanislaus National Forest, Forest Plan Direction (Mar. 2017).
- Ex. N, U.S. Dep't of Commerce, NOAA Fisheries' Resource Management Goals and Objectives; our Preliminary Federal Power Act § 18 Prescriptions, Reserving our Authority to Prescribe Fishways, *etc.* (Jan. 29, 2018).
- Ex. O, Anchor QEA, *Conceptual Engineering Plans for Fish Passage at La Grange and Don Pedro Dams on the Tuolumne River* (Oct. 2017).
- Ex. P, BLM Handbook H-8320-1 – Planning for Recreation and Visitor Services.
- Ex. V, U.S. Dep't of the Interior, Bureau of Land Management, *Sierra Resource Management Plan and Record of Decision* (Feb. 2008).
- Ex. AD, Videos of Lumsden Campground (taken Feb. 24, 2018).
- Ex. 31, HDR, Preliminary Drawing of Plan for BLM-Mandated Facilities at Wards Ferry Bridge.
- Ex. 36, Wards Ferry Whitewater Boating Takeout Analysis, Conceptual Cost Estimates.
- Ex. 37, OMB Circular A-25 (Revised).
- Ex. 61, Drawing of NMFS Pseudo Dam Concept.
- Ex. 66, Seismicity and Seismic Ground Motion at Wards Ferry Bridge, Tuolumne County, CA.
- Exs. 67-70, 76, Photos of Lumsden campground area.
- Ex. 79, Cost Estimate of BLM Condition.

Disputed Issue of Material Fact No. 15:

Whether the annual cost of operating and maintaining the Wards Ferry facilities will be at least $282,000.

a. Specific factual assertions made, implied, or relied upon by BLM.

- "[T]he 4(e) conditions and 10(a) recommendations will benefit public recreation, aquatic resources, riparian resources, terrestrial resources, wildlife resources, and cultural resources while balancing water and power objectives."[62]

- "Maintain existing campground, trail, and day use facilities to accepted BLM Standards."[63]

- "Maintenance and management [of the facilities] shall be the responsibility of the Licensees or their designee . . . for the duration of the license that includes the following components at the Ward's Ferry Bridge area:

  . . .

  During the May 1st – October 15th mandatory USFS Tuolumne Wild and Scenic River permit season, Licensees shall provide maintenance, management, & staffing for the duration of license at the takeout facility to ensure that the takeout is being utilized in an orderly and safe fashion.

  . . .

  Licensees shall provide and manage appropriate toilet facilities (at least 2 ADA toilets). Toilet facilities will be open to the public on a daily basis from May 1st – October 15th. Licensees shall be required to maintain daily regular cleaning and upkeep of toilet facilities.

  . . .

  Licensee is responsible for upkeep and replacement of tables."[64]

b. Why BLM's statements are unfounded or erroneous.

The yearly cost of operating and repairing the mandated improvements at Wards Ferry will be at $282,000. It will be well in excess of this amount if security personnel are unable to deter

[62] Ex. D (DOI), p. 101.

[63] *Id.*, p. 9.

[64] *Id.*, pp. 130-132.

vandalism and the Districts are forced to keep replacing the facilities BLM is demanding the Districts to install. The size of this monetary burden shows that the Section 4(e) condition does not meet BLM's stated objective, as it imposes maintenance obligations that exceed BLM's standards and the standards by which the U.S. government maintains its own facilities on the Tuolumne River.

The Section 4(e) condition also fails to balance public recreation with water and power objectives. BLM mandates that the user fees imposed by the Districts "must be fair and reasonable."[65] BLM presumably will veto any fees that it deems to not meet this undefined standard. Thus, the O&M costs for the Wards Ferry improvements may be largely borne by the Districts' water and power customers, even though they will receive little, if any, benefit from the improvements.

c. Why the factual dispute is material.

A finding that the annual O&M costs at Wards Ferry would be at least $282,000 per year could cause BLM to either withdraw or modify its Section 4(e) condition, as it would demonstrate that its proposal fails any cost-benefit analysis and would unfairly burden water and power customers. BLM's own Handbook on Planning for Recreation and Visitor Services anticipates that BLM will reject proposals that are not "technically or economically feasible." In addition, either of the two alternative conditions the Districts are proposing in their contemporaneous Section 33 alternative conditions submittal will provide for the adequate protection and utilization of BLM-managed lands and will cost significantly less to implement than BLM's Condition No. 13. Therefore, BLM must adopt one of the Districts' two alternatives.

[65] *Id.*, p. 132.

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d. Specific citations to information relied on by the Districts.

- Ex. P, BLM Handbook H-8320-1 – Planning for Recreation and Visitor Services.
- Ex. AD, Videos of Lumsden Campground (taken Feb. 24, 2018).
- Ex. 79, Cost Estimate of BLM Condition.

B. Condition No. 12 (Operation, Maintenance, and Administration Agreement)

Disputed Issue of Material Fact No. 16:

Whether BLM's recovery of operation, maintenance, and administration costs from the Districts would result in a double-billing of the Districts.

a. Specific factual assertions made, implied, or relied upon by BLM.

- "Licensees shall annually pay BLM Mother Lode Field Office for their staff's involvement in participating in monitoring and oversight of Licensees' project operations on BLM land."
- "O&M costs are necessary because BLM would not be spending staff time and money on monitoring, oversight, and addressing project impacts if it were not for the project."
- "Such funds will be used by BLM to offset operation, maintenance, management, monitoring and administration costs incurred while managing public use of BLM administered lands in and around the Don Pedro Hydroelectric Project."[66]

b. Why BLM's statements are unfounded or erroneous.

BLM's statements presume that the agency needs to be separately reimbursed by the Districts to ensure cost recovery. However, the yearly license fees that the Districts pay to FERC under Section 10(e)(1) of the FPA are supposed to encompass their entire cost obligation vis-à-vis federal agencies like BLM. Reimbursable costs covered by the annual fee include "any reasonable and necessary costs incurred by Federal and State fish and wildlife agencies and other natural and cultural resource agencies in connection with studies or other reviews carried out by such agencies for purposes of administering their responsibilities under this subchapter."[67] There is a separate charge to compensate BLM "for the use, occupancy, and enjoyment of its lands or other

[66] Ex. D (DOI), p. 129.

[67] 16 U.S.C. § 803(e)(1).

property."[68] Imposition of preliminary Section 4(e) Condition No. 12 will result in the Districts being double-billed, contrary to the FPA.

c. Why the factual dispute is material.

A finding that BLM's Section 4(e) Condition No. 12 will result in double-billing, contrary to the FPA, could cause the agency to withdraw its proposed condition.

d. Specific citations to information relied on by the Districts.

- Ex. 52, FERC, Office of the Chief Financial Officer, 2016 Actual FERC Administrative Charges, 2016 Actual Non-FERC Administrative Charges.
- Ex. 77, FERC Government Land Charges Invoice (2016).

[68] *Id.*

C. Condition No. 4 (Woody Debris Material Management Plan)

Disputed Issue of Material Fact No. 17:

Whether BLM was aware before 2017 of the Districts disposing of woody debris on land managed by BLM.

a. Specific factual assertions made, implied, or relied upon by BLM.

- "To clear the woody material, the Licensees have been stock piling the wood on BLM [land] and burning it on site…. This practice was occurring without proper authorization from BLM."
- "BLM was 'not aware of the Licensees burning on BLM land.'"[69]

b. Why BLM's statements are unfounded or erroneous.

BLM was well aware that for approximately 30 years the Districts have been burning woody debris on BLM-administered land.

c. Why the factual dispute is material.

BLM, by requiring a plan specifying that its personnel personally oversee the burning of all woody debris on BLM land, is attempting to alter a well-established practice on woody debris disposal. Every year, the Districts collect woody debris that has floated down the Tuolumne River from U.S. government land. The Districts corral the debris with booms and then dispose of it by burning when the weather is cooler and any fire threat has abated. The only suitable location for disposing of the woody debris is on BLM-managed land. During the term of the existing license, BLM personnel have not seen a need to personally oversee the burns.

Part of BLM's professed rationale for altering the established practice is that it was unaware of what the Districts have been openly doing for the past 30 years. If that rationale is found to be false, then BLM could withdraw or revise the mandatory condition.

[69] Ex. D (DOI), p. 108.

d. Specific citations to information relied on by the Districts.

- Ex. M, AFLA Exhibit E – Environmental Report, Appendix E-5, Woody Debris Management Plan.
- Ex. W, Don Pedro Log and Debris Removal Plan (Feb. 4, 1988).
- Ex. X, *Turlock and Modesto Irrigation Districts*, Order Approving Log and Debris Removal Plan, 43 FERC ¶ 62,160 (1988).
- Ex. Y, U.S. Dep't of the Interior, Bureau of Land Management, Responses to Draft License Applications (Feb. 28, 2014).
- Ex. 53, Maps of Districts Burn Areas.

Disputed Issue of Material Fact No. 18:

Whether the Districts can feasibly keep the Tuolumne River navigable and the Wards Ferry take-out accessible, as required under BLM's mandatory condition, if BLM must supervise removal and disposal of the woody debris that accumulates in the Tuolumne River.

a. Specific factual assertions made, implied, or relied upon by BLM.

- Large woody debris management can "provide safe navigability for flatwater and whitewater recreational users from the river segment below the Tuolumne River Wild and Scenic River boundary to the Ward's Ferry Day Use Facility."[70]
- "There is a workable solution to avoiding boating hazards and adverse effects to the California red-legged frog from LWM stockpiling and burning."[71]

b. Why BLM's statements are unfounded or erroneous.

The BLM-mandated condition is not workable. Although it mirrors in large part the plan proposed by the Districts, it adds an unnecessary requirement for BLM supervision. The Districts have burned woody debris on BLM-managed land for 30 years without incident, by coordinating their efforts with state officials. Having to also schedule BLM supervision of the disposal is not feasible. In fact, BLM has already demonstrated that it will not work. BLM has delayed woody debris disposal for many months, and there is a chance that its inaction will prevent disposal from taking place before weather conditions become unfavorable, thereby impeding river traffic and boater take-out at Wards Ferry. Given BLM's track record, the Districts will not be able to assure that the Tuolumne River remains navigable if the condition is imposed.

c. Why the factual dispute is material.

A finding that the Districts will not be able to assure the Tuolumne River remains navigable could cause BLM to withdraw or revise its Section 4(e) condition.

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[70] Ex. D (DOI), p. 108.

[71] *Id*., p. 26.

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d. Specific citations to information relied on by the Districts.

- Ex. 54, Synopsis of Don Pedro Recreation Agency Experience in Trying to Obtain BLM Approved Prescribed Burn Plan for 2017 Tuolumne River Woody Debris Burn Project.

- Ex. 55, Email from David R. Jigour to Paul Campbell, Austin Ewell, regarding Districts' efforts to meet BLM requirements (Dec. 12, 2017).

- Ex. 56, Compilation of Burn Areas Photos (Aug. 30, 2017).

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APPENDIX B

EXHIBIT LIST

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Exhibit List

I. Exhibits in FERC Record*

Ex.	Description	FERC Accession Number
A	Amended Final License Application, Exhibit A — Don Pedro Project Description.	20171011-5067
B	U.S. Forest Service, Tuolumne Wild and Scenic River Management Plan (May 1988) (*in* Tuolumne River Relicensing Work Group statement of existing information relevant to the Don Pedro Project Relicensing).	20110608-5021
C	National Park Service, Tuolumne Wild and Scenic River, Draft Comprehensive Management Plan and Environmental Impact Statement, Vol. I (Jan. 2013).	20180227-5093
D	U.S. Dep't of the Interior, Comments, Recommendations, Preliminary Terms and Conditions, and Preliminary Fishway Prescriptions (Jan. 29, 2018).	20180129-5298
E	Amended Final License Application, Exhibit E — Environmental Report.	20180129-5436
F	U.S. Forest Service, Stanislaus National Forest, Forest Plan Direction (Mar. 2017).	20180227-5093
G	Comments of the Tuolumne County Board of Supervisors (Jan. 16, 2018).	20180117-5004
H	Comments and Recommendations of Conservation Groups (Jan. 29, 2018).	20180129-5200
I	*Turlock and Modesto Irrigation Districts*, Order Amending License (1987).	19870210-0294 38 FERC ¶ 61,097

* Some exhibits are available from FERC only in microfilm. Those exhibits are marked by an asterisk and are attached hereto.

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J	AFLA Attachment C – Whitewater Boating Take-Out Improvement Feasibility Study, Report RR-02.	20171011-5067
K	Final License Application, Exhibit E – Environmental Report, Appendix E-3, Draft Recreation Resource Management Plan.	20140428-5069
L	Districts Response to Deficiency of License Application and Additional Information Request (Nov. 27, 2017).	20171127-5105
M	AFLA Exhibit E – Environmental Report, Appendix E-5, Woody Debris Management Plan.	20171011-5067
N	U.S. Dep't of Commerce, NOAA Fisheries' Resource Management Goals and Objectives; our Preliminary Federal Power Act § 18 Prescriptions, Reserving our Authority to Prescribe Fishways, *etc.* (Jan. 29, 2018).	20180129-5258
O	Anchor QEA, *Conceptual Engineering Plans for Fish Passage at La Grange and Don Pedro Dams on the Tuolumne River* (Oct. 2017).	20171113-5347
P	U.S. Dep't of the Interior, Bureau of Land Management, H-8320-1 – Planning for Recreation and Visitors Services.	20180227-5093
Q	AFLA Attachment C – Ward's Ferry Take-Out 2016 Observations Technical Memorandum.	20171011-5067
R	Video of WF Bridge Takeout 7/2/16	[Pending – Filed February 28, 2018]
S	Video of WF Bridge Takeout 7/17/16-1	[Pending – Filed February 28, 2018]
T	Video of WF Bridge Takeout 7/17/16-2	[Pending – Filed February 28, 2018]
U	AFLA Exhibit H – Plans and Ability of Applicants to Operate the Don Pedro Hydroelectric Project	20171011-5067

V	U.S. Dep't of the Interior, Bureau of Land Management, *Sierra Resource Management Plan and Record of Decision* (Feb. 2008).	20180130-5060
W*	Don Pedro Log and Debris Removal Plan (Feb. 4, 1988).	19880427-0319
X	*Turlock and Modesto Irrigation Districts*, Order Approving Log and Debris Removal Plan (1988).	19880517-0235 43 FERC ¶ 62,160
Y	U.S. Dep't of the Interior, Bureau of Land Management, Responses to Draft License Applications (Feb. 28, 2014).	20140303-5117
Z	Tuolumne Wild & Scenic River, Final Environmental Statement and Study Report (Nov. 9, 1979).	20180227-5093
AA	Susan Norman, U.S. Forest Service, Tuolumne River Whitewater Recreation Use Analysis and Monitoring Evaluation (Jan. 29, 2001).	20110608-5021
AB*	Districts letter to FERC regarding restroom vandalism (July 9, 1990).	19900718-0245
AC	Videos: Lumsden Aerial 1-6.	[Pending – Filed February 28, 2018]
AD	Videos: Lumsden Campground 1-3.	[Pending – Filed February 28, 2018]
AE	Videos: Lumsden Road 1-2.	[Pending – Filed February 28, 2018]
AF	Video: Wards Ferry Aerial RL Trail.	[Pending – Filed February 28, 2018]
AG	Video: Wards Ferry Aerial RR Trail 1-2.	[Pending – Filed February 28, 2018]
AH	Video: WF Aerial.	[Pending – Filed February 28, 2018]
AI	Video: Wards Ferry Ground Graffiti.	[Pending – Filed February 28, 2018]
AJ	Video: Wards Ferry Ground RL to Abutment.	[Pending – Filed February 28, 2018]
AK	Video: Wards Ferry Ground RL Trail Upper.	[Pending – Filed February 28, 2018]

AL	Video: Wards Ferry Ground RL.	[Pending – Filed February 28, 2018]
AM	Videos: Wards Ferry Ground RR Trail 1-4.	[Pending – Filed February 28, 2018]
AN	Wards Ferry Road 1-6.	[Pending – Filed February 28, 2018]

II. Exhibits Not in FERC Record

Ex.	Description
1	U.S. Dep't of the Interior, Bureau of Land Management, *Tuolumne Wild and Scenic River*, *available at*: https://www.blm.gov/programs/national-conservation-lands/california/tuolumne-wsr.
2	U.S. Forest Service, Stanislaus National Forest, Tuolumne Wild & Scenic River, *available at*: https://www.fs.usda.gov/recarea/stanislaus/recarea/?recid=14975.
3	CaCreeks.com, *Merced River below El Portal*, *available at*: http://www.cacreeks.com/mercd140.htm.
4	U.S. Forest Service, *Recreation Passes & Permits, Tuolumne Wild & Scenic River Permit Reservations*, *available at*: https://go.usa.gov/xnMV3.
5	U.S. Forest Service, *Tuolumne Wild & Scenic River Non-Commercial Boating Permit Application*, *available at*: https://go.usa.gov/xnMV8.
6	Don Pedro Recreation Agency, Special Use Permit Compilation, 2017 Season.
7	Photo of Wards Ferry Restroom Showing Shotgun Damage, Dumping, and Graffiti.
8	Photo of Wards Ferry Restroom Door Showing Bomb Damage-1.
9	Photo of Wards Ferry Restroom Door Showing Bomb Damage-2.
10	Photo of Wards Ferry Restroom Showing Graffiti-1.
11	Photo of Wards Ferry Restroom Showing Graffiti-2.

12	Photo of Wards Ferry Restroom Showing Graffiti-3.
13	Photo of Wards Ferry Restroom Showing Graffiti-4.
14	Photo of Wards Ferry Restroom Showing Graffiti-5.
15	Photo of Wards Ferry Restroom Showing Graffiti-6.
16	Photo Showing Graffiti on Wards Ferry Bridge.
17	Photo Showing Empty Shotgun Shells on Wards Ferry Bridge.
18	American Whitewater, *Accident Database*, *available at*: https://www.americanwhitewater.org/content/Accident/.
19	HDR, Google images of Wards Ferry Road.
20	American Whitewater, *Tuolumne, California, Lumsden Campground (Meral's Pool) to Wards Ferry Bridge*, *available at*: https://www.americanwhitewater.org/content/River/detail/id/326/.
21	CaCreeks.com, *Tuolumne River below Lumsden*, *available at*: http://www.cacreeks.com/tuol-lum.htm.
22	Don Pedro Lake, *Recreation Area*, *available at*: http://www.donpedrolake.com/recreation.
23	Example Whitewater Boating Put-In And Take-Out Facility Slopes.
24	Dreamflows Bulletin Board, *Dave's Tuolumne River Tow Service*, *available at*: http://www.dreamflows.com/forums/viewTopic.php?topic=447.
25	Cal Fire Response Area Activity Report, 2010-2017.
26	Cal Fire Response Area Activity Report, 2010-2017.
27	Cal Fire Response Area Activity Report Key.
28	Selection of Photos of Boaters Carrying Rafts up from the River.
29	River Management Society, *Allocating River Use*, *Appendices*, *available at*: http://www.river-management.org/assets/docs/allocation%20sec%205.pdf.
30	Consultation Notes (Nov. 13, 1987).

31	HDR, Preliminary Drawing of Plan for BLM-Mandated Facilities at Wards Ferry Bridge.
32	BLM PowerPoint Showing Early Drawings of Proposed Facilities.
33	Photo of Damage to Restroom Door Lock-1
34	Photo of Damage to Restroom Door Lock-2
35	Don Pedro Recreation Agency, Park Ranger Rules & Regulations Enforcement Procedure.
36	Wards Ferry Whitewater Boating Takeout Analysis, Conceptual Cost Estimates.
37	Office of Management and Budget, Circular A-25 (Revised).
38	California Whitewater, *Flows, Tuolumne River*, *available at*: http://www.californiawhitewater.com/rivers/tuolumne/flows/.
39	Dreamflows Tuolumne, *Cherry Creek Confluence Release Schedule (June 2018-Sept. 2018)*, *available at*: http://www.dreamflows.com/Pages/TuolumneSchedule.php.
40	Tuolumne River Flow Charts (1990-2014).
41	Malcolm Schaeffer Photos of Erosion at Wards Ferry.
42	Photo of Wards Ferry c 1980-1.
43	Photo of Wards Ferry c 1980-2.
44	Photo of Wards Ferry c 1980-3.
45	Photo of Wards Ferry c 1981-1.
46	Photo of Wards Ferry c 1981-2.
47	Photo of Wards Ferry c 1981-3.
48	Photo of Wards Ferry c 1981-4.
49	Modesto Irrigation District, *Greening of Paradise Valley – The First 100 Years of the Modesto Irrigation District*, Ch. 17, *available at*: http://www.mid.org/about/history/grnng_of_pvy.pdf.

50	Dave Lavender, The Herald Dispatch, *Outdoor Tourism Changes with Whitewater Declines* (Feb. 20, 2017), *available at*: http://www.herald-dispatch.com/features_entertainment/outdoor-tourism-changes-with-whitewater-declines/article_0acc8055-29c2-5c16-9c48-1e4d8b3eadd3.html.
51	Statista, *Total Number of Kayaks Sold in the U.S. from 2011 to 2013*, *available at*: https://www.statista.com/statistics/215488/total-kayak-units-sold-in-the-us/.
52	FERC, Office of the Chief Financial Officer, 2016 Actual FERC Administrative Charges, 2016 Actual Non-FERC Administrative Charges.
53	Maps of Districts Burn Areas.
54	Synopsis of Don Pedro Recreation Agency Experience in Trying to Obtain BLM Approved Prescribed Burn Plan for 2017 Tuolumne River Woody Debris Burn Project.
55	Email from David R. Jigour to Paul Campbell, Austin Ewell, regarding Districts' efforts to meet BLM requirements (Dec. 12, 2017).
56	Compilation of Burn Areas Photos (Aug. 30, 2017).
57	Yosemite Chamber of Commerce, *Wards Ferry Bridge Swimming Hole Tuolumne River*, *available at*: https://www.sierranevadageotourism.org/content/wards-ferry-bridge-swimming-hole-tuolumne-river/sie9bc70f2af98d32a52.
58	Photo of Damaged Toilet at Wards Ferry Restroom.
59	Survey of Lands Near Wards Ferry.
60	Aggregation of Annual Rafters on the Upper Tuolumne River Using Commercial Rafting Services (2007-2017).
61	Drawing of NMS Pseudo Dam Concept.
62	Letter from Stephen Welch, President of Tuolumne River Expeditions Inc. (Apr. 25, 1995).
63	Projected Timeline of Wards Ferry Improvements.
64	U.S. Forest Service, *Trail Design Parameters, Hiker/Pedestrian.*

65	U.S. Forest Service, *Trail Class Matrix*.
66	Seismicity and Seismic Ground Motion at Wards Ferry Bridge, Tuolumne County, CA.
67	Photo of Lumsden Boat Launch.
68	Photo of Lumsden Launch Area-1.
69	Photo of Lumsden Launch Area-2.
70	Photo of Lumsden Launch Area-3.
71	Photo of Wards Ferry Lower Path.
72	Photo of Wards Ferry Lower Path-2.
73	Photo of Wards Ferry Lower Path-3.
74	Photo of Red Hills Trailhead.
75	Tuolumne River Trust, Meral's Pool Ramp, Whitewater Put-in-Revitalization, *available at* https://www.flipcause.com/secure/cause_pdetails/MTY0MTQ=#lightbox[group]/0/.
76	Photos of Lumsden Campground Restroom (Feb. 24, 2018).
77	FERC Government Land Charges Invoice (2016).
78	James Damschroder, The Motherlode Union Democrat, *Low Reservoir Reveal Jacksonville* (Dec. 2, 2008), *available at*: http://www.uniondemocrat.com/csp/mediapool/sites/UnionDemocrat/LocalNews/story.csp?cid=3754087&sid=753&fid=151.
79	Cost Estimate of BLM Condition

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APPENDIX C

WITNESS LIST

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WITNESS LIST

1. *Chris Collett*
Don Pedro Recreation Agency
10201 Bonds Flat Road
La Grange, CA 95239
(209)852-2396 x8714

Mr. Collett is the Recreation Department Manager for the Don Pedro Recreation Agency. He has served with the Agency for 11 years. He has a B.A. from the Union Institute and University and an MBA from California Coast University.

Mr. Collett will testify regarding the conditions at Wards Ferry, the law enforcement presence there, the number of reported injuries there versus those reported on Don Pedro Reservoir, and the vandalism experienced at Wards Ferry. Mr. Collett will testify about the feasibility of towing rafts to Moccasin Point and the facilities presently available at that site. He will further offer an opinion, based on his experience running DPRA and his knowledge of conditions at Wards Ferry, whether the Districts can realistically: (1) maintain the facilities demanded by BLM and protect them from vandalism, and (2) coordinate different uses of the proposed facilities and ensure the facilities are used in an orderly and safe fashion.

Based on the same experience, Mr. Collett will estimate the costs the Districts will incur in attempting to operate and maintain the Wards Ferry Facilities in accordance with the 4(e) condition. He also will testify about DPRA communications with BLM in an unsuccessful effort to secure BLM approval of woody debris disposal in late 2017 and early 2018.

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2. *Nancy H. Craig*
1825 N. Tegner St.
Wickenburg, AZ 85390
928.273.5772

Nancy Craig has 28 years' experience in land use, recreation, and cultural resource management in the hydropower industry. She has completed regulatory filings and developed study plans, study reports, and management plans for recreation, land use, aesthetics, and cultural resources. She obtained a B.A. in Chemistry and Spanish from Berea College, and an M.A. in Philosophy from the University of Tennessee. She is presently in the J.D. Program at Arizona State University's Sandra Day O'Connor College of Law. She was certified by the National Recreation and Park Association as a certified Park and Recreation Professional, the American Institute of Certified Planners as a Registered Planner (AICP), and as a Water Safety Instructor.

Ms. Craig will testify regarding HDR's 2016 observations about the boating take-out at Wards Ferry Bridge, including the number of rafts and passengers and how long it took them to offload, statements made by commercial rafters on how they coordinate arrivals at Wards Ferry, and the interaction with other recreational users. She also will testify about conditions at Wards Ferry Bridge, including whether take-out/access paths are passable and whether take-out conditions are highly unsafe. She will address non-rafting recreation at the site and the feasibility of towing rafts to Moccasin Point. She also may testify about the Forest Service permit system, facilities at other whitewater put-in and take-out locations, and national trends in whitewater rafting. She further may offer her opinion on whether 20-25 parking places and four toilets are needed at Wards Ferry Bridge.

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3. *Malcolm F. Schaeffer, P.G.*
440 South Church Street, Suite 900
Charlotte, NC 28202-2075
704.248.3694

Mr. Schaeffer is a professional engineering geologist with 42 years of experience, involving projects across the United States. Mr. Schaeffer has focused on the seismological, geological, and hydrogeological aspects of hydroelectric, nuclear, and other projects. He received a B.S. in Geology from Georgia State University and an M.S. in Geophysical Sciences (Engineering Geology) from the Georgia Institute of Technology.

Mr. Schaeffer will testify concerning geological conditions at Wards Ferry, the impact of fluctuations in the level of Don Pedro Reservoir on the soil and rocks in that area, and whether fluctuations in Don Pedro Reservoir levels would have caused any erosion of the footpaths near Wards Ferry Bridge in the past few years. He will explain photos showing the condition of the river shores nears Wards Ferry Bridge.

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4. *John L. Devine, P.E.*
970 Baxter Blvd, Suite 301
Portland, Maine 04103
207-775-4495

Mr. Devine began his career working for the U.S. Bureau of Reclamation as a Hydraulic Engineer on major water resource projects. His project roles in the private sector have included hydraulic design, lead civil design engineer, Project Engineer, and Project Manager for the planning, design, FERC licensing/relicensing, and construction of hydropower facilities. He is a former President of the National Hydropower Association, a founding member of hydropower consulting firm Devine Tarbell & Assoc., and in 2015 was selected by the Maine Chapter of the American Society of Civil engineers as the Civil Engineer of the Year. He received a B.S. in Civil Engineering from Union College in 1973 and his career in hydropower and water resources has spanned almost 45 years.

Mr. Devine will testify regarding the physical and logistical constraints of building the facilities demanded by Interior at the Wards Ferry site, given the narrow canyon terrain and access roads, and the steps, such as road closures, building cofferdams, and blocking river traffic, that would be needed to complete the facilities. He also will explain the process for obtaining permits for constructing the required facilities, and offer an opinion on the feasibility of securing approval of a facilities plan within one year and completing the required facilities within four years.

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5. *Michael C. Garello, P.E.*
4717 97th Street NW
Gig Harbor, WA 98332
253.432.5031

Mr. Garello is a licensed professional civil engineer and Senior Water Resources engineer. His experience includes the assessment, design, and implementation of river mechanics and fish passage projects. He has participated in numerous feasibility and design processes, often in collaboration with state and federal agencies, and is familiar with the guidelines and regulatory processes associated with multi-stakeholder proceedings. He obtained a B.S. in environmental resources engineering from California State University at Humboldt.

Mr. Garello will testify about the physical and logistical constraints of building the facilities demanded by BLM at the Wards Ferry site, given the narrow canyon terrain and access roads, and the steps, such as road closures, building cofferdams, and blocking river traffic, that would be needed to complete the facilities. He also may offer an opinion as to the feasibility of preserving and using the facilities mandated by the 4(e) condition should the Department of Commerce or Department of Interior require the building near Wards Ferry Bridge of the fish passage facility described in the Anchor Study. He further may discuss diagrams of those fish passage facilities.

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6. *Adrian Gunderson, P.E.*
100 Pringle Ave., Suite 400
Walnut Creek, CA 94596-7326
(925) 974-2541

Mr. Gunderson has over 30 years of experience in highway and civil project management. His engineering management and design experience includes the full range of concept to construction for interstate highways, local streets and seismic retrofit. He has participated in several California highway, roadway and transit projects. He obtained a B.S. in Civil Engineering from SUNY at Buffalo.

Mr. Gunderson will testify about the conditions on Wards Ferry Road, whether they currently comply with Tuolumne County design, operation, and signage standards, and the impact on the road arising from construction and use of the facilities mandated by BLM. He also will address what would be required to bring Wards Ferry Road up to current Tuolumne County standards and to handle construction traffic associated with installing the facilities mandated by BLM.

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7. *Thomas J. O'Brien, P.E., G.E.*
2379 Gateway Oaks, Suite 200
Sacramento, CA 95833-4240
(916) 679-8789

Mr. O'Brien is a registered professional engineer and has 35 years of experience with projects requiring geotechnical engineering analyses of foundations, retaining walls, and earth embankments including slope stability and seismic slope displacement; liquefaction potential; and static and dynamic ground settlement behavior. He obtained a B.S. from the University of California at Davis and a M.S. from the University of California at Berkeley. He is a registered professional engineer and geotechnical engineer.

Mr. O'Brien will testify about the potential means of improving the take-out at Wards Ferry, the Wards Ferry facilities mandated by BLM, how those facilities could be sited within the existing constraints of the canyon, and the costs that the Districts likely would incur in constructing those facilities. The present estimate of those costs is $52.7 million.

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8. *Steve E. Boyd*
Turlock Irrigation District
P.O. Box 949
Turlock, CA 95381-0949
(209) 883.8364

Mr. Boyd is the Director of Water Resources and Regulatory Affairs for the Turlock Irrigation District. He has worked for the District since 1985. He has a B.S. in Business from California State University, Stanislaus.

Mr. Boyd will discuss the conditions at Wards Ferry Bridge and the vandalism experienced there. He also will address whether the take-out/access paths are passable, based on his observations of boaters using the paths and his walking the path himself. He further will explain pictures and videos of that location and facilities and conditions at Lumsden Campground.

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Exhibit 1

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CALIFORNIA

- BERRYESSA SNOW MOUNTAIN NATIONAL MONUMENT
- CALIFORNIA COASTAL NATIONAL MONUMENT
- CARRIZO PLAIN NATIONAL MONUMENT
- FORT ORD NATIONAL MONUMENT
- HEADWATERS FOREST RESERVE
- KING RANGE NATIONAL CONSERVATION AREA
- MOJAVE TRAILS NATIONAL MONUMENT
- NATIONAL CONSERVATION LANDS OF THE CALIFORNIA DESERT
- PIEDRAS BLANCAS LIGHT STATION
- SAND TO SNOW NATIONAL MONUMENT
- SANTA ROSA AND SAN JACINTO MOUNTAINS NATIONAL MONUMENT



TUOLUMNE WILD AND SCENIC RIVER

The Tuolumne originates from snowmelt off Mounts Dana and Lyell in Yosemite National Park before traversing BLM public lands further downstream. The river contains some of the most noted whitewater in the high Sierras and is extremely popular with rafters. Class IV and V rapids, chutes, and pools by the score create the ultimate river adventure, a journey both exciting and pristine. The world-famous Tuolumne is where the ambitious earn their stripes.

FACTS

Length:
BLM - 1 mile
Total - 83 miles

Classification:
Wild, Scenic, Recreational

Date of Designation:
September 28, 1984

Designating Legislation:
Public Law: 98-425

QUICK LINKS

RIVERS.GOV »

CONTACT US

Bureau of Land Management
Mother Lode Field Office
5152 Hillsdale Circle
El Dorado Hills, CA 95762

Phone: 916-941-3101

Email: BLM_CA_Web_ML@blm.gov

FLICKR ALBUM



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Exhibit 2



Contact Information

Stanislaus National Forest

Supervisor's Office
19777 Greenley Road
Sonora, CA 95370
(209) 532-3671

Ranger Districts

Mi-Wok District
24695 Highway 108
Mi-Wuk Village, CA 95346
(209) 586-3234

Summit District
#1 Pinecrest Lake Road
Pinecrest, CA 95364
(209) 965-3434

Calaveras District
5519 Highway 4
PO Box 500
Hathaway Pines, CA 95233
(209) 795-1381

Groveland District
24545 Highway 120
Groveland, CA 95321
(209) 962-7825

Tuolumne Wild & Scenic River

Area Status: Open



Described by river experts as one of the most challenging river runs in California, the main Tuolumne River is a scenic 18-mile journey. It passes through lands managed by the Forest Service and the Bureau of Land Management. Rafting on the Tuolumne River has evolved from a humble beginning. During the early 1970's, only a few hardy souls tried to float the river, but by 1975, an estimated 1,200 persons annually were making the trip. Forest Service officials soon realized the management of the Tuolumne River would have to change to ensure a safe and enjoyable trip, while at the same time protecting natural resources.

At a Glance

Current Conditions:	**Groveland Ranger District (HWY 120)**- A free, mandatory permit is required to float between Cherry Creek and Merals Pool and from Merals Pool to Ward's Ferry from May 1 to October Permits can be issued over the phone 1 day in advance. All permits can be picked up at the Groveland Ranger Station.To reserve a permit, please fill out a non-commercial boating permit application.
Rentals & Guides:	**Outfitter Guides authorized to conduct commercial trips:** **All Outdoors Whitewater Rafting** (925) 932-8993 (800) 247-2387 aorafting.com **American River Touring Association** (209) 962-7873 (800) 323-2782 arta.org **O.A.R.S** (209) 736-4677 (800) 346-6277 oars.com **Sierra Mac River Trips** (209) 962-0367 (800) 457-2580 sierramac.com
Permit Info:	**All floaters (kayakers and rafters) are required to have a permit between May 1 and October 15. Permits are free and must be picked up at the Groveland Ranger Station.** To reserve a permit, please fill out a **non-commercial boating permit application**. Fund-raising trips are considered commercial and sponsors should arrange for a trip with an existing permitted commercial firm. We would like to thank our river visitors for using the rafting permit system. As a reminder to those that chose to enter without a permit, fines may be issued to parties in non-compliance with Forest regulations. Contact the Groveland Ranger Station for more information: 209-962-7825, 24545 Highway 120, Groveland, California 95321.
Restrictions:	**Permit Information:** ▶ Permit applications will be accepted after January 1 for the following season (May 1 through October 15). **non-commercial boating permit application**. ▶ The non-refundable fee must accompany each application.

Related Information

Tuolumne Wild & Scenic River
- Safety Information
- Permits & Regulations

Alerts & Warnings

- Stanislaus National Forest Order STF-16-2017-09
- Stanislaus National Forest Order STF-16-2017-08
- Stanislaus National Forest Order STF-16-2017-07
- Stanislaus National Forest Fall Fire Hire 2017
- Environmental Analysis begins for replacing Bear Valley Ski Resort chair

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Areas & Activities

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Highlights

Tweets by @Stanislaus_NF

StanislausForest @Stanislaus_NF
#Stanislaus_NF employee Kimberly Peterson spent part of her detail during the #LilacFire helping racehorses evacuated from a nearby racetrack and reuniting residents with their displaced animals. Just one of many dedicated #USFS fire support personnel.
Feb 9, 2018

StanislausForest @Stanislaus_NF
Friends or relatives planning to visit? Here's some great planning info for them!
Feb 9, 2018

StanislausForest @Stanislaus_NF
Great to see the communal eagles - all looking for lunch!

Embed View on Twitter

- National Weather Service

Contact Us

	▶ Reservations will automatically be cancelled when checks are returned due to insufficient funds. ▶ Reservations for weekend (Fridays and Saturdays) launches are limited to 6 reservations per person per year. ▶ Cancellations received less than 48 hours prior to the launch date will be considered no shows. No shows will forfeit any other reservations they might have for the remainder of the season. ▶ Group size is limited to a maximum of 26 persons and 6 rafts. ▶ Maximum length of stay for each trip is 2 nights and 3 days. ▶ During the period of spring run-off, flows may be so great that boating should not be attempted on the Tuolumne River. Flow information may be obtained from the Groveland Ranger District or by checking the website: www.dreamflows.com ▶ To reserve a permit, please fill out a **non-commercial boating permit application**.
Closest Towns:	Groveland, California

General Information

Directions:

Download the Tuolumne Wild & Scenic River Map (geospatial PDF, 7.61 MB)



iOS and Android device users: install the Avenza PDF Maps app (free) on devices with GPS to show your location on the map. More information on the app can be found at: **http://www.pdf-maps.com**.

Activities

- Camping & Cabins — SHOW
- Fishing — SHOW
- Hiking — SHOW
- Water Activities — SHOW

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Sonora, CA Go

- Travel Management
- Campfire Permit
- Road Conditions
- Wilderness
- Recreation Passes



Our Maps

ONE LESS SPARK ONE LESS WILDFIRE

One Less Spark—One Less Wildfire

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Exhibit 3

Merced River below El Portal

Stretch:	highway 140 bridge to below Ned's Gulch
Difficulty:	class IV (class IV+ above 2000 cfs)
Distance:	10 miles, 1 day
Flows:	rafts 800 - 5000 cfs, kayaks 800 - 4000 then harder, IK minimum 600
Gauge:	similar to the flow at Briceburg (MBB)
Gradient:	50 fpm average (100 95 40 70 55 40 55 35 45 25)
Put-in:	upstream of the highway 140 bridge, 1790'
Take-out:	below (former?) suspension bridge, 1230'
Shuttle:	10 miles (15 minutes) one-way
Maps:	Yosemite NP, AAA Yosemite, Topo
Season:	spring into early summer, from snowmelt
Agency:	BLM, private, guided Whitewater Rafting
Notes:	© 1998, 2001 Bill Tuthill, CreeksYahoo

This is one of the best transitional class III-IV runs in California. At lower flows, the first mile below put-in at the highway 140 bridge (a mile below El Portal) is continuous class III with some low IV. Although the whitewater requires constant maneuvering, visibility is good, so you can pick the best route without getting out of your boat to scout. Despite the 100 fpm gradient, rapids are not as tough as the class IVs downstream, which are more dramatic affairs separated by pools and class II-III rapids.

Many rafters put in at Cranberry because they think they are avoiding difficult rapids, but Ned's Gulch is actually harder than Nightmare Island and Chipped Tooth, so class IV boaters might as well put in at Red Bud. A ways below Ned's Gulch is the former suspension bridge, where class II boaters often begin their float. Be careful though: although there are class II routes thru all the rapids, some (avoidable) holes are definitely class III in nature. A ways below Briceburg the action picks up to class IV again, with a dangerous waterfalls shortly above the North Fork Merced.

A good class IV+ Merced plan is to put in at the highway 140 bridge in the morning, and take out at Cranberry, on river right across from Cedar Lodge. Then you could run a bicycle shuttle partially along the paved but seldom-traveled road on river right. In the afternoon, put in at the former Chevron station in El Portal, and take out at Red Bud to avoid the class II lull just below.

Although the gradient of the mile from the former Chevron gas station in El Portal to the 140 bridge is only a bit more than downstream, 110 fpm, the individual rapids are quite steep, often requiring scouting and approaching class IV+ in difficulty. The first one is very steep on the left, where there is more water, with a short break in the middle. The second one, along the road, has a long segment of pure white whitewater. The third one has a congested final drop, but is easier than the others.

Upstream in Yosemite Valley, the Merced tapers off quickly from its many source streams and waterfalls to gentle class I-II, as described by the Merced in Yosemite Valley writeup. The river picks up speed below El Capitan, becoming class III-IV for a short distance, a section sometimes run by rangers. Between the end of Yosemite Valley and El Portal, the Merced is class V+ with many portages.

High-water trips starting at El Portal often end in semi-disaster with loss of boat, or worse. A guide died in 1995 on an after-hours rafting trip with other guides when the river was running 8000 cfs. A kayaker died in 1985 after becoming trapped underwater by a downed tree at 2000 cfs.

mile
0

Creeks Navigation

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Put in above the highway 140 bridge, either from the steep left bank, or a ways upstream on the right bank. There is a pool before the bridge, but a very long boulder garden rapid begins immediately below.

.4

Gravel Pit, class IV, another long boulder garden with a very steep final drop into and along a bedrock outcropping. This is followed by a long right curve, more difficult on river right (see photos below). Next comes an easier right curve, where at low water the right side of the river is much higher than the left, and has more water!



In final drop of Gravel Pit



Good brace in first right curve!

.9

Sewage treatment plant for Yosemite Valley on the right. Rapids ease.

1

Bridge and Red Bud picnic area, alternate put-in. Rafts usually put in here because the rapids are more wide-open downstream. Rapids ease some more, but remain mostly continuous.

2.2

Nightmare Island, class IV, scout right
After a pool, the river bends right, then turns left and splits around an island. At low water there are two distinct drops on the right, which is the more challenging side. It used to be impossible to run the left side at low water, but the flood of 1997 scoured away the boulder field somewhat, and now the left side seems class III at most flows, but might not remain so.



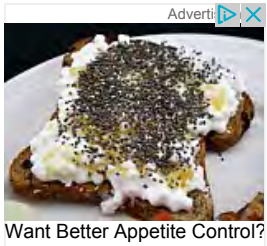
Nightmare Island right, first drop



Nightmare Island right, second drop

2.4

Chipped Tooth, class IV-
Even at low water this rapid closely follows the one above, and at high flows they merge. Several large midstream boulders (or holes) must be avoided, by moving either to the right or left, depending on flows, although other routes are possible. It is an advanced maneuver to "floss the tooth" at any flow.

Advertisement

Want Better Appetite Control? Do This Once Daily (Easy But Very Effective)

This Alzheimer's-blocking snack may be the "memory saving discovery" of the century. See why here

Divorce rumors are flying about the Clintons. Is it because Bill found out about this huge secret?



Tom flosses the tooth at 650 cfs



Bill takes chicken route on river left

3.5?

Motel Hole, almost always flips canoes and kayaks, but can be avoided on the right.

3.8

Cranberry Gulch river access (limited parking), across the river from Cedar Lodge. At high flows this is an alternate put-in because the gradient is less steep downstream. Rapids downstream are often close to the road, right up against an embankment.

6.6

South Fork Merced enters on the left. This contains an excellent advanced run, although the 4WD road down to put-in is very tough. Continuing, a class III+ rapid around a low island is just downstream.

8.5

Ned's Gulch, class IV, scout right
Near some houses, where the river bends left near the highway, Ned's Creek enters on the right. A big eddy below the mouth of the creek makes a good stopping point, so you can walk over bedrock to the bottom of the rapid. A sneak route is often available starting on the left and finishing in the center. The third and final drop is the steepest, but the other drops are more critical to run correctly in order to avoid swimming. It's quite easy to carry up the scouting route to run it again.



Guide falls out but paddlers ace Ned's anyway!

10

Former suspension footbridge, washed out in the flood of 1997, perhaps to be replaced someday. A small gravel bar on the left makes a fair take-out. Downstream, rapids taper off to class II, with many avoidable class III holes, as the gradient eases to 20 fpm.

Shuttle Directions

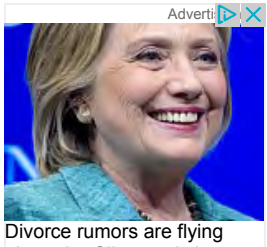
To reach take-out, drive east from Mariposa on highway 140 towards Yosemite. After the road crosses a pass and first descends to the river, you see a single stone structure that constituted the town of Briceburg. From this point, continue upriver for about 6 miles to a small turnout where the suspension bridge used to be, or has been built again.

To reach put-in from there, continue upstream towards Yosemite park for about 9 more miles. Find parking where highway 140 crosses the Merced for the first time (not counting the south fork Merced). If you reach the restaurants and lodgings of El Portal, you have gone too far.

To find nearby food and lodging, type **Mariposa** into the box and click Search.

Search Google Custom Search

Advertisement



Divorce rumors are flying about the Clintons. Is it because Bill found out about this huge secret?



Want Better Appetite Control? Do This Once Daily (Easy But Very Effective)



This Alzheimer's-blocking snack may be the "memory saving discovery" of the century. See why here

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Exhibit 4



Contact Information

Stanislaus National Forest

Supervisor's Office
19777 Greenley Road
Sonora, CA 95370
(209) 532-3671

Ranger Districts

Mi-Wok District
24695 Highway 108
Mi-Wuk Village, CA 95346
(209) 586-3234

Summit District
#1 Pinecrest Lake Road
Pinecrest, CA 95364
(209) 965-3434

Calaveras District
5519 Highway 4
PO Box 500
Hathaway Pines, CA 95233
(209) 795-1381

Groveland District
24545 Highway 120
Groveland, CA 95321
(209) 962-7825

Recreation Passes & Permits

Tuolumne Wild & Scenic River Permit Reservations



CAUTION - BURNED AREA
Please use caution while in the Rim Fire Burned Area.
Potential hazards include loose and falling rocks, flash floods, and debris flows.
Trees may have been weakened from fire damage and ongoing drought and may fall at any time.
Stay on designated roads and trails and within opened areas.
Be alert for falling objects and do not linger around large trees.
Avoid the area during high winds or heavy rain.

Raft trip permit reservations for any given season will not be accepted before January 1 of that year. A $15 fee is charged for reserving a rafting permit. For parties of 11 to 26 people an additional fee of $2 per personal applies. This non-refundable, non-transferable fee must be submitted with the permit application (not available at this time). Permits issued to walk-ins on a non-reserved basis will be issued at no charge.

To reserve a permit, please fill out a **non-commercial boating permit application**.

Download Reservation Form:
Tuolumne Wild & Scenic River Non-Commercial Boating Permit Application (pdf, 315 KB).

Permit Information:

1. Permit applications will be accepted after January 1 for the following season (May 1 through October 15).
2. The non-refundable fee must accompany each application.
3. Reservations will automatically be cancelled when checks are returned due to insufficient funds.
4. Reservations for weekend (Fridays and Saturdays) launches are limited to 6 reservations per person per year.
5. Cancellations received less than 48 hours prior to the launch date will be considered no shows. No shows will forfeit any other reservations they might have for the remainder of the season.
6. Group size is limited to a maximum of 26 persons and 6 rafts.
7. Maximum length of stay for each trip is 2 nights and 3 days.
8. During the period of spring run-off, flows may be so great that boating should not be attempted on the Tuolumne River. Flow information may be obtained from the Groveland Ranger District or by checking the website: www.dreamflows.com

Boat Requirements:

1. Each person must wear a Coast Guard approved Type I, II, III or V Personal Flotation Device (PFD) at all times while on the river and each boat must carry extra PFDs. For groups of two or more boats, two extra PFDs per group are required. PFDs must be in good and serviceable condition at the time of launch. Helmets are required for all kayakers and all floaters on the upper Tuolumne.
2. Each boat must have an extra oar or paddle as applicable, and throw line. Also required are 20 feet of mooring line and a coil of at least 100 feet of extra line for emergencies (wrapped boats, etc).
3. A first-aid kit, adequate for the size of the group involved must be carried.
4. An adequate repair kit must be carried on each boat.

5. One air pump must be carried on each inflatable boat.

Recreation Regulations:

1. Litter of any kind may not be discarded in the rivers, along the shore, or adjacent canyons. Burn or carry out all burnable material. Carry out all unburnable material including cans, bottles, leftover food, eggshells, melon rinds and cigarette butts. Liquid garbage must be strained into sump holes, through a fine mesh screen capable of holding small food particles and the particles then placed in garbage bags to be carried out of the canyon. Sump holes are to be dug away from camp and above the high-water line.

2. Portable toilets or personal disposable travel toilet bags are required to be carried on all trips (including kayaks). All portable toilet waste must be carried out and deposited in an authorized disposal facility. For your convenience, disposable travel toilet bags are available for purchase in our office.

3. Wood and charcoal fires are allowed in fire pans only. No fires are allowed in rock rings or on the ground. Keep a pail of water near the fire and be sure the fire is completely extinguished before leaving the site. All ash and charcoal must be carried out of the canyon. When FIRE RESTRICTIONS are in effect, you may use ONLY a portable stove with gas, jellied petroleum, or pressurized liquid fuel.

4. Surface water should be boiled or treated prior to drinking. You may prefer to include drinking water with your supplies.

Other suggested items include wet suits during periods of cold weather and low water temperatures, matches in a waterproof container, line knife, U.S.G.S. maps, snakebite kit, and gear for removing wrapped boats. Evaluate your ability and equipment before attempting this river. Scout rapids before proceeding as conditions can change.

Please cooperate with other users by launching adjacent to and downstream of the staff gauge.

Contact the Groveland Ranger Station for more information: 209-962-7825, 24545 Highway 120, Groveland, California 95321.

Forest Service Home | USDA.gov | recreation.gov | USA.gov | Whitehouse.gov
Plug-Ins | FOIA | Accessibility Statement | Privacy Policy | Important Notices | Information Quality

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Exhibit 5

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Tuolumne Wild & Scenic River
Non-Commercial Boating Permit Application
Groveland Ranger District, Stanislaus National Forest

Please supply all information requested
Applications for each season not accepted until after January 1st

A separate application must be completed for each trip reservation and accompanied by a separate check or money order for $15.00 for the first ten persons, and $2.00 per additional person. Group size is limited to 26 people and 6 rafts. There is no limit on the number of kayaks. The reservation fee is non-refundable. Checks or money orders must be payable to: USDA Forest Service. Include alternate trip date in case your first choice is not available. Permits are not transferable. Please return application and payment to:

Groveland Ranger District
Attention: River Permits
24545 Highway 120
Groveland, CA 95321

Name: _____ Phone: _____

Address: _____

City: _____ State: _____ Zip: _____

1st Choice: Start Date: _____ Finish Date: _____

Alternate: Start Date: _____ Finish Date: _____

Length of stay limited to 3 days/2 nights

Entry Point: _____ Exit Point: _____

Group Totals: Rafts: _____ Kayaks: _____ People: _____

Certification of Non-Commercial Trip

Please read before signing: A river trip is non-commercial if there is a genuine sharing of expenses. No fees, charges, or other compensation collected from individual participants in excess of actual costs or expenses incurred. By contrast, a trip is commercial is anyone on the trip makes a profit, receives a reimbursement or salary, receives rental for use of equipment, or supports, in any part, other programs or activities from amounts received from passengers. Accordingly, fund raising trips are commercial and sponsors will have to arrange for an existing commercial launch from a permitted outfitter. Why the concern? Operating under the disguise of non-commercial boaters, illegal outfitters are stealing carrying capacity space from the private sector for their own profit. They compete unfairly with legitimate outfitters by avoiding use fees, insurance requirements, and the need to comply with standards of the industry. Their guides may or may not be qualified. Their equipment may or may not be safe. Your signature on this form signifies that, to the best of your knowledge, your trip is not commercial. Persons involved in unauthorized commercial operations or falsifying this document are subject to fine and/or imprisonment.

"I agree to abide by all laws and regulations which apply to the Tuolumne Wild & Scenic River."

Group Leader's Signature: _____ Date: _____

Driver's License Number*: _____

****You may be required to present valid identification to the River Patrol***

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Exhibit 6

Don Pedro Recreation Agency

SPECIAL USE PERMIT

Date of Issue: April 4, 2017

Person/Organization Name: American River Touring Association, Inc.

Location and Type of Use: Tuolumne River Canyon, Don Pedro Recreation Area boundary to Wards Ferry Bridge. Commercial Rafting Activity

Contact Person: Steve Welch

Date and Duration of Event: 2017 Rafting Season

Special Provisions of Permit (as requested on application form):

♦

Additional requirements for permit holder:

- ♦ Locking and unlocking of Wards Ferry Restroom on every visit to help reduce vandalism and improve maintenance of the facility.
- ♦ Sharing of use data at end of season with DPRA.
- ♦ Payment of all applicable recreation area use fees.
- ♦ Compliance with all Don Pedro Recreation Area Rules and Regulations.

☑ $ 1,000,000 Liability Insurance/Additional Insured Listing Approved

☑ Permit Approved

☑ Other Agencies' Permit Process Complete (if applicable) n/a

By: _____

Title: Administrative Assistant

Copies to:

☐ Director or Division Manager, for review & file.
☐ Chief Ranger of facility in which use occurs.
☐ Other Division(s) of DPRA affected by use.

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DON PEDRO RECREATION AGENCY

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TURLOCK IRRIGATION DISTRICT
MODESTO IRRIGATION DISTRICT
CITY AND COUNTY OF SAN FRANCISCO



Headquarters at West Side of Dam

Mailing Address: 10201 BONDS FLAT ROAD, LA GRANGE, CA 95329 *Phone:* 209-852-2396
www.donpedrolake.com

January 26, 2017

(ARTA) American River Touring Association
24000 Casa Loma Road
Groveland, CA 95321

To whom it may concern:

Enclosed please find an application for your 2017 rafting season's Don Pedro Recreation Agency (DPRA) Special Use Permit. Please fill it out and return it by March 1, 2017, so that we can process your permit in time for the season to start.

In addition to the Special Use Permit application form, please forward the following:

- A copy of your insurance certificate with the additional insured language added as defined on the Special Use Permit application form.
- Documentation showing the total number of rafters on your trips in 2016. This information is a vital part of our annual report to the California Dept. of Water Resources, which we are currently preparing.

As always, we appreciate your communication regarding the condition of the upper reaches of the lake as you frequent that location more often than DPRA staff. Dave Jigour, Lake Operations Division Manager, will continue to be your contact for issues regarding lake operations, driftwood management and the Wards Ferry restroom. He can be reached at the following email and phone number:

- drjigour@tid.org
- (209) 852-2396 ext. 18

The restroom at Wards Ferry will be checked out and prepped before the season begins. In-season maintenance will be scheduled the same as last year.

If you have any questions, please do not hesitate to contact us.

Sincerely,

Chris Collett
Director

Copy to: Groveland Ranger District, USFS
Encs.

Don Pedro Recreation Agency

SPECIAL USE PERMIT
APPLICATION FORM

INSTRUCTIONS:

This permit application form is intended for the use of the Recreation Agency to *consider* authorization of Recreation Area use for purposes other than family camping and individual water-oriented use. Individuals and groups of various sizes that wish to use the facilities in ways that may alter the normal operation of the Recreation Area will need to complete the following information.

Upon submission of this form to the Recreation Agency, it will be reviewed and if authorization is granted for the items requested in this form, a Special Use Permit will be issued. The Special Use Permit is issued solely for the activities described in the Special Use Permit. Appropriate facility use fees will be assessed. In addition to a Special Use Permit, the Permittee must submit to the Recreation Agency a certificate of liability insurance for the described special use for an amount to be determined, and must have the following wording added to the certificate: *The Don Pedro Recreation Agency, the Turlock Irrigation District and the Modesto Irrigation District, and their governing boards shall be named as additional insureds under this policy.*

Please fill out the following as completely as possible. Items identified here will be the basis for determining the parameters of the permit for which you are applying.

Today's Date: 3/1/17

Organization Name: AMERICAN RIVER TOURING ASSOCIATION, INC.

Mailing Address: 24000 CASA LOMA RD. GROVELAND, CA. 95321

Applicant's Name: STEVE WELCH Daytime Phone # 209-962-7873

Date(s) and times of proposed use/event: 3/1/17 - 12/31/17 through 12/31/17.

Please describe the desired location and the type of facility use:

EGRESS FROM RESERVOIR AT WARDS FERRY BRIDGE

Are there any special requests for additional Recreation Agency services, equipment or materials (ie. Additional tables needed, weigh in dock, additional parking areas, etc.)? If so, describe in detail.

KEEP LOG JAM DOWNSTREAM OF BRIDGE :) - THANK YOU, DAVE!

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Will you be bringing in any equipment, structures, or vehicles other than normal individual camping or day use equipment for the purpose of this special use? If so, please describe.

EQUIPMENT TRUCKS AND VANS AND BUSES VIA WARDS FERRY ROAD

A copy of the Don Pedro Recreation Agency Rules and Regulations has been provided to you with this Application for your review. Do you foresee any part of your special use request that may be contrary to any of the DPRA Rules and Regulations? (ie. Electronic sounds, quiet hours, placement of developed (temporary) improvements in the facility, fires, camping areas, number of people, etc.). If so, describe in detail.

NO

If your special use encompasses lands/resources that fall under other Agencies' jurisdictions or private property, have you contacted them? If so, were permits or written permission granted by those Agencies/landowners?

YES, USFS

I have filled in this permit application form to the best of my ability and verify that the information is complete. I understand that any permit that is issued by the Recreation Agency can only incorporate the information brought forth in this application. Any changes after the permit is issued will be addressed on a case by case basis, including the possibility that a new permit will need to be applied for and issued.

FOR ARTA

Applicant's signature

3/1/17

Date

Attach additional pages if needed to answer any of the above questions.

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ARTA river trips

March 1, 2017

Don Pedro Recreation Association
10201 Bonds Flat Road
La Grange, CA 95329

Dear Don Pedro -

Attached is ARTA's Special Use Permit Application for the 2017 season.

During the 2016 season, 682 ARTA guests egressed the reservoir at Ward's Ferry Bridge.

Thank you for your attention to the log jam.

Steve.

Steve Welch
General Manager
ARTA RIVER TRIPS

American River Touring Association, Inc.
non-profit and friendly since 1963
24000 Casa Loma Road - Groveland - CA - 95321 - arta@arta.org - www.arta.org
209-962-7873 - 800-323-2782

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DON PEDRO RECREATION AGENCY

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CITY AND COUNTY OF SAN FRANCISCO



Headquarters at West Side of Dam

10201 BONDS FLAT ROAD • LA GRANGE, CALIFORNIA 95329 • (209) 852-2396 FAX (209) 852-2780
www.donpedrolake.com

March 13, 2017

(ARTA) American River Touring Association
24000 Casa Loma Road
Groveland, CA 95321

To SteveWelch:

This letter is your bill for collection of passengers, which took out at Wards Ferry Bridge during the **2016** rafting season, in the amount of **$682**. The amount of the bill is based upon the use figures submitted by you at the rate of **$1** per person. The total of **$682** is due and payable by **April 15, 2017.**

This bill is being issued by the Don Pedro Recreation Agency in accordance with the Don Pedro Recreation Agency Rules and Regulations, Section 1.02.

Thank you in advance for your immediate attention to this matter. If you have any questions, please do not hesitate to contact me.

Sincerely,

Sue VanderSchans
Administrative Assistant

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 3/13/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
CBIZ Sattler Insurance Services
1504 8th St
Lewiston ID 83501

CONTACT NAME: Ashley Stephens, AINS
PHONE (A/C, No, Ext): (208) 743-9426 **FAX (A/C, No):** (208) 748-9433
E-MAIL ADDRESS: anstephens@cbizsattler.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Tudor Insurance Company	37982
INSURER B: United Financial Casualty Co	11770
INSURER C:	
INSURER D:	
INSURER E:	
INSURER F:	

INSURED
American River Touring Association Inc.
DBA: ARTA River Trips
24000 Casa Loma Road
Groveland CA 95321

COVERAGES **CERTIFICATE NUMBER:** 17-18 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [X] POLICY [ ] PRO-JECT [ ] LOC [ ] OTHER:			PGP0774299	4/1/2017	4/1/2018	EACH OCCURRENCE	$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
							MED EXP (Any one person)	$ 2,500
							PERSONAL & ADV INJURY	$ 1,000,000
							GENERAL AGGREGATE	$ 2,000,000
							PRODUCTS - COMP/OP AGG	$ Included
								$
B	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS [X] SCHEDULED AUTOS HIRED AUTOS [ ] NON-OWNED AUTOS			01541246-9	10/12/2016	4/12/2017	COMBINED SINGLE LIMIT (Ea accident)	$ 750,000
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
							Multi policy credit	$
	[ ] UMBRELLA LIAB [ ] OCCUR [ ] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $						EACH OCCURRENCE	$
							AGGREGATE	$
								$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N [ ] N / A If yes, describe under DESCRIPTION OF OPERATIONS below						[ ] PER STATUTE [ ] OTH-ER	
							E.L. EACH ACCIDENT	$
							E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Proof of Coverage

CERTIFICATE HOLDER

Don Pedro Recreation Agency
10201 Bonds Flat Road,
La Grange, CA 95329

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
J Sattler, CPCU, CIC/

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Don Pedro Recreation Agency
31 Bonds Flat Rd
La Grange, CA 95329
Telephone: (209) 852-2396

Tuesday, April 4, 2017 8:25:08 AM

SALE #: 542327
cash dwr: HQ All Drawers
transaction #: 361514
merch loc: Headquarters
clerk:777

1ea Special Use Per
$682.00

TOTAL CASH PAYMENT
$682.00

TENDERED: .....
$682.00

CHANGE:
$0.00

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Don Pedro Recreation Agency

SPECIAL USE PERMIT

Date of Issue: February 27, 2017

Person/Organization Name: All-Outdoors Whitewater Rafting

Location and Type of Use: Tuolumne River Canyon, Don Pedro Recreation Area boundary to Wards Ferry Bridge. Commercial Rafting Activity

Contact Person: George Armstrong

Date and Duration of Event: 2017 Rafting Season

Special Provisions of Permit (as requested on application form):

♦

Additional requirements for permit holder:

- ♦ Locking and unlocking of Wards Ferry Restroom on every visit to help reduce vandalism and improve maintenance of the facility.
- ♦ Sharing of use data at end of season with DPRA.
- ♦ Payment of all applicable recreation area use fees.
- ♦ Compliance with all Don Pedro Recreation Area Rules and Regulations.

☑ $ 1,000,000 Liability Insurance/Additional Insured Listing Approved

☑ Permit Approved

☐ Other Agencies' Permit Process Complete (if applicable) n/a

By: Dan Vanderschans

Title: Administrative Assistant

Copies to:

☑ Director or Division Manager, for review & file.
☐ Chief Ranger of facility in which use occurs.
☐ Other Division(s) of DPRA affected by use.

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Headquarters at West Side of Dam

10201 BONDS FLAT ROAD • LA GRANGE, CALIFORNIA 95329 • (209) 852-2396 FAX (209) 852-2780
www.donpedrolake.com

February 13, 2017

All Outdoors Whitewater Rafting
2151 San Miguel Drive
Walnut Creek, CA 94596

To Mr. George Armstrong:

This letter is your bill for collection of passengers, which took out at Wards Ferry Bridge during the **2016** rafting season, in the amount of **$1,188**. The amount of the bill is based upon the use figures submitted by you at the rate of **$1** per person. The total of **$1,188** is due and payable by **April 15, 2017.**

This bill is being issued by the Don Pedro Recreation Agency in accordance with the Don Pedro Recreation Agency Rules and Regulations, Section 1.02.

Thank you in advance for your immediate attention to this matter. If you have any questions, please do not hesitate to contact me.

Sincerely,

Sue VanderSchans
Administrative Assistant

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DON PEDRO RECREATION AGENCY

COPY

Sponsored By:
TURLOCK IRRIGATION DISTRICT
MODESTO IRRIGATION DISTRICT
CITY AND COUNTY OF SAN FRANCISCO

Headquarters at West Side of Dam

Mailing Address: 10201 BONDS FLAT ROAD, LA GRANGE, CA 95329 *Phone:* 209-852-2396
www.donpedrolake.com

January 26, 2017

All Outdoors Whitewater Rafting
1250 Pine Street #103
Walnut Creek, CA 94596

To whom it may concern:

Enclosed please find an application for your 2017 rafting season's Don Pedro Recreation Agency (DPRA) Special Use Permit. Please fill it out and return it by March 1, 2017, so that we can process your permit in time for the season to start.

In addition to the Special Use Permit application form, please forward the following:

- A copy of your insurance certificate with the additional insured language added as defined on the Special Use Permit application form.
- Documentation showing the total number of rafters on your trips in 2016. This information is a vital part of our annual report to the California Dept. of Water Resources, which we are currently preparing.

As always, we appreciate your communication regarding the condition of the upper reaches of the lake as you frequent that location more often than DPRA staff. Dave Jigour, Lake Operations Division Manager, will continue to be your contact for issues regarding lake operations, driftwood management and the Wards Ferry restroom. He can be reached at the following email and phone number:

- drjigour@tid.org
- (209) 852-2396 ext. 18

The restroom at Wards Ferry will be checked out and prepped before the season begins. In-season maintenance will be scheduled the same as last year.

If you have any questions, please do not hesitate to contact us.

Sincerely,

Chris Collett
Director

Copy to: Groveland Ranger District, USFS
Encs.

20180228-5265 FERC PDF (Unofficial) 2/28/2018 4:44:46 PM

Don Pedro Recreation Agency

SPECIAL USE PERMIT
APPLICATION FORM

INSTRUCTIONS:

This permit application form is intended for the use of the Recreation Agency to *consider* authorization of Recreation Area use for purposes other than family camping and individual water-oriented use. Individuals and groups of various sizes that wish to use the facilities in ways that may alter the normal operation of the Recreation Area will need to complete the following information.

Upon submission of this form to the Recreation Agency, it will be reviewed and if authorization is granted for the items requested in this form, a Special Use Permit will be issued. The Special Use Permit is issued solely for the activities described in the Special Use Permit. Appropriate facility use fees will be assessed. In addition to a Special Use Permit, the Permittee must submit to the Recreation Agency a certificate of liability insurance for the described special use for an amount to be determined, and must have the following wording added to the certificate: *The Don Pedro Recreation Agency, the Turlock Irrigation District and the Modesto Irrigation District, and their governing boards shall be named as additional insureds under this policy.*

Please fill out the following as completely as possible. Items identified here will be the basis for determining the parameters of the permit for which you are applying.

Today's Date: FEBRUARY 7 2017

Organization Name: ALL-OUTDOORS WHITEWATER RAFTING

Mailing Address: 2151 SAN MIGUEL DRIVE, WALNUT CREEK, CA 94596

Applicant's Name: GEORGE ARMSTRONG Daytime Phone # 925-788-5994

Date(s) and times of proposed use/event: 3/1/17 through 11/15/17.

Please describe the desired location and the type of facility use:

RAFTING TAKE-OUT FROM TUOLUMNE RIVER

Are there any special requests for additional Recreation Agency services, equipment or materials (ie. Additional tables needed, weigh in dock, additional parking areas, etc.)? If so, describe in detail.

IF ACCESS HAS A LOCK WE WILL NEED KEY OR COMBINATION

Will you be bringing in any equipment, structures, or vehicles other than normal individual camping or day use equipment for the purpose of this special use? If so, please describe.

A copy of the Don Pedro Recreation Agency Rules and Regulations has been provided to you with this Application for your review. Do you foresee any part of your special use request that may be contrary to any of the DPRA Rules and Regulations? (ie. Electronic sounds, quiet hours, placement of developed (temporary) improvements in the facility, fires, camping areas, number of people, etc.). If so, describe in detail.

If your special use encompasses lands/resources that fall under other Agencies' jurisdictions or private property, have you contacted them? If so, were permits or written permission granted by those Agencies/landowners?

I have filled in this permit application form to the best of my ability and verify that the information is complete. I understand that any permit that is issued by the Recreation Agency can only incorporate the information brought forth in this application. Any changes after the permit is issued will be addressed on a case by case basis, including the possibility that a new permit will need to be applied for and issued.

Applicant's signature

FEBRUARY 7 2017
Date

Attach additional pages if needed to answer any of the above questions.

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February 7, 2017

From:
George Armstrong
All-Outdoors Whitewater Rafting

To:
Don Pedro Recreation Area

Re:

All-Outdoors total people take out at your facility for the 2016 season was 1188.

Any questions: Call me at 925-788-5994

George Armstrong

Don Pedro Recreation Agency
31 Bonds Flat Rd
La Grange, CA 95329
Telephone: (209) 852-2396

Monday, February 27, 2017 8:34:44 AM

SALE #: 534816
cash dwr: HQ All Drawers
transaction #: 357366
merch loc: Headquarters
clerk:777

1ea Special Use Per
$1,188.00
TOTAL CHECK PAYMENT
$1,188.00

CERTIFICATE OF INSURANCE

DATE (MM/DD/YY): 03/10/2017

PRODUCER AND THE NAMED INSURED

Worldwide Outfitters and Guides Association, Inc. , A
Risk Retention Purchasing Group qualified under the Risk Retention Act of 1986; Federal Law 97-45.
P.O. Box 469
Sandy, UT 84091-0469
800-321-1493

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE OF INSURANCE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND, OR ALTER THE COVERAGE AFFORDED BY THE INSURANCE POLICIES BELOW.

INSURERS AFFORDING COVERAGE

INSURED

All Outdoors, Inc.

DBA: All - Outdoors Whitewater Rafting
2151 San Miguel Drive
Walnut Creek , CA 94596

INSURER A:	NOTICE: Coverage is being provided as part of a Master Group Policy issued to members of the Worldwide Outfitters and Guides Association, Inc. , a Risk Retention 'Purchasing Group' authorized under the Risk Retention Act of 1986: Federal Law 97-45.
INSURER B:	
INSURER C:	
INSURER D:	
INSURER E:	Certain Underwriters at Lloyds, London

"LIMITS SHOWN ARE THOSE IN EFFECT AS OF POLICY INCEPTION"

COVERAGES

The policies of insurance listed below have been issued to the insured named above for the policy indicated. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies. Aggregate limits shown may have been reduced by paid claims.

TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
☑ **Commercial Liability** ☑ Claims Made ☑ Exclude Products ☑ Exclude Completed Operations	LOG0407-17030021	3/21/2017	3/21/2018	$300,000 Per Person $1,000,000 Per Accident $2,000,000 Policy Aggregate $1,000,000 Products Liability - Food Only
☐ **Commercial Auto Liability** Any Auto All Owned Autos Scheduled Autos Hired Autos Non-Owned Autos Drive Away				
☐ **Commercial Garage Liability** G.K.L.L. O.T.R.P.D. D.O.C. Cargo On Hook Employee Dishonesty Wrongful Repossession				

OTHER

Liability Coverage is only provided to the Additional Insured with respect to Accidents otherwise covered under the Policy/Coverage Contract where the Insured is found directly liable and not where the Additional Insured is found independently negligent of the Insured.

DESCRIPTION OF OPERATION/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

Coverage is limited to only insured activities or operations on the Participant Member Declaration Certificate or as may be separately endorsed. EXCLUDES ALL MOTOR VEHICLES, MOTORIZED & MOBILE EQUIPMENT, Snack Bar - Food Concession - Products Liability - Food Only., Premises Liability - Scheduled Locations Only., Guided Tours - Raft towing w/boat., Guided River Trips - Class 4 and above Whitewater., Guided River Trips - Class 1-3 Whitewater.

☐ **CERTIFICATE HOLDER** ☑ **ADDITIONAL INSURED** ☐ **LOSS PAYEE**

The Don Pedro Recreation Agency, the Turlock Irrigation District, and the Modes District, and their governing boards shall be named as additional insureds under this.
31 Bonds Flat Road
La Grange , CA 95329

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT.

AUTHORIZED REPRESENTATIVE



ADDITIONAL INSURED ENDORSEMENT

RAP-99-12

This Endorsement changes the terms and conditions of the Coverage Contract issued. Please read it carefully!

The following requirements govern coverage under the Coverage Contract and must be adhered to for coverage to be provided to the Participating Member under the Coverage Contract. No activities conducted by the Participating Member are covered under the Coverage Contract unless they are conducted in full compliance with all of the requirements specified below and in the Coverage Contract. The Participating Member must advise its employees, agents, contractors, and/or subcontractors of these requirements and ensure that they also abide by them for coverage to be provided. The Participating Member agrees and understands that any noncompliance with the following specified requirements and/or the terms and conditions set forth in the Coverage Contract will result in the denial of coverage under the Coverage Contract meaning the Insurer will not be obligated to indemnify or defend you.

Master Coverage Contract Number: LOG0407 Certificate Number: 17030021

Participating Member: All Outdoors, Inc.

Effective Date:

Additional Insured: The Don Pedro Recreation Agency, the Turlock Irrigation District, and the Modesto Irrigati District, and their governing boards shall be named as additional insureds under this polic

31 Bonds Flat Road
La Grange, CA 95329

The "Who is a Participating Member" provision of the Coverage Contract shall be amended to include the person or organization scheduled in this Endorsement as an Additional Insured for the limited purpose of liability arising from Your Work, as that term applies to the Participating Member only, and subject to all other terms and conditions of the Coverage Contract and this Endorsement.

The coverage provided by this Endorsement only extends to cover the Additional Insured for allegations of liability based upon alleged, actionable conduct of the Participating Member and only to the extent the Participating Member would have been liable and coverage would have been afforded to the Participating Member under the terms and conditions of this Coverage Contract had such Claim been made against the Participating Member.

The Coverage Contract expressly provides that coverage is to be construed and enforced in accordance with the laws of the State of Utah, and the Participating Member has consented to the jurisdiction of the courts of the State of Utah and has agreed that those courts shall be the exclusive forum to hear and decide disputes consisting of or relating to coverage issues.

The Additional Insured is subject to all of the terms, provisions, conditions, exclusions, definitions, limitations, representations, and Endorsements of the Master Group Policy issued to the Insured Association, the participating member Coverage Contract, and all related documents providing coverage to the Participating Member. The failure of the Participating Member to adhere to any such provisions will also defeat coverage under the Coverage Contract for all Additional Insureds.

A copy of the Participating Member Coverage Contract may be obtained from the Participating Member or by contacting the Industry Association Purchasing Group office in Salt Lake City, Utah, during normal business hours.

Endorsement No.: 37

Rick J. Lindsey
CASLB #: 265639

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Don Pedro Recreation Agency

SPECIAL USE PERMIT

Date of Issue: April 5, 2017

Person/Organization Name: Sierra Mac River Trips, Inc.

Location and Type of Use: Tuolumne River Canyon, Don Pedro Recreation Area boundary to Wards Ferry Bridge. Commercial Rafting Activity

Contact Person: Martin McDonnell

Date and Duration of Event: 2017 Rafting Season

Special Provisions of Permit (as requested on application form):

-

Additional requirements for permit holder:

- Locking and unlocking of Wards Ferry Restroom on every visit to help reduce vandalism and improve maintenance of the facility.
- Sharing of use data at end of season with DPRA.
- Payment of all applicable recreation area use fees.
- Compliance with all Don Pedro Recreation Area Rules and Regulations.

☑ $ 1,000,000 Liability Insurance/Additional Insured Listing Approved

☑ Permit Approved

☐ Other Agencies' Permit Process Complete (if applicable) n/a

By: _____

Title: Administrative Assistant

Copies to:

☐ Director or Division Manager, for review & file.
☐ Chief Ranger of facility in which use occurs.
☐ Other Division(s) of DPRA affected by use.

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DON PEDRO RECREATION AGENCY

COPY

Sponsored By:
TURLOCK IRRIGATION DISTRICT
MODESTO IRRIGATION DISTRICT
CITY AND COUNTY OF SAN FRANCISCO

Headquarters at West Side of Dam

10201 BONDS FLAT ROAD • LA GRANGE, CALIFORNIA 95329 • (209) 852-2396 FAX (209) 852-2780
www.donpedrolake.com

March 21, 2017

Sierra Mac River Trips, Inc.
P.O. Box 264
Groveland, CA 95321

Dear Marty:

This letter is your bill for collection of passengers, which took out at Wards Ferry Bridge during the **2016** rafting season, in the amount of **$886**. The amount of the bill is based upon the use figures submitted by you at the rate of **$1** per person. The total of **$886** is due and payable by **April 15, 2017.**

This bill is being issued by the Don Pedro Recreation Agency in accordance with the Don Pedro Recreation Agency Rules and Regulations, Section 1.02.

Thank you in advance for your immediate attention to this matter. If you have any questions, please do not hesitate to contact me.

Sincerely,

Sue VanderSchans
Administrative Assistant

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Don Pedro Recreation Agency

SPECIAL USE PERMIT
APPLICATION FORM

INSTRUCTIONS:

This permit application form is intended for the use of the Recreation Agency to *consider* authorization of Recreation Area use for purposes other than family camping and individual water-oriented use. Individuals and groups of various sizes that wish to use the facilities in ways that may alter the normal operation of the Recreation Area will need to complete the following information.

Upon submission of this form to the Recreation Agency, it will be reviewed and if authorization is granted for the items requested in this form, a Special Use Permit will be issued. The Special Use Permit is issued solely for the activities described in the Special Use Permit. Appropriate facility use fees will be assessed. In addition to a Special Use Permit, the Permittee must submit to the Recreation Agency a certificate of liability insurance for the described special use for an amount to be determined, and must have the following wording added to the certificate: *The Don Pedro Recreation Agency, the Turlock Irrigation District and the Modesto Irrigation District, and their governing boards shall be named as additional insureds under this policy.*

Please fill out the following as completely as possible. Items identified here will be the basis for determining the parameters of the permit for which you are applying.

Today's Date: 3/6/17

Organization Name: Sierra Mac River Trips, Inc 886

Mailing Address: P.O. Box 264

Applicant's Name: Marty McDonnell Daytime Phone #_____

Date(s) and times of proposed use/event: 4/1/17 through 9/15/17.

Please describe the desired location and the type of facility use:
Don Pedro Reservoir from the Tuolumne River To Wards Ferry Bridge + Moccasin Point Marina Areas

Are there any special requests for additional Recreation Agency services, equipment or materials (ie. Additional tables needed, weigh in dock, additional parking areas, etc.)? If so, describe in detail.

Make more parking for the Wards Ferry area, keep Toilet maintained + Maintain Trail to reservoir at Wards Ferry

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Will you be bringing in any equipment, structures, or vehicles other than normal individual camping or day use equipment for the purpose of this special use? If so, please describe.

Tow boat

A copy of the Don Pedro Recreation Agency Rules and Regulations has been provided to you with this Application for your review. Do you foresee any part of your special use request that may be contrary to any of the DPRA Rules and Regulations? (ie. Electronic sounds, quiet hours, placement of developed (temporary) improvements in the facility, fires, camping areas, number of people, etc.). If so, describe in detail.

If your special use encompasses lands/resources that fall under other Agencies' jurisdictions or private property, have you contacted them? If so, were permits or written permission granted by those Agencies/landowners?

USFS Groveland RD

I have filled in this permit application form to the best of my ability and verify that the information is complete. I understand that any permit that is issued by the Recreation Agency can only incorporate the information brought forth in this application. Any changes after the permit is issued will be addressed on a case by case basis, including the possibility that a new permit will need to be applied for and issued.

Mark McDonnell — Applicant's signature

3/6/17 — Date

Attach additional pages if needed to answer any of the above questions.

20180228-5265 FERC PDF (Unofficial) 2/28/2018 4:44:46 PM

DON PEDRO RECREATION AGENCY

COPY

Sponsored By:
TURLOCK IRRIGATION DISTRICT
MODESTO IRRIGATION DISTRICT
CITY AND COUNTY OF SAN FRANCISCO

Headquarters at West Side of Dam

Mailing Address: 10201 BONDS FLAT ROAD, LA GRANGE, CA 95329 *Phone:* 209-852-2396
www.donpedrolake.com

January 26, 2017

Sierra Mac River Trips, Inc.
P.O. Box 264
Groveland, CA 95321

To whom it may concern:

Enclosed please find an application for your 2017 rafting season's Don Pedro Recreation Agency (DPRA) Special Use Permit. Please fill it out and return it by March 1, 2017, so that we can process your permit in time for the season to start.

In addition to the Special Use Permit application form, please forward the following:

- A copy of your insurance certificate with the additional insured language added as defined on the Special Use Permit application form.
- Documentation showing the total number of rafters on your trips in 2016. This information is a vital part of our annual report to the California Dept. of Water Resources, which we are currently preparing.

As always, we appreciate your communication regarding the condition of the upper reaches of the lake as you frequent that location more often than DPRA staff. Dave Jigour, Lake Operations Division Manager, will continue to be your contact for issues regarding lake operations, driftwood management and the Wards Ferry restroom. He can be reached at the following email and phone number:

- drjigour@tid.org
- (209) 852-2396 ext. 18

The restroom at Wards Ferry will be checked out and prepped before the season begins. In-season maintenance will be scheduled the same as last year.

If you have any questions, please do not hesitate to contact us.

Sincerely,

Chris Collett
Director

Copy to: Groveland Ranger District, USFS
Encs.

20180228-5265 FERC PDF (Unofficial) 2/28/2018 4:44:46 PM

Susan M. VanderSchans

From: Marty McDonnell <martymcdonnell021@gmail.com> on behalf of Sierra Mac River Trips <marty@sierramac.com>
Sent: Tuesday, March 14, 2017 8:45 AM
To: dprc
Subject: Sierra Mac River Trips, Don Pedro Guest use for 2016

Don Pedro Recreation Agency
Attn. Sue

In 2016 Sierra Mac River trips brought 886 guests into the Don Pedro Reservoir.

Marty

Marty McDonnell
Tom McDonnell
Sierra Mac River Trips, first outfitter on Yosemite's Tuolumne & Merced Rivers & pioneer on the Cherry Creek/Upper Tuolumne
Family run, locally based, mature guides, Tuolumne River specialists for over 45 years!~~~

http://www.sierramac.com
e-mail marty@sierramac.com

(209) 591-8027

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 3/16/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
CBIZ Sattler Insurance Services
1504 8th St
Lewiston ID 83501

CONTACT NAME: Leslie Vannoy, CIC, CRM
PHONE (A/C, No, Ext): (208)743-9426 **FAX (A/C, No):** (208)748-9433
E-MAIL ADDRESS: lvannoy@cbizsattler.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Tudor Insurance Company	37982
INSURER B: United Financial Casualty Co	11770
INSURER C:	
INSURER D:	
INSURER E:	
INSURER F:	

INSURED
Sierra Mac River Trips, Inc., DBA: Tuolumne River
P. O. Box 264
Groveland CA 95321

COVERAGES **CERTIFICATE NUMBER:** 17-18 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [X] POLICY [ ] PRO-JECT [ ] LOC [ ] OTHER:	X		PGP0774311	4/1/2017	4/1/2018	EACH OCCURRENCE	$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
							MED EXP (Any one person)	$ 2,500
							PERSONAL & ADV INJURY	$ 1,000,000
							GENERAL AGGREGATE	$ 2,000,000
							PRODUCTS - COMP/OP AGG	$ Included
								$
B	AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] ALL OWNED AUTOS [ ] HIRED AUTOS [X] SCHEDULED AUTOS [ ] NON-OWNED AUTOS			02135839-8	4/4/2017	10/4/2017	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
							Multi policy credit	$
	[ ] UMBRELLA LIAB [ ] OCCUR [ ] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $						EACH OCCURRENCE	$
							AGGREGATE	$
								$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N [ ] N/A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						[ ] PER STATUTE [ ] OTH-ER	
							E.L. EACH ACCIDENT	$
							E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
The certificate holder is an additional insured for general liability only with respects to the ongoing operations of the named insured.

Landowner

CERTIFICATE HOLDER
(209)852-2780

DPRA, TID, MID, and Governing Boards
31 Bonds Flat Road
La Grange, CA 95329

CANCELLATION
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE
L Vannoy, CIC, CRM/LE Leslie K. Vannoy

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ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 10/3/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER CBIZ Sattler Insurance Services 1504 8th St Lewiston ID 83501	CONTACT NAME: Leslie Vannoy, CIC, CRM PHONE (A/C, No, Ext): (208) 743-9426 FAX (A/C, No): (208) 748-9433 E-MAIL ADDRESS: lvannoy@cbizsattler.com
INSURED Sierra Mac River Trips, Inc., DBA: Tuolumne River Shuttles, Inc. P. O. Box 264 Groveland CA 95321	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A: Tudor Insurance Company — 37982 INSURER B: United Financial Casualty Co — 11770 INSURER C: INSURER D: INSURER E: INSURER F:

COVERAGES **CERTIFICATE NUMBER:** 16-17 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [X] POLICY [ ] PRO-JECT [ ] LOC [ ] OTHER:	X		PGP8000462	4/1/2016	4/1/2017	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 100,000 $ 2,500 $ 1,000,000 $ 2,000,000 $ Included
B	AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] ALL OWNED AUTOS [ ] HIRED AUTOS [X] SCHEDULED AUTOS [ ] NON-OWNED AUTOS			02135839-7	10/4/2016	4/4/2017	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) Multi policy credit	$ 1,000,000 $ $ $ $
	[ ] UMBRELLA LIAB [ ] OCCUR [ ] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $						EACH OCCURRENCE AGGREGATE	$ $ $
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N [ ] If yes, describe under DESCRIPTION OF OPERATIONS below	N/A					[ ] PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ $ $

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

The certificate holder is an additional insured for general liability only with respects to the ongoing operations of the named insured.

Landowner

CERTIFICATE HOLDER

(209) 852-2780

DPRA, TID, MID, and Governing Boards
31 Bonds Flat Road
La Grange, CA 95329

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

J Sattler, CPCU, CIC/

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Don Pedro Recreation Agency
31 Bonds Flat Rd
La Grange, CA 95329
Telephone: (209) 852-2396

Wednesday, April 5, 2017 11:41:53 AM

SALE #: 542611
cash dwr: HQ All Drawers
transaction #: 361684
merch loc: Headquarters
clerk:777

1ea Special Use Per
$886.00
TOTAL CHECK PAYMENT
$886.00

20180228-5265 FERC PDF (Unofficial) 2/28/2018 4:44:46 PM

Don Pedro Recreation Agency

SPECIAL USE PERMIT

Date of Issue: February 27, 2017

Person/Organization Name: O.A.R.S. West, Inc.

Location and Type of Use: Tuolumne River Canyon, Don Pedro Recreation Area boundary to Wards Ferry Bridge. Commercial Rafting Activity

Contact Person: Tyler Wendt

Date and Duration of Event: 2017 Rafting Season
Special Provisions of Permit (as requested on application form):

- ♦

Additional requirements for permit holder:

- ♦ Locking and unlocking of Wards Ferry Restroom on every visit to help reduce vandalism and improve maintenance of the facility.
- ♦ Sharing of use data at end of season with DPRA.
- ♦ Payment of all applicable recreation area use fees.
- ♦ Compliance with all Don Pedro Recreation Area Rules and Regulations.

☑ $ 1,000,000 Liability Insurance/Additional Insured Listing Approved

☑ Permit Approved

☐ Other Agencies' Permit Process Complete (if applicable) n/a

By: Dee Vanderschans

Title: Administrative Assistant

Copies to:

☑ Director or Division Manager, for review & file.
☐ Chief Ranger of facility in which use occurs.
☐ Other Division(s) of DPRA affected by use.

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DON PEDRO RECREATION AGENCY

COPY

Sponsored By:
TURLOCK IRRIGATION DISTRICT
MODESTO IRRIGATION DISTRICT
CITY AND COUNTY OF SAN FRANCISCO

Headquarters at West Side of Dam

10201 BONDS FLAT ROAD • LA GRANGE, CALIFORNIA 95329 • (209) 852-2396 FAX (209) 852-2780
www.donpedrolake.com

February 9, 2017

O.A.R.S. West, Inc.
P.O. Box 67
Angels Camp, CA 95222

To Tyler Wendt:

This letter is your bill for collection of passengers, which took out at Wards Ferry Bridge during the **2016** rafting season, in the amount of **$525**. The amount of the bill is based upon the use figures submitted by you at the rate of **$1** per person. The total of **$525** is due and payable by **April 15, 2017.**

This bill is being issued by the Don Pedro Recreation Agency in accordance with the Don Pedro Recreation Agency Rules and Regulations, Section 1.02.

Thank you in advance for your immediate attention to this matter. If you have any questions, please do not hesitate to contact me.

Sincerely,

Sue VanderSchans
Administrative Assistant

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Don Pedro Recreation Agency

SPECIAL USE PERMIT
APPLICATION FORM

INSTRUCTIONS:

This permit application form is intended for the use of the Recreation Agency to *consider* authorization of Recreation Area use for purposes other than family camping and individual water-oriented use. Individuals and groups of various sizes that wish to use the facilities in ways that may alter the normal operation of the Recreation Area will need to complete the following information.

Upon submission of this form to the Recreation Agency, it will be reviewed and if authorization is granted for the items requested in this form, a Special Use Permit will be issued. The Special Use Permit is issued solely for the activities described in the Special Use Permit. Appropriate facility use fees will be assessed. In addition to a Special Use Permit, the Permittee must submit to the Recreation Agency a certificate of liability insurance for the described special use for an amount to be determined, and must have the following wording added to the certificate: *The Don Pedro Recreation Agency, the Turlock Irrigation District and the Modesto Irrigation District, and their governing boards shall be named as additional insureds under this policy.*

Please fill out the following as completely as possible. Items identified here will be the basis for determining the parameters of the permit for which you are applying.

Today's Date: 01|31|17

Organization Name: O.A.R.S. West, Inc.

Mailing Address: P.O. Box 67 Angels Camp, CA 95222

Applicant's Name: Tyler Wendt Daytime Phone #(209)753-4789

Date(s) and times of proposed use/event: 04|01|17 through 09|30|17.

Please describe the desired location and the type of facility use:

Take out at Wards Ferry Bridge with use of restrooms onsite.

Are there any special requests for additional Recreation Agency services, equipment or materials (ie. Additional tables needed, weigh in dock, additional parking areas, etc.)? If so, describe in detail.

N/A

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Will you be bringing in any equipment, structures, or vehicles other than normal individual camping or day use equipment for the purpose of this special use? If so, please describe.

N/A

A copy of the Don Pedro Recreation Agency Rules and Regulations has been provided to you with this Application for your review. Do you foresee any part of your special use request that may be contrary to any of the DPRA Rules and Regulations? (ie. Electronic sounds, quiet hours, placement of developed (temporary) improvements in the facility, fires, camping areas, number of people, etc.). If so, describe in detail.

N/A

If your special use encompasses lands/resources that fall under other Agencies' jurisdictions or private property, have you contacted them? If so, were permits or written permission granted by those Agencies/landowners?

Stanislaus National Forest, Groveland Permit to Operate

I have filled in this permit application form to the best of my ability and verify that the information is complete. I understand that any permit that is issued by the Recreation Agency can only incorporate the information brought forth in this application. Any changes after the permit is issued will be addressed on a case by case basis, including the possibility that a new permit will need to be applied for and issued.

Applicant's signature

01/31/17
Date

Attach additional pages if needed to answer any of the above questions.

The O.A.R.S. Family of Companies



Guiding Life's Greatest Adventures

Tuolumne River Trip Log
2016

DATE	PAX	# DAYS	VUD	BOATS	GUIDES	TRAINEES		GROSS
6-Mar	5.0	1.0	5.0	3.0	2.0	8.0	$	2,665.20
31-Mar	6.0	1.0	6.0	2.0	2.0	1.0	$	3,198.24
9-Apr	8.0	2.0	16.0	4.0	3.0	2.0	$	4,264.32
17-Apr	8.0	1.0	8.0	3.0	3.0	-	$	4,264.32
25-Apr	6.0	1.0	6.0	3.0	2.0	2.0	$	3,198.24
30-Apr	6.0	2.0	12.0	3.0	3.0	2.0	$	3,198.24
7-May	5.0	2.0	10.0	2.0	2.0	-	$	2,665.20
7-May	4.0	1.0	4.0	2.0	1.0	1.0	$	2,132.16
14-May	11.0	2.0	22.0	6.0	6.0	-	$	5,863.44
17-May	9.0	2.0	18.0	5.0	4.0	2.0	$	4,797.36
22-May	8.0	2.0	16.0	3.0	3.0	1.0	$	4,264.32
24-May	8.0	2.0	16.0	4.0	4.0	-	$	4,264.32
24-May	6.0	1.0	6.0	2.0	2.0	-	$	3,198.24
27-May	11.0	3.0	33.0	4.0	4.0	-	$	5,863.44
2-Jun	8.0	2.0	16.0	4.0	4.0	-	$	4,264.32
5-Jun	4.0	1.0	4.0	2.0	2.0	-	$	2,132.16
8-Jun	19.0	1.0	19.0	3.0	3.0	-	$	10,127.76
14-Jun	10.0	3.0	30.0	4.0	4.0	-	$	5,330.40
18-Jun	21.0	3.0	63.0	6.0	6.0	-	$	11,193.84
21-Jun	6.0	3.0	18.0	3.0	3.0	1.0	$	3,198.24
26-Jun	21.0	2.0	42.0	6.0	6.0	-	$	11,193.84
28-Jun	10.0	3.0	30.0	4.0	3.0	2.0	$	5,330.40
2-Jul	20.0	2.0	40.0	6.0	6.0	-	$	10,660.80
4-Jul	19.0	3.0	57.0	6.0	6.0	-	$	10,127.76
7-Jul	20.0	2.0	40.0	7.0	7.0	-	$	10,660.80
9-Jul	11.0	2.0	22.0	5.0	5.0	-	$	5,863.44
11-Jul	8.0	2.0	16.0	5.0	5.0	-	$	4,264.32
14-Jul	17.0	3.0	51.0	6.0	6.0	-	$	9,061.68
21-Jul	18.0	3.0	54.0	6.0	6.0	-	$	9,594.72
24-Jul	8.0	2.0	16.0	6.0	6.0	-	$	4,264.32
27-Jul	21.0	2.5	52.5	6.0	6.0	-	$	11,193.84
1-Aug	12.0	2.0	24.0	4.0	4.0	1.0	$	6,396.48
3-Aug	21.0	2.0	42.0	5.0	5.0	1.0	$	11,193.84
5-Aug	14.0	3.0	42.0	6.0	6.0	-	$	7,462.56
8-Aug	18.0	2.0	36.0	6.0	5.0	1.0	$	9,594.72
11-Aug	18.0	3.0	54.0	5.0	5.0	1.0	$	9,594.72
17-Aug	20.0	2.0	40.0	6.0	6.0	1.0	$	10,660.80
19-Aug	17.0	3.0	51.0	6.0	6.0	-	$	9,061.68
23-Aug	13.0	3.0	39.0	5.0	5.0	1.0	$	6,929.52
26-Aug	13.0	3.0	39.0	5.0	5.0	-	$	6,929.52
29-Aug	7.0	2.0	14.0	3.0	3.0	-	$	3,731.28
2-Sep	16.0	2.0	32.0	6.0	6.0	1.0	$	8,528.64
4-Sep	14.0	2.0	28.0	6.0	6.0	-	$	7,462.56
TOTAL	525	92	1,190	194	187	29	$	279,846.00

I certify that this data is a true and accurate compilation of activity on the above stated river for 2016.

Samantha Nunes
Bookkeeper 1/31/2017

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 03/14/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Leslie Vannoy, CIC, CRM
CBIZ Sattler Insurance Services 1504 8th St Lewiston ID 83501	PHONE (A/C, No, Ext): (208)743-9426 FAX (A/C, No): (208)748-9433 E-MAIL ADDRESS: lvannoy@cbizsattler.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Tudor Insurance Company	37982
INSURER B: Philadelphia Indemnity Ins	18058
INSURER C: Indemnity Insurance Company of N A	43575
INSURER D:	
INSURER E:	
INSURER F:	

INSURED
O.A.R.S. West, Inc.
PO Box 67

Angels Camp CA 95222

COVERAGES **CERTIFICATE NUMBER:** 16-17 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY PRO-JECT LOC OTHER:	X		PGP8000435	03/15/2016	03/15/2017	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG Fire Damage	$ 1,000,000 $ 300,000 $ 2,500 $ 1,000,000 $ 3,000,000 $ Included $ 100,000
B	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS			PHPK1467800	03/15/2016	03/15/2017	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) Medical payments	$ 1,000,000 $ $ $ $ 5,000
C	X UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 10,000			N10882527002	03/15/2016	03/15/2017	EACH OCCURRENCE AGGREGATE	$ 4,000,000 $ 4,000,000 $
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N N/A If yes, describe under DESCRIPTION OF OPERATIONS below						PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ $ $

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

As Additional Insured: The certificate holder is an additional insured for general liability only with respects to the ongoing operations of the named insured.

Landowner

CERTIFICATE HOLDER

(209)852-2780

The Don Pedro Recreation Agency
Turlock Irrigation District
Modesto Irrigation District
And their governing boards
10201 Bonds Flat Road
La Grange, CA 95329

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

J Sattler, CPCU, CIC/

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DON PEDRO RECREATION AGENCY

COPY

Sponsored By:
TURLOCK IRRIGATION DISTRICT
MODESTO IRRIGATION DISTRICT
CITY AND COUNTY OF SAN FRANCISCO

Headquarters at West Side of Dam

Mailing Address: 10201 BONDS FLAT ROAD, LA GRANGE, CA 95329 *Phone:* 209-852-2396
www.donpedrolake.com

January 26, 2017

O.A.R.S. West, Inc.
P.O. Box 67
Angels Camp, CA 95222

To George Wendt:

Enclosed please find an application for your 2017 rafting season's Don Pedro Recreation Agency (DPRA) Special Use Permit. Please fill it out and return it by March 1, 2017, so that we can process your permit in time for the season to start.

In addition to the Special Use Permit application form, please forward the following:

- A copy of your insurance certificate with the additional insured language added as defined on the Special Use Permit application form.
- Documentation showing the total number of rafters on your trips in 2016. This information is a vital part of our annual report to the California Dept. of Water Resources, which we are currently preparing.

As always, we appreciate your communication regarding the condition of the upper reaches of the lake as you frequent that location more often than DPRA staff. Dave Jigour, Lake Operations Division Manager, will continue to be your contact for issues regarding lake operations, driftwood management and the Wards Ferry restroom. He can be reached at the following email and phone number:

- drjigour@tid.org
- (209) 852-2396 ext. 8718

The restroom at Wards Ferry will be checked out and prepped before the season begins. In-season maintenance will be scheduled the same as last year.

If you have any questions, please do not hesitate to contact us.

Sincerely,

Chris Collett
Director

Copy to: Groveland Ranger District, USFS
Encs.

Tuesday, February 28, 2017

Don Pedro Recreation Agency
10201 Bonds Flat Rd
La Grange, CA 95329
Telephone: (209) 852-2396
clerk: Susan VanderSchans

Sales Receipt

PAUL & JULIA ICHORD 2717
CRABTREE ROAD WATERFORD CA
95386

1ea x 1Houseboat Non-DPermit: **H-153**
LIC/CF#: **CF 1588HU**.....$525.00
1ea x 1Houseboat Non-DPermit: **H-153**
LIC/CF#: **CF 1588HU**.....$525.00
Total.....$1,050.00

#357408 (CHECK) ..$410.00
#357409 (CREDIT CARD) $115.00
Total Payments....$525.00
Balance.....$525.00

***

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CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 3/14/2017

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PRODUCER CBIZ Sattler Insurance Services 1504 8th St Lewiston ID 83501	CONTACT NAME: Leslie Vannoy, CIC, CRM PHONE (A/C, No, Ext): (208) 743-9426 FAX (A/C, No): (208) 748-9433 E-MAIL ADDRESS: lvannoy@cbizsattler.com
INSURED O.A.R.S. West, Inc PO Box 67 Angels Camp CA 95222	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A: Tudor Insurance Company — 37982 INSURER B: Philadelphia Indemnity Ins — 18058 INSURER C: Indemnity Insurance Company of N A — 43575 INSURER D: INSURER E: INSURER F:

COVERAGES CERTIFICATE NUMBER: 17-18 REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [ ] OCCUR [X] GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY [ ] PRO-JECT [ ] LOC OTHER:	X		PGP0774302	3/15/2017	3/15/2018	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 300,000 $ 2,500 $ 1,000,000 $ 3,000,000 $ Included
B	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS [ ] SCHEDULED AUTOS HIRED AUTOS [ ] NON-OWNED AUTOS			PHPK1624289	3/15/2017	3/15/2018	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
C	X UMBRELLA LIAB [ ] OCCUR EXCESS LIAB [ ] CLAIMS-MADE DED X RETENTION $ 10,000			N10882527002	3/15/2016	3/15/2017	EACH OCCURRENCE AGGREGATE	$ 4,000,000 $ 4,000,000
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N [ ] (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A					PER STATUTE / OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ $ $

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

As Additional Insured: The certificate holder is an additional insured for general liability only with respects to the ongoing operations of the named insured.

Landowner

CERTIFICATE HOLDER

(209) 852-2780

The Don Pedro Recreation Agency
Turlock Irrigation District
Modesto Irrigation District
And their governing boards
10201 Bonds Flat Road
La Grange, CA 95329

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

L Vannoy, CIC, CRM/LE Leslie K. Vannoy

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Exhibit 7

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Exhibit 8

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Exhibit 9

20180228-5265 FERC PDF (Unofficial) 2/28/2018 4:44:46 PM



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Exhibit 10

20180228-5265 FERC PDF (Unofficial) 2/28/2018 4:44:46 PM



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Exhibit 11

20180228-5265 FERC PDF (Unofficial) 2/28/2018 4:44:46 PM



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Exhibit 12

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Exhibit 13



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Exhibit 14



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Exhibit 15

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Exhibit 16

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Exhibit 17

20180228-5265 FERC PDF (unofficial) 2/28/2018 4:44:46 PM

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Exhibit 18

Username Password Login
Remember Me
Forgot your password? | Sign Up

Accident Database: 137 Results Found

Completed Safety Committee Reports

State/Country	Date	Name/Age	River/Section	Flow/Class	Boat/Cause	Factor/Injury	Type/Private	
CA United States	2018-01-11	Seth Smith 27	Kern Mouth of Canyon to Rancheria Road	Low IV	Whitewater Kayak-Other	Other/	Fatal Private	Read More
CA United States	2017-12-17	Dave 48	American, S. Fork (8. The Gorge 8. The Gorge (Greenwood Creek to Folsom Reservoir)	Medium III+	Whitewater Kayak-Other	Inadequate Equipment/ Hypothermia	Injury Private	Read More
CA United States	2017-08-03	Luca Chiarabini 47	Kings 1. Middle, S. Fork confluence to Garnet Dike Campground	Medium IV	Other-Equipment Trap	/	Fatal Private	Read More
CA United States	2017-06-08	Stephanie Waggoner 49	Truckee 1. Alpine Meadows Road to Floriston	I	Other-	/	Fatal Private	Read More
CA United States	2017-05-29	Unidentified Woman	American, S. Fork (6. Chili Bar 6. Chili Bar (Route 193 to Coloma)	High N/A	Whitewater Kayak-Foot Entrapment	Other/	Injury Private	Read More
CA United States	2017-05-27	Unidentified Woman	American, S. Fork 7. Coloma to Greenwood Creek	High II+	Whitewater Kayak-	/	Injury Private	Read More

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CA United States	2017-05-27	Shane Joseph Ornelas. 44	Kern (3) Johnsondale Bridge to Powerhouse #3 3) Johnsondale Bridge to Powerhouse #3 (Upper Kern)	High IV	Raft-Flush Drowning	Cold Water/	Fatal Commericial	Read More
CA United States	2017-04-28	Dayton ??	Chico Creek	N/A	Whitewater Kayak-Swim into Strainer	Inadequate Equipment/	Injury Private	Read More
CA United States	2017-04-15	Lawrence Holguin 60	Kern River	N/A	Inflatable Kayak-Unknown	Cold Water/	Fatal Private	Read More
CA United States	2016-07-31	Richard Girard 59	Sacramento River 4) Sims Flat Campground to Lake Shasta	II	Whitewater Kayak-Flush Drowning	Other/ Other	Fatal Private	Read More
CA United States	2016-07-03	Logan Farrell 35	Cherry Creek Upper	V	Whitewater Kayak-Caught in a Natural Hydraulic	Other/	Fatal Private	Read More
CA United States	2015-02-13	Jonathan Mellon 33	Redwood Creek Lacks Creek to Orick		Raft-Equipment Trap	Other/	Fatal Private	Read More
CA United States	2015-01-25	Samantha Dweck 24	Eel 4) Dos Rios to Alderpoint	I	Whitewater Kayak-Pinned in Boat Against Strainer	Other/	Fatal Private	Read More
CA United States	2014-10-12	Lisa Sayaka Nakamaru	Putah Creek (Lake Berryessa Lake	Medium III	Raft-PFD Not Worn	One Boat Trip/	Fatal Private	Read More

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		20	Berryessa (Monticello Dam) to Lake Solano		or Present			
CA United States	2014-06-09	34	San Joaquin, Middle Fork Devils Postpile Nat'l Monument to Mammoth Pool Reservoir	Medium V	Whitewater Kayak- Pinned in Boat against Rock or Sieve	Other/ Physical Trauma	Injury Private	Read More
CA United States	2014-03-09	John D. Wilburn 30	Smith, S. Fork Bridge near Big Flat Campground to confluence with Middle Fork	V	Whitewater Kayak- Swim into Strainer	High Water/	Fatal Private	Read More
CA United States	2014-01-14	Brian Ginsburg	Feather, N. Fork 2) Rock Creek Dam to Rock Creek Powerhouse	Low IV	Whitewater Kayak- Pinned in Boat against Rock or Sieve	Other/ Near Drowning	Injury Private	Read More
CA United States	2013-08-25	Joshua Foster	Feather, N. Fork 2) Rock Creek Dam to Rock Creek Powerhouse		Whitewater Kayak- Swim into Rock or Sieve	Other/ Near Drowning	Injury Private	Read More
CA United States	2013-07-27	Dorit Hillmann 54	McCloud Fowler Camp to McCloud Reservoir		Whitewater Kayak- Pinned in Boat Against Strainer	Other/	Fatal Private	Read More
CA United States	2013-03-23	Dirk Bradford 39	Indian Creek (Feather trib) Feather trib) (Near Crescent Mills to Spanish Creek	V	Whitewater Kayak- Swim into Rock or Sieve	Other/	Fatal Private	Read More
CA United	2012-	Shelbi	Clear Creek (2)	Medium IV	Whitewater	Other/	Fatal Private	Read More

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States	12-10	Danielle Arno 39	Whiskeytown Reservoir to Sacramento Valley		Kayak-Pinned in Boat against Rock or Sieve			
CA United States	2012-08-01	Mariati Tani 41	Tuolumne (4) Lumsden Campground 4) Lumsden Campground (Merals Pool) to Wards Ferry Bridge	IV+	Raft-Swim into Rock or Sieve	/	Fatal Commericial	Read More
CA United States	2012-07-15	Unidentified Man	American, Middle Fork (1) Tunnel Run: Oxbow Bend 1) Tunnel Run: Oxbow Bend (Ralston Afterbay) to Drivers Flat Road	Medium	Raft-Other	Other/ Heart Attack / Heart Failure	Fatal Commericial	Read More
CA United States	2012-05-06	Stan Decker 59	American, N. Fork 3. Chamberlain Falls: Colfax-Iowa Hill Road to Yankee Jims Road	Medium IV	Raft-Flush Drowning	Cold Water/	Fatal Commericial	Read More
CA United States	2011-09-06	Joyce Dalton 57	American River	I	Kayak - Other-Pinned in Boat Against Strainer	One Boat Trip/	Fatal Private	Read More
CA United States	2011-08-07	Allen Satcher 28	Cherry Creek Upper	V+	Whitewater Kayak-Caught in a Natural Hydraulic	Other/	Fatal Private	Read More
CA United States	2011-07-24	Oscar Alvarez 24	Kern 3) Johnsondale		Raft-PFD Not Worn	High Water/	Fatal Private	Read More

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			Bridge to Powerhouse #3		or Present			
CA United States	2011-07-14	Nathan Warren 27	American, N. Fork 0.5 Royal Gorge: Soda Springs Road to Tadpole Creek	V+	Whitewater Kayak-Impact/Trauma	Other/ Spinal Injury	Injury Private	Read More
CA United States	2011-07-12	Daniele Tira 33	Dinkey Creek 3. Ross Creek Trail to confluence of NF Kings	High V	Whitewater Kayak-Swim into Rock or Sieve	Other/	Fatal Private	Read More
CA United States	2011-06-19	Adam G. Mola 23	Kings River		Other-Caught in Low Head Dam Hydraulic	Cold Water/	Fatal Private	Read More
CA United States	2011-06-18	Tyler Minton 17	Yuba (B) Englebright Dam to Parks Bar B) Englebright Dam to Parks Bar (Hwy 20)	High N/A	Whitewater Kayak-Caught in Low Head Dam Hydraulic	Other/	Fatal Private	Read More
CA United States	2011-06-13	Minh Tu Quang Nguyen, Scott Neacato 22	Kern 7) Mouth of canyon to Lake Ming	High IV	Raft-PFD Not Worn or Present	High Water/	Fatal Private	Read More
CA United States	2011-05-08	Unidentified man	Kern River		Whitewater Kayak-Flush Drowning	Other/	Fatal Private	Read More
CA United States	2011-03-20	Jason Craig 17	Dry Creek Near Marysville, CA	Medium IV+	Whitewater Kayak-Impact/Trauma	Other/ Spinal Injury	Injury Private	Read More
CA United	2011-	Matthew	Walnut Creek		Raft-	High Water/	Fatal Private	

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States	02-19	Miller 16	None		Flush Drowning			Read More
CA United States	2010-10-13	Woman & Children	American, N. Fork		Other-Other	Other/ Near Drowning	Injury Private	Read More
CA United States	2010-08-29	Susan Marie Kaiser 37	Feather, N. Fork 2) Rock Creek Dam to Rock Creek Powerhouse	Medium IV	Inflatable Kayak-Foot Entrapment	Failed Rescue/	Fatal Private	Read More
CA United States	2010-07-18	Lilly Morales 11	Clear Creek (Sacramento trib.) Sacramento trib.) (2) Whiskeytown Reservoir to Sacramento Valley	Low VI	Raft-PFD Not Worn or Present	One Boat Trip/	Fatal Private	Read More
CA United States	2010-07-10	Unidentified Man 41	Yuba, S. Fork F) Route 49 to Bridgeport	IV	Other-PFD Not Worn or Present	Other/	Fatal Private	Read More
CA United States	2010-06-21	Grady L. Singletary 47	Kaweah Park Boundary/ Gateway to Dinley Bridge		Raft-Impact/Trauma	Other/ Head Injury / Concussion	Fatal Commericial	Read More
CA United States	2010-06-16	Unidentified 9 y.o. boy	American, S. Fork (6. Chili Bar 6. Chili Bar (Route 193 to Coloma)	High N/A	Raft-	/	Injury Private	Read More
CA United States	2010-06-14	Dr. Leon Wescombe 29	Cosumnes, Middle Fork FS Route 9N60 to Mt. Aukum Road		Whitewater Kayak-Flush Drowning	High Water/	Fatal Private	Read More
CA United States	2010-06-14	Thomas James 53	Brush Creek Rincon Camp to Kern River	Medium	Whitewater Kayak-Caught in a Natural Hydraulic	Other/	Fatal Private	Read More

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CA United States	2010-01-16	Three Men	Smith, S. Fork Bridge near Big Flat Campground to confluence with Middle Fork		Raft-Other	One Boat Trip/ Hypothermia	Injury Private	Read More
CA United States	2009-06-29	Soren Pederson 29	American, S. Fork (6. Chili Bar 6. Chili Bar (Route 193 to Coloma)	Medium	Raft-Foot Entrapment	Other/ Heart Attack / Heart Failure	Fatal Commericial	Read More
CA United States	2009-05-22	Cheryl Ann Johnson 51	Bear Highway 174 Bridge to Lake Combie	High	Other-Swim into Rock or Sieve	High Water/	Fatal Private	Read More
CA United States	2009-04-17	John Burnham 63	Kern 2) Forks of the Kern to Johnsondale Bridge	V	Whitewater Kayak-Swim into Rock or Sieve	Other/	Fatal Private	Read More
CA United States	2008-08-22	Unidentified Child	American, S. Fork 6. Chili Bar (Route 193 to Coloma)	Medium IV	Other-Foot Entrapment	Other/	Injury Private	Read More
CA United States	2008-06-21	Unidentified Woman	Kings River		Whitewater Kayak-Other	Other/	Fatal Private	Read More
CA United States	2007-07-27	Marvin Silver 51	Kern 5) Sandy Flat to Democrat Hot Springs (Miracle Run)		Raft-Flush Drowning	Other/	Fatal Commericial	Read More
CA United States	2007-07-04	Ronald Osborne 23	Sacramento River		Open Canoe-PFD Not Worn or Present	One Boat Trip/	Fatal Private	Read More
CA United States	2006-10-25	Unidentified Man	Feather, N. Fork 2) Rock Creek Dam to Rock Creek Powerhouse	Medium IV	Whitewater Kayak-Vertical Pin	Other/ Other	Injury Private	Read More

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CA United States	2006-08-25	Unidentified Man	American Sunrise Avenue to Watt Avenue	II	Raft-PFD Fell Off	Other/	Fatal Private	Read More
CA United States	2006-07-23	Christine Piatti 13	American, S. Fork 6. Route 193 (Chili Bar) to Folsom Lake (Salmon Falls Road Bridge)	High IV	Raft-Foot Entrapment	High Water/	Fatal Private	Read More
CA United States	2006-06-26	Unknown Girl 12	Tuolumne Cherry Creek to Meral's Pool	V	Open Canoe-Unknown	One Boat Trip/	Fatal Private	Read More
CA United States	2006-04-30	Robert Feltzer 50	Eel, Middle Fork Black Butte River to Dos Rios	III	Raft-Flush Drowning	High Water/	Fatal Private	Read More
CA United States	2005-06-26	Michael Wallace Eckert 32	Tuolumne Lumsden Campground (Merals Pool) to Wards Ferry Bridge	High V	Raft-Flush Drowning	High Water/	Fatal Private	Read More
CA United States	2005-06-16	Brent Bradley 20	Tuolumne Clavey Falls	IV	Whitewater Kayak-Pinned in Boat against Rock or Sieve	Other/	Fatal Private	Read More
CA United States	2005-05-29	Joseph Paul Bailey 41	Yuba Highway 20 to Marysville	N/A	Raft-PFD Not Worn or Present	Inadequate Equipment/	Fatal Private	Read More
CA United States	2005-05-29	Marcos Medina 35	Mokelumne Ponderosa Way to Electra to Hwy 49 Bridge	Medium III	Raft-PFD Not Worn or Present	Other/	Fatal Private	Read More
CA United States	2005-02-19	David Pennell 53	Carmel Los Padres Reservoir to Carmel Valley	III	Whitewater Kayak-Pinned in Boat	Other/	Fatal Private	Read More

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					Against Strainer			
CA United States	2004-09-13	Corinne Casey 40	Russian Pieta Creek to 101 Bridge	III	Kayak - Other-Pinned in Boat Against Strainer	Inadequate Equipment/	Fatal Private	Read More
CA United States	2004-06-17	Deb Martin 34	Fordyce Creek Fordyce Lake to Lake Spaulding	V	Whitewater Kayak-Pinned in Boat Against Strainer	Other/	Fatal Private	Read More
CA United States	2004-03-06	Unidentified Woman	American, N. Fork 3. Colfax-Iowa Hill Road to Colfax-Foresthill Road Bridge	N/A	Raft-Foot Entrapment	Cold Water/ Spinal Injury	Injury Private	Read More
CA United States	2003-09-27	Yannick Meraud	Feather, N. Fork 3) Cresta Dam to Poe Dam	Medium IV	Raft-Swim into Rock or Sieve	Other/	Fatal Private	Read More
CA United States	2003-09-14	Scott Manning	Kings 4. Pine Flat Dam to Centerville (Route 180)	Low N/A	Whitewater Kayak-Caught in Low Head Dam Hydraulic	Failed Rescue/	Fatal Private	Read More
CA United States	2003-07-08	Wayne Hawthorne 48	Salmon, S. Fork Limestone Bluffs to Matthews Creek Campground	Low IV	Whitewater Kayak-Pinned in Boat against Rock or Sieve	Other/	Fatal Private	Read More
CA United States	2003-07-05	Richard Thurman 63	Kern Lower	II	Raft-Health Problem	Other/ Heart Attack / Heart Failure	Fatal Commericial	Read More
CA United States	2003-06-01	James Owens 40	Cache Creek 2) Bear Creek	III	Other-PFD Not Worn	Other/	Fatal Private	Read More

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			Confluence to Rumsey		or Present			
CA United States	2003-05-04	David Edrington 52	Yuba, S. Fork C) Washington to Edwards Crossing	High IV	Whitewater Kayak-Flush Drowning	High Water/	Fatal Private	Read More
CA United States	2003-05-03	Jeff Ellis 23	Shackleford Creek	V	Whitewater Kayak-Caught in a Natural Hydraulic	Failed Rescue/	Fatal Private	Read More
CA United States	2002-06-30	Mario Rosales 20	Stanislaus Goodwin Dam to Knights Ferry	Low IV	Raft-PFD Not Worn or Present	One Boat Trip/	Fatal Private	Read More
CA United States	2002-06-15	Sandra Schoeps 19	Cache Creek 2) Bear Creek Confluence to Rumsey	III	Inflatable Kayak-Swim into Strainer	Other/ Head Injury / Concussion	Fatal Commericial	Read More
CA United States	2001-09-09	Unknown Woman	Cache Creek 2) Bear Creek Confluence to Rumsey	Medium III	Inflatable Kayak-PFD Fell Off	Inadequate Equipment/	Fatal Commericial	Read More
CA United States	2001-05-07	David Ranson 34	Yuba, N. Fk. Union Flat to Goodyear's Bar	Medium III	Whitewater Kayak-Pinned in Boat Against Strainer	Cold Water/ Hypothermia	Fatal Private	Read More
CA United States	2001-03-31	Nancy Roberts 38	Trinity, South Fk.	Medium III	Kayak - Other-PFD Fell Off	Other/	Fatal Private	Read More
CA United States	2001-01-16	Barry Tessman	Lake Isabella Lake	N/A	Whitewater Kayak-Impact/Trauma	Solo Paddling/ Head Injury / Concussion	Fatal Private	Read More

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CA United States	2000-07-08	Taylor Veitch 10	American, S. Fk. Chili Bar	Low III	Raft-Foot Entrapment	Other/	Fatal Commericial	Read More
CA United States	2000-06-05	Derek Snelling 17	N. Fork Yuba near Downieville	IV	Whitewater Kayak-Pinned in Boat against Rock or Sieve	Failed Rescue/	Fatal Private	Read More
CA United States	2000-05-06	Brandon Cooley 16	Trinity 3) Pigeon Point Campground to Cedar Flat	High II	Open Canoe-PFD Not Worn or Present	High Water/	Fatal Private	Read More
CA United States	2000-04-18	Wendy Ellis 44	Trinity Pigeon Point Campground to Cedar Flat	High III	Whitewater Kayak-PFD Not Worn or Present	High Water/	Fatal Private	Read More
CA United States	1999-06-20	John Stofle	Yuba, N. Fork	Medium II	Whitewater Kayak-Impact/Trauma	Failed Rescue/	Fatal Private	Read More
CA United States	1999-05-27	Will Hagood	Tuolumne Main (lower)	High V	Whitewater Kayak-Pinned in Boat against Rock or Sieve	High Water/	Fatal Private	Read More
CA United States	1999-05-07	Walt Shipley 43	Dinkey Creek 2. Dinkey Creek Campgrounds to logging spur road	Medium V	Whitewater Kayak-Caught in a Natural Hydraulic	Failed Rescue/	Fatal Private	Read More
CA United States	1999-04-24	Guide in training	Yuba, N. Fork D) Bullards Bar Dam to Colgate Powerhouse	Medium	Raft-Swim into Rock or Sieve	Other/	Fatal Commericial	Read More
CA United States	1998-08-30	Unidentified Man	American, S. Fork 7. Coloma to	Medium	Whitewater Kayak-	Other/ Near Drowning	Injury Commericial	Read More

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			Greenwood Creek		Pinned in Boat Against Strainer			
CA United States	1998-08-01	Michelle Lopez 26	Kern River Chamise to the Park	Medium V	Raft-Swim into Rock or Sieve	One Boat Trip/	Fatal Private	Read More
CA United States	1998-07-25	John Guy	Stanislaus Goodwin Dam to Knights Ferry	IV	Whitewater Kayak-Impact/Trauma	Other/ Head Injury / Concussion	Injury Private	Read More
CA United States	1998-07-06	Martha Johnson 41	Kern Below Lake Isabella	High II	Whitewater Kayak-Impact/Trauma	Other/	Fatal Private	Read More
CA United States	1998-06-21	three unidentified men	Cosumnes River near Rancho Murita	High N/A	Raft-Caught in Low Head Dam Hydraulic	One Boat Trip/	Fatal Private	Read More
CA United States	1998-06-21	Brenda Cercone 27	American, S. Fk. Chili bar	High II	Raft-Swim into Strainer	Other/	Fatal Commericial	Read More
CA United States	1998-06-20	Unknown Woman 41	American, S. Fk. Folsom Gorge	High III	Raft-PFD Fell Off	Cold Water/	Fatal Private	Read More
CA United States	1998-06-18	Unidentified Man 25	Klamath Below Happy Camp	High II	Other-Flush Drowning	Other/	Fatal Commericial	Read More
CA United States	1998-06-17	Robert Wheat 48	American, S. Fk. Chili bar	High IV	Raft-Flush Drowning	Other/ Hypothermia	Fatal Private	Read More
CA United States	1998-06-17	Branda Snow 13	Kern Upper Kern	High III+	Raft-Swim into Strainer	Cold Water/	Fatal Commericial	Read More
CA United States	1998-06-08	Greg Malley	Tuolumne (4) Lumsden Campground 4)	High IV	Raft-Flush Drowning	High Water/	Fatal Commericial	Read More

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			Lumsden Campground (Merals Pool) to Wards Ferry Bridge					
CA United States	1998-06-01	Three People	Cosumnes River Highway 49 to Latrobe Road	Medium VI	Raft-Unknown	Other/	Fatal Private	Read More
CA United States	1997-07-20	Rob Zimmerman	Kern (4) Lake Isabella to Sandy Flat 4) Lake Isabella to Sandy Flat (Dam Run)	Low IV	Whitewater Kayak-Equipment Trap	Other/ Physical Trauma	Injury Private	Read More
CA United States	1997-06-03	Dugald Bremmer 41	American, Silver Fork China Flat to SF American confluence	Medium V	Whitewater Kayak-Pinned in Boat against Rock or Sieve	Other/	Fatal Private	Read More
CA United States	1996-07-06	Melissa Toben 45	Kern 2) Forks of the Kern to Johnsondale Bridge	Low III	Inflatable Kayak-Swim into Rock or Sieve	Other/	Fatal Private	Read More
CA United States	1996-05-28	Luca Scribar 30	American, S. Fk. Slab Creek	Medium V	Whitewater Kayak-Flush Drowning	Poor Group / Scene Management/ Head Injury / Concussion	Fatal Private	Read More
CA United States	1996-05-05	Art Capacite 38	Yuba, N. Fork B) Downieville to Goodyears Bar Bridge	Medium V	Whitewater Kayak-Caught in a Natural Hydraulic	Other/	Fatal Private	Read More
CA United States	1995-07-02	Unknown	Yuba, N. Fork B) Downieville to	High V	Raft-Foot Entrapment	Other/	Fatal Commericial	Read More

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			Goodyears Bar Bridge					
CA United States	1995-06-11	Commercial Guest	American, N. Fork 3. Chamberlain Falls: Colfax-Iowa Hill Road to Yankee Jims Road	Medium IV+	Raft-Flush Drowning	Other/	Fatal Commericial	Read More
CA United States	1995-05-30	Unidentified River Guide	Merced 5) Redbud to Briceburg	High	Raft-Swim into Strainer	One Boat Trip/	Fatal Private	Read More
CA United States	1995-05-29	Unknown	Yuba, N. Fork C) Goodyears Bar Bridge to Hwy 49 Bridge	High V	Raft-Flush Drowning	Failed Rescue/	Fatal Commericial	Read More
CA United States	1995-03-18	7 Year Old Child 7	San Joaquin	High II	Open Canoe-Pinned in Boat against Rock or Sieve	One Boat Trip/	Fatal Private	Read More
CA United States	1993-07-07	Tina Parly-Gillim 27	Yuba, N. Fork B) Downieville to Goodyears Bar Bridge	Medium IV+	Raft-Swim into Rock or Sieve	Other/	Fatal Commericial	Read More
CA United States	1993-07-03	Linda Costa 11	Chiquito Creek	Medium II	Raft-Flush Drowning	One Boat Trip/	Fatal Private	Read More
CA United States	1993-07-02	Jose Cruz	Kern Lower	Medium I	Raft-PFD Not Worn or Present	One Boat Trip/ Hypothermia	Fatal Private	Read More
CA United States	1993-05-25	Jaroslav Mach	Eel, Middle Fork Black Butte River to Dos Rios	Medium V	Whitewater Kayak-Vertical Pin	/	Fatal Private	Read More
CA United States	1993-05-22	Donald Blevins 17	Feather Thermolito to Highway 99	Medium IV	Raft-PFD Not Worn	Other/	Fatal Private	Read More

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					or Present			
CA United States	1993-05-20	Amadeus Ramirez 20	Kings (4. Pine Flat Dam to Centerville 4. Pine Flat Dam to Centerville (Route 180)	Medium II	Open Canoe-Pinned in Boat Against Strainer	One Boat Trip/	Fatal Private	Read More
CA United States	1993-05-01	Peter Sterrey 30	American, N. Fork 3. Colfax-Iowa Hill Road to Colfax-Foresthill Road Bridge	High IV	Raft-Foot Entrapment	High Water/	Fatal Private	Read More
CA United States	1993-04-12	Steven Murray 33	Stanislaus The Old "New Melones" Run	Medium IV	Raft-Swim into Rock or Sieve	Cold Water/	Fatal Private	Read More
CA United States	1993-02-20	John Dunlop	Arroyo Valle Mt. Hamilton to Del Valle Reservoir	Medium IV	Whitewater Kayak-Pinned in Boat Against Strainer	Other/	Fatal Private	Read More
CA United States	1992-06-06	Dan Negro	Tuolumne Cherry Creek to Meral's Pool	Medium IV	Raft-Foot Entrapment	Other/	Fatal Commericial	Read More
CA United States	1992-05-24	Amy Roark 5	Kern River Rancherio Below Golf Course	High I	Raft-PFD Fell Off	Inadequate Equipment/	Fatal Private	Read More
CA United States	1992-03-08	Kit Rice	Russian River	Medium III	Whitewater Kayak-Pinned in Boat Against Strainer	Other/	Fatal Private	Read More
CA United States	1990-06-21	Unknown Woman 27	American, S. Fork 6. Route 193 (Chili Bar) to Folsom	High IV	Raft-Swim into Strainer	High Water/	Fatal Private	Read More

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			Lake (Salmon Falls Road Bridge)					
CA United States	1989-06-27	Rich Montgomery	Tuolumne Clavey Falls	Medium IV	Whitewater Kayak- Pinned in Boat against Rock or Sieve	/ Spinal Injury	Injury Private	Read More
CA United States	1989-03-29	John Degeorge	Russian River Pieta Creek to 101 Bridge	High III	Other- Flush Drowning	One Boat Trip/	Fatal Private	Read More
CA United States	1987-11-02	Unidentified Group	Bolinas Lagoon, San Francisco Bay area		Other- Other	Cold Water/ Near Drowning	Injury Private	Read More
CA United States	1987-05-03	Unidentified Man	Kern 2) Forks of the Kern to Johnsondale Bridge	IV+	Whitewater Kayak- Impact/Trauma	Other/ Head Injury / Concussion	Injury Private	Read More
CA United States	1987-04-27	Howard Schmitz	Yuba, S. Fork C) Washington to Edwards Crossing	Low IV	Kayak - Other- Impact/Trauma	Other/ Physical Trauma	Injury Private	Read More
CA United States	1987-04-04	Andrew Palmer	American, S. Fk. Golden Gate Run	Low V	Whitewater Kayak- Vertical Pin	Other/	Fatal Private	Read More
CA United States	1986-08-10	Bob Porter	Kings 1. Middle, S. Fork confluence to Garnet Dike Campground	High V	Whitewater Kayak- Foot Entrapment	Failed Rescue/	Fatal Private	Read More
CA United States	1986-05-03	Sherry Hayes	American, N. Fk. Chamberlain Falls	Medium IV	Raft- Swim into Rock or Sieve	Other/	Fatal Commericial	Read More
CA United States	1986-04-20	Al Mcmanus	Feather, Middle Fork 1) Sloat to Nelson Point	Medium II	Whitewater Kayak- Pinned in Boat	Other/	Fatal Private	Read More

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					against Rock or Sieve			
CA United States	1986-01-16	Unidentified Men	Eel, S. Fork 1) Near Branscomb to Big Bend	High IV+	Whitewater Kayak-Other	High Water/	Injury Private	Read More
CA United States	1985-05-20	David Decot 40	Merced 4) Park Boundary to Redbud	High V	Whitewater Kayak-Pinned in Boat Against Strainer	High Water/	Fatal Private	Read More
CA United States	1985-05-02	Mark Allen 25	American, N. Fork 2. Giant Gap: Euchre Bar to Colfax-Iowa Hill Road	Medium III	Whitewater Kayak-Pinned in Boat against Rock or Sieve	Other/	Fatal Private	Read More
CA United States	1984-11-28	Dr. Shawn Smith 33	Eel R. Pillsbury Run	High IV	Whitewater Kayak-Pinned in Boat Against Strainer	High Water/ Physical Trauma	Fatal Private	Read More
CA United States	1983-06-26	Rick Sanders 52	West Walker A) Leavitt Station Trailhead to Pickel Meadow	High IV	Whitewater Kayak-Swim into Strainer	High Water/	Fatal Private	Read More
CA United States	1982-03-15	Unknown	California Salmon Forks of Salmon to Somes Bar	Medium V	Whitewater Kayak-Caught in a Natural Hydraulic	Other/	Fatal Private	Read More
CA United States	1980-05-18	Louis Niklas	Kern River	Medium II	Whitewater Kayak-Pinned in Boat against Rock or Sieve	Other/ Near Drowning	Injury Private	Read More

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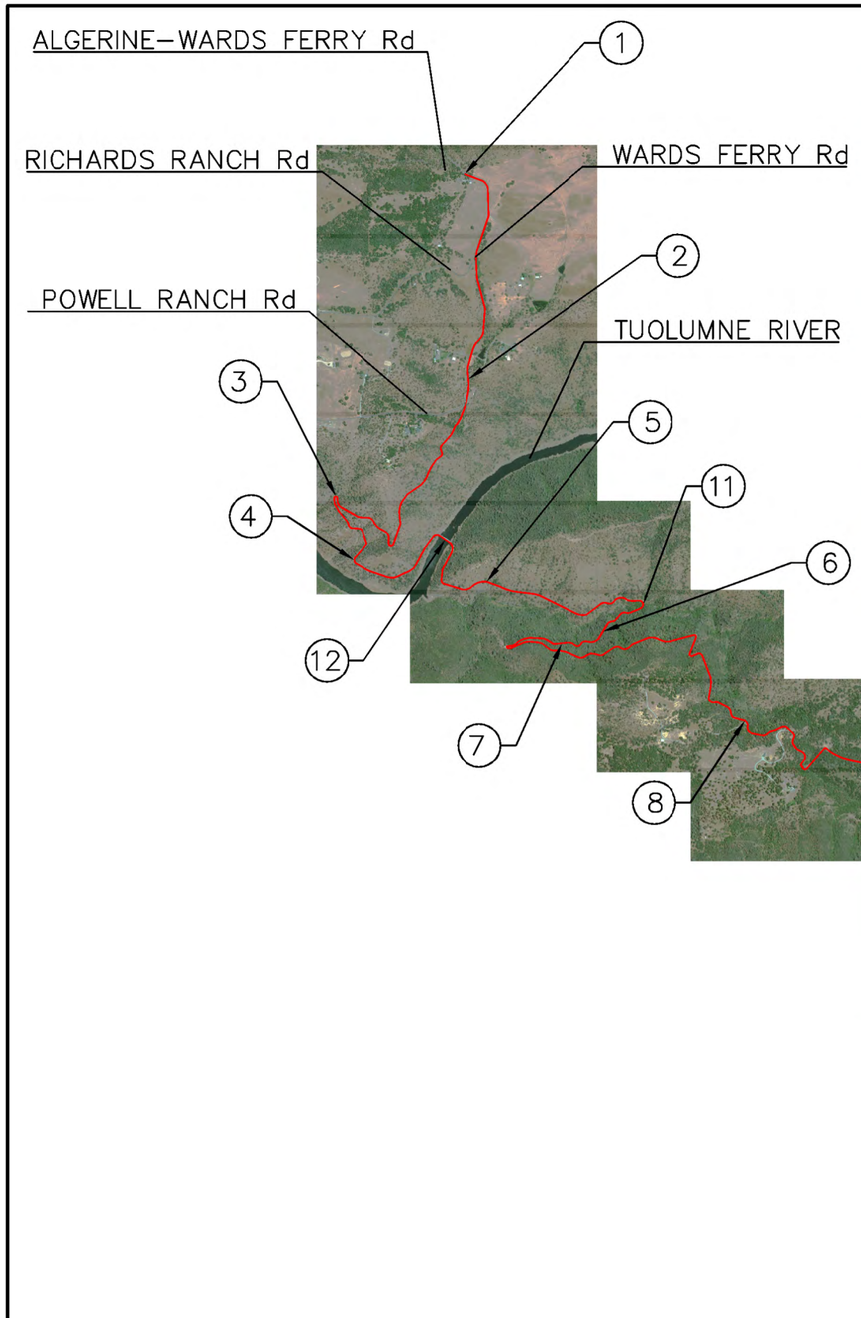
CA United States	1974-05-11	Linda Ludlow	American, Middle Fork -1) Interbay Dam to Oxbow Reservoir	IV	Raft-PFD Not Worn or Present	Other/	Fatal Private	Read More

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Exhibit 19





NOT TO SCALE

WARDS FERRY ROAD
FROM ALGERINE-WARDS FERRY ROAD TO DEER FLAT ROAD

FEBRUARY 2018

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Exhibit 20

AMERICAN WHITEWATER

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Recent Pages: 4) Lumsden Campground (Merals Pool) to Wards Ferry Bridge, Tuolumne California, US

Tuolumne - 4) Lumsden Campground (Merals Pool) to Wards Ferry Bridge

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Tuolumne, California, US Disclaimer

4) Lumsden Campground (Merals Pool) to W ards Ferry Bridge (Main Tuolomne)

Usual Difficulty	IV (for normal flows)
Avg. Gradient	40 fpm

Exit from Thread the Needle rapid



Exit from Thread the Needle rapid
Photo by Paul Martzen

Gauge Information

Name	Range	Difficulty	Updated	Level
Tuolumne River Below Confluence with Cherry Creek				
virtual-10553	600 - 10000 cfs	IV	00h27m	789.9 cfs (running)

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Associated News

River Description

The Main Tuolumne River is a California classic, with nice scenery, exciting class 4 rapids, good side hikes and interesting historical sites. While the river can be done as a day trip, many take the time to enjoy the classic 18 mile stretch from Meral's Pool to Ward's Ferry above Don Pedro Reservoir as 2-3 day trip. Dependable flows are provided by Holm Powerhouse up on Cherry Creek. Hetch Hetchy Water and Power has developed a good relationship with the whitewater community and has agreements to provide dependable daytime flows through the summer to the extent possible.

Permits are Required from May 1 to October 15 of each year. Permits must be obtained from the Stanislaus National Forest, Groveland Ranger District, Tuolumne River. Day trip permits are usually easy to obtain in person and are free. Overnight permits can be reserved starting on January 1st. Weekday overnight permits can be easy to obtain also. Permits are free but there is a fee to reserve permits ahead of time. The reservation fee is $15 per 1st 10 people, and $2 per person over 10 people.

The Groveland Ranger District office is on Highway 120, about a third of a mile east of Ferreti Road, the turnoff to Meral's Pool. Call (209) 962-7825.

Video highlighting popular rapids and scenery. Shot in late April 2014 (after 2013 Rim Fire) by Matt Henry, All-Outdoors Whitewater Rafting

Getting There: Groveland is on Highway 120, the northern route into Yosemite National Park. From Modesto or Manteca on Freeway 99, it is a little more than an hours drive up 120 to Groveland.

Driving from the south up highway 99, turn north at Merced up J59 through Snelling to La Grange. Take highway 132 to Coulterville. In Coulterville, turn north onto 49 and continue to highway 120 at the bottom of the Priest Grade. Alternatively, turn onto Greeley Hill Road in Coulterville, then turn left after a few miles onto the Priest Coulterville road. This narrow road meets highway 120 at the top of the Priest Grade.

Put in: From Goveland, drive east on highway 120 about 8 miles to Ferretti road at Casa Loma.

5th Annual Paddle to the Sea with Tuolumne River Trust
April 29, 2013

SPEAK UP FOR IMPROVED ACCESS AT WARD'S FERRY BRIDGE - Tuolumne River (CA)
January 19, 2018

Turn left and drive 1 mile to the junction with the Lumsden Road (Forest Route 1N10) Meral's Pool is 5 miles down this narrow, twisty, rough, slow, dirt road. Allow about 20 minutes driving time from Highway 120 down to Meral's Pool. Lumsden Road is generally closed in the winter time. Call the ranger district to see when this road opens in the spring. There are several free campsites along the river in the vicinity of the put in. They have pit toilets but no potable water.

When Lumsden road is closed, kayakers can hike down the SF Tuolumne road. It is a two or three mile hike but all down hill with some nice scenary. Talk to the rangers at the Forest Service station for directions and conditions. The turn off for the road/trail is about .4 miles past the Buck Meadow Lodge.

Take out: Wards Ferry Road bridge crosses the upper end of New Don Pedro reservoir. Boaters will usually have to paddle a mile or two of flatwater on the lake. If the reservoir is low there can be nice rapids almost to the bridge. There is a trail on the upstream river right side of the bridge. Parking is limited, so cars get spread out on the shoulder along the road. Don't leave any valuables in the car. Break ins sometimes happen. Allow about 20 minutes driving time each way from the river to Highway 120.

Alternate Take out: A commercial towing service will tow rafters down the reservoir to Moccassin Point Marina, where derigging and unloading is much easier. Contact: Dave 209-962-4965] direct, or contact Tuolumne River shuttle service, [Darrell] 209-559-4605 to reserve a time for hook up and pull out.

Other information sources:
Cassady & Calhoun, Holbek & Stanley, Martin
Whitewater Guidebook
Tuolumne River - National Forest page
Tuolumne-River.com guide page
Paddle to the Sea; 2009 (blog)
Tuolumne River Shuttles (209-732-6165)

Geology:
Cenozoic evolution of the Tuolumne
http://www.terrywrightgeology.com/tguiderevision07.1.doc is an msWord doc of Terry Wright's wonderful book, 'Rocks and Rapids of the Tuolumne River; A guide to the Natural and Human History'.

Permit Information

https://www.fs.usda.gov/recarea/stanislaus/recreation/wateractivities/recarea/?recid=14975&actid=79

Permit applications are accepted after January 1 for the following season: May 1 through October 15. While permits for day trips or weekday overnight trips are generally available in-person, advance reservation for weekend overnight trips is recommended.

StreamTeam Status: Not Verified
Last Updated: 2018-01-07 18:21:32

Rapid Summary

Mile	Rapid Name	Class	Features (Legend)
-2.0	South Fork Road trailhead	N/A	
0.1	Rock Garden	IV	
0.4	Nemesis	IV	
0.8	Sunderland's Chute	IV	
1.0	Hackamack's Hole	IV	
1.4	Ram's Head	IV	
4.3	Stern	IV	
5.4	Clavey Falls	5.0	

5.4	Clavey Hole	5.0	
9.5	Gray's Grindstone	IV	
11.0	Thread the Needle	III	
12.6	Cabin	IV	
13.1	Hells Kitchen	IV	
15.2	North Fork of the Tuolumne	N/A	
17.6	Pinball	IV	
18.0	Wards Ferry Bridge	N/A	
18.1	Elevation 750 Feet - Deer Creek	N/A	
20.0	Elevation 700 feet	N/A	
23.0	Elevation 650 feet	N/A	

Rapid Descriptions

South Fork Road trailhead (Class N/A, Mile -2.0)
I think is the location of the trailhead to the SF Road. (It has been awhile since I have personally hiked it.) The SF Road does go down this drainage and then out onto the east facing ridge above the South Fork Tuolumne. The route is marked as a trail on the topo map, and it is also visible for much of the distance in aerial photos.

Rock Garden (Class IV, Mile 0.1)

Rafts in Rock Garden rapid


Rafts in Rock Garden rapid
Photo by Paul Martzen

At low summer flows around 1300 cfs, many raft guides consider this the hardest rapid on the river because the river is wide and there are rocks everywhere. Typically rafts enter on river right, then about the middle of the rapid work their way through boulders to the river left side. Lots of rafts hang up in the middle of this rapid and all the other rafts at the top have to wait till the stuck raft gets clear.

Kayakers can work their way down through any part of the rapid without a lot of difficulty. Just eddy hop and pick your way.

Nemesis (Class IV, Mile 0.4)

Evan below Nemesis


Evan below Nemesis
Photo of by Daniel Lundberg taken 04/28/07 @ 900 cfs

This is a very long complicated rapid with a number of distinct levels. At low flows both rafts and kayaks have to maneuver their way past numerous rocks and drop offs.

It is a really tricky rapid that tends to wrap rafts or at least get them very stuck. It is characterized by a long, easy entrance and current that drives into some rocks called "the Jacks." At low water, the classic run is down the right side and then entereing a tricky chute down the middle. Most wraps occur when rafts eddy out on the right just above the tricky chute. The eddy is very tough to leave and they end up wrapped above the chute. At higher water(about 3,000 cfs and above), the middle becomes much more exciting with holes and big waves. At these flows, there is a nice cheat line on the far right. The kayaking lines are pretty much the same and there are probably 5 or 6 fun lines for competent, adventurous kayakers.

Sunderland's Chute (Class IV, Mile 0.8)

Hey! Let's party in the bottom hole!



Hey! Let's party in the bottom hole!
Photo by Paul Martzen

The river makes a sharp turn to the right, then picks up speed as it flows in a fairly straight line against the right side wall. The top half of the rapid is fairly open with numerous rocks forming eddies. At low summer flows, boaters can eddy hop down a ways till the river drops down a steep narrow chute. Several big holes wait at the bottom of the chute, occupying the center and right. The typical route is down the center of the chute then power left before the bottom.

This rapid is named for Dick Sunderland, an early California river running pioneer.

Hackamack's Hole (Class IV, Mile 1.0)
A busy rapid with a large rock in the center of the river near the bottom that creates a large hole at high flows.

This rapid is named for Bob Hackamack, who is still active in protecting the wild and scenic Tuolumne river.

Ram's Head (Class IV, Mile 1.4)

Below Ram's Head



Below Ram's Head

Photo by Daniel Lundberg taken 04/28/07 @ 900 cfs

Another very long rapid that narrows as it goes. A big rock occupies the center waves near the bottom of the rapid. At high flows this rock forms a big hole which requires a lot of work to avoid.

Stern (Class IV, Mile 4.3)

Raft in center route at Stern's



Raft in center route at Stern's
Photo by Paul Martzen taken 08/06/13 @ 1200 cfs

Large boulders block much of the river, especially at low flows. Scout from river left. A narrow channel remains between the left cliff wall and a very large boulder. It is a cliff formed hallway. Kayakers have to stay straight, but it is really tight for rafts. Oarboats have to make sure their oars do not hang up on the walls.

A center route is good at higher flows, but is shallow and tricky at low summer flows.

Clavey Falls (Class 5.0, Mile 5.4)

Class V Clavey Falls


Class V Clavey Falls
Photo of This 10 foot drop is the highlight of the Main Tuolumne by Matt Urdan taken 05/28/01 @ 1250 cfs

The first of two drops in this staircase rapid are the biggest. An 8-foot sem-verticald rop on the right, called "The Falls" takes boats into a foaming current that pushes them toward the left wall. The second drop is guarded by a boat-crunching hole across the left half of the river. There is a left-side run that avoids the Falls but also leads to the big hole. Portage on the right, Set safety downstream. The most dangerous part of this rapid is "Dinosaur Rock" at the bottom of the rapid. Few people rarely walk down to scout it and many boats hit it. It is fairly easy to wrap or flip on this rock at flows above 2,000 cfs. Even if you miss the rock to the left, there is a steep eddy line that will flip a raft or throw a few paddlers out. Kayakers that float over this line may end up in a tricky eddy behind the rock. There have been two deaths on this rapid, both above 8,000 cfs and both kayakers. Kayaks that paddle over the top of Dinosaur end up getting caught in a part of the rock that split off on the back side. This would be horrible place to swim, but it's worse in a kayak, because a kayak can easily pin here.

Clavey Hole (Class 5.0, Mile 5.4)

Boat-Crunching Clavey Hole


Boat-Crunching Clavey Hole
Photo of Clavey Hole by Matt Urdan taken 05/28/01 @ 1250 cfs

The picture was taken at a low flow of 1250 cfs. The hole is just downstream of Clavey Falls and virtually unavoidable -- a boat-cruncher. After the high water year of 2005, some rocks shifted below the hole, which changed it's character. At low water, this used to be a steep 2-3 foot drop into a sticky hole. Now, that feature is pretty much gone and instead it's a tricky manuever between boulders and the potential to wrap a boat has increased. The hole is most fierce at higher flows when it's steep and surges unpredictably. It's possible to avoid the hole completely, but then you're set up to run right into Dinosaur Rock, so most people hit the edge of the hole. At high water, Clavey Hole is still as fierce as ever.

Gray's Grindstone (Class IV, Mile 9.5)
This rapid is probably the most fun on the Tuolumne. It's about half a mile long full of rocks, holes, and waves. At lower water(below 1500 cfs), it's a zigzag between rocks and over drops. At about 2500 cfs, a big hole appears at the entrance on the right. You can skirt this hole by running a technical left route. At flows above 4000 cfs, this hole can easily flip rafts which would lead to a long swim.

Thread the Needle (Class III, Mile 11.0)

Thread the Needle rapid


Thread the Needle rapid
Photo by Paul Martzen

There is an easy route on river left at all flows. A more exciting center route goes between the two huge boulders, but can not be recommended. The center boulder appears to be undercut and the current pushes directly into it.

On my first trip down the T, I and another novice kayaker followed one of our leaders through the narrow slot and vertical drop on the far river right. At the bottom he turned, saw us behind him and cried out, "My god, you were not supposed to follow me through there!" It always seemed like the way to go ever since. Pmartzen

Cabin (Class IV, Mile 12.6)
A large boulder bar / boulder field on the left pushes the channel over against the right wall. The river has cut two channels across the top of the boulder field, but the main channel is the furthest right. The rapid drops steeply to the right, then curves steadily back to the left.

Hells Kitchen (Class IV, Mile 13.1)
Big Creek is visible directly ahead on river left. Then the river bends sharply to the right and enters Hells Kitchen rapid.

This is a long, steep and busy rapid. At normal flows, it's a technical line through huge boulders right down the middle. At the higher flows (above 5,000 cfs) you'll want to start looking for lines down the left side to avoid the huge powerful waves in the center.

North Fork of the Tuolumne (Class N/A, Mile 15.2)
There are campsites on both upstream and downstream sides of this creek. It is a very pretty area to explore

Pinball (Class IV, Mile 17.6)
This short but tricky rapid appears only at very low reservoir elevations. A line of large boulder block the river. There are a number of openings, but each is semi-blocked by smaller boulders. Kayaks should have no problems, but rafts can get hung up.

Wards Ferry Bridge (Class N/A, Mile 18.0)
This newest bridge was constructed in 1971 to keep the road above the high water mark of New Don Pedro reservoir. The stone abutments of the old road remain just upstream on each side of the river.

There is a steep trail on river left suitable for individual hikers and kayakers, but private rafters will use the slightly wider trail on river right. It is an awkward, slippery, difficult carry, so be careful. Commercial raft companies use a winch to lift their boats straight from the water to the bridge.

AW is working with the other stakeholders to design, fund and construct a better take out.

Elevation 750 Feet - Deer Creek (Class N/A, Mile 18.1)

The river will reach past the Wards Ferry Bridge to Deer Creek when the reservoir elevation is 750 feet.

Elevation 700 feet (Class N/A, Mile 20.0)
The River will reach this far when the reservoir is at 700 feet elevation.

Elevation 650 feet (Class N/A, Mile 23.0)
The river will reach this far when the lake is at this elevation.

User Comments

Users can submit comments.

April 30 2014 (1394 days ago) Matthew Henry Details
Tuolumne River is open and runnable. No restrictions are posted on Lumsden Road. Burned areas from
the Rim Fire are noticeable and significant but most of the vegetation at river level has survived, and the popular camp sites along the river are in good shape.

August 20 2013 (1647 days ago) Matthew Henry Details
Forest fire in Clavey River/ Tuolumne River Canyons. Hwy 120 Closed near Groveland. For more information go to the Stanislaus National Forest web site or copy and paste the following web address: http://www.inciweb.org/incident/3660/ Fire name: "Rim Fire"

April 16 2012 (2138 days ago) Konrad Pehl Details
Apparently road was repaired spring 2012.

July 27 2011 (2402 days ago) Paul Martzen Details
March 2011 Lumsden Road to the put in at Merral's Pool is closed due to a landslide approximately
4.4 miles from the intersection of Lumsden Road and Ferretti Road. For more info call the Groveland
Ranger District at 209.962.7825 Alternative access is to hike down the South Fork road/trail or to drive in via Cherry Lake road. There is also a service to transport gear into the river via ATVs which can get around the landslide. Call Tuolumne River Shuttles at (209) 962-4662.

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4) Lumsden Campground (Merals Pool) to Wards Ferry Bridge, Tuolumne California, US (mobile)

20180228-5265 FERC PDF (Unofficial) 2/28/2018 4:44:46 PM

Exhibit 21

Tuolumne River below Lumsden

Stretch:	Lumsden Campground to Don Pedro Reservoir
Difficulty:	class IV (one class V-), IV+ above 4000 cfs, V above 8000 cfs
Distance:	18 miles, 1 or 2 days
Flows:	rafts 1000 - 5000 cfs, kayaks 600 - 8000, IK minimum 500
Gauge:	a bit less than Don Pedro daily average inflow (DNP)
Gradient:	35 fpm average, much steeper at beginning
Put-in:	upper Lumsden campground or (rafts) above Rock Garden, 1440'
Take-out:	Ward's Ferry Bridge high above the reservoir, 850'
Shuttle:	30 miles, including 5 miles on dirt (over an hour) one-way
Maps:	Stanislaus NF, AAA Yosemite, Topo
Season:	summer into early autumn, from dam release
Agency:	USFS, permit required May - September, guided Whitewater Rafting
Notes:	© 1998, 2000, 2014, 2015, 2016 Bill Tuthill, CreeksYahoo

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This total classic is one of the finest whitewater runs in California. The rapids are exhilarating without being very dangerous, camping is excellent, geology is interesting, and scenery is good. This is one of the best overnight rafting trips in California. Forests especially on the south side had regenerated after wildfires of the early 1980s. Then the devastating Rim Fire, started in August 2014, crossed the river from the Clavey river towards Groveland, but left very little damage visible from river level. The road to put-in was greatly improved during fire fighting efforts.

Although the Tuolumne is runnable in springtime, there are usually many other rivers running at that time, so many boaters save this run for summertime when little else is running. In May and June, snowmelt can create flows well above 8000 cfs. By July, dam releases create a more moderate 900-1300 cfs, and fish flow (200-500 cfs) sometimes on Wednesdays.

Permits are required from May 1st thru September 31st, selected by fee payment and lottery during the off-season. High water permits are the most sought-after. Kayakers can often pick up cancellations almost any weekend in August or September. Note the port-a-potty requirement, which encourages kayakers to make the run in a single day. Rafters have a hard time making a one-day run at summer flows.

The shuttle is long and arduous. One cost-effective alternative is to drive your vehicles uphill early in the morning, pick up your permit at 8 AM, pay for a half shuttle at Casa Loma Store, then hitch-hike down to put-in. That way, your vehicles will be at take-out when you get there, and you can exit the easy way towards Sonora. Later in the season, when hydropower releases reach Lumsden around 11 AM, if you have a vehicle suitable for consolidation, you can meet early at take-out and be ready by the time flows come up. Full shuttles from Lumsden campground to Ward's Ferry are available (2014), a convenient but more costly option. Kayakers running Cherry Creek are often willing to bring a vehicle uphill from Lumsden to Casa Loma Store in late afternoon.

A mnemonic for remembering the first letter of major rapids thru Clavey is: “Rabbits never sleep having rested in pizza sauce, except after Clavey.” Dan Dunlap suggested this

mnemonic for the entire run: “Rocky never slows his raft in large swirling eddies be-cuz ... going thru slowly confounds his manic paddlers.”

mile

0

Put in on the left bank at Meral's Pool, near the river flow gauge.

.1

Rock Garden, class IV, scout right
Runnable almost anywhere in a kayak, and great fun too. At low water, a real pain for rafts; wraps and wedges are commonplace. At low flows, rafts must enter right and make a yo-yo move sharp left behind a large rock outcropping. At moderate flows, boats can run far left all the way. At high flows, the sneak route is down the right side, and another rock outcropping near the bottom creates a huge reversal about the size of a suburban swimming pool.

.4

Nemesis, class IV-, hard to scout
This rapid starts with a boulder field of moderate gradient, continues into some bigger drops, then piles into a rock cluster, the Nemesis itself. Although the rock cluster might change with future floods, the current route is center, diagonally left to right. At high water the sneak route is on the left. Some additional drops and slaloms present themselves below.



Waiting while rafts unwrap in Rock Garden



Mini-cataraft in the Nemesis diagonal

.8

Sunderland's Chute, class IV+, scout left
The river turns right and drops over a gravel bar on the left and a series of rocks against a small cliff on the right. You can scout this rapid by walking over the gravel bar among willow trees. At low and moderate flows, you probably want to enter on the right to avoid right-tending currents. Find a good opportunity to ferry left and avoid the huge holes at the bottom right.

1

Hackamack's Hole, class IV-, boat scout
Contains two rocks near the center. It's easy to navigate between them at low flows, but at high flows they create a single reversal. Named after Bob Hackamack, a longtime Sierra Club river activist.


Sunderland's Chute is long and turbulent


Goalpost rocks that form Hackamack's

1.5

Ram's Head, class IV, scout right
After a short respite, the river bends left, drops over a gravel bar on the right, and piles into a cliff on the left (a smaller mirror image of Sunderland's Chute). There are rocks to avoid and drops to punch in the upper section, but the main problem is a large rock (class V hole above 3500 cfs) smack dab in the middle near the bottom. You can go either right or left of the Ram, but you must decide.

1.9

India, class IV-, boat scout
After another short respite, the river narrows and curves sharply left against the right wall, into a hole. Named after an early femal kayaker, young India Fleming.

2.1

Lower India, AKA Phil's Folly, class IV-, boat scout
Swift water continues over some drops leading into several rocks with blind exits. Kayaks have no problem here, but at low flows rafts are restricted to one or two channels between the rocks. After this, relatively easy rapids follow for about two miles.

3.3

Tin Can Cabin camp on the left bank, connected by hiking trail to Lumsden Road.


Ram's Head with kayaker's head upstream


Tandem kayak in the squeeze move of Stern

4.2

Ugly-Easy, class III, a long curving rapid into bedrock, ending with in a big hole on the left and an easy tongue on the right. Shortly below, just above Stern, is Zach's Falls: not remarkable at low flows, but big waves and a huge hole at high flows.

4.4

Stern, class IV, possibly scout left
Big boulders block the river. For rafts at low summer flows, this is one of the most feared rapids on the river. At higher flows many routes appear, so this rapid becomes easier. The low water route is a boat-width channel between the leftmost boulder and the cliff on the left. The drop just before the narrow channel contains a diagonal wave

that turns boats rightward, so be sure to counteract that tendency with the appropriate strokes.

4.7

Evangelist, class IV, possibly scout left
The river veers right and enters a series of drops. The second or third drop contains a large rock (hole at high flows) right of center, and the best low-water route is to the left of that rock. Rafts sometimes get wrapped there, in which case, this one will make a believer out of you! It's holey (groan).

5.2

Airborne, AKA Bent Thole Pin, class IV-, possibly scout right
An innocent-looking series of drops leads into a steep falls over some rocks that plug the exit. The left side drops more gradually, with thr best route in the shape of a 2 (Z from below). A large rock wall lurking on the left below has jammed rafters' oars, hence the old name of this rapid. Clavey follows almost immediately.



Evangelist has a big rock in the center



Kayak and mini-cat running Bent Thole Pin

5.4

Clavey Falls, class V- or IV+, scout right or left
On river right just past the Clavey confluence, the Tuolumne drops over a 3 meter falls into rock-strewn turbulence, surges into a cliff on river left, then crashes into a large holes downstream, and finally collects to the left past Dinosaur rock before reaching somewhat calm water.
The route on the right is rated class V- for injuries it has caused, such as kayak pins and broken bones. An alternate class IV+ route on the left is available for kayaks, but is too narrow for rafts below about 1500 cfs (depending on raft size and boater skill). This semi-sneak route starts left of a low island, drops steeply thru some rocks, then drops again between two underwater boulders forming a goalpost, and joins the raft route well above the large holes. Using either route, the holes can be avoided by paddling to river right, but avoidance is easier when you start from the left side, because this eliminates right-to-left momentum caused by the steep falls. At flows above 3000 cfs most rafts choose the left-side semi-sneak route.
Scout right if you are in a raft, except at higher flows. Scout left otherwise. A narrow trail follows the left bank under tree cover, stopping just short of the aforementioned cliff. First timers might also want to scout the hole and lower rapid from the right, then scout the entrance from the left before running it. Portage on the right if you decide not to run the kayak route, which really isn't much harder than Sunderland's Chute, and is less turbulent if you take the correct route. For emergencies, a trail starts on the left upstream of Clavey, leading downstream and then uphill out of the canyon.
Kayaker Brent Bradley died after being pinned on the lower left side of Dinosaur rock in mid June 2005 at about 10000 cfs. This was the second fatality at that spot: kayaker Will Haygood pinned in the same undercut in 1998, also at high flows.




Raft in Clavey, kayak route in background Kayaks eddy out, Clavey Hole against cliff

5.6

Son of Clavey, class III+ or IV-
Just around the corner from calm water at the bottom of Clavey Falls, the river drops steeply over rocks. The left side drops more gradually. It is difficult to see a good route from above; at moderate flows one good route starts left of center and finishes right of center. Afterwards, rapids taper off to mostly class II. Except for...

6.7

Wrap King, AKA Little Niagara, class III+ or IV+
The river drops steeply alongside big boulders, a wrap hazard at lower flows, then plunges over a final drop. Interesting Disneyland kayak move on bottom left.

7.5

Powerhouse from the gold mining days, destroyed by flood in 1937. This sandy beach makes a common lunch stop or a good campsite.

7.9

Grapevine Creek enters on the right. Ironically, Grapevine campsite is on the left bank just downstream. About .2 mile downstream, near the bottom of the flat gravel bar, is an abandoned hard rock mine shaft that makes an interesting exploration, with flashlights.

8.3

Indian Creek enters on the left. Ironically, Indian Creek campsite is on the right bank just downstream. This formerly offered a huge sandy beach, somewhat diminished by the flood of 1997.

9.5

Gray's Grindstone, class IV, scout center (top only)
This fine rapid is about one kilometer long, perhaps longer if you count the class II rapid that follows a short break after a typical Tuolumne rock-cluster-at-the-bottom. The first sequence contains a series of holes and/or rocks, and should be scouted if you are not familiar with the rapid, so as to avoid a long swim. After the first sequence comes a long (but fortunately not very steep) rock garden with many possible routes. This leads to a rock cluster, best navigated with a left-to-right angle.
During high water of 1998, the first death on this stretch of the Tuolumne occurred when a commercial guide drowned after his oar raft flipped in the first sequence of Gray's Grindstone. Another rafter, Michael Wallace Eckert, drowned there in 2005.




Initial drop of Gray's Grindstone

Mini-cat in crux at bottom of Gray's

10.5?

Surf City, class III+, big waves and lots of fun.

11

Thread the Needle, class IV or II+
A huge fractured boulder blocks the center of the river, offering bold boaters a chance to thread the needle. You can also choose the much easier Chicken Shot on far left.





Reflections upon dropping into Surf City

Thread the Needle with IKs in Chicken Shot

11.4

Driftwood, two excellent camps on the left bank with sandy beaches and afternoon shade from old oak trees. Just below is a class III rapid that is very bony on low-water Wednesdays (go left then right).

11.9?

Steamboat, class IV-
A long boulder bar rapid leads into a big hole that often flips rafts at high water. Usually sneakable on the left side.

12.2

Mine shafts on both banks. Trail out of the canyon on the left. A rusty old steam engine litters the right bank.

12.6

Cabin, class IV, scout left
Big Humbug Creek enters on the left, probably causing this rapid. The river drops over a boulder bar and curves left around big boulders and over some big drops. For best results, ferry left after the boulder bar and stay mostly left. Large rafts will get stuck on low-water Wednesdays, but kayaks should have no problem.





Inflatable skirts edge of Steamboat hole

Cabin part 2, where most boats work left

12.8

Big Creek enters on the left, creating a large but unshaded campsite. Indian mortar holes nearby, and waterfalls upstream. For heavily loaded rafts, this is a good choice of campsite for Saturday night: you can run the first section of Hell's Kitchen with water, tie up your boats, then run the remaining river at low flows with no hang-ups.

12.9

Hell's Kitchen, class IV, perhaps scout left
This starts with class III drops over a shallow boulder bar, then turns into a slalom among huge rocks. The 2nd or 3rd slalom often causes wraps, especially for paddle boats, because a tricky underwater rock necessitates a precise maneuver. Make sure the rapid is clear before entering.



The crux slalom move of Hell's Kitchen



A gray pine looms horizontally overhead

14.4

Mohican mine, an abandoned quartz mine and rusty old stamp mill on the left. A trail (4WD in some years) leads up to Groveland on the left bank. A defunct suspension bridge hanging down into the river was pasted to the banks during the flood of 1997.

15.1

North Fork Tuolumne enters on the right. Many good campsites are nearby, some usually reserved for commercial outfitters. Downstream on the right, fine campsites continue, all sunny and hot in the afternoon. The 1 mile upstream hike to a waterfalls is highly recommended if you have time.



Grotto waterfalls where folks congregate



Guide jumping into the deep pool below

15.8

High water mark of New Don Pedro reservoir.

16.5

Turnback Creek enters on the right.

16.8?

Matterhorn, class III sequence
When the reservoir is low, you find several significant rapids in a row. Between the first and second is a rock in the river that looks like a miniature Matterhorn.

17.6

Pinball, class III to IV
Uncovers when Don Pedro reservoir is < 770' above sea level. Because this is under the reservoir most of the time, it gets mighty silted up, so when it first uncovers, it is only class III. But after several drought years, the river washes away the silt and it gradually

returns to its former class IV+ state (originally considered harder than anything but Clavey). In the 7 year drought of the early 1980s, it briefly reached class IV.

18

Wards Ferry bridge, take out by climbing the right bank.

21?

An easier take-out is at Moccasin Marina, 2 hours by motorboat pull from Wards Ferry bridge. Contact Dave Friedman at 209-962-4965. He works Don Pedro reservoir from the end of May through August. Dave can pull up to 8 rafts simultaneously. His fee is $200 for 4 rafts (minimum) and $50 for each additional raft. Dave can also help you move vehicles.

Shuttle Directions

To reach Casa Loma Store (usually closed), drive east from Oakdale on highway 108/120. Just before highway 108 starts climbing steeply, turn right where highway 120 splits off. Wind along New Don Pedro reservoir, then climb the steep hill to Groveland (near the bottom of the hill past Moccasin, a right turn onto Old Priest Grade makes a good uphill shortcut.) Once past Groveland, continue east another 7.5 miles, and turn left onto Ferretti Road, marked with a glow-in-the-dark green sign. The parking area for Casa Loma Store is an immediate left turn. There are some flat spots for sleeping along Ferretti Road, and two USFS campsites at the bottom of Lumsden Road.

If you must reach take-out from Groveland, drive west just past the outskirts of town and turn right onto Deer Flat road, a shortcut. After more than a mile, turn right onto Wards Ferry Road and continue north. Past the final settlements, Wards Ferry Road becomes one lane as it winds steeply downhill. Parking at the bridge is limited, and vandalism at night has been reported.

To reach put-in from Casa Loma Store, continue north on Ferretti Road for almost a mile, then turn right across a cattle grate (near power lines) onto Lumsden Road. The put-in is about five miles down this bumpy one-lane dirt road.

If you opt to have all your vehicles shuttled, you can avoid the steep uphill drive to Groveland by exiting towards Sonora. Continue north and uphill on Wards Ferry road about 2 miles. Just over the crest of a hill at a left curve, bear sharply left onto Algerine-Wards Ferry road (Wards Ferry road continues uphill to the right). After about 4 miles, turn left onto Algerine road, which leads into historic downtown Jamestown, with several excellent restaurants. To find nearby food and lodging, type Groveland into the box and click Search.

Search Google Custom Search

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Exhibit 22

RECREATION

- Recreation Overview
- Boating / Houseboating
- Camping
- Fishing / Hunting
- Hiking / Biking
- Picnicking
- Forms / Maps / Documents



The Lake

More than 14 million people have visited Don Pedro Lake since 1971. With 160 miles of shoreline and nearly 13,000 surface acres (at maximum lake level), visitors can enjoy boating, fishing, water sports, swimming and camping. One of the highlights of the year is the annual fireworks show over the lake celebrating the Fourth of July.

Don Pedro Recreation Agency offers campsites at three campgrounds: Fleming Meadows and Blue Oaks located on the west shore, and Moccasin Point located on the east shore.

- 2 Marinas
- Boat Launch Ramps - Lake (Navigational) Map
- Camping
- Water Sports
- Hunting / Fishing
- Water Ski Course
- Fees
- Rules and Regulations



Blue Oaks

Nestled in the rolling foothills adjacent to Don Pedro Lake is Blue Oaks Recreation Area. Campers awake to scenic views of the central valley or the sunrise over the water of Don Pedro Lake. The campground offers campsites with either partial hookups (water and power) or without hookups - perfect for either RV's and/or tents. The facility also has a boat launching ramp, fish cleaning station, sewage dump station, a group camping area (for up to 200 people) complete with covered dining area and electric hookups for RV's, restrooms with hot showers (no additional charge) and a hiking trail.

Number of Camp Sites: 34 partial hookup campsites, 161 tent campsites (Blue Oaks Campground Map)

- Boat Launch - Lake (Navigational) Map
- Group Picnic Area (by reservation)
- Camping (partial hookups and no hookups)
- Group Camping
- Restrooms / Showers
- Hiking Trail - Trail Map
- Fees
- Rules and Regulations
- 30 amp RV plus 2 standard
  20 amp 120V outlets



Fleming Meadows

Fleming Meadows Recreation Area offers different camping loops for full hook-up campsites, tent campsites and walk-in campsites. Featuring a 2-acre swimming lagoon, complete with sand bottom/beach area, large grass lawn area, snack shack and picnic area. Fleming Meadows also offers a group picnic area, horseshoe pits, ball field, volley ball court, boat launch ramp, fish cleaning station, hot showers (no additional charge), sewage dump station, camp store, and full service marina.

Number of Camp Sites: 90 full hookup, 176 non-hookup and walk-in tent campsites (Fleming Meadows Campground Map)

- Boat Launch - Lake (Navigational) Map
- Day-use Picnic Area
- Group Picnic Area (by reservation)
- Swimming Lagoon
- Restrooms / Showers
- Full Service Marina
- Sewage Dump Station
- Fees
- Rules and Regulations
- 30 amp RV plus 2 standard
  20 amp 120V outlets

Moccasin Point



Set in the scenic canyon along the Tuolumne River arm and Moccasin Bay arm of Don Pedro Lake, **Moccasin Point Recreation Area offers RV (full hookup) and tent camping, restrooms with hot showers (at no extra charge), RV sewage dump station, walking trails, picnic area, boat launch ramp, fish cleaning station and full service marina**. The confluence of Moccasin Creek and Don Pedro Lake is located adjacent to the campground making this facility a great base for both flat water and stream fishing opportunities.

Number of Camp Sites: 18 full hookup campsites, 78 non hookup campsites (Moccasin Point Campground Map)

- ✓ Boat Launch - Lake (Navigational) Map
- ✓ Camping (full hookup and no hookups)
- ✓ Day-use Picnic Area
- ✓ Restrooms / Showers
- ✓ Walking Trails - Trail Map
- ✓ Full Service Marina
- ✓ Sewage Dump Station
- ✓ Fees
- ✓ Rules and Regulations
- ✓ 30 amp RV plus 2 standard 20 amp 120V outlets



Visitor Center

With its unique round architecture overlooking Don Pedro Dam and reservoir, the Don Pedro Recreation Agency Visitor Center offers a stunning view of the Yosemite back-country peaks of Mt. McClure, Mt. Lyell, Mt. Florence and Mt. Clark. Interpretive exhibits highlighting the Don Pedro Recreation Area, the local area history, construction of the reservoir and dams along the Tuolumne River watershed and the flora and fauna of the area are housed by the building. The building also serves as the Don Pedro Recreation Agency's headquarters.

Spring wildflower displays as viewed from the visitor center are exceptional, with the face of the dam covered with lupine and the surrounding hills covered in hues of yellow, white, purple and blue. The habitat around the visitor center attracts wildlife year around. Bald and golden eagles, osprey, red tail hawks and other raptors, waterfowl, a large variety of songbirds, deer, bobcat, coyote and many other native California foothill wildlife inhabitants are common visitors to the area around the facility.

Picnic tables and benches outside of the visitor center offer a chance to rest and enjoy the scenery.

Seasons Open: Year round

Hours Open: May 15th - Sept. 15th, Daily (8 a.m. - 4:30 p.m.); Sept. 16th - May 14th, Monday - Friday (8 a.m. - 4:30 p.m.).

- ✓ Fees
- ✓ Rules and Regulations



At a cost of $6 million, the initial construction of the developed recreation facilities at Don Pedro Lake was funded through a grant (Davis-Grunsky) from the California Department of Water Resources.



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Exhibit 23

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EXAMPLE WHITEWATER BOATING PUT-IN and TAKE-OUT FACILITY SLOPES

Some of these facilities accommodate motorized as well as non-motorized boats.

Average slope upland from shoreline				
Site Name	**100 Yards (%)**	**¼ Mile (%)**	**1 Mile (%)**	**Comments**
Wards Ferry	16.31	10.03	9.26	Existing trail from shoreline to top slope = 23.25% over 95 ft. linear distance
Whitebird Gravel Pit	8.43	7.02	N/A	Only measured as far as Old Hwy 95 (832.0 ft.)
Slate Creek	8.04	8.42	N/A	Only measured as far as Hwy 95 (965 ft.)
Hells Canyon	11.32	13.93	9.42	
Pittsburgh Landing	10.51	7.74	7.89	
Sandy Beach	5.18	6.03	N/A	Only measured as far as BLM access road (881.0 ft.)
Cunard	12.31	7.15	N/A	¼ mile roughly measured to bridge over New River

Note that Cunard on the New River with a rail/step staircase down a bank to the river is less steep than Wards Ferry.



Google Earth image of Whitebird Gravel Pit Boat Launch in Idaho (45°44'18.51"N, 116°18'58.01"W)



Google Earth image of Slate Creek Boat Launch in Idaho (45°38'50.09"N, 116°17'39.47"W)



Hells Canyon Boat Launch downstream of Hells Canyon Dam (see next photo for location)



Google Earth Image of Visitor Center and Boat Launch downstream of Hells Canyon Dam (45°15'13.55"N, 116°41'47.44"W)



Pittsburgh Landing Boat Launch downstream of Hells Canyon Boat Launch



Google Earth Image of Pittsburgh Landing Boat Launch downstream of Hells Canyon Boat Launch (45°37'57.10"N, 116°28'33.81"W)



Sandy Beach Takeout on the Deschutes River in Oregon (See next photo for location)



Google Earth Image of Sandy Beach Takeout on the Deschutes River in Oregon (Lat: 45.24031892, Long: -121.04893774)



Cunard Put-In on the New River in West Virginia (38° 3'58.43"N, 81° 4'52.47"W). The low rails up the center are to slide/pull the rafts.

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Exhibit 24

Dreamflows Bulletin Board

"I can't boat everyday, but I can always Dream"

Topic: Dave's Tuolumne river tow service

Author	Message

DavesTowService
Member

Posted: Apr 5, 2009 Post Subject: Dave's Tuolumne river tow service

quote



Hi everyone, Just want to thank you all for using my service last summer. I enjoyed it, and I hope you all found it helpful. It s aprox. 8 mile trip from Wards Ferry bridge to Moccasin marina [long paddle].

SO, I want you all to know I ll be available again this summer, and all you ve got to do is call me
{Dave 209-962-4965] direct, or contact Tuolumne River shuttle service
[Darrell] 209-559-4605 to reserve a time for hook up and pull out.
My boat is clean, powerful, can pull up to a dozen rafts per trip and most of all dependable. While you sit back and relax, I ll tow your rafts, quiet and smoothly back to Moccasin Marina in aprox 1 hrs. time. Call for details/ fee
Have a great year, See you on the water soon..... Dave
P.S. I also can arrange to shuttle your auto from launch to Moccasin pt. marina for p-up

_____
David Friedman / localboy2004@sbcglobal.net

Edited 5 times. Last edited by DaveTowService Apr 5, 2009.

localboy
Member

Posted: Feb 4, 2010 Post Subject: Re: Dave's Tuolumne River Tow Service

quote

DaveTowService wrote:



Hi everyone, Just want to thank you all for using my service last summer. I enjoyed it, and I hope you all found it helpful. It s aprox. 8 [this yr even longer] mile trip from Wards Ferry bridge to Moccasin marina [long paddle].

SO, I want you all to know I ll be available again this summer, and all you ve got to do is call me
{Dave 209-962-4965] direct, or contact Tuolumne River shuttle service
[Darrell] 209-559-4605 to reserve a time for hook up and pull out.
My boat is clean, powerful, can pull up to a dozen rafts per trip and most of all it's dependable. While you sit back and relax, I ll tow your rafts, quiet and smoothly back to Moccasin Marina in aprox 2 hrs. time. Call for details/ fee
Have a great year, See you on the water soon..... Dave
P.S. I also can arrange to shuttle your auto from launch to Moccasin pt. marina for p-up

_____
David Friedman / localboy2004@sbcglobal.net

_____
dave friedman

localboy
Member

Posted: Apr 5, 2010 Post Subject: Re: Re: Dave's Tuolumne River Tow Service

quote

localboy wrote:

DaveTowService wrote:



Hi everyone, Just want to thank you all for using my service last summer. I enjoyed it, and I hope you all found it helpful. It s aprox. 8 [this yr even longer] mile trip from Wards Ferry bridge to Moccasin marina [long paddle].

SO, I want you all to know I ll be available again this summer, and all you ve got to do is call me {Dave 209-962-4965] direct, or contact Tuolumne River shuttle service
[Darrell] 209-559-4605 to reserve a time for hook up and pull out.
My boat is clean, powerful, can pull up to a dozen rafts per trip and most of all this service is dependable. While you sit back and relax, I ll tow your rafts, quiet and smoothly back to Moccasin Marina in aprox 2 hrs. time. Call for details/ fee
Have a great year, See you on the water soon..... Dave
P.S. I also can arrange to shuttle your auto from launch to Moccasin pt. marina for p-up

_____
David Friedman / localboy2004@sbcglobal.net

_____
dave friedman

_____
dave friedman

localboy
Member

Posted: Jun 9, 2011 Post Subject: Re: Re: Dave's Tuolumne River Tow Service

quote

localboy wrote:

DaveTowService wrote:



Hi everyone, Just want to thank you all for using my service last summer. I enjoyed it, and I hope you all found it helpful. It s aprox. 8 [this yr even longer] mile trip from Wards Ferry bridge to Moccasin marina [long paddle].

SO, I want you all to know I ll be available again this summer, 2011. that is..... Whenever it gets here, and the road re opens? Aside from all that, I am ready now or anytime your ready to go. Just give me a call, or send E mail.
{Dave 209-962-4965] direct, or contact Tuolumne River shuttle service
[Darrell] 209-559-4605 to reserve a time for hook up and pull out.
My boat is better than ever, can pull up to a dozen rafts per trip but most of all it's dependable. While you sit back and relax, I ll tow your rafts, quiet and smoothly back to Moccasin Marina in aprox 2 hrs. time. Call for details/ fee
Have a great year, See you on the water soon..... Dave
P.S. I also can arrange to shuttle your auto from launch to Moccasin pt. marina for p-up

_____
David Friedman / localboy2004@sbcglobal.net

_____
Dave Friedman

_____
dave friedman

DavesTowService
Member

Posted: Apr 18, 2016 Post Subject: Daves tow service

quote edit delete

Hi, all....just wanted to let you know that if all goes according to plans, I will be available this summer for all of you that would like to arrange a tow out to Mocassin. Water has risen to level for ramp to be back in use. However, at this point [mid april] there is a large log jam a mile down the river from the bridge, which I am told will be cleared by mid May. As to how far up to Wards Ferry bridge I can get remains to be seen. Hopefully I ll be able to make it all the way, or at least close enough. Lookin forward to seeing you all, and keep your fingers crossed that everything falls into place. Dave

_____
dave friedman

Prev Topic Next Topic Latest Post

newtopic postreply Forums -> General -> Dave's Tuolumne river tow service

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Exhibit 25

RESPONSE AREA ACTIVITY REPORT

TCU

N1B

Event Number	Incident Number	Incident Type	Location	Incident Date	Incident Time
12004542	2012004410	MED	11562 WARDS FERRY RD ,TUOLUMNE_COUNTY	5/22/2012	7:38:37F
13002911	2013002853	MED	11562 WARDS FERRY RD ,TUOLUMNE_COUNTY	4/6/2013	11:07:28A
17009238	2017008744	MED	14125 WARDS FERRY RD ,TUOLUMNE_COUNTY	7/23/2017	12:10:13A
10005955	2010005664	FVP	17704 DEER FLAT RD / 12132 WARDS FERRY RD ,TUOLUMNE_CO	7/5/2010	12:19:54A
13000493	2013000484	MED	11562 WARDS FERRY RD ,TUOLUMNE_COUNTY	1/16/2013	7:51:44F
17006224	2017005984	FFA	=L(37.867560,-120.278900) ,TUOLUMNE_COUNTY	5/25/2017	4:26:03F
17004946	2017004760	MED	14125 WARDS FERRY RD ,TUOLUMNE_COUNTY	4/25/2017	6:16:36F
13012637	2013011939	MTC	11906 WARDS FERRY RD / 12200 DEER CREEK RD ,TUOLUMNE_(	12/31/2013	9:20:51
15002105	2015002048	MED	12243 DEER CREEK RD ,TUOLUMNE_COUNTY	2/28/2015	1:04:35A
15005428	2015005264	MED	12250 WARDS FERRY RD ,TUOLUMNE_COUNTY	5/27/2015	9:58:50F
16002983	2016002907	FFA	17170 COCORAN GRAY RD ,TUOLUMNE_COUNTY	3/20/2016	4:35:05F
17004073	2017003915	MED	14125 WARDS FERRY RD ,TUOLUMNE_COUNTY	4/4/2017	9:59:59AM
11011385	2011010721	MED	16560 COCORAN GRAY RD ,TUOLUMNE_COUNTY	12/5/2011	12:15:28I
12003767	2012003665	PAA	12400 WARDS FERRY RD / 12400 THIEL RD ,TUOLUMNE_COUNTY	4/30/2012	2:56:05F
15000575	2015000558	FVP	WARDS FERRY BRIDGE @ =L(37.876807,-120.295519) ,TUOLUMNI	1/15/2015	5:28:48F
15002966	2015002887	MED	17281 COCORAN GRAY RD ,TUOLUMNE_COUNTY	3/24/2015	4:29:47F
17003711	2017003564	MTC	11625 WARDS FERRY RD ,TUOLUMNE_COUNTY	3/26/2017	3:39:10F
11011476	2011010810	MED	11625 WARDS FERRY RD ,TUOLUMNE_COUNTY	12/7/2011	7:10:48F
12006147	2012005906	MED	17704 DEER FLAT RD / 12132 WARDS FERRY RD ,TUOLUMNE_CO	7/2/2012	7:01:07PM
13003299	2013003235	MED	17161 COCORAN GRAY RD ,TUOLUMNE_COUNTY	4/18/2013	7:57:24F
10010087	2010009499	MED	12270 WARDS FERRY RD ,TUOLUMNE_COUNTY	10/29/2010	10:20:03
11000332	2011000321	MED	11562 WARDS FERRY RD ,TUOLUMNE_COUNTY	1/12/2011	6:32:47F
11009362	2011008787	HSE	12098 WARDS FERRY RD ,TUOLUMNE_COUNTY	10/5/2011	4:00:24A
15005067	2015004916	PAP	12250 WARDS FERRY RD ,TUOLUMNE_COUNTY	5/18/2015	12:44:09I
15007847	2015007471	FCS	17410 COCORAN GRAY RD ,TUOLUMNE_COUNTY	7/21/2015	4:11:01F
16009232	2016008769	HSE	12098 WARDS FERRY RD ,TUOLUMNE_COUNTY	8/14/2016	4:11:00F

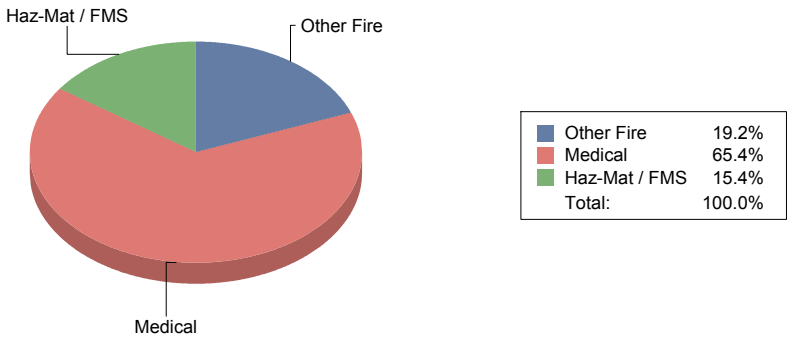
Location

TCU

RESPONSE AREA ACTIVITY REPORT

Response Area	Other Fire	Medical	Haz-Mat / FMS	Total
N1B	5	17	4	26
Total	5	17	4	26

Incident Graph by Response Area(s)



Location

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Exhibit 26

TCU

RESPONSE AREA ACTIVITY REPORT

L12B

Event Number	Incident Number	Incident Type	Location	Incident Date	Incident Time
13012489	2013011797	FWL	=L(37.879733,-120.297233) ,TUOLUMNE_COUNTY	12/27/2013	9:25:31
13001061	2013001039	FOO	=L(37.876233,-120.298383) ,TUOLUMNE_COUNTY	2/2/2013	3:00:29PM
10012209	2010011541	MED	25970 RICHARDS RANCH RD ,TUOLUMNE_COUNTY	12/31/2010	12:46:5
17007729	2017007365	MED	BR WARDS FERRY TUOL RIVER @ =L(37.876819,-120.295539) ,TU	6/24/2017	7:37:19A
11007122	2011006725	MED	25970 RICHARDS RANCH RD ,TUOLUMNE_COUNTY	8/5/2011	10:41:28A
17006378	2017006133	MED	14782 WARDS FERRY RD / 26333 POWELL RANCH RD ,TUOLUMN	5/28/2017	8:06:58F
17000799	2017000767	FFA	26301BLK POWELL RANCH RD ,TUOLUMNE_COUNTY	1/17/2017	1:59:00F
13009354	2013008768	MED	25775 POWELL RANCH RD ,TUOLUMNE_COUNTY	9/26/2013	9:13:35A
17005746	2017005535	MED	25776BLK POWELL RANCH RD ,TUOLUMNE_COUNTY	5/15/2017	1:29:58F
11011164	2011010517	MED	26000BLK POWELL RANCH RD ,TUOLUMNE_COUNTY	12/1/2011	11:40:23A
14011584	2014011024	FOD	14782 WARDS FERRY RD / 26300 POWELL RANCH RD ,TUOLUMN	11/19/2014	3:41:24
10001097	2010001042	OOA	14782 WARDS FERRY RD EO 26500 POWELL RANCH RD ,TUOLUI	1/31/2010	3:13:55A
17014345	2017013485	PAP	25776BLK POWELL RANCH RD ,TUOLUMNE_COUNTY	11/11/2017	11:09:5
13010559	2013009924	MED	25775 POWELL RANCH RD ,TUOLUMNE_COUNTY	11/2/2013	10:27:46A
13012485	2013011793	FWL	=L(37.879733,-120.297233) ,TUOLUMNE_COUNTY	12/27/2013	8:10:40
13004581	2013004435	MED	26255 POWELL RANCH RD ,TUOLUMNE_COUNTY	5/25/2013	1:59:08F
15011049	2015010426	MED	26255 POWELL RANCH RD ,TUOLUMNE_COUNTY	10/1/2015	5:50:53F
12003301	2012003215	MED	25775 POWELL RANCH RD	4/16/2012	3:00:25F

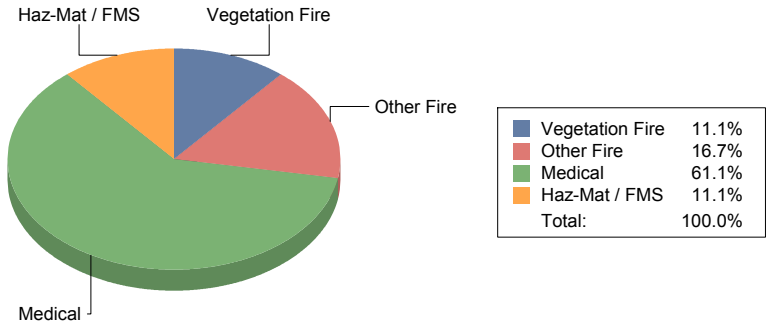
Response Area	Vegetation Fire	Other Fire	Medical	Haz-Mat / FMS	Total
L12B	2	3	11	2	18
Total	2	3	11	2	18

Location

TCU

RESPONSE AREA ACTIVITY REPORT

Incident Graph by Response Area(s)



Location

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Exhibit 27

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TCU CALL TYPES

FAA	FIRE, AIRCRAFT
FCS	FIRE, SMOKE CHECK
FFA	FIRE, FALSE ALARM
FOA	FIRE, ASSIST
FOD	FIRE, DEBRIS
FOI	FIRE, IMPROVEMENT
FOO	FIRE, OTHER
FSC	FIRE, COMMERCIAL
FSCA	FIRE, COMMERICAL ALARM
FSCW	FIRE, COMMERICAL SRA
FSM	FIRE, MULTIFAMILY
FSMA	FIRE, MULTIFAMILY ALARM
FSO	FIRE, OTHER
FSR	FIRE, RESIDENTIAL
FSRA	FIRE, RESIDENTIAL ALARM
FSRW	FIRE RESIDENTIAL THREAT SRA
FVC	FIRE, VEHICLE COMMERICAL
FVP	FIRE, VEHICLE PASSENGER
FWL	FIRE, WILDLAND
HAS	HAZ, AIRCRAFT
HFS	HAZ, FIRE MENACE STANDBY
HOA	HAZ, ASSIST
HSB	HAZ, BOMB THREAT
HSE	HAZ, ELECTRICAL

HSG	HAZ, GAS
HTT	HAZ, TERRORIST THREAT
HZM	HAZMAT
LEB	LE, ARSON BOMB
LEI	LE, INVESTIGATION
LEO	LE, OTHER
MED	MEDICAL
MEDC	MEDICAL CPR
MEDMCI	MASS CASUALTY INCIDENT
MOA	MED, MEDICAL ASSIST
MRE	MEDICAL, RESCUE
MTC	MED, TRAFFIC COLLISION
MTCM	MED, TC – MASS CASUALTY
MTX	MED, WITH EXTRICATION
MVI	MEDICAL, VIOLENCE INVOLVED
OAC	OTH, COVER
OAF	OTH, FLIGHT FOLLOWING
OAM	OTH, MISCELLANEOUS
OAP	OTH, STAFFING PATTERN
OAR	OTH, REFERRAL
OAT	OTH, TRANSFER
OAV	OTH, VEG MANAGEMENT
OES	OTH, SERVICES
OOA	OTH, ASSIST
OOU	OTH, OUT OF UNIT

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OUT	OUT OF SERVICE ACTIVITY
PAA	PA, AGENCY
PAD	PA, DEMO
PAF	PA, FLOODING
PAO	PA, OTHER
PAP	PA, PERSON
PSR	PA, SEARCH & RESCUE

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Exhibit 28

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Selection of Photos Found in Comments of Conservation Groups (1/29/2018), Attachment 6









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Exhibit 29

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Appendices

Allocation systems: River by river

The following provides a list of river permit programs on North American rivers. For rivers with "full" allocation systems (those which currently limit commercial and non-commercial use), we have provided more complete information about the characteristics of each allocation system. Characteristics may include different approaches (e.g., common pool, split allocation), distribution mechanisms (e.g., lottery, reservations, priced-based auctions, etc.), type of use, year permits first implemented, and other information about its capacity – allocation system. For rivers with "partial" allocation systems (commercial limits only or non-commercial permits which are not limited), we have provided less comprehensive information.

Information in these tables were developed from interviews with resource staff or assembled from agency or NGO websites. The information is designed to highlight the major features of these systems, note innovative features, or provide other interesting facts. Assuming this report has a shelf-life of about a decade, some of this information is likely to become outdated. Fees and procedures change. The goal is to provide a starting point for river professionals interested in developing or refining their own systems.

The appendix is divided into 3 parts:

- Full allocation systems
- Notable partial or potential allocation systems (with more detailed information)
- Other partial or potential allocation systems (with less detailed information)

Note: Readers that can offer additions or corrections for these appendices are urged to contact Doug Whittaker (dougwhit@alaska.net). The authors and River Management Society intend to develop and maintain these as a "working database" into the future.

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Full Allocation Systems

Alsek / Tatshenshini, Canada & Alaska

Segments	Alsek (Haines Jct.) or Tatshenshini (Dalton Post)
Miles	266 (126 on Upper Alsek or tributaries; 81 on Tatshenshini; 59 on Lower Alsek)
Typical boatable flow range	Various
Typical boatable season	Late May to early September
Whitewater difficulty	Class III-IV (V+ in Turnback Canyon on Alsek)
Designation/classification status	Champaign-Aishihik Tribal lands, Yukon Territory lands, Tatshenshini-Alsek Provincial Park in Canada, and Glacier Bay National Park.
Managing agency	Parks Canada & NPS
Type of access	Road accessible at put-ins; fly out at Dry Bay

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	1982 (interim limits); 1989 (first plan); revised 2005.
Primary type of limit	Launches taking out-per day (approximately 1 per day; see below).
Other limits	Group size, some designated camps.
Capacity basis	Studies in 1983 + planning
Permit system approach	Split allocation (in 8 day bloc, 4 commercial and 4 private take-outs).
Primary distribution technique(s)	Calendar for commercial use; reservations + waiting list for private
Secondary distribution technique(s)	Reservation by phone or mail
Common pool of unused allocation	No
Use limit season(s)	Jun 1 to Aug 31
Primary distribution dates	Outfitters use a calendar system. Non-commercial users can register anytime; November mailing to registration list; December 15 deadline to request dates (can defer); winners announced January 16; cancellations available after this date to those on registration list.
Private-commercial split (goal)	50-50 launches
Private-commercial split (actual)	Close to 50-50 in most years (discrepancies due to cancellations only)
Trip leader policy	Alternates allowed.
Participant tracking / repeat user	No
Commercial transfer policy	Transfers undergo major concessions review; potential new outfitters can compete.
Waiting list	Yes, built into reservation system.
Cancellation/no show penalties	May lose ability to apply for 2 to 5 years
Application fees	$25 per registration (no additional cost for deferring 1 year)
User fees	$100 per launch
Number of commercial outfitters	9 outfitters (6 US and 3? Canadian; each country's group allocated 18 total trips).
Group size limits	15 for all trips (25 for "grandfathered" commercial outfitters).
Trip length limits	No (but no more than 3 nights in one site; most trips are 9 to 12 days long).
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	Alsek launches one trip every other day (to limit impacts on bears and provide solitude). Lower Alsek take-outs from Tatshenshini are limited to one every day. 50-50 split in commercial take-outs to American and Canadian outfitters. 25% of Canadian outfitter trips to First Nation corporations. In recent years: 260+ on list; about 120 respond to mailing; but only 60 request dates and 35 to 40 receive their preferences (~60% success rate of those ready to go that year). About 5 to 6 trips cancel per year; a few may be filled by call-ins. Not all scheduled commercial trips are taken (especially in shoulder season). Total use levels per year – about 1,400 people (800 or 57% commercial).

Contact	Tom Elliot Visitor and Wilderness Management Parks Canada - Yukon Field Unit 205-300 Main St. Whitehorse, YT. Y1A 2B5	Jim Capra Glacier Bay National Park and Preserve PO Box 137 Yakutat, AK 99689-0137 (907) 784-3295

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Colorado River (Cataract Canyon), Utah

Segment(s)	Cataract (Green/Colorado confluence to Lake Powell)
Miles	19 on river + 35 on Lake Powell
Typical boatable flow range	4,000 to 30,000 cfs
Typical boatable season	Year-round (but highest use form April through September)
Whitewater difficulty	Class IV (V at very high water)
Designation/classification status	National Park
Managing agency	NPS
Type of access	Road accessible (often with lake tow-outs).

Type of allocation system	Full (commercial and non-commercial)
Year of first limits	Late 1970s (?)
Primary type of limit	People per year (guides don't count)
Other limits	Number of outfitters; group sizes, trip lengths.
Capacity basis	Historical use + planning
Permit system approach	Split allocation (with some inter-sector sharing)
Primary distribution technique(s)	Commercial use by calendar; private use by call-in
Secondary distribution technique(s)	Reservations by phone
Common pool of unused allocation	Yes (about 4% of total annual use available).
Use limit season(s)	Permits required year-round; April 15 to October 15 limit season.
Primary distribution dates	Four distributions conducted each season (first in April, last in Sep) as use is monitored. Outfitters and private groups make requests and are typically granted them (because annual caps have never been reached), but trip scheduling used to minimize daily or weekly crowding.
Private-commercial split (goal)	No specific goal in recent plan; private use has never been capped.
Private-commercial split (actual)	2006 Users: 42% private, 58% commercial Private use has averaged 21% since 1969; in past 10 years it has averaged 33%.
Trip leader policy	Alternate trip leaders encouraged.
Participant tracking	No
Commercial transfer policy	Allowed; includes review of sales.
Use of overbooking	No
Waiting list	No
Cancellation penalties	Loss of fees.
No show penalties	Loss of fees.
Repeat user limitations	One trip reservation at a time.
Application fees	None
User fees	$30 per launch
Number of commercial outfitters	15
Group size limits	40
Trip length limits	None
Human waste policy	Yes, carry-out required.
Fire ring policy	Yes; fire pans and ash carry-out required.

Other capacity/allocation features	Recent use is about 5,000 to 6,000 people per year; capacity is 8,000. Initial allocations to each outfitter were 365 people per year. Currently there are 15 outfitters, but some have bought other allocations (at least 3 sales). Shared pool of 315 slots available to both sectors to provide flexibility. Allocation from outfitter that went out of business was added to a shared allocation pool. Nearly all non-commercial applicants can get trips (but not necessarily preferred dates) NPS rescue rangers staff major rapids during high water (>55,000 cfs).

Contact	Canyonlands National Park 2282 SW Resource Blvd. Moab, UT 84532 435-719-2313 Information from Paul Cowan

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Colorado River (Grand Canyon), Arizona

Segment(s)	Lees Ferry to Diamond Creek (226 miles)
Miles	226
Typical boatable flow range	8,000 to 45,000 cfs
Typical boatable season	Year-round (higher use from May through October)
Whitewater difficulty	Class IV
Designation/classification status	National Park
Managing agency	NPS
Type of access	Road (helicopter take-outs for some commercial trips).

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	1972; major revisions in 1980-82 and 2006
Primary type of limit	Launches (1 to 6 per day depending upon segment and season)
Other limits	Annual user-days, trips at one time in canyon, group size limits, trip length limits.
Capacity basis	Historical use, studies, and planning
Permit system approach	Split allocation
Primary distribution technique(s)	Commercial use by calendar; non-commercial use by weighted lottery
Secondary distribution technique(s)	Follow-up weighted lotteries
Common pool of unused allocation	No
Use limit season(s)	Year-round
Primary distribution dates	Main lottery is generally planned to occur in May for the following year's dates. Applications accepted for one month prior to lottery. Follow-up lotteries occur when substantial numbers of cancellations become available.
Private-commercial split (goal)	User days: 50%-50% Launches: 45% private and 55% commercial People: 29% private and 71% commercial
Private-commercial split (actual)	2007 appears to be close to plan goals
Trip leader policy	Up to 2 alternates (must be named on initial application)
Participant tracking	Yes (no more than 1 trip per year)
Commercial transfer policy	Allowed, with review.
Use of overbooking	No
Waiting list	No (see discussion in case study section)
Cancellation penalties	Forfeit substantial fees.
No show penalties	Forfeit fees.
Repeat user limitations	Yes (one trip per year per person – private or commercial)
Application fees	$25; $400 fee charged if application is successful ($200 fro "small sized trips")
User fees	$100 per person due 90 days before launch
Number of commercial outfitters	16
Group size limits	32 (including guides for commercial); 8/16 for private (two different sizes)
Trip length limits	10 to 25 days, depending on season and type of trip
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	$100 late fee for participant changes before 30 days of launch. No adding trip participants within 30 days of launch. Extensive website describing the system and its numerous intricacies. Payment through federal pay.gov system. See case study in main report for additional details.

Contact	Grand Canyon River Permits Office Grand Canyon National Park PO Box 129 Grand Canyon, AZ 86023 1-800-959-9164 Information from Linda Jalbert, Steve Sullivan, and website

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Colorado River (Lower Gorge of the Grand Canyon), Arizona

Segment(s)	Diamond Creek to Park Boundary
Miles	51
Typical boatable flow range	8,000 to 45,000 cfs
Typical boatable season	Year-round (higher use from May through October)
Whitewater difficulty	Class III
Designation/classification status	National Park
Managing agency	NPS
Type of access	Road (helicopter for some commercial trips).

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	1989; revisions in 2006
Primary type of limit	Launches for non-commercial (2 per day); people (96) for Hualapai day trips
Other limits	Limits on overnights for continuation trips from Lees Ferry, group size limits, trip length limits, pontoon boat limits, jet boat take-outs, tow-outs.
Capacity basis	Historical use and planning
Permit system approach	Split allocation
Primary distribution technique(s)	Commercial use by calendar; non-commercial use by reservation
Secondary distribution technique(s)	Call-in reservation
Common pool of unused allocation	No
Use limit season(s)	Year-round
Primary distribution dates	On-going reservation
Private-commercial split (goal)	People (estimated): 22% private and 78% commercial
Private-commercial split (actual)	Unknown – plan first implemented in 2007
Trip leader policy	Up to 2 alternates (must be named on initial application)
Participant tracking	No
Commercial transfer policy	One outfitter
Use of overbooking	No
Waiting list	No (see discussion in case study section)
Cancellation penalties	Forfeit substantial fees.
No show penalties	Forfeit fees.
Repeat user limitations	Yes (one trip per year per person – private or commercial)
Application fees	Hualupai fees only
User fees	Hualupai fees only
Number of commercial outfitters	1 + Lees Ferry outfitters who take “continuation trips”
Group size limits	16 for non-commercial; 96 for Hualapai day trips; 20 for Hualapai overnight trips
Trip length limits	2 to 5 days, depending on season and type of trip
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	Separate permit required from Hualapai Tribe. Applications accepted up to one year in advance. Nearly all applicants can secure a permit (but not necessarily preferred dates).

Contact	Grand Canyon River Permits Office Grand Canyon National Park PO Box 129 Grand Canyon, AZ 86023 1-800-959-9164 Information from Linda Jalbert, personal involvement with 2003-06 planning effort.

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Colorado River (Westwater Canyon), Utah

Segment(s)	Westwater Ranch to Cisco.
Miles	17
Typical boatable flow range	400 to 3,000 cfs.
Typical boatable season	Limited high flow days in March and April
Whitewater difficulty	Class III (one IV-V)
Designation/classification status	National Wild & Scenic River, 1984. Wilderness. Three National Forests.
Managing agency	BLM
Type of access	Road accessible.

Type of allocation system	Full (commercial and non-commercial)
Year of first limits	1974; major revision in 2006.
Primary type of limit	People per day (guides don't count)
Other limits	Number of outfitters; group sizes, trip lengths.
Capacity basis	Historical use + planning
Permit system approach	Split allocation
Primary distribution technique(s)	Commercial use by calendar; private use by reservations (phone)
Secondary distribution technique(s)	Reservations by phone
Common pool of unused allocation	No
Use limit season(s)	Permits required year-round; commercial-private split from April 1-Sept 30.
Primary distribution dates	Outfitters have a calendar Non-commercial reservations available 2 months before the launch date. .
Private-commercial split (goal)	50-50 on users per day in Apr-Sep period (75 or 5 trips & 75 people or 5 trips). 100% private in rest of year (150 per day).
Private-commercial split (actual in 2006)	Users: 51% private, 49% commercial User days: 57% private, 43% commercial Launches: 59% private, 41% commercial Boats: 60% private, 40% commercial
Trip leader policy	Alternate trip leaders encouraged.
Participant tracking	No
Commercial transfer policy	Allowed; includes review of sales.
Use of overbooking	No
Waiting list	No
Cancellation penalties	Loss of application fee
No show penalties	Unspecified
Repeat user limitations	One trip reservation at a time.
Application fees	None
User fees	$7 per person due 30 days before launch; no fee from Dec-Feb
Number of commercial outfitters	18
Group size limits	25
Trip length limits	2 days
Human waste policy	Yes, carry-out required. No scat machine.
Fire ring policy	Yes; fire pans and ash carry-out required.

Other capacity/allocation features	Office handling reservations is open by phone 8 to noon. Credit cards accepted. On-line calendar shows available launches. Up to two changes per reservation (date, group size, alternate trip leader) Cancellations 30 days in advance and fees count for credit on future launches. 90 to 94% of commercial allocation used each year (1989-2006 data). Previously used lottery + waiting list.

Contact	Bureau of Land Management Moab River Office 82 East Dogwood Moab, Utah 84532 (435) 259-7012 Information from Chad Neihaus

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Lower Deschutes River, Oregon

Segment(s)	Lower Deschutes (4 segments from Warm Springs to Columbia River)
Miles	97
Typical boatable flow range	3,000 to 10,000 cfs at Moody (near Columbia); 3,000 is not a navigational limit
Typical boatable season	Floating from April-October; Jetboating allowed seasonally on 2 segments through November; year-round use possible.
Whitewater difficulty	Class III-IV (II-III on lower half)
Designation/classification status	National Wild & Scenic River, 1988. (Scenic and Recreational reaches).
Managing agency	BLM, Oregon State Parks, & Warm Springs Confederated Tribes
Type of access	Road accessible at multiple locations.

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	2003 (but not every segment or day of the week).
Primary type of limit	People per day (325 to 1,700 per weekend day, depending upon segment).
Other limits	People per primary season, number of outfitters, group sizes, trip lengths
Capacity basis	Historical use + planning (with input from studies)
Permit system approach	Common pool
Primary distribution technique(s)	Reservations on website
Secondary distribution technique(s)	Reservations on website
Common pool of unused allocation	Not relevant – common pool at all times.
Use limit season(s)	As of 2007: summer weekends on Segment 1 and Segment 4 only.
Primary distribution dates	"BoaterPasses" required year-round; proportions of permits released before each date.
Private-commercial split (goal)	Not relevant – Common pool system.
Private-commercial split (actual)	Not relevant – Common pool system.
Trip leader policy	Alternate encouraged; one person on original reservation required on trip.
Participant tracking	No
Commercial transfer policy	Allowed after in-depth analysis; some criteria used to assess value (see case study) New purchases given with consideration of existing permit holders.
Use of overbooking	No
Waiting list	No
Cancellation penalties	No refunds given (credit for other trips if before 14 days).
No show penalties	Individuals are not allowed to reserve in next year.
Repeat user limitations	None. Only one reservation per name at a time…
Application fees	$1.95 per reservation up to 3% of total transaction (whichever is greater).
User fees	$2 per person per day; $8 per person per day on peak weekends
Number of commercial outfitters	104 (mix of whitewater and angling companies; 17 motorized); long range goal is 80.
Group size limits	16 on Segments 1, 3 and 4; 24 on Segment 2.
Trip length limits	Variable by season and trip size; longer for smaller groups. Range: 6 to 10 days.
Human waste policy	Yes, carry-out required on overnight trips; Scat machines available in two locations. Pit toilets at heavily used sites.
Fire ring policy	Yes; fire pans and ash carry-out required.

Other capacity/allocation features	On-line reservations began 2004; there were some start-up problems. Credit cards accepted for fees; no handling fees if purchased online. Additional transaction costs (venders can charge $3 per reservation). Boaters print out their own passes (agency can check via bar codes). Variable use capacities on different segments by weekdays/weekends. Weekends defined as Fridays, Saturdays and Sundays. Annual frequent user passes available; don't apply on peak weekends on Segment 1. Outfitters can make reservations on behalf of clients; 1 commercial passengers required to be on the trip. Outfitters can fill trips (up to 16/24 group size limit) once a reservation is made. Uses date of birth to identify users.

Contact	BLM Prineville 3050 N.E. 3rd Street Prineville, OR 97754 Information from Tom Mottl and Lynnette Ripley

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Dukes Creek, Georgia

Segment(s)	DNR-managed segment.
Miles	5
Typical boatable flow range	Not applicable -- fishing-only stream.
Typical boatable season	No boating allowed.
Whitewater difficulty	Non-boating river.
Designation/classification status	Georgia State Park
Managing agency	Georgia State Parks
Type of access	Trails.

Year permits first limited	1994
Primary type of limit	Anglers per session; one or two sessions per day on Wed., Sat, and Sun.
Other limits	Year-round catch and release fishing only (barbless flies).
Capacity basis	Planning; professional judgment.
Permit system approach	Common pool.
Primary distribution technique(s)	Reservations by phone for individuals.
Secondary distribution technique(s)	First-come/first-served.
Common pool of unused allocation	Common pool for all users (guides count as a user, but cannot make reservation for client).
Use limit season(s)	Year-round.
Primary distribution dates	n/a
Private-commercial split (goal)	n/a
Private-commercial split (actual)	n/a
Trip leader policy	Not trip leader; one person can reserve for party of three.
Participant tracking	No
Commercial transfer policy	n/a – guides can accompany clients as a user but do not control allocation.
Use of overbooking	No
Waiting list	No
Cancellation penalties	None
No show penalties	None
Repeat user limitations	None
Application fees	None
User fees	$2 parking fee.
Number of commercial outfitters	Unknown (many)
Group size limits	3 individuals per party; up to 15 anglers per session.
Trip length limits	Half day sessions in spring/summer/fall, full day sessions in winter.
Human waste policy	n/a – day use area
Fire ring policy	n/a – day use area

Other capacity/allocation features	Former private land parcel converted to a State Park unit (conservation area). Capacity is an “at one time” estimate based on perceived angling quality criteria. Unknown cancellation rate.

Contact	Smithgall Woods Conservation Area-GA DNR (706) 878-3087 Information from Jeff Durniak, GA DNR (regional fisheries lead)

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Green River (Desolation & Gray Canyons), Utah

Segment(s)	Sand Wash to Swasey's Rapid (Green River)
Miles	84
Typical boatable flow range	700 to 30,000 cfs
Typical boatable season	April to November in most years (sometimes March); high use from May to August
Whitewater difficulty	Class II-III
Designation/classification status	None.
Managing agency	BLM
Type of access	Road access at ends.

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	1979 for all users (but commercial permits before this date)
Primary type of limit	Launches per day (6 per day in high use period; 2 per day in low).
Other limits	Number of outfitters, group size limits, 9 day maximum trip length.
Capacity basis	Historical use + studies + planning.
Permit system approach	Split allocation (but allows privates to use unused commercial launches, and vice versa).
Primary distribution technique(s)	Reservations by phone for privates. Commercial launch calendars.
Secondary distribution technique(s)	Reservation by phone or walk-in.
Common pool of unused allocation	Yes.
Use limit season(s)	Year-round.
Private-commercial split (goal)	50-50 for user days..
Private-commercial split (actual)	Roughly 70% private and 30% commercial launches in recent years; user days are closer together.
Trip leader policy	One alternate allowed.
Participant tracking	No
Commercial transfer policy	Allowed with review.
Application fees	$20 per reservation (waived if <30 days before launch); $10 transaction fee for changes
User fees	$25 per person
Number of commercial outfitters	16
Group size limits	25 for private; 25 + guides for commercial
Trip length limits	Maximum in high use season is 9 days (most trips are 5 to 6 days).
Human waste policy	Yes, carry-out required.
Fire ring policy	Yes; fire pans and ash carry-out required.

Other capacity/allocation features	BLM takes credit cards. Previously used lottery in winter; 60% cancellation rate led to reservation system for 2007. Reservation system operates phones in am; walk-in in afternoon. Reservations available 5 months before launch date. During lottery years, Use trend is toward higher private use. Commercial use sometimes fails to use allocation; led to cross sector use. Users can only hold one reservation at a time. Cancellations >30 days before launch = credit toward future fees. Administrative trips equal about 5% of total trips on river. Previous lottery was operated manually. Current reservations availability posted on-line. Reservations must be made with a person (phone or walk-in) to increase agency-user interaction.

Contact	BLM Price Field Office 125 South 600 West Price, UT 84501 (435) 636-3623 Staff number Information from Dennis Willis

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Karluk River, Alaska

Segment(s)	Karluk Lake to mouth
Miles	22
Typical boatable flow range	
Typical boatable season	June through September
Whitewater difficulty	Class II-III
Designation/classification status	USFWS refuge land
Managing agency	USFWS, ADF&G, and Koniag Inc. (Native Corporation)
Type of access	Fly-in only.

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	1994
Primary type of limit	Number of people (70 at one time).
Other limits	Group sizes, trip lengths.
Capacity basis	Historical use + study + planning.
Permit system approach	Split
Primary distribution technique(s)	Lottery.
Secondary distribution technique(s)	Reservations by phone or walk-in.
Common pool of unused allocation	No.
Use limit season(s)	June 16 to July 15.
Primary distribution dates	Applications allowed November 1 – December 15. Drawing in early January.
Private-commercial split (goal)	40% private and 60% commercial
Private-commercial split (actual)	~15% non-commercial vs. 85% commercial (Lower). Unspecified (Upper)
Trip leader policy	Not specified.
Participant tracking	No
Commercial transfer policy	Likely allowed; commercial use controlled through Native Corporation.
Use of overbooking	No
Waiting list	No
Cancellation penalties	No
No show penalties	No
Repeat user limitations	No
Application fees	None
User fees	None
Number of commercial outfitters	6 on Upper; 4 on Lower.
Group size limits	6.
Trip length limits	7 days.
Human waste policy	Carry-out recommended.
Fire ring policy	No.

Other capacity/allocation features	System developed through cooperative agreement between USFWS and Koniag (a native corporation). Weather delays are allowed (no penalties if you shift trip due to weather). Use unlimited outside of control season (but permits still required). Existing use is generally lower than allocated use (but some users may not get to launch on preferred dates).

Contact	Kodiak National Wildlife Refuge 1390 Buskin River Road Kodiak, AK 99615 (888) 408-3514 Information from website.

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Kern River, California (Forks of the Kern)

Segment(s)	Forks of the Kern to Johnsondale Bridge
Miles	17
Typical boatable flow range	300 to 4,000 at Kernville at 60 feet per mile
Typical boatable season	Spring through mid-summer
Whitewater difficulty	Class IV-V
Designation/classification status	National Wild River (1987); Wilderness area.
Managing agency	USFS
Type of access	Trail accessible launch (2 miles); road accessible take-out

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	1979
Primary type of limit	People per day (15 non-commercial) and launches per day (1 commercial <15)
Other limits	Number of outfitters, group sizes, trip lengths
Capacity basis	Historical use + planning
Permit system approach	Split allocation
Primary distribution technique(s)	Pure lottery
Secondary distribution technique(s)	Reservation by phone or FC/FS (no web-based information)
Common pool of unused allocation	No.
Use limit season(s)	153 days – May 15 thru Oct 15
Primary distribution dates	Outfitters use calendar system (1 per day, rotate through 4-5 outfitters). Private applications Mar 15 to Apr 15, results by May 1; confirm 7 days prior.
Private-commercial split (goal)	50-50 for people (assuming full use of allocation within sectors)
Private-commercial split (actual)	~60% non-commercial vs. 40% commercial (varies by years).
Trip leader policy	Non-transferable.
Participant tracking	No
Commercial transfer policy	Allowed.
Use of overbooking	No
Waiting list	No
Cancellation penalties	Within 7 days is considered “no show” = no application in next year.
No show penalties	Not allowed to apply for one year.
Repeat user limitations	None.
Application fees	$2 non-refundable
User fees	None currently. $10 per trip proposed.
Number of commercial outfitters	5 to 4 (recent revocation)
Group size limits	15
Trip length limits	None. Most commercial trips take 2 to 3; most privates take 1 to 3.
Human waste policy	Yes, carry-out required. No scat machine.
Fire ring policy	Yes; fire pans.

Other capacity/allocation features	System was modeled after the Rogue. . Initially a call-in only system; later moved to lottery. Application is on-line – but must be mailed in. Permits entered manually; winners chosen randomly with computer program. Users indicate three choices of dates. Guides count in group size limit. Permit system (1979) came before management plan (1994). Agency produces annual report on use. Outfitters rotate equally through season. 15 person limit derived from group size limit for Golden Trout Wilderness (since 1964).

Contact	Kern River Ranger District-Kernville Office P.O. Box 9 Kernville, CA 93238 760-376-3781 Information from Sheryl Bowers

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McCloud River, California

Segment	The Nature Conservancy Preserve
Miles	6 (3 available for fishing)
Typical fishable flow range	150 to 700 cfs
Typical fishable season	Late May to early September
Whitewater difficulty	Class III (but rarely boated)
Designation/classification status	Private land
Managing agency	The Nature Conservancy
Type of access	Trail access from road-based trailhead.

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	Early 1980s
Primary type of limit	People at one time.
Other limits	No camping.
Capacity basis	Planning.
Permit system approach	Common pool
Primary distribution technique(s)	50% reservations + 50% first-come/first-served on-site.
Secondary distribution technique(s)	First-come/first-served on-site.
Common pool of unused allocation	No
Use limit season(s)	Year-round
Primary distribution dates	Reservations available during fishing season (roughly end of April through November) Early reservations available starting Feb.1.
Private-commercial split (goal)	None
Private-commercial split (actual)	None
Trip leader policy	Permits are per person.
Participant tracking / repeat user	No
Commercial transfer policy	Outfitter/guides do not obtain permits.
Waiting list	No
Cancellation/no show penalties	No
Application fees	Free
User fees	Free
Number of commercial guides	As many as 15 to 18 use TNC lands.
Group size limits	No
Trip length limits	No overnight camping (one cabin available for donor use).
Human waste policy	No
Fire ring policy	No

Other capacity/allocation features	On-site tags hang on a board near the only access – users keep them during their visit. Guides must have permit only if they are fishing (many just accompany their clients). Guides cannot make advance reservations (but they can direct clients to do so). Reservation tags still unused by 10 am are available for walk-in use. Use system was requested of downstream private fishing club (which donated the land).

Contact	Reservations through SF office: 201 Mission Street, 4th Floor, San Francisco, CA 94105 (415) 777-0487. Information from Dan Ransom, TNC operations manager.

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McNeil River, Alaska

Segment	Mouth to McNeil Falls
Miles	2
Typical boatable flow range	Not boated.
Typical season	Late May to early September
Whitewater difficulty	Not boated.
Designation/classification status	McNeil River State Wildlife Sanctuary (state)
Managing agency	Alaska Department of Fish and Game
Type of access	Fly-in.

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	1973.
Primary type of limit	People for four-day blocks (10 at falls; up to 3 more "standbys" at campground).
Other limits	None.
Capacity basis	Planning + study (bear impacts).
Permit system approach	Private use only (commercial photography use by separate permit)
Primary distribution technique(s)	Lottery with repeat use rules (favors new applicants).
Secondary distribution technique(s)	Standby users (from lottery) can stay at campground and take available places to falls.
Common pool of unused allocation	Not relevant.
Use limit season(s)	June 7 to Aug 25
Primary distribution dates	Applications by March 1. Winner notification in mid-March. Payment of fees due by April 1. Refunds available for cancellations through May 15.
Private-commercial split (goal)	None
Private-commercial split (actual)	None
Trip leader policy	Permits are per person.
Participant tracking / repeat user	No
Commercial transfer policy	Outfitter/guides do not obtain permits.
Waiting list	No
Cancellation/no show penalties	No
Application fees	$25 per person.
User fees	$150 for AK residents; $350 for non-residents.
Number of commercial guides	None (ADF&G tech is the guide).
Group size limits	3 per permit.
Trip length limits	No overnight camping (one cabin available for donor use).
Human waste policy	Pit toilet available.
Fire ring policy	At campground only.

Other capacity/allocation features	185 full access permits and 57 standby permits available. Successful permittees not allowed to re-apply for 1 year (previously 4 years).

Contact	Alaska Dept. of Fish and Game Wildlife Conservation Attn: McNeil River State Game Sanctuary 333 Raspberry Rd Anchorage Ak, 99518 (907) 267-2182 Information from Larry Aumiller (former McNeil manager) and website

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Main Salmon River, Idaho

Segment(s)	Wild segment (Corn Creek to Vinegar Creek)
Miles	79
Typical boatable flow range	3,000 to 50,000 cfs at Whitebird
Typical boatable season	Floating from April-October; Jetboating from February through November
Whitewater difficulty	Class III-IV
Designation/classification status	National Wild River, 1980. Wilderness.
Managing agency	USFS
Type of access	Road accessible at 3 locations; additional (rare) fly-in access

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	Late 1970s
Primary type of limit	Launches per day
Other limits	Number of outfitters, group sizes, trip lengths, groups at specific camps
Capacity basis	Historical use + planning
Permit system approach	Split allocation
Primary distribution technique(s)	Lottery in early February
Secondary distribution technique(s)	Reservation by phone (no web-based information)
Common pool of unused allocation	Yes, 30 days before launch (thus modifying actual split from goal)
Use limit season(s)	79 days – June 20 to September 7
Primary distribution dates	Outfitters use calendar system. Privates apply Dec. 1 to Jan. 31; results by Mar. 1; confirm within 3 weeks of trip.
Private-commercial split (goal)	50-50 launches per day (4+4=8). Some flexibility (e.g., 3+5 then 5+3)
Private-commercial split (actual)	Private to commercial: By launches: 64% to 36% By people: 53% to 47% (not including guides) By user days: 57% to 43% (not including guides)
Trip leader policy	No alternates allowed.
Participant tracking	No
Commercial transfer policy	Allowed; some oversight or analysis of sales.
Use of overbooking	No
Waiting list	No
Cancellation penalties	Loss of application fee
No show penalties	Permit holder not allowed to apply for three years
Repeat user limitations	One trip leader permit per year
Application fees	$6 non-refundable
User fees	$4 per person per day; due 3 weeks before launch date
Number of commercial outfitters	30
Group size limits	30 for all trips (but smaller trips can take longer trips)
Trip length limits	Variable by season and trip size; longer for smaller groups. Range: 6 to 10 days.
Human waste policy	Yes, carry-out required; Scat machine available.
Fire ring policy	Yes; fire pans and ash carry-out required.

Other capacity/allocation features	On-line application process began 2007; some start-up problems. 81% of use occurs in control season. Credit cards and checks accepted for fees. Lottery operated electronically. All applicants notified after lottery (winners and losers). Odds of success for privates posted on website; about 9% over the entire year. Some camps reserved at put-in. Jetboating use managed separately from floating (historical use). Launch reductions contemplated in early 2000s planning effort; status quo remained.

Contact	North Fork Ranger District (208) 865-2725 - application requests (208) 865-2700 - Information Information from Sheri Hughes

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Middle Fork Salmon River, Idaho

Segment(s)	Boundary Creek to Cache Bar
Miles	99.0
Typical boatable flow range	1,000 to 30,000 cfs
Typical boatable season	May through October
Whitewater difficulty	Class III-IV
Designation/classification status	Wild and Scenic River, 1968
Managing agency	USFS
Type of access	Road accessible on ends (and via airstrips)

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	1978
Primary type of limit	Launches: 7 per day (alternating 3 and 4 for private/commercial)
Other limits	Length of stay, group size, designated camps
Capacity basis	Historical use + studies + planning
Permit system approach	Split
Primary distribution technique(s)	Lottery
Secondary distribution technique(s)	Call-in reservation, mornings only.
Common pool of unused allocation	No; only within-sector.
Use limit season(s)	May 28 through September 3 (control season; but permits required year round)
Primary distribution dates	Outfitters use calendar system. 4 rivers lottery schedule: Privates apply Dec. 1 to Jan. 31; results by Mar. 1; Confirm by Mar 15.
Private-commercial split (goal)	50-50 by launches in control season; no split (but rare commercial use otherwise).
Private-commercial split (actual)	Private to commercial (entire season): By launches: 58% to 42% (very close to 50-50 by launch in control season) By people: 37% to 63% By user days: 39% to 61%
Trip leader policy	No alternates allowed.
Participant tracking	No
Commercial transfer policy	Allowed with substantial review.
Use of overbooking	No
Waiting list	No
Cancellation penalties	Loss of application fee. If within 3 weeks of launch = no show.
No show penalties	3 year ineligibility to apply for permits.
Repeat user limitations	No
Application fees	$6 per permit
User fees	None?
Number of commercial outfitters	27
Group size limits	24
Trip length limits	Yes: differs for different group sizes (e.g., 8 days for <10 people, 6 days for 21-24 people)
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	Lowest odds in 4 rivers systems (3 to 4% or 1 in 27 to 30 years for first choice date). 84% of use occurs in control season. Total use per year: 11,000 people and 680 trips. Campsites are designated and scheduled (at put-in) in control season. Permits for tributaries allowed (about 10 to 15 per year on average) Few cancellations and fewer no shows per year; this is a coveted trip.

Contact	USFS Middle Fork Ranger District P.O. Box 750, Challis, ID 83226-0750 (208) 879-4112-application requests Info: (208) 879-4101 Information from Sheri Hughes

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Rio Chama, New Mexico

Segment(s)	BLM (overnight)
Miles	32.0 (Wild and Scenic, but an additional ~10 miles is also managed under the system).
Typical boatable flow range	1,200 to 3,000 is optimal.
Typical boatable season	March through August
Whitewater difficulty	II-III
Designation/classification status	Wild and Scenic, 1988
Managing agency	BLM (USFS operates day use segment downstream)
Type of access	Road accessible

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	1988; 1990 plan.
Primary type of limit	Launches (16 per week in early season); 16 per weekend during scheduled flow releases.
Other limits	Group size, some designated camps.
Capacity basis	Historical + planning
Permit system approach	Split
Primary distribution technique(s)	Commercial by calendar; lottery for scheduled weekend releases; phone-in for weekdays
Secondary distribution technique(s)	No formal re-fill cancellations for weekends; some walk-in allowed late Saturday.
Common pool of unused allocation	Private use of unused commercial launches allowed.
Use limit season(s)	May 1 through August 31
Primary distribution dates	Lottery for scheduled weekend releases – in February
Private-commercial split (goal)	Roughly 30% commercial; 70% private
Private-commercial split (actual)	Varies widely depending on flows
Trip leader policy	Alternates allowed (with explanation)
Participant tracking	No
Commercial transfer policy	Allowed with review.
Use of overbooking	Yes
Waiting list	Yes, specify up to 3 dates; BLM notifies potential users.
Cancellation penalties	No
No show penalties	No
Repeat user limitations	Yes – no repeat applicants in same year
Application fees	$6 per application
User fees	$5 per person
Number of commercial outfitters	12
Group size limits	16 for privates (16 + guides for commercial)
Trip length limits	None
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	Flow-dependent nature of run discourages advance planning. Some assigned camps for large groups (first-come first-served at ramp). 4 miles of camping closures; 2 mile wildlife buffer (no stopping for peregrine). Time of day boating hours (9 to 4) to minimize user conflicts with anglers. Confirm 2 weeks before.

Contact	BLM 226 Cruz Alta Road Taos, NM 87571-5983 505.758.8851 River Information Recording: 888.882.6188 Information from Mark Sundin

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Rio Grande, New Mexico

Segment(s)	10 segments with limits (including two high use segments: Lower Taos Box, Racecourse).
Miles	80
Typical boatable flow range	Various
Typical boatable season	Possible year-round in wet years; most occurs spring through early fall.
Whitewater difficulty	Class II-V (various segments)
Designation/classification status	National Wild and Scenic River, 1968 (original river) and 1994 additions. Wild, scenic, and recreational segments.
Managing agency	BLM
Type of access	Many road accessible launches. Some hike-in headwaters access.

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	2000 (with some commercial use limits in previous years)
Primary type of limit	People per day for non-commercial use (varies by segment, day, season). People or launches per day for commercial use (varies by segment and season). Some examples: 1 or 2 launches a day on four low use segments. 150 or 200 people (private) per weekday/weekend + 8 commercial launches in Taos Box 1,050 people per day on Racecourse (600 commercial)
Other limits	Launches per day for some segments; number of outfitters, group sizes.
Capacity basis	Historical use + planning.
Permit system approach	Common pool on low use segments. Split allocation on higher use segments.
Primary distribution technique(s)	Reservations for common pool segments. Commercial launch calendars.
Secondary distribution technique(s)	Reservation by phone or walk-in.
Common pool of unused allocation	Not across sectors for split segments. Commercial has a within-sector common pool for Racecourse.
Use limit season(s)	Year-round.
Private-commercial split (goal)	Examples: Taos Box: 45% commercial (weekends); 68% commercial (weekdays) Racecourse: 80% commercial; 20% non-commercial
Private-commercial split (actual)	Various and flow dependent; private use is generally lower than limits at present.
Trip leader policy	Non-transferable.
Participant tracking	No
Commercial transfer policy	Allowed to existing outfitters; includes analysis of sales.
Application fees	None
User fees	None
Number of commercial outfitters	13 on lower Gorge segments; 9 on Upper Gorge segments.
Group size limits	16 on most segments for privates; 16, 21, 32, and 40 for commercial use on various segments (or for different seasons/types of days).
Trip length limits	Mostly day and one night trips.
Human waste policy	Yes, carry-out required.
Fire ring policy	Yes; fire pans and ash carry-out required (unless not using fires).

Other capacity/allocation features	Outfitter allocations are for specific segments. Low use segments use a common pool for commercial and non-commercial. Goal is to reduce to 10 outfitters total; transfers only to existing outfitters. "Quiet zone" and limited hours through a village (Pilar). Flow-based use limits (lower use at lower flows, no use at very high flows) in one segment. "Over-limit fees." Allows outfitters to exceed group limits (by 4 people) on some segments but charges fees to remove profit incentive to do this. Common pool for outfitters on some segments; no trading otherwise. Some segments will have no allocations for specific outfitters until capacity is reached; historical use will then be used to make allocations.

Contact	Taos Field Office 226 Cruz Alta Road Taos, NM 87571-5983 505.758.885; River Information Recording: 888.882.6188 Information from Mark Sundin.

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Rogue River, Oregon

Segment	Wild Section from Graves Creek to Foster Bar
Miles	34
Typical boatable flow range	1,200 to 6,000 cfs
Typical boatable season	April through November
Whitewater difficulty	Class III-IV
Designation/classification status	National Wild River, 1968 (original river)
Managing agency	BLM lead (USFS manages river below Blossom Bar)
Type of access	Road accessible on ends

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	1973
Primary type of limit	People per day (60 private + 60 commercial = 120 total)
Other limits	No more than 4 commercial launches per day
Capacity basis	Studies in early 1970s
Permit system approach	Split allocation
Primary distribution technique(s)	Lottery in early February
Secondary distribution technique(s)	Reservation by phone (with web-based notification of availability); queuing at visitor center.
Common pool of unused allocation	No, but available use within sector is available to others in that sector.
Use limit season(s)	154 days; May 15 to Oct 15
Primary distribution dates	Outfitters use a calendar system. Privates apply Dec 1 to Jan 31; results by Mar 1; confirm within 10 days of trip
Private-commercial split (goal)	50-50 people by day, with some flexibility (e.g., less commercial in fall fishing)
Private-commercial split (actual)	52% private and 48% commercial by people (not including guides)
Trip leader policy	Up to one alternate can be named (but most do not).
Participant tracking / repeat user	Tracks participants, but no repeat user policy; TLs may have up to 2 pending permits AOT.
Commercial transfer policy	Allows transfers with extensive review of equipment value, client lists, business plan, etc.
Use of overbooking	Yes – in both sectors to account for likely no shows/cancellations.
Waiting list	No
Cancellation penalties	No if prior to 10 days. Yes; TL cannot reapply for one year (but could join other trips).
No show penalties	Yes; TL cannot reapply for one year (but could join other trips).
Application fees	6 per lottery application; allows one date.
User fees	10 per person for each trip due 10 days before trip.
Number of commercial outfitters	46
Group size limits	30 for commercial, 20 for private
Trip length limits	6 nights/7 days; enforced in control season; recommended at other times.
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	Odds of lottery success about 14% or 1 in 7 years for first choice date. However, considerable use allocated through secondary system. In 2006: 96% of spaces assigned in calendar/lottery (both sectors); only 69% of spaces used. Of actual private use, 55% came from lottery; 45% from secondary system. Of actual commercial use, 88% came from calendar; 12% came from secondary. Private party sizes average about 5 to 6; up to 10 or 12 private launches per day. Guides are "invisible" in terms of allocation counts (but are counted for group size limits) Commercial group size categories: large=20+5, small rafting=10+3, small fishing=6+6. Each day run as a separate lottery. Manual entry of permits into lottery. BLM runs system now; previously contracted out. "Bad applicant list" if they cancel <10 days or no show = 1 year ban (can't get permit; can join other trips).

Contact	BLM Medford District - Grants Pass Resource Are 2164 N.E. Spalding Ave. Grants Pass, OR 97526 (541) 471-6561 Information from Chris Dent

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Salt River, Arizona

Segment(s)	Globe to Roosevelt Reservoir
Miles	52 (32 in USFS wilderness reach)
Typical boatable flow range	300 to 3,000 cfs
Typical boatable season	March through May (depends on water levels)
Whitewater difficulty	IV
Designation/classification status	Wilderness; National Forest
Managing agency	USFS
Type of access	Road access on both ends

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	1997
Primary type of limit	Launches and people (4 x 15 = 60).
Other limits	Group size
Capacity basis	Historical use + planning
Permit system approach	Split
Primary distribution technique(s)	Lottery
Secondary distribution technique(s)	Waiting list among unsuccessful applicants
Common pool of unused allocation	No
Use limit season(s)	Mar 1 to May 15
Primary distribution dates	Applications by January 15 Drawing in mid-January February starts waiting list
Private-commercial split (goal)	10 to 20% commercial ; 80 to 90% private
Private-commercial split (actual)	Varies depending upon water year.
Trip leader policy	Allows alternatives with written request
Participant tracking	Yes
Commercial transfer policy	Allows with review.
Use of overbooking	No
Waiting list	Yes – Hells Canyon model – can wait for one date.
Cancellation penalties	No; credit on user fees if 30 days in advance.
No show penalties	Loss of fees
Repeat user limitations	No
Application fees	$10 per application
User fees	$125 per trip (if successful in lottery) due 21 days before launch.
Number of commercial outfitters	3 (previously 4)
Group size limits	15
Trip length limits	3
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	No motors. Permit system required after higher use levels resulting from the modification of Quartzite Falls (illegal blasting by individuals changed only Class V rapid into Class III) Permit requires for Apache Reservation segment. Waiting list among unsuccessful applicants available to fill cancellations. Very flow-dependent use levels; lots of call-in use in wet years. Commercial companies do not solely rely on this river. Lottery odds: about 20% or 1 in 4 to 5 years. No credit cards taken.

Contact	Tonto National Forest, Globe Ranger District, 7680 S. Six Shooter Canyon Rd. Globe, AZ 85501 928-701-1477 Information from Don Sullivan and Scott McBride.

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San Juan River, Utah

Segment(s)	Sand Island to Mexican Hat and Mexican Hat to Clay Hills
Miles	84 total (26 + 58)
Typical boatable flows	500 to 8,000 cfs
Typical boatable season	Year-round (but primary season from March through October)
Whitewater difficulty	III
Designation/classification status	None
Managing agency	BLM
Type of access	Road access on ends (and in middle)

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	Late 1980s
Primary type of limit	Launches and people (varies by segment/season; see below)
Other limits	Group sizes, no layovers in certain segments and seasons
Capacity basis	Historical use + planning
Permit system approach	Split
Primary distribution technique(s)	Lottery
Secondary distribution technique(s)	Phone reservation
Common pool of unused allocation	Yes – cancelled commercial trips available for non-commercial groups.
Use limit season(s)	March 1 through October 31
Primary distribution dates	Application by January 31 Lottery in February; Phone–in reservation after March 1 (for lottery applicants only).
Private-commercial split (goal)	50-50 launches
Private-commercial split (actual)	77% non-commercial launches; 23% commercial 67% non-commercial people; 33% commercial 73% non-commercial user-days; 27% commercial
Trip leader policy	Alternate allowed with explanation
Participant tracking	No
Commercial transfer policy	Allowed with review.
Use of overbooking	No
Waiting list	No
Cancellation penalties	No refunds (but credit on other BLM rivers if soon enough)
No show penalties	No refunds
Repeat user limitations	No
Application fees	None
User fees	Depends on segment and trip length (usually $12 to $18 per person)
Number of commercial outfitters	13
Group size limits	25
Trip length limits	5
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	Example limit: 6 launches per day or 65 people from Sand Island in May-Jun. Must confirm 30 days before launch. Administrative trips operated in place of cancellations (there are many). Motors allowed (for downstream travel). Office hours from 8am to 12 pm for phone reservations. Must register for some popular camps. Navajo permit required to camp or hike on river left. Up to two trip size changes per application. Use levels: about 1,200 launches, 10,000 users, and 42,000 user day per year (2006)

Contact	San Juan River-BLM PO Box 7 Monticello, UT 84535 (435) 587-1544 Information from Kay Wilson

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Selway River, Idaho

Segment(s)	Paradise to Selway Falls
Miles	47.0
Typical boatable flow range	600 to 20,000 cfs
Typical boatable season	May through early August
Whitewater difficulty	Class IV
Designation/classification status	Wild and Scenic River, 1968
Managing agency	USFS
Type of access	Road accessible on ends (and via airstrips)

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	1980 (estimated)
Primary type of limit	Launches: 1 per day (16 of 62 days to commercial outfitters)
Other limits	Length of stay, group size, designated camps
Capacity basis	Historical use + studies + planning
Permit system approach	Split
Primary distribution technique(s)	Lottery
Secondary distribution technique(s)	Call-in reservation, business days only.
Common pool of unused allocation	Yes, if cancellations.
Use limit season(s)	May 15 through July 31 (control season; but permits required year round)
Primary distribution dates	Outfitters use calendar system. 4 rivers lottery schedule: Privates apply Dec. 1 to Jan. 31; results by Mar. 1; Confirm by Mar 15.
Private-commercial split (goal)	74% private/26% launches commercial (16 days) in control season.
Private-commercial split (actual)	Similar to goal; only 5 to 6 cancellations per year (rarely commercial).
Trip leader policy	No alternates allowed.
Participant tracking	No
Commercial transfer policy	Allowed with substantial review.
Use of overbooking	No
Waiting list	No
Cancellation penalties	Loss of application fee. If within 3 weeks of launch = no show.
No show penalties	3 year ineligibility to apply for permits.
Repeat user limitations	Yes; one trip per year.
Application fees	$6 per permit
User fees	None
Number of commercial outfitters	4
Group size limits	16
Trip length limits	No (most trips take 3 to 5 days)
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	Low odds in 4 rivers systems (3 to 4% or one in 28 to 30 years for first choice date). Increasing low flow use at end of control season. Few cancellations (5 to 6) and fewer no shows per year; this is a coveted trip. Snow can close pass into put-in in wet years. Low flows can lead to cancellations in dry years. Cancellations are usually picked up by local boaters within minutes (several calls each morning in season). Annual use: 60 to 70 launches; 800 to 1,000 user days per year.

Contact	USFS West Fork Ranger District 6735 West Fork Road, Darby, MT 59829-9654 (406) 821-3269 Information from Linda King

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Smith River, Montana

Segment(s)	Camp Baker to Eden Bridge
Miles	59
Typical boatable flow range	
Typical boatable season	April through June
Whitewater difficulty	Class II
Designation/classification status	
Managing agency	Montana Fish, Wildlife, and Parks (with USFS cooperation)
Type of access	Road access on ends.

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	1992 (commercial only); 1993 (all users)
Primary type of limit	9 launches per day (no more than 1 to 2 commercial, depending on day of week).
Other limits	Group sizes, designated camps.
Capacity basis	Historical use + planning.
Permit system approach	Split
Primary distribution technique(s)	Calendar for commercial; lottery for private.
Secondary distribution technique(s)	Reservation by phone (mornings only) starting March 21.
Common pool of unused allocation	Not between sectors. Outfitters can trade among themselves.
Use limit season(s)	April 1 to October 1.
Primary distribution dates	Applications accepted Jan 1. Lottery occurs in late February. Notification in early March.
Private-commercial split (goal)	By launches: approximately 88% private.
Private-commercial split (actual)	In 2006: Launches: 92% private (582) and 8% commercial (52). People: 86% private (3,894) and 14% commercial (638).
Trip leader policy	No alternate trip leaders.
Participant tracking	No
Commercial transfer policy	Allowed.
Use of overbooking	No.
Waiting list	No.
Cancellation penalties	No refund of fees.
No show penalties	Disqualified from applying in next year.
Repeat user limitations	None.
Application fees	$5 per application for residents.
User fees	Per person: $25 for residents; $50 for non-residents (various discounts for children)
Number of commercial outfitters	10 in 2006 (reduced from 14 in mid-1990s.
Group size limits	15 for private trips; 8 for “re-allocated” (secondary distribution) permits.
Trip length limits	4 nights during high use month (June 10 to July 10).
Human waste policy	Recommended; several camps have pit toilets.
Fire ring policy	Recommended.

Other capacity/allocation features	Annual use: about 3,500 to 4,000 people per year (about 600 trips). “Re-allocation” of cancelled permits limited to smaller groups sizes (8). Applications ranged from 3,000 to 4,500 since 1997 (average=3,840). About 800 are offered launches; success odds: about 20% or 1 in 4 to 5 years. Camps are designated and named; users line up to claim sites on day of launch. Outfitters are allowed one launch per day except from the last week of May through the first week of July when they are allowed two launches on Sundays and Wednesdays. About 25% of initial permits cancel (often flow-related; sometimes group consolidation).
Contact	Montana Fish, Wildlife & Parks Attn: Smith River PO Box 200701 Helena, MT 59620-0701 406-454-5861 Information from Colin Maas, Roger Semler, and Charlie Sperry.

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Snake River (Hells Canyon), Oregon/Idaho

Segment(s)	Hells Canyon Dam to Pittsburg Landing; Pittsburg Landing to Heller Bar
Miles	72.0
Typical boatable flow range	6,500 to 50,000 cfs
Typical boatable season	March through November
Whitewater difficulty	Class IV
Designation/classification status	Wild and Scenic River
Managing agency	USFS
Type of access	Road accessible on ends (and at one mid-river location)

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	1978
Primary type of limit	Launches: 3 private and 3 commercial per day on Wild segment; 2 private per day on Fri, Sat, and Sun scenic segment; otherwise unlimited
Other limits	Length of stay, group size, motorized use segments and times
Capacity basis	Historical use + planning
Permit system approach	Split
Primary distribution technique(s)	Lottery
Secondary distribution technique(s)	Call-in reservation, mornings only.
Common pool of unused allocation	Within 30 days of launch only.
Use limit season(s)	Memorial Day through September 15 (permits year round)
Primary distribution dates	Outfitters use calendar system. 4 rivers lottery schedule: Privates apply Dec. 1 to Jan. 31; results by Mar. 1; Confirm by Mar 15.
Private-commercial split (goal)	50-50 by launches
Private-commercial split (actual)	Private to commercial Launches: 58% to 42% User days: 62% to 38%
Trip leader policy	No alternates allowed.
Participant tracking	No
Commercial transfer policy	Allowed with substantial review.
Use of overbooking	No
Waiting list	Yes, for people who call in, for one date only.
Cancellation penalties	Within 21 days of launch = no show penalties (one year ineligibility).
No show penalties	One year ineligibility for permits.
Repeat user limitations	No
Application fees	$6 per permit
User fees	None?
Number of commercial outfitters	30
Group size limits	24 with 8 boats per group.
Trip length limits	None
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	Separate commercial and private powerboat allocation system (all historical use). ~65% of user-days in primary season are powerboat (62% commercial powerboat). Best odds among Idaho 4 rivers systems (33% or 1 year in 3 for first choice date). About 69% of initial lottery dates are cancelled (but reallocated). About 20% are not confirmed (and reallocated). About 10% of non-commercial trips no show (and are not able to be reallocated). Non-motor segment Mon-Wed in alternating weeks from June – August.

Contact	USFS Hells Canyon Hells Canyon National Recreation Area 2535 Riverside Dr. P.O. Box 699, Clarkston WA 99403-0699 (509) 758-1957

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Tuolumne River, California

Segment(s)	Lumsden Campground (Merals Pool) to Wards Ferry Bridge (Main Tuolomne)
Miles	18.5
Typical boatable flow range	1,000 to 8,000 cfs
Typical boatable season	April through October
Whitewater difficulty	III-IV
Designation/classification status	Wild and Scenic River, 1984.
Managing agency	USFS
Type of access	Road accessible on ends.

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	1975 for commercial; 1982 for all users; revisions with new river plans in 1986 and 88.
Primary type of limit	Launches and people combination
Other limits	Some designated camps, group sizes.
Capacity basis	Historical use + planning
Permit system approach	Split
Primary distribution technique(s)	Calendar for commercial; reservations for privates.
Secondary distribution technique(s)	First-come/first-served walk-ins.
Common pool of unused allocation	Not between sectors.
Use limit season(s)	May 1 through October 15
Primary distribution dates	Reservations available for privates starting Jan 1.
Private-commercial split (goal)	63% private (90 people and 4 launches) to 37% commercial (52 people and 2 launches)
Private-commercial split (actual)	Annually: 67% commercial to 33% private (private rarely reach their limit).
Trip leader policy	No alternate.
Participant tracking	No
Commercial transfer policy	Allowed with analysis.
Use of overbooking	No
Waiting list	No
Cancellation penalties	Loss of application fees (unless 14 days before; can use as credit for a future launch).
No show penalties	Defined as cancellations less than 48 hours; loss of remaining reservations that year.
Repeat user limitations	No
Application fees	$15 for first ten people + $2 or each additional (non-refundable)
User fees	None
Number of commercial outfitters	6
Group size limits	26
Trip length limits	3 days (2 nights)
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	Must pick up permit in person. Annual use has been as high as 7,000 user days. Recent numbers of users: about 3,500 people. 3 out of 10 camps designated for commercial outfitters (and those are rotated each year). If camps are unoccupied at 4 pm, anyone can use them. Low cancellation rate. About 75% of private trips and 65% of commercial trips go as a day trip. Less than 10% stay more than 1 night. Private use reaches limits only on holiday weekends in recent years (weekday permits are easily obtained).

Contact	Stanislaus National Forest Groveland Ranger District Attention: River Permits 24545 Highway 120 Groveland, CA 95321 Information from Julie Dettman

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Yampa and Green Rivers in Dinosaur National Monument, Colorado

Segment(s)	Yampa -- Deer Lodge to Echo Park (confluence with Green) then to Split Mountain. Green – Lodore to Echo Park (confluence with Green) then to Split Mountain
Miles	71 miles for Yampa trip; 44 for Green trip (shorter day run is 25 miles).
Typical boatable flow range	700 to 15,000 on Yampa; 300 to 20,000 cfs on Green
Typical boatable season	May through July on Yampa; May through September on Green.
Whitewater difficulty	III-IV on both rivers.
Designation/classification status	National Monument.
Managing agency	NPS
Type of access	Road accessible.

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	1967 (no limit); 1973 (all users); 1976 (lottery for private); 1979 revisions.
Primary type of limit	Launches per day (3 + 3 in high use; 1 + 1 in low use).
Other limits	Scheduled camps, group size limits.
Capacity basis	Historical use + study + planning.
Permit system approach	Split
Primary distribution technique(s)	Calendar for commercial; lottery for private.
Secondary distribution technique(s)	Reservations by phone (for high use dates, must have applied in initial distribution).
Common pool of unused allocation	No
Use limit season(s)	High use: starts second Monday in May; ends mid-July on Yampa, mid-Sep on Green.
Primary distribution dates	Applications available Nov 1; must be received by February 1; notifications by February 28/29.
Private-commercial split (goal)	50-50 by launches in high season: 300 each (both rivers).
Private-commercial split (actual)	Close to goal (few cancellations are unused by either sector).
Trip leader policy	No alternates allowed.
Participant tracking	Yes.
Commercial transfer policy	Allowed with concessions review.
Use of overbooking	No
Waiting list	No
Cancellation penalties	Less than 14 days prior: one year disqualification.
No show penalties	Less than 24 hours; two year disqualification.
Repeat user limitations	No more than 1 trip during high use period per year (unless using a cancellation).
Application fees	$15 per application.
User fees	$185 for multi-day permit.
Number of commercial outfitters	11 multi-day trip outfitters (previously as high as 17); 2 offer day use trips.
Group size limits	25
Trip length limits	6 days on Green and 7 days on Yampa (camp scheduling encourages shorter trips).
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	All camps are scheduled (chosen with river office after confirmation). Must apply for one river and one date only. May be able to arrange trip length extensions (with extra fees). Odds of success in initial lottery: 5 to 6% or 1 out of 18 years. 26 to 33% of initial permits cancelled in recent years (worse in low flow years). About 25% of call-in trips cancel. About 3% of high season trips are unused. On-line application process planned for 2009. One-day segment available (and has separate system and launch timing regulations).

Contact	Dinosaur National Monument River Office 4545 Hwy 40 Dinosaur, CO 81610. Phone (970) 374-2468 Information from Judy Culver.

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Lower Youghiogheny, Pennsylvania

Segment(s)	Lower Youghigheny (Ohiopyle to Bruner Run)
Miles	7.4
Typical boatable flow range	1.2 to 8 feet on gage
Typical boatable season	April-October
Whitewater difficulty	Class III
Designation/classification status	Penn State Park
Managing agency	Pennsylvania State Parks
Type of access	Road accessible

Type of allocation system	Full (commercial and non-commercial)
Year permits first limited	Late 1970s
Primary type of limit	People per day
Other limits	Number of outfitters, group sizes, timing of launches
Capacity basis	Study + planning
Permit system approach	Split allocation
Primary distribution technique(s)	Reservations by web
Secondary distribution technique(s)	Reservation by web
Common pool of unused allocation	No

Use limit season(s)	Weekends and holidays from April 1 to October 15
Primary distribution dates	Private boaters can reserve dates 9 months in advance.
Private-commercial split (goal)	50-50 people per day (960 commercial passengers and 960 non-commercial)
Private-commercial split (actual)	Unknown
Trip leader policy	Permits to individuals, not groups.
Participant tracking	No
Commercial transfer policy	Allowed; minimal oversight or analysis of sales.
Use of overbooking	No
Waiting list	No
Cancellation penalties	Loss of reservation fee (2.50 in past; 3.00 for 2007)
No show penalties	No
Repeat user limitations	No; seasonal pass available for local boaters with unlimited reservations allowed.
Application fees	$3 non-refundable for reservation; $3.00 for mandatory take-out shuttle to parking area.
User fees	No additional fees.
Number of commercial outfitters	4
Group size limits	25
Trip length limits	Day use river
Human waste policy	Day use river
Fire ring policy	Day use river

Other capacity/allocation features	Private use is also split between inflatables (750 people/day) and hard shell boats (210) Allocation is for prime time periods, not whether one can go boating. Time slots are on half hour and hour; launch ranger allows some flexibility. No information about number of cancellations. Seasonal pass holders (about 175) began "stockpiling" good launch slots; polite letter from agency discouraging this practice has effectively reduced it. Outfitters pay 7.5% of gross to agency. Recent outfitter sale included intangible value of access and client list. Use levels exceed 100,000 people per year. Credit cards accepted for fees through web-based state park reservation system. Shuttle bus concession used to keep private vehicles from constrained take-out area.

Contact	Ohiopyle State Park PO Box 105 Ohiopyle, PA 15470 724-329-8591 Permit information 724-329-8593 Dept of Conservation and Natural Resources staff Information from Stacie Faust

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Notable partial allocation systems

Arkansas River, Colorado

Segments	Multiple segments (Leadville to Pueblo Reservoir)
Miles	148
Typical boatable flow range	Depends on reach;
Typical boatable season	April to October (shorter season for higher elevation reaches)
Whitewater difficulty	I-II to III-V on different segments
Designation/classification status	State recreation area
Managing agency	Colorado Department of Parks and Outdoor Recreation & BLM
Type of access	Road accessible (multiple launches on different segments).

Type of allocation system	Commercial limits implemented; non-commercial limits defined (but not reached).
Year permits first limited	1995; Plan in 1998; revisions to system in 2001.
Primary type of limit	Boats per day (varies by segment).
Other limits	Group size, commercial launch periods.
Capacity basis	Historical use + planning
Permit system approach	Split
Primary distribution technique(s)	Negotiated calendar for commercial use; private use not limited yet.
Secondary distribution technique(s)	None
Common pool of unused allocation	No sector common pool on daily basis, but it has occurred during planning (see sidebar in case study chapter). Outfitters can trade use among themselves (complex rules).
Use limit season(s)	Year-round, but primary season May 15 to Sep 7
Primary distribution dates	None for non-commercial; commercial calendar negotiations in winter
Private-commercial split (goal)	Varies by segment and season. Some segments 95 to 100% private; others 50-50 in summer; and still others 25% non-commercial in summer.
Private-commercial split (actual)	Only 2 to 36 days limited for commercial (depending on segment) and no days limited for non-commercial yet.
Trip leader policy	Not applicable – non-commercial use limits not yet reached.
Participant tracking / repeat user	No
Commercial transfer policy	Allowed with minimal review.
Waiting list	No
Cancellation/no show penalties	No
Application fees	No
User fees	$2 per person (rising to $3 in 2008)
Number of commercial outfitters	55
Group size limits	10 boats per trip; 300 yards between trips.
Trip length limits	None
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	Historical use based on 5 years of data (1989-1994) Limits enforced only after capacity for a segment has been exceeded for 5 days in a year. Limits apply only to days that exceeded capacity (each day is added incrementally) Limits for specific days removed if under capacity for two consecutive years. When use must be reduced to meet limits, all outfitters reduce proportionally. Complex calculations used to determine boats/year and distribution across seasons. Outfitters must use 80% of 3 year average use to maintain allocation. Commercial boat launch hours on some segments (8:30 to 11 am). Commercial boats off river by 5 pm on other (fishing) segments. “Rafts” defined as any boat capable of 3 people. Non-commercial use estimated from “Parks Pass” and photography concession counts.
Contact	Colorado State Parks Arkansas Headwaters Recreation Area 307 West Sackett Ave. Salida, CO 81201 Information from John Kreski

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Chetco River, Oregon

Segment	Wild and Scenic segment
Miles	45
Typical boatable season	Year-round
Whitewater difficulty	Class I-II
Designation/classification status	National Wild & Scenic River, 1984 (wild, scenic, and recreational segments)
Managing agency	USFS
Type of access	Road accessible; multiple launches.

Type of allocation system	Commercial limits implemented; non-commercial limits defined (but not reached).
Year permits first limited	1998
Primary type of limit	Launches (if necessary)
Other limits	Non-motorized use only; group sizes.
Permit system approach	Common pool, if needed.
Primary distribution technique(s)	Undecided.
Use limit season(s)	Year-round.
Primary distribution dates	Undecided.
Application fees	None.
User fees	None.
Number of commercial outfitters	25 fishing guides
Group size limits	12 for all trips
Trip length limits	Not specified.
Human waste policy	Recommended.
Fire ring policy	Recommended.

Other capacity/allocation features	Self-administered permits at roadside kiosk.

Contact	Rogue River-Siskiyou National Forest PO Box 520 333 West 8th Street Medford, OR 97501 (541) 858-2200

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Illinois River, Oregon

Segment	Wild Section from Miami Bar to Oak Flat
Miles	31
Typical boatable flow range	500 to 3,500 cfs at 31 feet per mile
Typical boatable season	March through May
Whitewater difficulty	Class III-IV-V
Designation/classification status	National Wild River, 1988
Managing agency	USFS
Type of access	Road accessible on ends

Type of allocation system	Commercial limits on number of outfitters; total launches per day limit defined (but not reached).
Year permits first limited	1998
Primary type of limit	Launches (if necessary) to meet encounter standards.
Other limits	Group size limits.
Capacity basis	Studies in mid-1980s.
Permit system approach	Common pool, if needed.
Primary distribution technique(s)	Undecided.
Use limit season(s)	Year-round.
Primary distribution dates	Undecided.
Application fees	None.
User fees	None.
Number of commercial outfitters	2 whitewater outfitters; 10 fishing guides (not wild segment).
Group size limits	12 for all trips
Trip length limits	Not specified.
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	Self-administered permits at nearby store (where shuttles often originate). Forest Service apparently considered implementation of full common pool system in mid-1990 to ensure that encounter standards in the management plan were not exceeded. Some stakeholders questioned whether use or impacts had reached "trigger" levels. The system was not implemented.

Contact	Rogue River-Siskiyou National Forest PO Box 520 333 West 8th Street Medford, OR 97501 (541) 858-2200

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Kern River, California (Upper and Lower)

Segment(s)	Johnsondale Bridge to Kernville (Upper) and Below Isabella Reservoir
Miles	19 (upper) and 18 (lower)
Typical boatable flow range	300 to 4,000 at Kernville
Typical boatable season	Spring through late summer
Whitewater difficulty	Class III-IV
Designation/classification status	National Wild & Scenic River (1987); recreational and scenic reaches.
Managing agency	USFS (some BLM cooperation).
Type of access	Road accessible; multiple launches.

Type of allocation system	Commercial limits implemented; non-commercial use formerly limited (but no longer).
Year permits first limited	1979 to 1988; then non-commercial limits removed.
Primary type of limit	In past: people per day and launches per day (commercial). Currently: number of outfitters only; no sector limits.
Other limits	Group sizes.
Capacity basis	Historical use.

Permit system approach	1979-1988 used a split allocation
Primary distribution technique(s)	First-come/first served at office.
Secondary distribution technique(s)	Same as primary.
Common pool of unused allocation	No.
Use limit season(s)	Year round.
Primary distribution dates	First-come/first-served during limit era; no current limit.
Private-commercial split (goal)	Currently unspecified.
Private-commercial split (actual)	~15% non-commercial vs. 85% commercial (Lower). Unspecified (Upper)
Trip leader policy	Not applicable.
Participant tracking	No
Commercial transfer policy	Allowed.
Use of overbooking	No
Waiting list	No
Cancellation penalties	No
No show penalties	No
Repeat user limitations	No
Application fees	None
User fees	None
Number of commercial outfitters	6 on Upper; 4 on Lower.
Group size limits	Varies by segments. Upper is 25 for private and commercial; Lower is 18 / 30.
Trip length limits	None. Most trips are day or one night trips.
Human waste policy	Yes, carry-out required. No scat machine.
Fire ring policy	Yes; fire pans.

Other capacity/allocation features	Non-commercial limits lifted in 1988 because private boaters had been "flooding" office in mornings (300+ boaters on some weekend days). Outfitters camp on private or leased land (have established base camps).

Contact	Kern River Ranger District-Kernville Office P.O. Box 9 Kernville, CA 93238 760-376-3781 Information from Sheryl Bowers

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Lower Salmon, Idaho

Segment(s)	Hammer Creek to Snake River
Miles	63 (+ 10 on Snake to Heller Bar).
Typical boatable flow range	3,000 to 15,000 cfs.
Typical boatable season	April to October
Whitewater difficulty	Class III (one IV)
Designation/classification status	None
Managing agency	BLM
Type of access	Road accessible at start (and on Snake at take-out).

Type of allocation system	Commercial limits on number of outfitters; no non-commercial limits.
Year of first limits	Required since mid-1980s (but no limit).
Primary type of limit	None on trips per day.
Other limits	Number of outfitters; group sizes.
Capacity basis	Not applicable.
Permit system approach	Commercial only (no limits on number of tips).
Primary distribution technique(s)	Commercial only – outfitter discretion.
Secondary distribution technique(s)	Not applicable.
Common pool of unused allocation	Not applicable.
Use limit season(s)	Registration required year round.
Primary distribution dates	Not applicable.
Private-commercial split (goal)	None
Private-commercial split (actual)	Actual splits: about 25% of launches and 39% of users are commercial (2005 data).
Trip leader policy	No
Participant tracking	No
Commercial transfer policy	Allowed; minimal oversight or analysis of sales.
Use of overbooking	No
Waiting list	No
Cancellation penalties	No
No show penalties	No
Repeat user limitations	No
Application fees	None
User fees	None
Number of commercial outfitters	45 total (see break down below)
Group size limits	30
Trip length limits	None
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	Specifically managed as “no limit” alternative in Salmon Basin. Focus is on minimizing resource impacts rather than social impacts like encounters. 25 page boater guide. 14 powerboat permits; 31 float permits.

Contact	Cottonwood Field Office 1 Butte Drive Cottonwood, ID 83522 208-962-3245 Information from Joe O’Neill

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Merced River, California

Segments	BLM segments from Indian Flat to Railroad Flat
Miles	18
Typical boatable flow range	Variable 800 to 4,000 (changes difficulty)
Typical boatable season	April through July
Whitewater difficulty	III-IV
Designation/classification status	Wild and Scenic River
Managing agency	BLM (some cooperation with USFS)
Type of access	Road accessible (multiple locations).

Type of allocation system	Commercial limits implemented; no non-commercial limits.
Year permits first limited	1979; revisions in 1984
Primary type of limit	Launches per day (8).
Other limits	Group size limits, starts per day.
Capacity basis	Historical use + planning.
Permit system approach	Commercial use only.
Primary distribution technique(s)	Negotiated calendar
Secondary distribution technique(s)	None
Common pool of unused allocation	Yes, within commercial sector.
Use limit season(s)	April through July
Primary distribution dates	None for private users.
Private-commercial split (goal)	Not applicable.
Private-commercial split (actual)	Not applicable.
Trip leader policy	Not applicable.
Participant tracking / repeat user	Not applicable.
Commercial transfer policy	Allowed after intensive review.
Use of overbooking	No
Waiting list	No
Cancellation penalties	None
No show penalties	None
Application fees	None
User fees	None
Number of commercial outfitters	7 outfitters (10 total permits); as many as 13 in past
Group size limits	25 for private (+ 6 guides for commercial).
Trip length limits	No (mostly day trips).
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	Starting in 1984, outfitters "lost" starts for not using 85% of allocation. Currently 65% is the standard for reduced launches – usually less than 2 to 3 lost per year. Lost starts go to common commercial pool. Roughly 1/3 of all use is private; no limits expected in near future. But there has been a shift to higher kayaking use than rafting in private sector. Very flow-dependent river; major effect on use. Recent slide and highway blockage affected use. "Reallocation" among outfitters occurs every 3 years. Total use is about 9,000 to 10,000 people per year (in short season).

Contact	Bureau of Land Management Folsom Field Office 63 Natoma Street Folsom, CA 95630 Phone: (916) 985-4474 Information from Jim Eicher and Jeff Horn.

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North Fork American River, California

Segment(s)	Chamberlain Falls Reach
Miles	5
Typical boatable flow range	400 to 2,500 cfs
Typical boatable season	December through June
Whitewater difficulty	Class IV
Designation/classification status	State Park
Managing agency	Auburn State Park
Type of access	Road access on ends

Type of allocation system	Commercial limits implemented; no non-commercial limits.
Year permits first limited	1980 (commercial only); 1988 revision; 2004 revision.
Primary type of limit	Commercial use on weekends
Other limits	Group sizes, start times, number of boats
Capacity basis	Historical use
Permit system approach	Commercial use only
Primary distribution technique(s)	Calendar
Secondary distribution technique(s)	Reservation by phone from pool.
Use limit season(s)	Winter and spring
Primary distribution dates	Entire season (varies depending upon flows and weather)
Commercial transfer policy	Allowed after review; rules adjust allocation based on use.
Use of overbooking	Not applicable.
Can allocations be reduced?	Not applicable.
Number of commercial guides	18
Group size limits	24
Trip length limits	Not applicable (mostly day trips).

Other capacity/allocation features	Number of outfitters grew from 9 to 18 from 1980 to present. Elaborate system of choosing calendar dates – annual meeting with 3 rounds of choices. Start times are scheduled (chosen during annual "Draw Meeting"). Complexities of allocation between outfitters discussed in RMS newsletter, spring 2003.

Contact	Auburn State Recreation Area El Dorado Street at Old Foresthill Road Auburn , CA, 95602 530-823-4162 Information from Bill Deitchman

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South Fork American, California

Segments	Chili Bar (7 miles), Coloma (3 miles), and the Gorge (9 miles)
Miles	19
Typical boatable flow range	800 to 3,500 cfs
Typical boatable season	March through October
Whitewater difficulty	Class III+
Designation/classification status	County management
Managing agency	Eldorado County lead. Some BLM land.
Type of access	Road accessible

Type of allocation system	Commercial limits implemented; non-commercial limits defined but not reached.
Year permits first limited	1981 commercial use regulation; 1988 revisions; 2004 revisions.
Primary type of limit	People per day (2,100 on Chili Bar; 3,200 in the Gorge)
Other limits	Density per 2 hour period (<300); group size limits, number of outfitters
Capacity basis	Study + planning
Permit system approach	Split allocation (if capacities reached).
Primary distribution technique(s)	Per day allocations on weekends/weekdays for individual outfitters; none for private
Secondary distribution technique(s)	Not relevant at this time
Common pool of unused allocation	No, but there is a "flex" system for smaller outfitters.
Use limit season(s)	Year-round
Primary distribution dates	None for private users.
Private-commercial split (goal)	No goal specified.
Private-commercial split (actual)	Roughly 70% commercial in recent years (down from 75% in mid 1990s.
Trip leader policy	No private permits.
Participant tracking / repeat user	No private permits.
Commercial transfer policy	Allows transfers and encourages consolidation among existing outfitters, but requires review of sales and allocation is not allowed on the bill of sale.
Use of overbooking	Not applicable.
Waiting list	Not applicable.
Cancellation penalties	Not applicable.
No show penalties	Not applicable.
Application fees	Not applicable.
User fees	$2 for commercial passengers.
Number of commercial outfitters	42
Group size limits	56 people (including guides); maximum of 7 rafts or 12 kayaks.
Trip length limits	None
Human waste policy	Yes
Fire ring policy	Yes

Other capacity/allocation features	Phased actions to reduce then limit use if standards exceeded include: Increase commercial passenger fees Decrease commercial and institutional allocations Limit all use (all user permit system) Variable allocations to outfitters (with more on weekends). Existing use has not approached capacity thresholds in recent years. Use levels overall are down 20 to 45% from mid-1990's peaks. Current use is about 100,000 user days per year.

Contact	Eldorado County Airports, Parks & Grounds Office 3000 Fairlane Court, Ste 1 Placerville, CA 95667 (530) 621-5864

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Susitna-Basin Recreation Rivers, Alaska

Segment(s)	6 rivers: Talkeetna, Talachulitna, Lake Creek, Deshka, Alexander Creek, and Little Susitna
Miles	362 total
Typical boatable flow range	Varies by river.
Typical boatable season	Floating and jetboating from Mid May through mid-October.
Whitewater difficulty	Class III-IV
Designation/classification status	State Recreational Rivers, 1989.
Managing agency	Alaska DNR
Type of access	Mostly fly-in access to headwaters (some road access on two rivers). Mostly-boat-out or road access at river mouths (confluences with the Susitna River).

Type of allocation system	Potential limits on commercial and non-commercial users.
Year permits first limited	Proposed in future (if standards exceeded).
Primary type of limit	Launches per day.
Other limits	Commercial camp locations, camp occupancy limits, PWC ban, some non-motorized use zones/periods (voluntary).
Capacity basis	Planning based on survey data and public input (circa 1989-90).
Permit system approach	Allocation goals suggest common pool or adjusting split.
Permit mechanisms	Unspecified; to be decided.
Number of commercial outfitters	Approximately 100 (for 6 rivers) in 1991.
Group size limits	None.
Trip length limits	14 day campsite occupancy.
Human waste policy	Recommended.
Fire ring policy	None.

Other capacity/allocation features	Management plan in 1991. Commercial outfitters are registered (and pay fees) but are not limited. Plan establishes allocation goals without specifying system characteristics (if needed). Proactive plan with actions linked to standards. Most plan actions not implemented in 16 years (budget constraints/ lack of field staff).

Contact	Alaska Department of Natural Resources Division of Mining, Land, and Water 550 W. 7th Suite 150 Anchorage AK 99501 907.269.8536 Information from Bruce Talbot

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Verde River, Arizona

Segment(s)	Wild (35 miles) and Scenic (18 miles) segments
Miles	52
Typical boatable flow range	400 to 3,000 cfs.
Typical boatable season	Limited high flow days in March and April
Whitewater difficulty	Class III (one IV-V)
Designation/classification status	National Wild & Scenic River, 1984. Wilderness. Three National Forests.
Managing agency	USFS
Type of access	Road accessible at several locations.
Type of allocation system	Commercial limits only.
Year of first limits	Mid-1980s (designation in 1984).
Primary type of limit	People per day (60 on wild, 250 on scenic) and user-days per year.
Other limits	Number of outfitters; group sizes.
Capacity basis	Historical use + planning
Permit system approach	Commercial only – annual user day allocation + common commercial pool.
Primary distribution technique(s)	Commercial only – outfitter discretion.
Secondary distribution technique(s)	Not applicable.
Common pool of unused allocation	20% of annual user days in common commercial pool (both segments).
Use limit season(s)	Boating season is flow dependent; usually March and April.
Primary distribution dates	Not applicable – outfitter discretion on trip starts.
Private-commercial split (goal)	Not applicable.
Private-commercial split (actual)	Estimated: 33% commercial and 66% private on wild segment.
Trip leader policy	Not applicable.
Participant tracking	No
Commercial transfer policy	Allowed; minimal oversight or analysis of sales.
Use of overbooking	No
Waiting list	No
Cancellation penalties	Not applicable.
No show penalties	Permit holder not allowed to apply for three years
Repeat user limitations	Not applicable.
Application fees	Not applicable.
User fees	Not applicable.
Number of commercial outfitters	2
Group size limits	12 + 3 guides = 15 total in wild segment; 25 total in scenic segment.
Trip length limits	14 days in wilderness; typical trips 2 to 5 days in wild, 1 to 2 in scenic.
Human waste policy	Yes, carry-out required. No scat machine.
Fire ring policy	Yes; fire pans and ash carry-out required.

Other capacity/allocation features	25 page boater guide. No camping /stopping zone for bald eagle nesting. 100+ camps in river, but bottlenecks at "destination camps" – no designated camps. Each outfitter gets equal allocation of users days (200 on wild, 400 in scenic). Outfitters share a common pool (100 on wild, 200 on scenic). Recommended self-registration for privates; estimated compliance = 20%. Note: Recreation is not an outstandingly remarkable value.

Contact	Verde Ranger District (USFS) P. O. Box 670 (300 E. Highway 260) Camp Verde, AZ 86322-0670 (928) 567-4121 Information form Dexter Allen & Bill Cook.

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Other examples of partial and potential allocation systems

River	State	Miles	No. of outfitters	Other comments
Allagash	ME	92	20	Partial: commercial only. National WSR managed cooperatively with state and local entities. Major controversies over development (road access and bridges). Commercial outfitters must have permits (no limits on launches). No non-commercial permits.
Beaverhead	MT	75	87	Partial: commercial only. Commercial use is primarily fishing guides. Managed by State of Montana Fish, Wildlife, & Parks Limit on number of outfitters and number of client days during peak period. Motorized use restrictions. Non-commercial use not limited.
Big Hole River	MT	153	116	Partial: commercial only. Multiple segments (Clark Canyon Reservoir to Big Hole River). Blue Ribbon trout fishery. Managed by State of Montana Fish, Wildlife, & Parks Limit on number of outfitters and number of client days during peak period. Motorized restrictions (none over 10 horsepower)
Black Canyon of Gunnison (National Park Service)	CO	16	0	Potential: non-commercial use might be limited if resource damage. Kayak only run (Class V with portages). No commercial use. Wilderness permit currently required (no fee or limit).
Blackfoot	MT	139	50	Potential future limits on commercial and non-commercial use. Boatable from 600 to 8,000 cfs. Some angler-boater conflict; tuber-angler conflict in summer. 93% of use is non-commercial. Considerable use is organizational (boy scouts, church groups). Group size limits vary from reach to reach. No existing limits on number of guides or trips for either sector. Over 400 tubers/hour in summer peaks. Information from Chris Lorentz, MT FWP.
Blackfoot	ID	8	2	Partial: commercial only. Commercial limits via Idaho Outfitter and Guide regulations (number of outfitters). Float use only.
Bruneau / Jarbidge	ID	69	1	Partial (number of commercial outfitters) and potential (non-commercial) if needed. Challenging Class III-IV river. BLM-managed. April-June season; highly flow-dependent (800 to 2,500 cfs). Requires permit (can register on site or by mail). Human waste and fire pan regulations. Commercial limits only via Idaho Outfitter and Guide regulations allow as many as 4 outfitters (no trip limits).
Boise River (South Fork)	ID	21	2	Partial: commercial limits only. Commercial limits via Idaho Outfitter and Guide regulations. Float use only. Only one boat per outfitter at one time.
Boise River	ID	10	2	Partial: commercial limits only. Commercial limits only via Idaho Outfitter and Guide regulations. Float use only. No more than 4 boats per outfitter at one time.

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River	State	Miles	No. of outfitters	Other comments
Buffalo National River	AR	135	13	Partial: commercial limits only. No use limits except number of outfitters. NPS management: National River status (designated 1972). Some motorized use.
Carson River (East Fork)	NV	19	2	Potential commercial limits. USFS managed. Potential WSR study river. Class II-III. No current limits for commercial or non-commercial sector. Commercial outfitters operate under special use permits (not limited at this time).
Cheat River	WV	11	13	Partial: commercial limits only. No limits on non-commercial boaters. WVa manages total number of commercial guides through a state license program. It establishes per day allocations on 5 rivers using complex formulas that consider the maximum capacity of the river (through an LAC process), the existing allocation (from historical use or adjustments), and market share (the amount they are actually using). The current system puts 90% of weight for next year on its existing allocation (10% on what it used). No per day commercial limits on Cheat (use is low at 8,000 user days per year compared to New, Gauley, or Shenandoah).
Cherry Creek (Tuolumne)	CA	9	2	Partial: commercial limits only. Continuous Class IV-V day run. Dam release flows; optimal is 700 to 1,500 cfs. Both outfitters allowed up to 2 launches per day and up to 7 per week (e.g., every day per week or double on a few days). Group size is 26. No limit for non-commercial use defined.
Clark's Fork (Alberton Gorge)	MT	11	29	Partial: commercial limits only. Class III+ river managed by Montana Fish, Wildlife, & Parks Limit on number of outfitters, but no limit on number of trips. Motorized restrictions (none over 10 horsepower)
Clearwater (Several segments)	ID	60+	20	Partial: commercial limits only. Commercial limits only via Idaho Outfitter and Guide regulations. Up to 10 powerboat outfitters and 5 to 10 float outfitters depending on the segment allowed. No more than 3 to 5 boats per outfitter at one time (depending on segment).
Clearwater (North Fork)	ID	29	4	Partial: commercial limits only. Commercial limits only via Idaho Outfitter and Guide regulations. Float use only. No per boats per outfitter limits.
Coeur d'Alene	ID	29	1	Partial: commercial limits only. Commercial limits only via Idaho Outfitter and Guide regulations. Float use only. Only two boats per outfitter at one time.
Colorado River (Ruby Canyon)	CO	25	3	Potential commercial limits in future. Class I-II river segments. No non-commercial limits defined or expected.
Colorado River (Moab Daily)	UT	17	22	Partial: commercial limits only. Non-commercial permits required -- but not limited and no fees. Call for permit (mornings only); must be carried on river. Permit must be left at take-out (helps estimate use). Commercial use is not limited (except number of outfitters).

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River	State	Miles	No. of outfitters	Other comments
Dead River	ME	16	14	Partial: commercial limits only. Scheduled flow releases. Day use river. State of Maine controls outfitter numbers. Capacity is 1,000 commercial passengers per weekend day. No non-commercial limits.
Delaware River	NY/ PA	73	11	Potential limits only. National Scenic and Recreational River managed by NPS. Nearly all private land. Multiple road access locations. Class I-II rapids. No non-commercial permits. Commercial operations include canoe liveries and outfitters (which are not limited). Canoe use may produce over 300,000 visits per year, but management plan does not establish future use limits.
Delta River / Tangle Lakes	AK	25	1	Potential limits on both commercial and non-commercial use. National WSR managed by BLM. Some powerboat use on lakes; jet boat use on lower 10 miles; float craft only on "through trips" (includes a Class IV gorge that can be portaged). Forthcoming 2008 plan is developing standards that may trigger limits in future (different segments with different limits). Likely limit: launches per day linked to campsite competition standards. Likely split system, but current commercial use is rare (occasional national Boy Scout groups). Potential group size limits at 12 per trip.
Dolores River (Slickrock/Bedrock)	CO	97	16	Partial: commercial limits only. Class II-IV segments. Short flow-dependent season. Commercial limits on number of outfitters, not number of trips. Group size limits 25 (Slickrock) and 16 (Bedrock)
Dolores River (Gateway Segment)	CO/UT	32	14	Partial (commercial) and potential (non-commercial). Commercial limits on number of outfitters, not number of trips. Non-commercial permits required – but not limited and no fees. Call for permit (mornings only); must be carried on river. Permit must be left at take-out (helps estimate use).
Flathead (Middle Fork)	MT	73	4	Partial (commercial) and potential (non-commercial). USFS managed WSR, 1976. Potential interest in a common pool system if limits are necessary (from Western Wildlands article; no specific commitment from USFS in existing plan). Has fly-in multi-day and road accessible day use segments. Existing commercial outfitters have limits on "boating-days" in entire basis that may complicate common pool options. Non-commercial use is less frequent than commercial use (fly-in logistics appear to constrain use).
Gallatin	MT	30	5	Partial: commercial use only. Day use segments on USFS land northwest of Yellowstone Park. Commercial use limits on number of outfitters, not number of trips.

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River	State	Miles	No. of outfitters	Other comments
Gauley	WV	27	25	Partial: commercial use only. Flow release river – occurs on 22 days in Sept and Oct. WVa manages total number of commercial guides through a state license program. It establishes per day allocations on 5 rivers using complex formulas that consider the maximum capacity of the river (through an LAC process), the existing allocation (from historical use or adjustments), and market share (what amount they are actually using). The current system puts 90% of weight for next year on its existing allocation (10% on what it used). Per day commercial limits on each segment is 3,040 per day; has not been exceeded. Annual Upper Gauley use: 20,00 to 25,000 user days. Annual Lower Gauley use: 35,000 to 40,000 user days. Some crowding and conflict on high use weekends. Increases in capacity were made on several occasions without public input.
Grand Ronde / Wallowa	OR	91	8	Potential commercial and non-commercial limits in future. Includes 10 miles on the Wallowa. All users required to get free permit (available at launches). No limits on private use. Commercial use requires Special Use Permit (no limits on number of outfitters or number of trips). Umatilla NF and Vale BLM district. Fire pan and carry out waste regulations.
Green River (Labyrinth Canyon)	UT	68	25	Partial (commercial) and potential (non-commercial). Limits on number of commercial outfitters, but not on trips. Permits required but not limited for non-commercial trips. Group size limits of 25. Some motorized use occurs (jet boats).
Green River (Flaming Gorge)	WY	32	10	Partial: commercial limits only. Limits on number of outfitters. Previously: Limit commercial launches per day. Currently: Limit commercial launches per month. Reallocate based on previous use every three years. USFS-managed. Daily use fee: $2 (season passes available). Information from Nanette Gale
Gulkana River	AK	127	17	Partial (commercial) and potential (non-commercial). National WSR managed by BLM. 42 miles on commonly boated Main Stem. 2006 plan standards may trigger limits in future. Limit: launches per day linked to campsites. Split system would be implemented. Commercial use is <10% of existing use. Jet boat use on West Fork and lower 10 miles.
Gunnison Gorge	CO	14	11	Partial: commercial limits only. BLM managed. Commercial limits on number of outfitters, not number of trips. Class II-III. Considerable boat-based fishing. 1 to 3 day trips.
Hudson River (Gorge)	NY	16	12	Partial (commercial) and potential (non-commercial). State Department of Environmental Conservation management. Designated primitive area with a “Unit Plan.” Outfitter association (12 members) pays about $60,000 per year for short scheduled releases (800 cfs). Up to 150 rafts and 1,200 people may run river on high use days (weekends). Non-commercial boaters welcome to use water (but must register for time slot).

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River	State	Miles	No. of outfitters	Other comments
John Day River	OR	201	33	Partial (commercial) and potential (non-commercial). National Wild & Scenic River, 1988. (Wild, Scenic and Recreational reaches). BLM (some USFS on North Fork) Permits required year round (but not limited). LAC standards indicate that non-commercial limits may be needed. Final limits and allocation approach undecided; may follow Deschutes reservation example. Plan goal: reduce outfitters to 26 through attrition/consolidation. Group size limits: 16 Limits tied to campsite availability, encounters, and biophysical triggers (not reached yet, but approaching triggers). Commercial use is about 15% of total use.
Kaweah River	CA	9	4	Partial: commercial limits only. No current limits on number of trips for any sector. Group size limits appear to be 75 people (county enforced). May be limit on number of outfitters. Outside Kings Canyon / Sequioa NP. Class IV river; mostly private land.
Kootenai	ID	47	10	Partial: commercial limits only via Idaho Outfitter and Guide regulations. Float and motorized use (5 outfitters each).
Kenai (Upper)	AK	11	29	Partial: commercial limits only. USFWS managed segment from Russian River to Skilak Lake. Limits on number of guides/outfitters. 20 fishing guides and 9 scenic outfitters. Fishing guides have additional limits – 10 trips per week, 4 trips per day. Only four outfitters allowed to be "high volume." Outfitters chosen by bid prospectus (merits of service and offerings, not cost). New plan due in 2008, may reduce starts/number of outfitters slightly.
Kenai (state-managed use)	AK	86	380	Potential commercial limits. Managed cooperatively by AK State Parks with assistance from a stakeholder board. USFS and USFWS also manage use on the Upper and Middle Kenai. Total guide limits is considered a state issue; was major topic in 2002-2004 but did not result in limits. May be addressed in 2008-09 study. Guides rather than outfitters are managed; also distinctions are made between powerboat and drift fishing guides, as well as scenic tours. Mid-2000s numbers: 350 fishing guides (about 300 motorized), 35 scenic guides.
Kennebec	ME	9	15	Partial: commercial limits only. Scheduled flow releases on a day use river. Access fees to local land owner. State of Maine controls outfitter numbers. Capacity is 1,000 commercial passengers per weekend day. No non-commercial limits.
Klamath River (Middle)	CA	148	42	Partial: commercial limits only (number of outfitters only). WSR managed by USFS. Class II-IV whitewater. Multiple road-accessible segments. Has human waste and fire pan regulations. Relatively low use except 34 miles below Happy Camp. No non-commercial use permits (but registration encouraged). Group size limits at 30.

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River	State	Miles	No. of outfitters	Other comments
Klamath River (Upper)	OR/CA	16	12	Partial: commercial limits only. Scheduled flow releases daily in summer (likely to change with new FERC license; possibly just 1 to 2 days per week after June). Some overnight use. WSR managed by BLM. <10% private use; no non-commercial permits required. Outfitters are under special use permits (not limited). Primarily day use (some overnight use when flows are scheduled).
Kilickitat	WA	11	5	Partial: com limits only. Class II-III, with good fishing. Non-commercial registration requested, but not limited. Commercial use moratorium in 2007. No limits on number of commercial trips. Special use permits are renewed for 5 year periods. Commercial use required to develop operating plan. One angling outfitter, 2 raft-only outfitters, 2 kayak teaching outfitters, and 2 raft + kayaking outfitters. Two segments of river; not all commercial uses overlap. Low use levels – 350 people per year for fishing, 200 to 250 people per year for rafting and kayak courses.
Lochsa River	ID	26	5	Partial: Commercial limits only. Commercial limits only via Idaho Outfitter and Guide regulations. Limits only the number of outfitters (not number of trips). Float use only. Also USFS-managed: Wild and Scenic River (1968). Some designated outfitter picnic sites. Short whitewater season (April through July).
Madison River (Bear Trap Canyon)	MT	9	2	Partial: commercial limits only. 1,100 to 3,500 cfs is typical boatable range (has been run as high as 7,000 cfs). 1 to 2 camps available, but no overnight boat-based camping allowed. Two commercial whitewater outfitters; each are allotted 40 launches per year. Use levels: about 4,500 people per year. Used for whitewater and float-based fishing. Info from Susan James, BLM.
Madison River (Other segments)	MT	140	159	Potential: Commercial limits only in future. Multiple segments (from Yelllowstone to the Missouri) Multiple agencies: NPS, USFS, BLM, Mt. Fish, Wildlife, & Parks Commercial permits required in past; new 2008 coop agreement between BLM and state. Number of permits will not be limited through this plan cycle.
McKenzie River (Upper)	OR		37	Potential commercial limits. USFS. No non-commercial permits. Commercial permits required but not limited (numbers or trips). Currently 7 raft-only, 17 fishing-only, and 13 rafting/fishing outfitters.
Metolius River	OR	26	0	Partial: commercial limits only (prohibited). Class II-III and high quality fishing opportunities. 1988 WSR addition; 1997 River Management Plan. Registration required for non-commercial users; no limit. No commercial use allowed. Lead agency: USFS.

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River	State	Miles	No. of outfitters	Other comments
Merced River (Yosemite NP)	CA	3	1	Partial: Commercial limits only. NPS allows a concessionaire to rent rafts and inflatable kayaks for a 3-mile reach from Stoneman Bridge to Sentinel Beach. No private use limits (but that use is not encouraged). Restrictions against use at high water (can't fit under bridges) or when air+water temperature is below 100.
Missouri River (Upper – Missouri Breaks)	MT	149	23	Partial: Commercial limits only. NWSR (1976). BLM-managed. Number of outfitters is limited; but no limits on number of trip/use. No fees/permits for non-commercial use unless group size > 50. Recommended non-commercial registration. Indicators and standards in plan; no triggers for use limit actions.
Nantahala (Day use segment)	NC	9	15	Partial: Commercial limits only. USFS-managed. Class II-III day use river. High use river with over 200,000 user days per year. 1984 limits on number of commercial outfitters and number of commercial trips per day. No non-commercial use limits. $1 per person per day user fee.
Nenana River (Denali NP segment)	AK	22	5	Potential commercial limits. Borders Denali National Park. Class II-IV segments; some overnight but mostly day use. High commercial use on two segments near park entrance (several daily trips). No commercial or private limits. Limited state management, but identified as potential state recreation river in early 1990s. Jetboat tours on upstream segment (Class I-II); no limits on number of trips or people (but DNR used to manage their upland use till they moved site to Native land).
Niobrara River (Ft Niobrara NWR reach)	NE	6	13	Partial: Commercial limits only. Entire National Scenic River is 76 miles. Commonly used reach is 30 miles (Cornell to Norden). Commercial use is mostly unguided (they just rent boats and provide shuttles). 2004 Refuge River Management Plan defines rental use limits: 400 people per day on weekdays and Sundays; 800 per day on Saturdays. No limit on number of outfitters or number of trips. Explicit statement that there will be no preference for rented vs. private use (but currently at least 90% rented). Special use permits for rental outfitters can't be sold but can be transferred (unclear why this matters given no limits on outfitters). Structure for bid process for launches if necessary (has not been needed yet).
New River	VA	56	4	Potential commercial limits. Mix of fishing and touring outfitters; also tubing and canoe liveries. No state oversight on the number of guides or outfitters (aside from qualifications and business license).

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River	State	Miles	No. of outfitters	Other comments
New River	WV	53	24	Partial: Commercial limits only. NPS unit, but limits are part of state program. Typical season is from April through Oct. WVa manages total number of commercial guides through a state license program. It establishes per day allocations on 5 rivers using complex formulas that consider the maximum capacity of the river (through an LAC process), the existing allocation (from historical use or adjustments), and market share (what amount they are actually using). The current system puts 90% of weight for next year on its existing allocation (10% on what it used). Per day commercial limits on Lower New: 3,875; this has never been exceeded. Annual New commercial use: 25,000 on Upper New and 135,000 on Lower New. Only 2 of 20 outfitters on New even reached 90% of their allocations. Some crowding and conflict at access points, but on-river problems are few. Preparing draft plan in 2007. Information from Katie Miller, NPS.
Ocoee (Upper and Middle Segments)	TN	10	22	Partial: Commercial use limits only (number of outfitters and number of trips). Upper segment (Olympic course) has weekend flows in summer (34 days per year). Middle segment has flows 5 days per week in summer (Tues and Wed off); weekend flows from March through Novebmer). 250,000 users annually (mostly commercial passengers). Cherokee National Forest: (423) 476-9700
Owyhee	ID	36	6	Partial: Commercial limits only via Idaho Outfitter and Guide regulations. Float use only. Also BLM managed river; WSR (1984). Non-commercial permits required (not limited).
Pack Creek	AK	1	7	Full: All users limited. USFS and ADF&G bear viewing area on Admiralty Island. Land-based use. Permit required June 1 to Sep 10. Advanced reservations taken from July 5 to Aug 25. Fees: 25 for child/senior and $50 for adults in peak. Refunds if cancellations are 4 days before. One time change in dates allowed. No refunds for weather delays (fly or boat-in access only). Overnight use on adjacent island for boat-based users; otherwise day use only.
Payette (Main)	ID	7	5	Partial: Commercial limits only via Idaho Outfitter and Guide regulations. Float use only. Only one boat per outfitter at one time.
Payette (North Fork)	ID	14	4	Partial: Commercial limits only via Idaho Outfitter and Guide regulations. Two segments: Carbarton and Warren Wagon. Class II-III segments. Float use only. No more than 4 rafts by two trips per day per outfitter.
Payette (South Fork)	ID	54	5	Partial: Commercial limits only via Idaho Outfitter and Guide regulations. Float use only. Only one boat per outfitter at one time.

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River	State	Miles	No. of outfitters	Other comments
Rio Grande (Big Bend National Park)	TX	180	3	Partial (commercial) and potential (non-commercial). Several trip options: Santa Elena Canyon 20 to 26 miles (Class II-III with one IV) Mariscol Canyon: 10 miles (Class II-III) Boquillas Canyon: 34 miles (Class I-II) Lower river: 83 to 137 mile options (Class II-V) Colorado Canyon (outside park) requires State Park permit (also not limited). Group size limits 20 to 30 (depends on segment). $10 permit fee. 3 launches per day (never reached so far). Undecided on allocation approaches if needed. Information from Bernadette Devine, NPS.
Sauk	WA	51	5	Partial: Commercial limits only. USFS managed. Limits on number of outfitters and number of service days.
Salmon (Riggins segments)	ID	59	36	Partial: Commercial limits only via Idaho Outfitter and Guide regulations. 10 powerboat permits + 26 rafting permits. BLM managed. Riggins to Lower Salmon put-in.
Salmon (Recreation section)	ID	40	16	Partial: Commercial limits only via Idaho Outfitter and Guide regulations. 5 powerboat and 11 float permits. USFS managed. Vinegar Creek to Riggins. WSR since 1980.
Salmon (Challis reaches)	ID	50+	5	Partial: Commercial limits only via Idaho Outfitter and Guide regulations. Only one boat per outfitter at one time.
Salmon (Upper near Stanley)	ID	13	5	Partial: Commercial limits only via Idaho Outfitter and Guide regulations. Float use only. Sunbeam Dam reach. No more than 3 boats fishing , 5 boats total at one time per outfitter.
Situk River	AK	11	9	Partial: Commercial limits only. USFS managed (with state and city of Yakutat cooperation). World class steelhead and salmon fishery. Small stream: 200 to 1,000 cfs flow range. Private use not limited – but rental boats and shuttles by outfitters are part of commercial allocation. Outfitters are allocated a set amount of “boat-days” per year – limits are loosely tied to Forest-wide social standards. They can be spent on guided or rental trips. River is only accessible by non-locals by plane, so this has a substantial effect on private boating use (guided use is more lucrative). Privates that rent boats and figure out their own shuttle are not part of commercial allocation system. Two motorized guided outfitters (rest are drift boats). 2003 study of impacts suggests river is near capacity. 2008 “Partners” may review planning options.

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River	State	Miles	No. of outfitters	Other comments
Sixmile Creek	AK	20	4	Partial: Commercial limits only. Class III-V segments. High commercial use in summer. USFS managed. Commercial use limited to annual user-days (5,000 total). Outfitters are requesting more. Forest has a 60-40 (private to commercial) goal on its rivers, but not specific to Sixmile. Capacity study urges limiting boats per day rather than user-days per season. Uses USFS priority/temporary system for distributing user days within companies.
Skagit	WA	58	16	Partial: Commercial limits only. USFS managed WSR 1978. 12 rafting outfitters and 4 angling guides. Limits on number of outfitters and number of trips. Additional restrictions during eagle concentration season. No non-commercial limits.
Shenadoah	WV	7	5	Potential. No permits for non-commercial limits. Outfitters are licensed but not limited. No capacities identified at present (but monitoring occurs). 2nd lowest use of commercial rivers in West Virginia.
Snake River (Grand Teton NP)	WY	31	15	NPS segments in Grand Teton NP. Capacity: 105 scenic and 48 fishing boats (rarely reached). Informal launch scheduling. 1974 freeze on number of outfitters. No limits on private permits (but they are required). Allows very large scenic rafts (12 adults). No overnight use.
Snake River (BLM segment)	WY	51	19	Potential commercial limits. 11 rafting outfitters (scenic) 8 fishing outfitters/guides. BLM managed. No non-commercial limits.
Snake River (Alpine Canyon)	WY	8	30+	Partial: Commercial limits only. USFS-managed segment. Outfitter use limited by numbers of trips: 32 on river at one time. Usually 4 to 5 boats per trip x 5 trips per day. Summer use can range between 4,000 and 7,000 people per day. Developed in 1960-70s. The bottlenecks are take-outs and at major rapids. No private use limits. Privates need permit if group size is over 15. Many organizational (church and boy scout groups) trips (behave like outfitters but use private gear).
Snake River (Henry's Fork)	ID	30	13	Partial: Commercial limits only via Idaho Outfitter and Guide regulations. 6 to 8 outfitters allowed on different reaches. Float use only. Complicated limits that keep <3 boats per outfitter on certain sub-reaches at one time. Up to 5 powerboat outfitter/guides on lower reach.
Suiattle River	WA	27	6	Partial: Commercial limits only. USFS managed WSR. Number of commercial outfitters and number of service days are limited.
Teton River	ID	15	5	Partial: Commercial limits only via Idaho Outfitter and Guide regulations. Float use only.

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River	State	Miles	No. of outfitters	Other comments
Tygart River	WV	11	5	Potential. No permits for private users. Outfitters are licensed but not limited. No capacities identified at present (but monitoring occurs). Lowest use of commercial rives in West Virginia.
Tallulah Gorge	GA	2.5	0	Previously limited. Class IV-V whitewater reach in GA State Park. Opportunity created during relicensing (restored flows). Boatable from 450 to 1,200 cfs. Typical releases are 500 and 700 cfs. Permits required at first; 120 boaters per day. Also permitted 120 climbers and hikers per day. Permit free since 2001 (they weren't seeing high use). Typical use levels: 75 to 100 per day. Prohibits commercial use. Has qualified craft regulations. Waivers required. No fees except for parking. Information from Danny Tatum.
Twenty-Mile	AK		4	Partial: Commercial use limited. USFS management. Outfitters use jetboats (fishing and sightseeing). Private use is mostly pack rafts (emerging use). 1,200 user-days allotted among outfitters based on historical use. 2007 review of permit allocation being considered. USFS management (Chugach NF).
Upper Colorado River (Kremmling to Glenwood)	CO	77	76	Partial: Commercial limits only. Class I-II river segments. No non-commercial use limits. 41 rafting outfitters.
Wenatchee	WA	19	14	Potential. USFS administered. No non-commercial use limits. Number of commercial outfitters may be limited (but trips are not). Considerable private land on lower river.
West Branch Penobscot	ME	12	14	Partial: Commercial use only. Scheduled flow releases. Day use river. State of Maine controls outfitter numbers. Capacity is 560 commercial passengers per weekend day Permits required Jul-Aug. No non-commercial limits.
White Salmon	WA	5	10	Partial: Commercial limits only. Class II-IV (one V). Commercial use limited to 10 outfitters; no trip limits. Capacity bottleneck at Husom Falls. No group size limits; some groups have approached 100. 1988 WSR designation; 1991 River Management Plan. Plan indicates preference for a common pool; outfitters oppose. 1993 social impacts study (use has doubled since study). Likely plan update in 2009-2010; over standard on weekends? Recent year use levels: 15,000 to 20,000 commercial passengers 3,000 to 4,000 private boaters. 15 to 20% of use is private (mostly kayakers).
Wind River	WA	11	3	Partial: Commercial limits only. Near Columbia River Gorge. Class IV-V. Spring flows only (through June). Commercial use is managed; special use permits required; but no apparent limit on trips.

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River	State	Miles	No. of outfitters	Other comments
Wilson Creek	NC	20	2	Potential. No private or commercial limits at present time. Has LAC standards for several indicators. 100 or more paddlers on high use days; typical range is 40 to 50 on boatable flow days.
Yellowstone (Yankee Jim Canyon)	MT	8	5	Partial: Commercial limits only. Class II-IV day use river. No non-commercial use limits. No commercial limits except on number of outfitters using specific access points.

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List of Sources

The following lists interview sources for information about individual allocation systems or stakeholder positions on allocation issues. We thank them for their information and insight about these systems, but we take responsibility for any errors or mischaracterizations.

First	Last	Affiliation	River(s)
Tom	Elliott	Parks Canada – Kluane	Alsek / Tatshenshini
Jim	Capra	NPS – Glacier Bay	Alsek / Tatshenshini
Jennifer	Reed	USFWS – ANWR	ANWR rivers
John	Kreski	Co State Parks	Arkansas, CO
Mike	Harvey	Arkansas river trust	Arkansas, CO
Chris	Lorentz	MT Fish, Wildlife, and Parks	Blackfoot
Chris	Horman	USFS – BWCAW	Boundary Waters
Ann	Schwaller	USFS – BWCAW	Boundary Waters
Lon	Kelly	BLM – Fairbanks	BLM northern AK rivers: Birch, Beaver, 40Mile
Joe	Robles	USFS – Sumter / Pickett	Chattooga
Glenda	Woodcock	USFS – Mt Hood	Clackamas
Jim	Blazic	NPS – Canyonlands	Colorado – Cataract
Paul	Cowan	NPS – Canyonlands (retired)	Colorado – Cataract
Steve	Sullivan	NPS – Grand Canyon	Colorado – Grand Canyon
Rick	Ryan	BLM – Dolores	Dolores
Jeff	Durniak	GA Fish and Game	Dukes Creek
Chris	Ryan	USFS – Northern Region (Missoula)	Flathead
Sheryl	Bowers	USFS – Kernville	Forks of the Kern, Upper and Lower Kern
Mark	Grisham	Grand Canyon River Outfitters Asso.	Grand Canyon
Lynn	Hamilton	Grand Canyon River Guides:	Grand Canyon
Jeff	Bloom	BLM	Grand Ronde / Wallowa
Nanette	Gale	USFS – Flaming Gorge	Green below Flaming Gorge
Dennis	Willis	BLM – Price	Green in Desolation / Gray
Heath	Emmons	BLM – Glennallen	Gulkana, Delta
Heidi	Mottl	BLM – Prineville	John Day
Rob	Campellone	USFWS – AK regional office	Kenai
Chris	Degernes	AK State Parks	Kenai
Tom	Mottl	BLM – Prineville	Lower Deschutes
Lynette	Ripley	BLM – Prineville	Lower Deschutes
Craig	Trulock	USFS -- Lowell	Lochsa, Clearwater, Lower Selway
Susan	James	BLM – Dillon	Madison (Bear Trap)
Dan	Ransom	The Nature Conservancy	McCloud
Alan	Bright	CSU researcher	McNeil River
Larry	Aumiller	ADFG (retired)	McNeil River
Jim	Eicher	BLM	Merced
Jeff	Horn	BLM	Merced
Bill	Deitchman	CA State Parks – Auburn	MF and NF American
Sherri	Hughes	USFS North Fork, ID	MF Salmon, Main Salmon (Wild)
Katie	Stevens	BLM – Moab	Moab (daily), Dolores (gateway).
Charlie	Sperry	Montana Fish, Wildlife & Parks	Multiple MT rivers (including Madison)
Randy	Welsh	USFS – Intermountain Region	Multiple rivers; 4 rivers lottery
Cliff	Bobinski	NPS – New River Gorge	New River, WV
Katie	Miller	NPS – New River Gorge	New River, WV
Kris	Dey	CA State Parks – Auburn SP	NF and MF American
Stuart	Schneider	NPS – Niobrara National Scenic River	Niobrara
Mark	Sundin	BLM – Taos	Rio Chama, Rio Grande
Chris	Dent	BLM – Grants Pass	Rogue
Joe	O'Neill	BLM - Cottonwood	Main Salmon (Vinegar to Snake)
Don	Sullivan	USFS – Globe, AZ	Salt
Brad	Colin	BLM – Monticello	San Juan

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Kay	Wilson	BLM -- Monticello	San Juan
Linda	King	USFS – West Fork RD, Darby, MT	Selway
Bill	Dyke	USFS – Chugach (now Idaho Power)	Sixmile
Greta	Movassaghi	USFS – Mt Baker	Skagit, Sauk, Suiattle
Colin	Maas	Montana Fish, Wildlife & Parks	Smith
Roger	Semler	MT Fish, Wildlife, and Parks	Smith, several Arctic NWR rivers
Scott	Springer	USFS Hells Canyon NRA	Snake in Hells Canyon
Marty	Meyer	USFS Hells Canyon NRA	Snake in Hells Canyon
Marty	Myer	NPS – Grand Teton	Snake in Grand Teton
David	Cernicek	USFS – Bridger-Teton	Snake near Jackson Hole
Bruce	Talbot	AK DNR – Anchorage (retired)	Susitna Basin Recreation Rivers
David	Griffen	AK DNR	Susitna Basin Recreation Rivers
Danny	Tatum	GA State Parks	Tahlulah
Julie	Detman	USFS	Tuolumne, Cherry Creek
Bunny	Sterin	BLM – Kremmling CO	Upper Colorado, Ruby/Horsethief
Scott	Senter	BLM – Klamath Falls	Upper Klamath
Dexter	Allen	USFS	Verde
Chad	Nieuhaus	BLM - Moab	Westwater
Sue	Baker	USFS --	White Salmon, Klickitat
Jackie	Diedrich	USFS – WSR program lead	Multiple rivers
Judy	Culver	NPS – Dinosaur NM	Yampa and Green through Dinosaur NM
Stacie	Faust	PA State Parks	Youghigheny

National & regional stakeholders		
David	Brown	AO
Kevin	Colburn	AW
David	Steindorf	AW
Tom	O'Keefe	AW
Marty	Wilson	GCPBA
Earl	Perry	GCPBA (and retired NPS)
Eric	Leaper	National Organization for River Sports
Michael	Greenbaum	Non-commercial boater
Eric	Leaper	NORS
Al	Ainsworth	NWRA
Mary	Fleischmann	NWRA
Richard	Martin	RRFW
Lynne	Westerfield	UI and AW (user survey)

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Photography credits:

Grand Canyon photo on cover and page vi by Bo Shelby.
Cover art by Kathy Shelby.
Niobrara River tubers & boaters on page 8 courtesy of National Park Service (thanks to Stuart Schneider).
McCloud River photos on page 36 by Doug Whittaker (top) and Bo Shelby (bottom).
Kenai River driftboat on page 62 by Doug Whittaker.
Klamath River put-in on page 64 by Doug Whittaker.
Grand Canyon motor and oar rafts on page 69 by Doug Whittaker.
Beach on Main Salmon River on page 71 by Doug Whittaker.
Deschutes River put-in on page 76 courtesy of Bureau of Land Management (thanks to Lynette Ripley).

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Exhibit 30

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EXHIBIT B

Meeting
November 13, 1987

NEW DON PEDRO PROJECT

	NAME	AGENCY
1.	Ernie Geddes	Turlock Irrigation District
2.	Leroy Kennedy	Turlock Irrigation District
3.	Lee DeLano	Modesto Irrigation District
4.	Carol Russell	DPRA
5.	Carl Rust	DPRA
6.	John Maschi	USFS
7.	Ed Booker	USFS
8.	Bob Ferguson	Tuolumne River Expedition
9.	Dean W. Coffey	City-County San Francisco
10.	Marty McDonnell	Sierra Mae River Trips
11.	David M. Harris	BLM - Folsom Resource Area
12.	Brian Ferrell	Stanislaus County LLV
13.	Cy Hoblitt	County of Tuolumne
14.	Bob Hackamack	Sierra Club

Question: Does any of the debris sink? (John Maschi)

Answer: Perhaps some of the small stuff, but not much. (Rust)

Question: Are you sure some of the debris isn't coming up from the reservoir? (Marty McDonnell)

Answer: There may be a small amount, but most of the debris in the reservoir is localized in the areas of origination. (Rust)

Question: Have you been able to identify some of the debris as coming from logging operations? (John Maschi)

Answer: Yes, it's definitely from logging based on cat marks, etc. (Rust)

Question: Have you looked at taking the material out to a bio-mass burner? (Bob Hackamack)

Answer: We've even tried to give it away. A couple of people tried it, but gave up. (Rust)

Question: Do you burn every year? (Bob Ferguson)

Answer: Yes. (Rust)

Question: Do you have figures on what this debris removal costs? (Bob Hackamack)

Answer: The costs have been diminished because of using inmates, getting napalm from governmental agencies, etc. O & M costs are about $25,000 per year not including inmates labor which is donated to the Districts. (Rust)

Article 53 - Restroom in Vicinity of Wards Ferry Bridge

Question: How many people do you expect to use the restroom? (Brian Ferrell)

Answer: Probably peak use per week of 100 rafters and perhaps 100 from autos. (Rust)

Question: I would prefer a permanent type toilet from an esthetic point. (Marty McDonnell)

Question: We were thinking of something more bullet proof. (Marty McDonnell)

Answer: Cy Hoblitt said the County would not want a permanent type toilet on the bridge abutment.

Question: Would the bridge abutment be revamped to accommodate the toilet? (Marty McDonnell)

Answer: Perhaps some anchor bolts and curbing. (Kennedy)

Question: We wouldn't want the toilet to encroach on the trail to the river. (Brian Farrell)

Answer: We don't believe it would need to extend into the trail (Kennedy, Rust).

Question: What would be the cost to improve the road in II? (Marty McDonnell)

Answer: It would be very large. (Rust)

Question: Does the County have any plans for improving the Wards Ferry road? (Bob Hackamack)

Answer. No. (Cy Hoblitt)

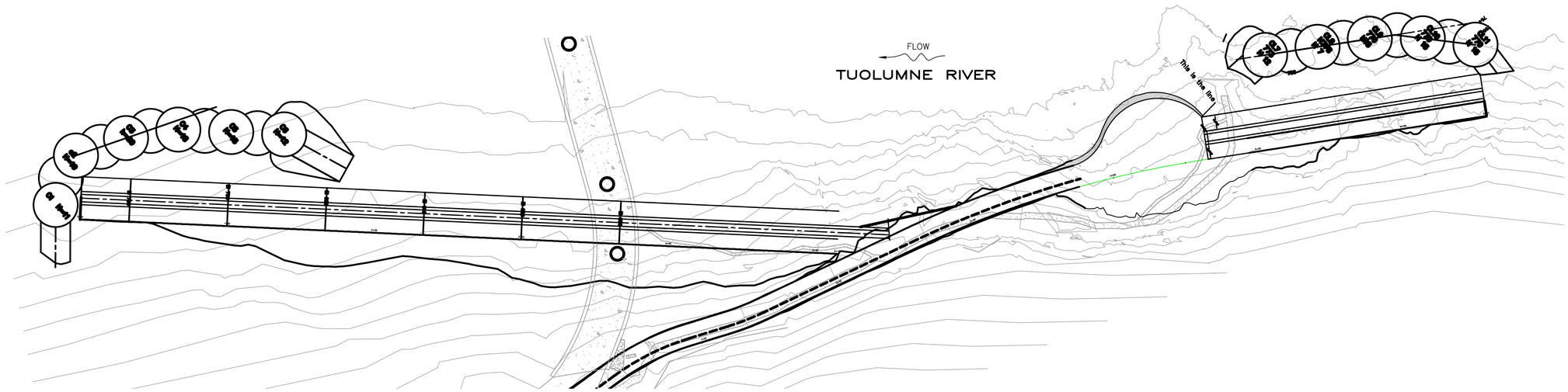
Question: Who's going to be responsible if someone is shot inside the toilet? I don't think it's a good location for a toilet. (Cy Hoblitt)

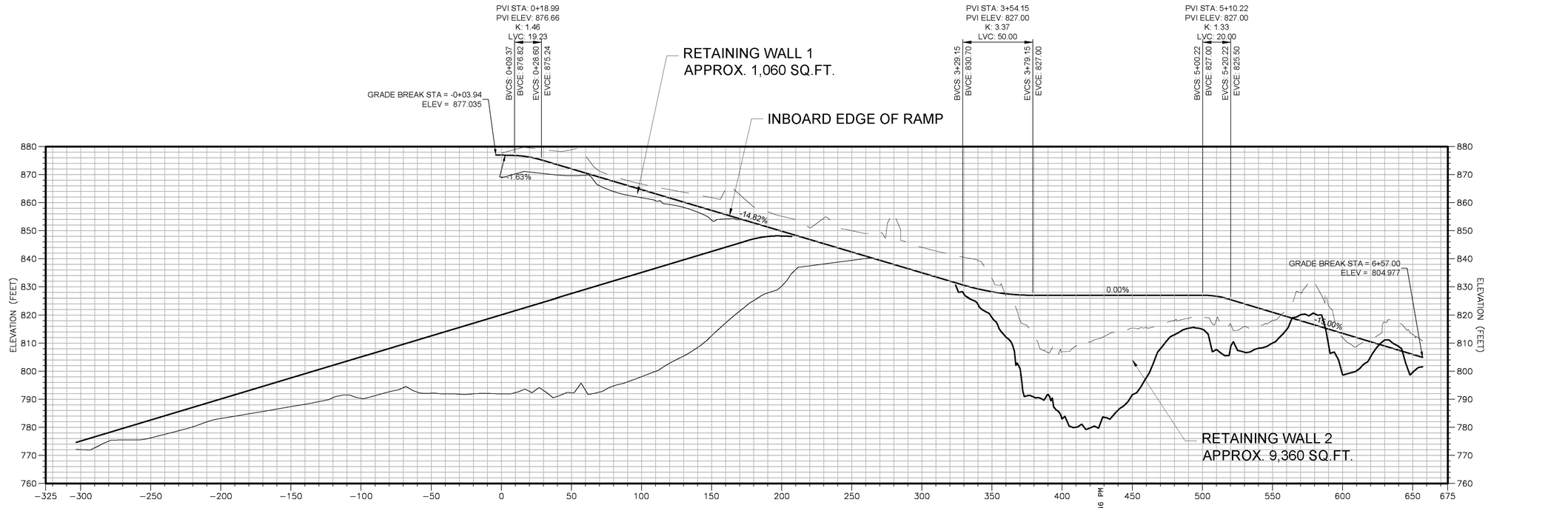
Answer: Any lawsuit would probably name T.I.D., M.I.D., Tuolumne County and anyone else they could think of. (Geddes) Cy Hoblitt then said the County would want an agreement with the Districts to hold Tuolumne County harmless.

xc: Ernie Geddes
Al Hagiwara

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Exhibit 31





UPSTREAM RAMP

PROFILE

SCALE: H 1"=40'
V 1"=20'

40 0 40 80
SCALE IN FEET

ISSUE	DATE	DESCRIPTION
-	-	-

PROJECT MANAGER	-
	-
	-
	-
	-
	-
	-
	-
PROJECT NUMBER	-

WF REC GROUP 8/7 - RIVER LEFT
PLAN AND PROFILE

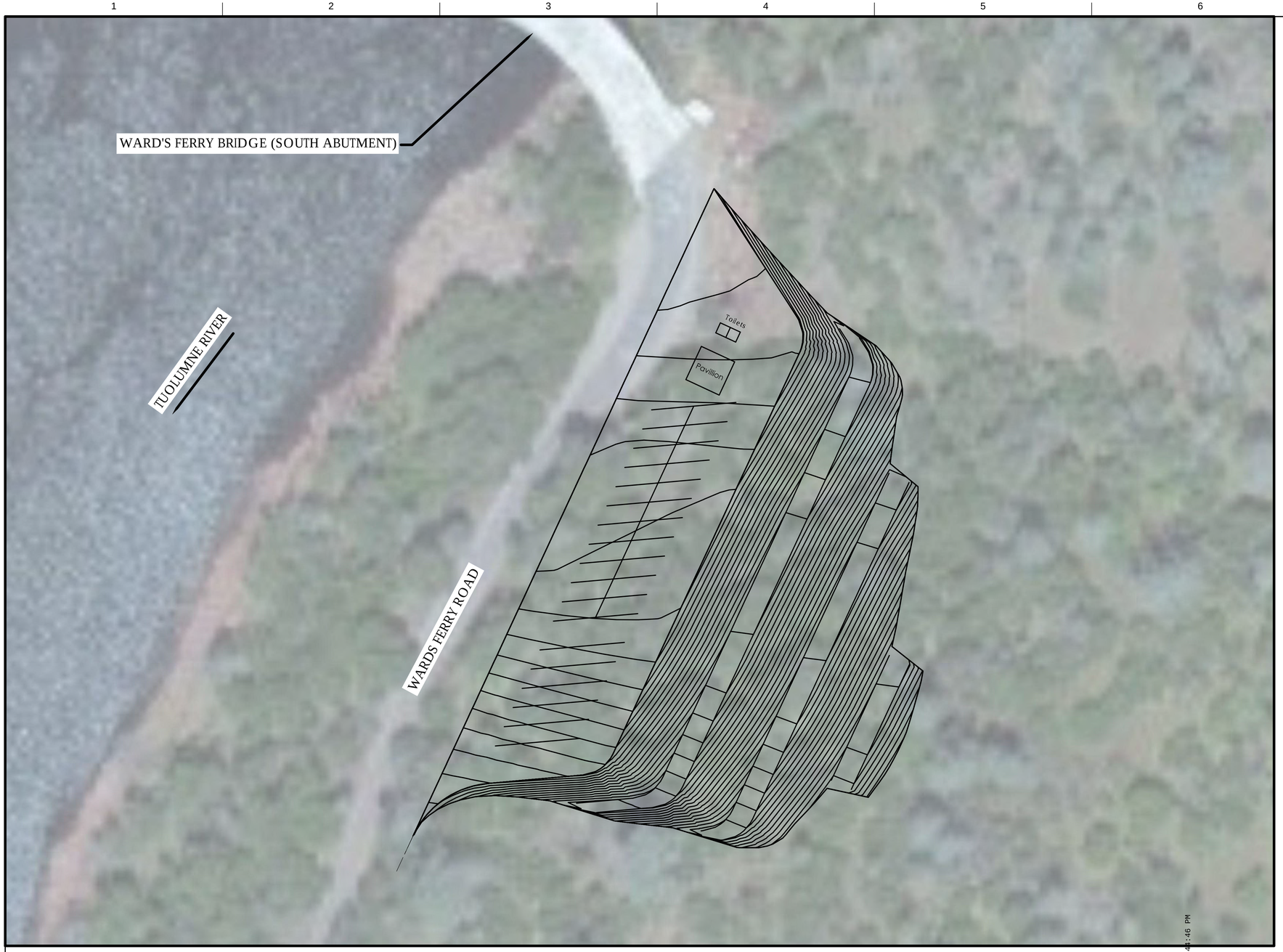
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- - - -

0 1" 2"

FILENAME	1.dwg
SCALE	1"=40'

SHEET
L-1



PARKING

PLAN

SCALE: 1"=30'

NOT FOR CONSTRUCTION

DATUM: NAVD 88

ISSUE	DATE	DESCRIPTION

PROJECT MANAGER

PROJECT NUMBER

WF REC GROUP 8/7 - PARKING PLAN

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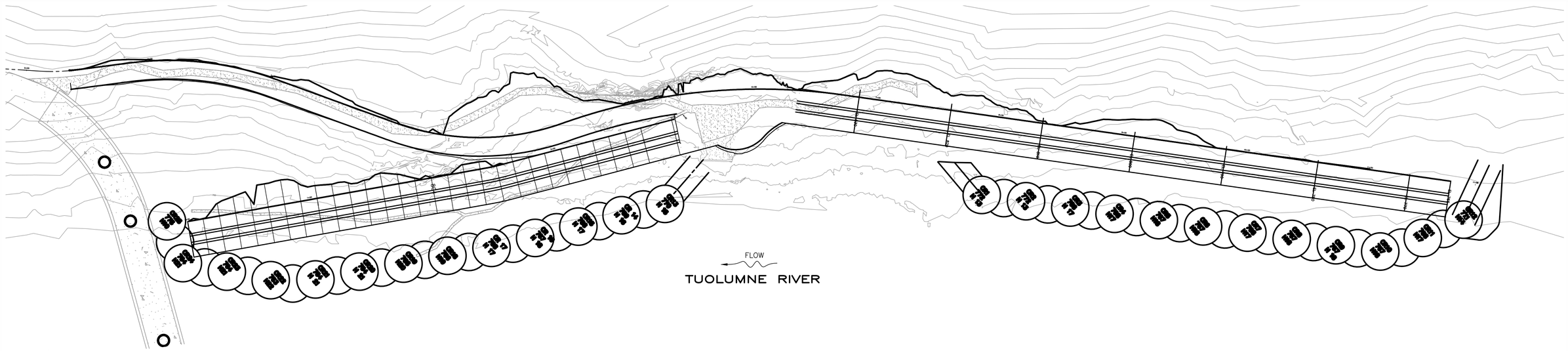
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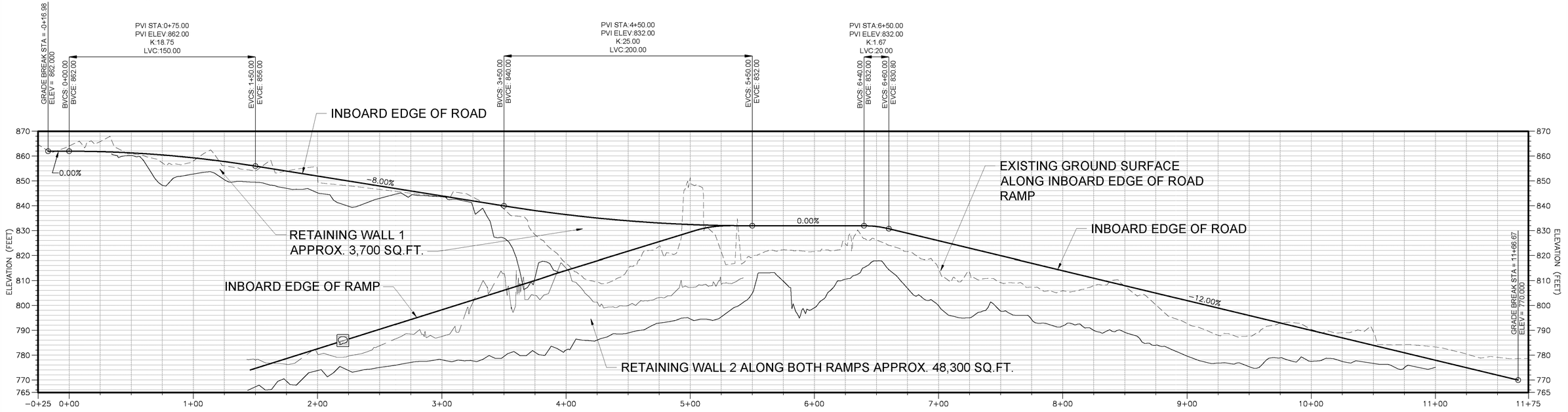
FILENAME

SCALE

SHEET

P-1





ROAD ALIGNMENT

PROFILE

SCALE: H 1"=40'
V 1"=20'

DATUM: NGVD29 (TID)

40 0 40 80
SCALE IN FEET

ISSUE	DATE	DESCRIPTION
-	-	-

PROJECT MANAGER -
PROJECT NUMBER -

WF REC GROUP 8/7 - RIVER RIGHT
PLAN AND PROFILE

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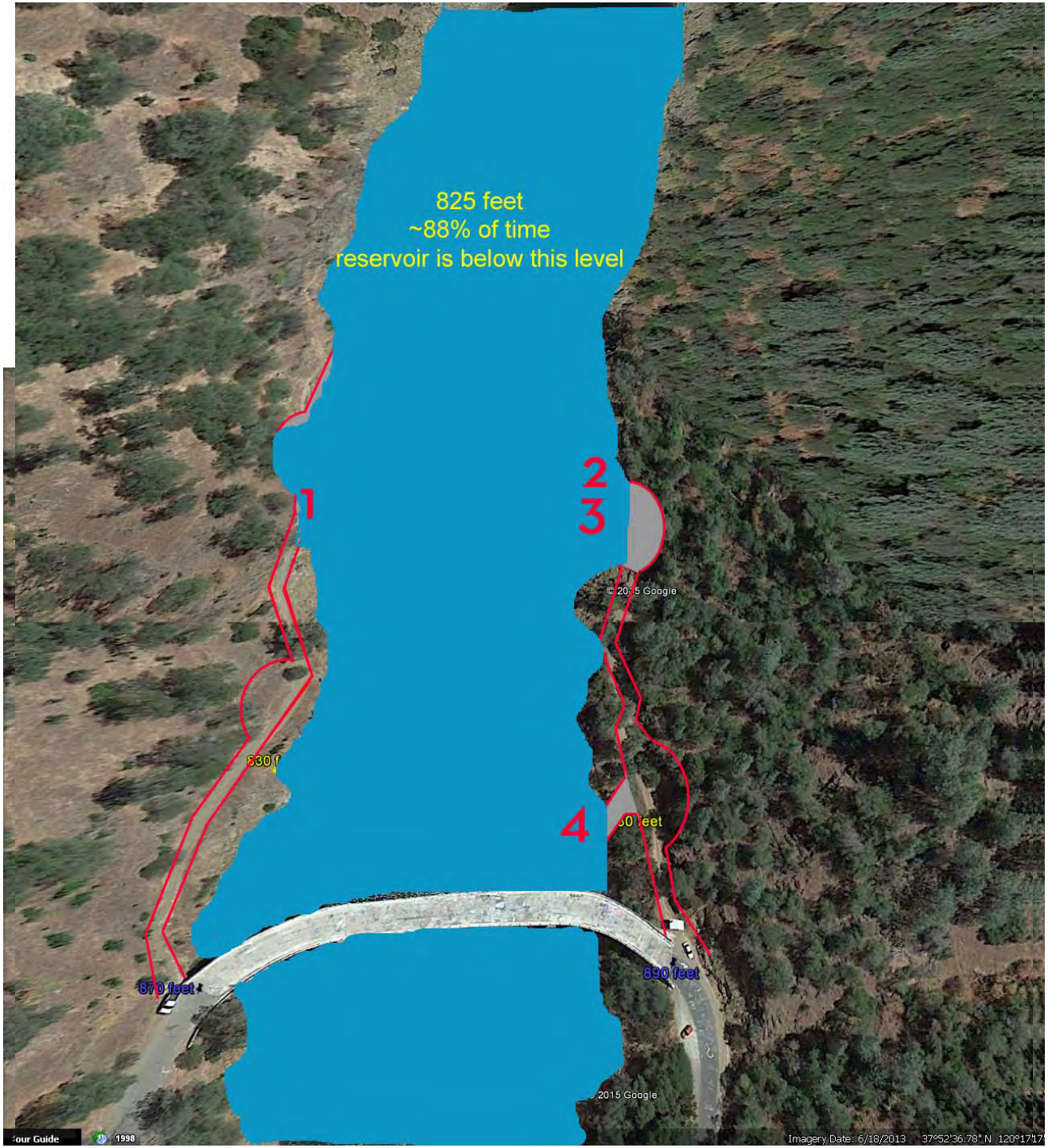
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FILENAME 1.dwg
SCALE 1"=40'

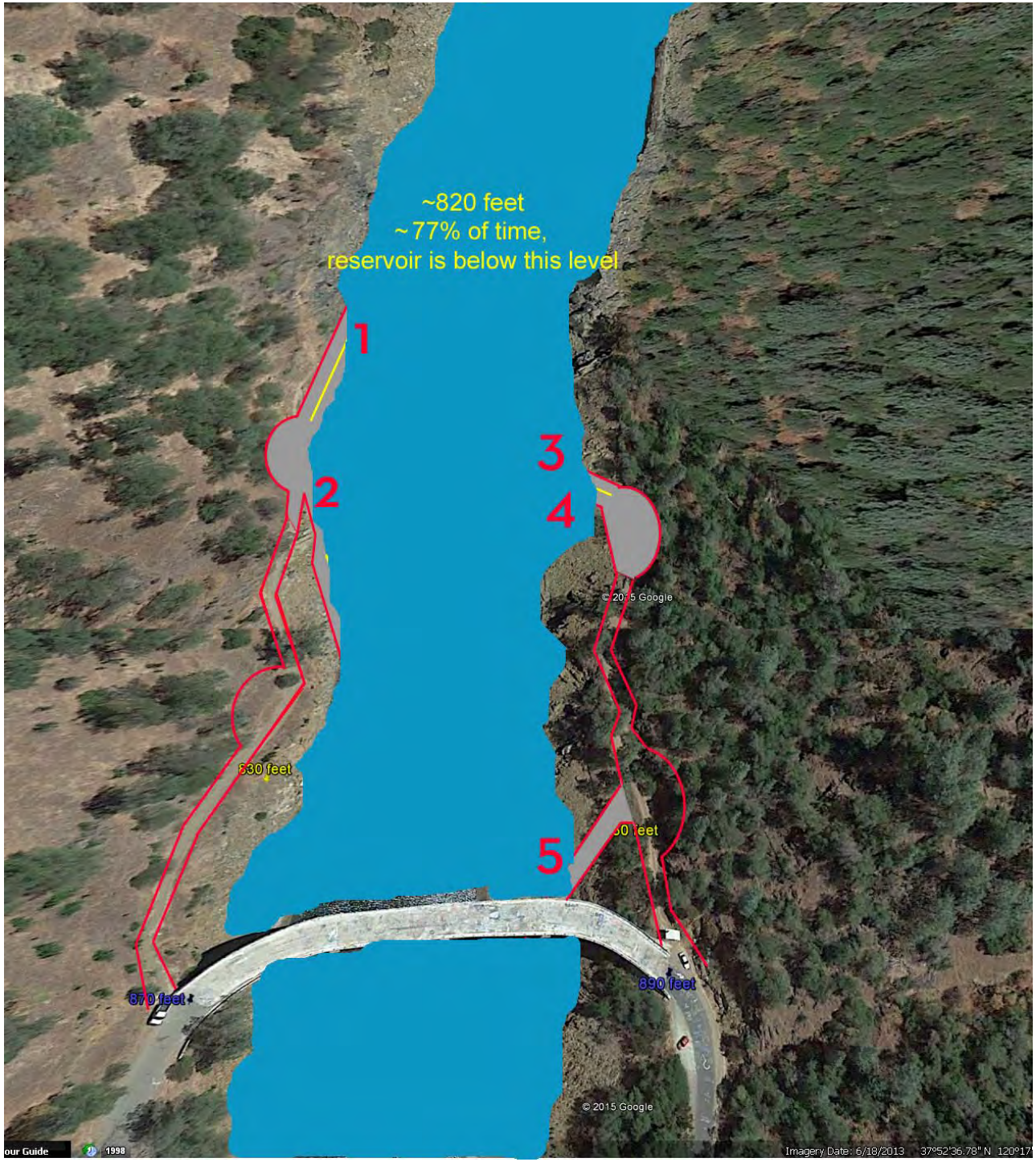
SHEET
R-1

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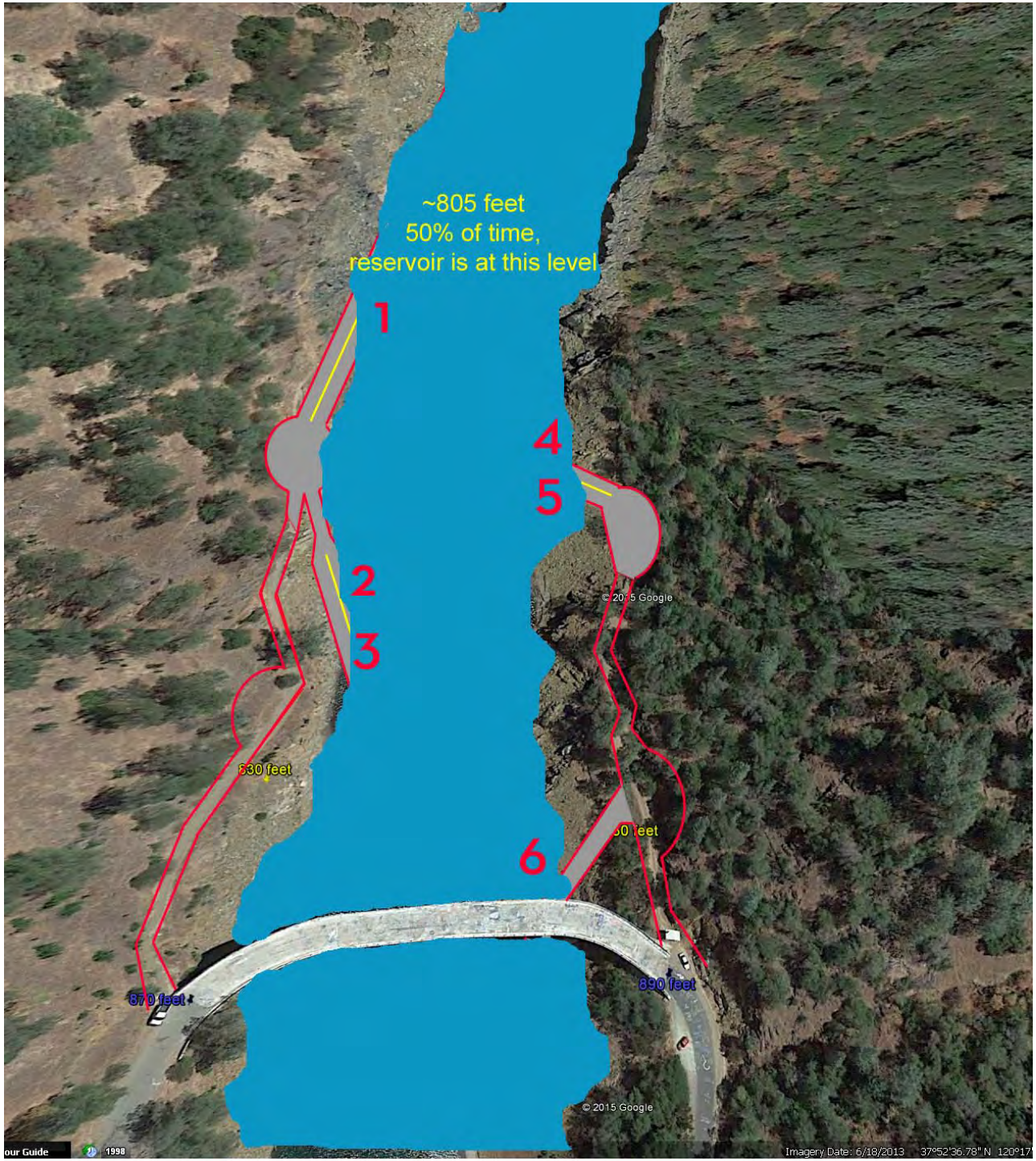
Exhibit 32



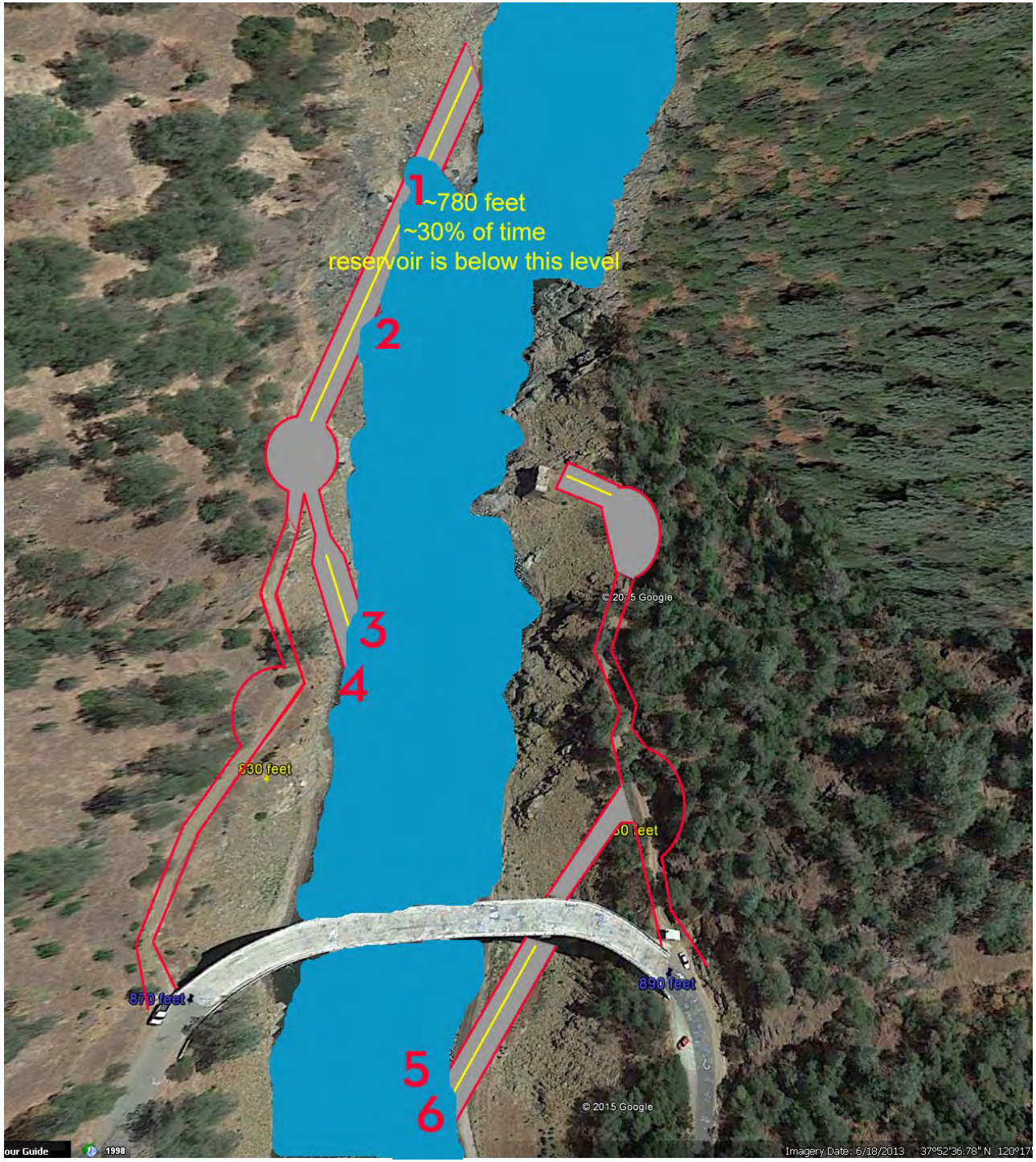
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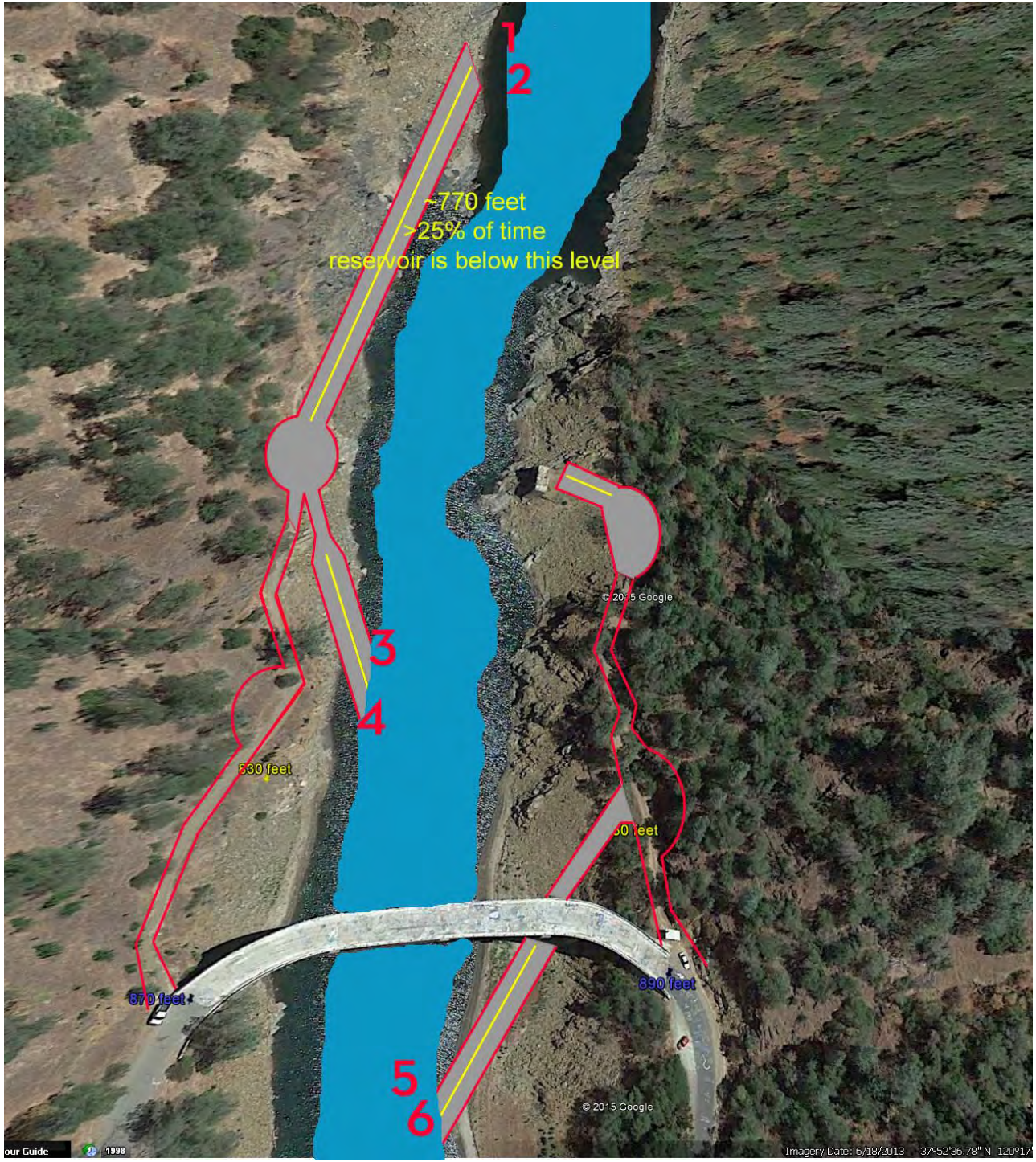
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Exhibit 33

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Exhibit 34

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Exhibit 35

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TURLOCK IRRIGATION DISTRICT

DON PEDRO RECREATION DEPARTMENT PROCEDURE

RA 9140.001	06/15/01 05/10/02
Procedure Number	Effective Date/Approved

TITLE: Park Ranger Rules & Regulations Enforcement Procedure

SUBJECT: Established guidelines for the enforcement of Don Pedro Recreation Agency Rules and Regulations.

DEFINITION (S):

Don Pedro Recreation Area: All lands and water available for recreation use that fall within the Federally Licensed New Don Pedro Project boundary – FERC License #2299.

Park Ranger: TID/DPRA job classifications including Chief Park Ranger and Ranger I.

Verbal Warning: Documented (on standard DPRA patrol log) verbal contact with park user regarding a rules & regulations violation.

Written Warning: Documented (on standard DPRA Warning Citation form) violation of a rule with copies of the documentation going to the violator and Agency, signed by both the issuing Ranger and the rules & regulations violator.

Citation: Documented (on standard DPRA Citation form) violation of a rule as an infraction/misdemeanor with attached bail in effect, signed by both violator and issuing Ranger, with copies going to violator, Agency and court of jurisdiction.

Eviction: Removal of rules and regulations violator from property, with no refund of fees.

PURPOSE: To provide basic guidelines for handling DPRA Rules and Regulations enforcement within the Recreation Area, utilizing the various tools available to the Park Ranger staff.

PROCEDURE:

1. AUTHORITY:

   a) Section 12973 of the California Water Code authorizes the Irrigation Districts to adopt regulations binding upon all persons utilizing the Don Pedro Recreation Area.
   b) Section 830.31(b) of the California Penal Code defines Don Pedro Recreation Agency Park Rangers as Peace Officers.

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c) Sections 836 and 853.6 of the California Penal Code authorize Don Pedro Recreation Agency Park Rangers (Peace Officers) to issue citations for violations of the Don Pedro Recreation Agency Rules and Regulations.

2. SCOPE:

Don Pedro Recreation Agency personnel are charged with the responsibility to enforce the DPRA rules and regulations within the Don Pedro Recreation Area.

3. ENFORCEMENT PROGRESSION:

DPRA personnel may take any of the following actions to redress violations of DPRA rules and regulations:

a) Issue a verbal warning, documented on the patrol log;
b) Issue a written warning, documented on the warning citation form;
c) Issue a citation with copies of any verbal or written warnings attached to the DPRA copy of the citation;
d) Evict the violator, documented on a case incident report.

In general, the actions taken against violators should progress from "a" through "d", above, however, some circumstances may warrant skipping either or both the verbal and written warnings. This determination shall be made by DPRA personnel at their discretion. If one or both of these steps are omitted, the DPRA personnel shall file a Case Incident Report stating justification for omitting the step.

Examples of circumstances that could warrant skipping a level include, but are not limited to, the following:

- ⇨ Flagrant rules violation such as parking in a properly signed handicap parking place without displaying the proper placard, or in a signed "No Parking" spot, or
- ⇨ the circumstances surrounding the rule that is being violated exhibit a blatant disregard for public safety or include witnessing the willful destruction of public or private property, or
- ⇨ documented history of violation with the violator from previous visits to the recreation area.

4. ENFORCEMENT ASSIGNMENTS:

All DPRA employees, including those who are not in the Park Ranger classification, may be assigned to enforce the DPRA rules and regulations by issuing verbal and written warnings. Only DPRA employees with the Park Ranger job classification may enforce the rules and regulations by issuing citations and evicting the violator.

5. ENFORCEMENT CONTACT:

a) <u>Identification:</u>
DPRA Park Rangers must be properly identified as Agency employees when

enforcing the rules and regulations, per DPRA Uniform Guidelines procedure #9500.011. It is not necessary for the Park Ranger to be in patrol uniform at the time of enforcement, but the Ranger must have their badge available for presentation on request when issuing a citation.

b) Personal Safety:

The Agency's primary concern is for the safety and protection of DPRA personnel. Personnel are to use their best judgement when confronted with a situation that might jeopardize their personal safety and shall retreat from any such situation. The Tuolumne County Sheriff's Office (TCSO) shall be contacted in such circumstances. In cases where enforcement contact has escalated from a verbal warning and concern exists as to employee safety in preparing for the next contact with the individual, a TCSO deputy shall be called in to assist in the contact.

When confronted by a person with a weapon or who is suspected of carrying a weapon, personnel shall take the following actions:

1) move away from the person in order to protect self,
2) notify the TCSO, and
3) remain a safe distance away and continue to observe the situation to the extent that it does not jeopardize personal safety until TCSO is on scene.

c) Communications:

All patrol personnel shall carry a portable radio on their person in addition to the radio that is in the vehicle they are driving. In addition, the DPRA cell phone shall be carried by one of the westshore patrol personnel at all times. Radio dispatching shall be handled as follows:

Radio dispatch location:

1) DPRA Headquarters ("Control") shall handle dispatching during regular office hours. Regular office hours are 8 a.m. – 4:30 p.m. Monday through Friday, and between May 15 and September 15, hours include Saturday and Sunday, 8 a.m. – 4:30 p.m.
2) TID Power Control Room ("TID Power Control") shall handle dispatching at all other times.

Radio dispatch location responsibilities:

1) Each radio dispatch location shall keep a written or audio record of calls made to dispatch by field staff.
2) Each radio dispatch location shall have immediate access by telephone to the Tuolumne County Sheriff's Department for requests for medical and law enforcement assistance, and to the San Andreas CDF dispatch for fire assistance.
3) "Control" shall notify "TID Power Control" by telephone call to 883-8480 or 883-8481, in the morning when they are taking over dispatch duties for the day. "TID Power Control" shall inform DPRA Control of any patrol staff on

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duty at that time. "Control" shall announce by radio, "All Units – DPRA Control is on duty for the day".

4) "Control" shall notify "TID Power Control" by a telephone call to 883-8480 or 883-8481, in the afternoon when they are releasing dispatch duties to "TID Power Control" for the evening. DPRA Control shall inform TID Power Control of any patrol staff on duty at that time. "Control" shall announce by radio "All Units – DPRA Control is off duty for the evening."
5) "TID Power Control" shall monitor and dispatch for DPRA staff from the time they receive a phone call from DPRA "Control" to begin and until they receive a phone call from DPRA "Control" to end.
6) DPRA shall provide "TID Power Control" a copy of DPRA personnel radio call numbers each time the numbers are updated.
7) DPRA shall provide "TID Power Control" maps of campgrounds and the lake to assist in dispatching emergency crews to appropriate locations.
8) Each radio dispatch location shall, at the end of dispatch shift, check their radio log to ascertain the status of all patrol staff on duty. If any of the patrol staff's status remains in question, a safety check radio call shall be made to that staff member and documented on the radio log.

DPRA patrol staff shall contact appropriate dispatch location as follows:

1) By radio at start of shift indicating that they are on duty.
2) By portable radio any time they are leaving their vehicle to go make an enforcement contact with an individual. Contact shall include current location, name of individual or vehicle identification/description.
3) By radio when returning to vehicle.
4) By radio when leaving radio contact for any period of time.
5) By radio when back in radio contact.
6) By radio at end of shift indicating that they are off duty.

During the period of time when "TID Power Control" is dispatching and the entrance stations are closed for the evening, the patrol ranger whose vehicle contains the cell phone shall call by radio to the "TID Power Control" on the hour with a "radio check".

If "TID Power Control" fails to respond to a radio call, they are to be contacted by telephone for assistance and request to monitor DPRA radio traffic.

Patrol ranger staff that are on duty shall monitor the status of their co-workers when they are addressing a rules enforcement issue with a facility user and shall work in a "buddy" system. They shall contact the patrol ranger that is addressing the rules enforcement by radio if they have not heard that ranger back on the radio within 10 minutes.

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6. TRAINING:

All DPRA employees in the “Park Ranger” classification must maintain their certification through training as follows:

a) PC 832 associated refresher training every 3 years, or as required to maintain State Peace Officer Standards.
b) Basic public contact training once each year.
c) Any other specialized training required to maintain PC 832 certification or as deemed necessary by DPRA management due to changing circumstances in the field.

*****End Of Procedure*****

ADOPTED BY:_____

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Exhibit 36

Wards Ferry Whitewater Boating Takeout Analysis
Conceptual Cost Estimate Summary Sheet

Opinion of Probable Costs	Construction	Indirect	Construction & Indirect	Contingency (35 percent)	Total Construction, Indirect, and Contingency	
Rec Group 8/7 - River Left	$ 8,797,675	$ 3,079,186	$ 11,876,861	$ 4,156,901	**$ 16,033,762**	
Rec Group 8/7 - River Right	$ 12,512,272	$ 4,379,295	$ 16,891,567	$ 5,912,049	**$ 22,803,616**	
Parking Area	$ 5,132,226	$ 1,796,279	$ 6,928,505	$ 2,424,977	**$ 9,353,482**	
Total	**$ 26,442,173**	**$ 9,254,760**	**$ 35,696,933**	**$ 12,493,927**	**$ 48,190,860**	**2015 dollars**
					$ 52,659,453	**2018 dollars at 3% escalation**

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Ward's Ferry Whitewater Boating Takeout Analysis
Rec Group 8/7 - River Left

Item Description	Unit	Unit Price	Quantity	Total Cost	Supplemental Description
Excavation	Cubic Yard	$ 42.00	1,076	$ 45,192	• Assume unit price at $30/CY • Add for exporting to quarry site at $12/CY
Embankment	Cubic Yard	$ 70.00	22,169	$ 1,551,821	• Embankment Fill for MSE walls • Mat'l cost (quote) at $15/tn = $31.50/cy • Add for hauling mat'l from quarry at $14.50/CY • Assume placement at $24/cy • Ramps extend to El 765.
Aggregate Base	Ton	$ 35.00	1,366	$ 47,809	• Assume mat'l cost at $16/Ton (quote) • Add for hauling mat'l from quarry: $7/Ton • Placement at $12/tn
18" Pipe Culvert	Feet	$ 30.00	-	$ -	•Assume road cross slope towards river (away from hillside). Therefore, no cross drains are necessary.
Survey	Lump Sum	$ 22,500.00	1	$ 22,500	•Assume 7 trips during construction x 10 hrs/day x $160/hour/person x 2 persons.
Asphalt Pavement	Ton	$ 140.00	698	$ 97,728	• Assume unit price at $120/Ton • Mat'l cost: $75/Ton (quote) - Assume $60/ton included above, therefore add $15/Ton • Add for hauling mat'l from quarry: $8.50/ton - Assume $3.50/Ton included above, therefore add $5/Ton
Jersey guards for pedestrian	LF	$113	2,040	$ 230,520	• Assume $113 per ft for precast jersey, two rows of Jerseys with 5-ft pedestrian access between the barriers, located between two 10-ft wide travel lanes.
Guard Rail	Feet	$ 30.00	1,207	$ 36,210	• Assume $30/LF
MSE Retaining Wall	Square Feet	$ 102.35	27,928	$ 2,858,380	• Assume unit price at $100/SF of typical MSE wall including fill material • Deduct cost of embankment fill material at $18/sf ($24/cy) - Embankment fill material included above. • Assume cost for anchors: $7/SF • Including additional 15% for Architectural finish (TBD)
Bridge Rail	Feet	$ 120.00	$ 30.00	$ 3,600	• To remove existing and install new railing
Traffic Control	Lump Sum	$ 15,000.00	1	$ 15,000	• Traffic control at the highway for bridge rail and approach.
Roadway Signing	Each	$ 750.00	4	$ 3,000	• Assume 4 wayfinding signs required on highway.
Stormwater Pollution Prevention Plan	Lump Sum	$ 15,750.00	1	$ 15,750	• 2 rows of silt fence along new road at $5.25/LF plus additional 25% for maintenance.
Trash receptacles	Allowance	$ 10,000.00	1	$ 10,000	6 trash receptacles with bear-proof enclosures
Mobilization	Lump Sum	15%		$ 1,481,253	• Assume 15% of construction cost to mob and demob to the site since remote location. Assume two mob/demobs due to weather/floods.
Cofferdams	Lump Sum	$ 2,132,037	1	$ 2,132,037	• Assumes 11 30-ft diameter cellular coffers, assume embedded 5 ft into overburden, place and salvage, gravel fill, internal bracing due to bedrock and cobbles. Protect to elevation 785
Security	Lump Sum	5%		$ 246,875	• Assume 5% of construction cost for on-site security
Subtotal Construction Costs				**$ 8,797,675**	
Indirect Costs		35%		$ 3,079,186	Valued at 15% for design, 10% for construction engineering and testing, 7% for local, state and federal permitting, and 3% for Owner administration.
Subtotal Construction Costs and Indirect Costs				$ 11,876,861	
Contingency		35%		$ 4,156,901	Contingency is to account for uncertainties and unknown risks associated with information that is available at this design level.
Total Construction, Indirect and Contingency				**$ 16,033,762**	

Ward's Ferry Whitewater Boating Takeout Analysis
Rec Group 8/7 - River Right

Item Description	Unit	Unit Price	Quantity	Total Cost	Supplemental Description
Excavation	Cubic Yard	$ 42.00	426	$ 17,892	• Assume unit price at $30/CY • Add for exporting to quarry site at $12/CY
Embankment	Cubic Yard	$ 70.00	43,436	$ 3,040,485	• Embankment Fill for MSE walls • Mat'l cost (quote) at $15/tn = $31.50/cy • Add for hauling mat'l from quarry at $14.50/CY • Assume placement at $24/cy • Ramps extend to El 765.
Aggregate Base	Ton	$ 35.00	1,657	$ 57,984	• Assume mat'l cost at $16/Ton (quote) • Add for hauling mat'l from quarry: $7/Ton • Placement at $12/tn
18" Pipe Culvert	Feet	$ 30.00	-	$ -	•Assume road cross slope towards river (away from hillside). Therefore, no cross drains are necessary.
Survey	Lump Sum	$ 22,500.00	1	$ 22,500	•Assume 7 trips during construction x 10 hrs/day x $160/hour/person x 2 persons.
Asphalt Pavement	Ton	$ 140.00	847	$ 118,543	• Assume unit price at $120/Ton • Mat'l cost: $75/Ton (quote) - Assume $60/ton included above, therefore add $15/Ton • Add for hauling mat'l from quarry: $8.50/ton - Assume $3.50/Ton included above, therefore add $5/Ton
Jersey guards for pedestrian	LF	$ 113.00	2,158	$ 243,854	• Assume $113 per ft for precast jersey, two rows of Jerseys with 5-ft pedestrian access between the barriers, located between two 10-ft wide travel lanes.
Guard Rail	Feet	$ 30.00	1,585	$ 47,550	• Assume $30/LF
MSE Retaining Wall	Square Feet	$ 102.35	17,824	$ 1,824,235	• Assume unit price at $100/SF of typical MSE wall including fill material • Deduct cost of embankment fill material at $18/sf ($24/cy) - Embankment fill material included above. • Assume cost for anchors: $7/SF • Including additional 15% for Architectural finish (TBD)
Bridge Rail	Feet	$ 120.00	30	$ 3,600	• To remove existing and install new railing
Traffic Control	Lump Sum	$ 15,000.00	1	$ 15,000	• Traffic control at the highway for bridge rail and approach.
Roadway Signing	Each	$ 750.00	4	$ 3,000	• Assume 4 wayfinding signs required on highway.
Stormwater Pollution Prevention Plan	Lump Sum	$ 15,750.00	1	$ 15,750	• 2 rows of silt fence along new road at $5.25/LF plus additional 25% for maintenance.
Trash receptacles	Allowance	$ 10,000.00	1	$ 10,000	6 trash receptacles with bear-proof enclosures
Mobilization	Lump Sum	15%		$ 1,626,118	• Assume 15% of construction cost to mob and demob to the site since remote location. Assume two mob/demobs due to weather/floods.
Pre- and Post-Construction Road Improvement Projects	Lump Sum	$ 1,500,000	1	$ 1,500,000	• Assume 2 miles of road surface and subgrade repair, both pre-project and post-project.
Cofferdams	Lump Sum	$ 3,613,435	1	$ 3,613,435	• Assumes 25 30-ft diameter cellular coffers, assume embedded 5 ft into overburden, place and salvage, gravel fill, internal bracing due to bedrock and cobbles. Protect to elevation 785.
Security	Lump Sum	5%		$ 352,326	• Assume 5% of construction cost for on-site security
Subtotal Construction Costs				**$ 12,512,272**	
Indirect Costs		35%		$ 4,379,295	Valued at 15% for design, 10% for construction engineering and testing, 7% for local, state and federal permitting, and 3% for Owner administration.
Subtotal Construction Costs and Indirect Costs				$ 16,891,567	
Contingency		35%		$ 5,912,049	Contingency is to account for uncertainties and unknown risks associated with information that is available at this design level.
Total Construction, Indirect and Contingency				**$ 22,803,616**	

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Ward's Ferry Whitewater Boating Takeout Analysis
Parking Area

Item Description	Unit	Unit Price	Quantity	Total Cost	Supplemental Description
Excavation	Cubic Yard	$ 42.00	75,000	$ 3,150,000	• Assume unit price at $30/CY • Add for exporting to quarry site at $12/CY
Aggregate Base	Ton	$ 35.00	1,213	$ 42,455	• Assume mat'l cost at $16/Ton (quote) • Add for hauling mat'l from quarry: $7/Ton • Placement at $12/tn
Survey	Lump Sum	$ 9,600.00	1	$ 9,600	•Assume 3 trips during construction x 10 hrs/day x $160/hour/person x 2 persons.
Asphalt Pavement	Ton	$ 140.00	620	$ 86,800	• Assume unit price at $120/Ton • Mat'l cost: $75/Ton (quote) - Assume $60/ton included above, therefore add $15/Ton • Add for hauling mat'l from quarry: $8.50/ton - Assume $3.50/Ton included above, therefore add $5/Ton
Traffic Control	Lump Sum	$ 7,500.00	1	$ 7,500	• Traffic control at the highway for approach during construction.
Roadway Signing	Each	$ 750.00	4	$ 3,000	• Assume 4 wayfinding signs required on highway.
Stormwater Pollution Prevention Plan	Lump Sum	$ 7,500.00	1	$ 7,500	• Silt fence around the work zone.
Additional Items	Lump Sum	$ 750,000.00	1	$ 750,000	Security fence, signage and speed control, trash receptacles, shaded picnic tables, video camera and surveillance, etc.
Toilet Facility	Each	$ 57,000.00	2	$ 114,000	• Two new compost single vault toilet facility.
Pavillion and tables	Allowance	$ 150,000.00	1	$ 150,000	• 4 picnic tables and pavillion for shade; vandal-resistant
Mobilization	Lump Sum	15%		$ 608,528	• Assume 15% of construction cost to mob and demob to the site since remote location.
Security	Lump Sum	5%		$ 202,843	• Assume 5% of construction cost for on-site security
Subtotal Construction Costs				**$ 5,132,226**	
Indirect Costs		35%		$ 1,796,279	Valued at 15% for design, 10% for construction engineering and testing, 7% for local, state and federal permitting, and 3% for Owner administration.
Subtotal Construction Costs and Indirect Costs				$ 6,928,505	
Contingency		35%		$ 2,424,977	Contingency is to account for uncertainties and unknown risks associated with information that is available at this design level.

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Exhibit 37

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Circular No. A-25 Revised

(Transmittal Memorandum No. 1)

MEMORANDUM FOR HEADS OF EXECUTIVE DEPARTMENTS AND ESTABLISHMENTS

SUBJECT: User charges

1. Purpose
2. Rescission
3. Authority
4. Coverage
5. Objectives
6. General Policy
7. Implementation
8. Agency Repsonsibility
9. Disposition of Collections
10. New Activities
11. Inquiries

1. **Purpose:** The Circular establishes Federal policy regarding fees assessed for Government services and for sale or use of Government goods or resources. It provides information on the scope and types of activities subject to user charges and on the basis upon which user charges are to be set. Finally, it provides guidance for agency implementation of charges and the disposition of collections.

2. **Rescission:** This rescinds Office of Management and Budget Circular No. A-25, dated September 23, 1959, and Transmittal Memoranda 1 and 2.

3. **Authority:** Title V of the Independent Offices Appropriations Act of 1952 (31 U.S.C. 9701); 31 U.S.C. 1111; and Executive Orders No. 8248 and No. 11,541.

4. **Coverage:**

a. The provisions of this Circular cover all Federal activities that convey special benefits to recipients beyond those accruing to the general public. The Circular does not apply to the activities of the legislative and judicial branches of Government, or to mixed-ownership Government corporations, as defined in 31 U.S.C. 9701.

b. The provisions of the Circular shall be applied by agencies in their assessment of user charges under the IOAA. In addition, this Circular provides guidance to agencies regarding their assessment of user charges under other statutes. This guidance is intended to be applied only to the extent permitted by law. Thus, where a statute prohibits the assessment of a user charge on a service or addresses an aspect of the user charge (e.g., who pays the charge; how much is the charge; where collections are deposited), the statute shall take precedence over the Circular. In such cases (e.g., sale or disposal under Federal surplus property statutes; or fringe benefits for military personnel and civilian employees), the guidance provided by the Circular would apply to the extent that it is not inconsistent with the statute. The same analysis would apply with regard to executive orders that address user charges.

c. In any case where an Office of Management and Budget circular provides guidance concerning a specific user charge area, the guidance of that circular shall be deemed to meet the requirements of this Circular. Examples of such guidance include the following: OMB Circular No. A-45, concerning charges for rental quarters; OMB Circular No. A-130, concerning management of Federal information resources; and OMB Circular No. A-97, concerning provision of specialized technical services to State and Local governments.

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5. **Objectives:** It is the objective of the United States Government to:

a. ensure that each service, sale, or use of Government goods or resources provided by an agency to specific recipients be self-sustaining;

b. promote efficient allocation of the Nation's resources by establishing charges for special benefits provided to the recipient that are at least as great as costs to the Government of providing the special benefits; and

c. allow the private sector to compete with the Government without disadvantage in supplying comparable services, resources, or goods where appropriate.

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6. **General policy:** A user charge, as described below, will be assessed against each identifiable recipient for special benefits derived from Federal activities beyond those received by the general

public. When the imposition of user charges is prohibited or restricted by existing law, agencies will review activities periodically and recommend legislative changes when appropriate. Section 7 gives guidance on drafting legislation to implement user charges.

a. Special benefits

1. Determining when special benefits exist. When a service (or privilege) provides special benefits to an identifiable recipient beyond those that accrue to the general public, a charge will be imposed (to recover the full cost to the Federal Government for providing the special benefit, or the market price). For example, a special benefit will be considered to accrue and a user charge will be imposed when a Government service:

(a) enables the beneficiary to obtain more immediate or substantial gains or values (which may or may not be measurable in monetary terms) than those that accrue to the general public (e.g., receiving a patent, insurance, or guarantee provision, or a license to carry on a specific activity or business or various kinds of public land use); or

(b) provides business stability or contributes to public confidence in the business activity of the beneficiary (e.g., insuring deposits in commercial banks); or

(c) is performed at the request of or for the convenience of the recipient, and is beyond the services regularly received by other members of the same industry or group or by the general public (e.g., receiving a passport, visa, airman's certificate, or a Custom's inspection after regular duty hours).

2. Determining the amount of user charges to assess.

(a) Except as provided in Section 6c, user charges will be sufficient to recover the full cost to the Federal Government (as defined in Section 6d) of providing the service, resource, or good when the Government is acting in its capacity as sovereign.

(b) Except as provided in Section 6c, user charges will be based on market prices (as defined in Section 6d) when the Government, not acting in its capacity as sovereign, is leasing or selling goods or resources, or is providing a service (e.g., leasing space in federally owned buildings). Under these business- type conditions, user charges need not be limited to the recovery of full cost and may yield net revenues.

(c) User charges will be collected in advance of, or simultaneously with, the rendering of services unless appropriations and authority are provided in advance to allow reimbursable services.

(d) Whenever possible, charges should be set as rates rather than fixed dollar amounts in order to adjust for changes in costs to the Government or changes in market prices of the good, resource, or service provided (as defined in Section 6d).

3. In cases where the Government is supplying services, goods, or resources that provide a special benefit to an identifiable recipient and that also provide a benefit to the general public, charges should be set in accordance with paragraph (2) of Section 6a. Therefore, when the public obtains benefits as a necessary consequence of an agency's provision of special benefits to an identifiable recipient (i.e., the public benefits are not independent of, but merely incidental to, the special benefits), an agency need not allocate any costs to the public and should seek to recover from the identifiable recipient either the full cost to the Federal Government of providing the special benefit or the market price, whichever applies.

4. No charge should be made for a service when the identification of the specific beneficiary is obscure, and the service can be considered primarily as benefiting broadly the general public.

b. Charges to the direct recipient. Charges will be made to the direct recipient of the special benefit even though all or part of the special benefits may then be passed to others.

c. Exceptions

1. Agency heads or their designee may make exceptions to the general policy if the provision of a free service is an appropriate courtesy to a foreign government or international organization; or comparable fees are set on a reciprocal basis with a foreign country.

2. Agency heads or their designee may recommend to the Office of Management and Budget that exceptions to the general policy be made when:

(a) the cost of collecting the fees would represent an unduly large part of the fee for the activity; or

(b) any other condition exists that, in the opinion of the agency head or his designee, justifies an exception.

3. All exceptions shall be for a period of no more than four years unless renewed by the agency heads or their designee for exceptions granted under Section 6c(1) or the Office of Management and Budget for exceptions granted under Section 6c(2) after a review to determine whether conditions warrant their continuation.

4. Requests for exceptions and extensions under paragraphs (2) and (3) of Section 6c shall be submitted to the Director of the Office of Management and Budget.

d. Determining full cost and market price

1. "Full cost" includes all direct and indirect costs to any part of the Federal Government of providing a good, resource, or service. These costs include, but are not limited to, an appropriate share of:

(a) Direct and indirect personnel costs, including salaries and fringe benefits such as medical insurance and retirement. Retirement costs should include all (funded or unfunded) accrued costs not covered by employee contributions as specified in Circular No. A-11.

(b) Physical overhead, consulting, and other indirect costs including material and supply costs, utilities, insurance, travel, and rents or imputed rents on land, buildings, and equipment. If imputed rental costs are applied, they should include:

(i) depreciation of structures and equipment, based on official Internal Revenue Service depreciation guidelines unless better estimates are available; and

(ii) an annual rate of return (equal to the average long- term Treasury bond rate) on land, structures, equipment and other capital resources used.

(c) The management and supervisory costs.

(d) The costs of enforcement, collection, research, establishment of standards, and

regulation, including any required environmental impact statements.

(e) Full cost shall be determined or estimated from the best available records of the agency, and new cost accounting systems need not be established solely for this purpose.

2. "Market price" means the price for a good, resource, or service that is based on competition in open markets, and creates neither a shortage nor a surplus of the good, resource, or service.

(a) When a substantial competitive demand exists for a good, resource, or service, its market price will be determined using commercial practices, for example:

(i) by competitive bidding; or

(ii) by reference to prevailing prices in competitive markets for goods, resources, or services that are the same or similar to those provided by the Government (e.g., campsites or grazing lands in the general vicinity of private ones) with adjustments as appropriate that reflect demand, level of service, and quality of the good or service.

(b) In the absence of substantial competitive demand, market price will be determined by taking into account the prevailing prices for goods, resources, or services that are the same or substantially similar to those provided by the Government, and then adjusting the supply made available and/or price of the good, resource, or service so that there will be neither a shortage nor a surplus (e.g., campsites in remote areas).

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7. **Implementation:**

a. The general policy is that user charges will be instituted through the promulgation of regulations.

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b. When there are statutory prohibitions or limitations on charges, legislation to permit charges to be established should be proposed. In general, legislation should seek to remove restraints on user charges and permit their establishment under the guidelines provided in this Circular. When passage of this general authority seems unlikely, more restrictive authority should be sought. The level of charges proposed should be based on the guidelines in Section 6. When necessary, legislation should:

1. define in general terms the services for which charges will be assessed and the pricing mechanism that will be used;

2. specify fees will be collected in advance of, or simultaneously with, the provision of service unless appropriations and authority are provided in advance to allow reimbursable services;

3. specify where collections will be credited (see Section 9). Legislative proposals should not normally specify precise charges. The user charge schedule should be set by regulation. This will allow administrative updating of fees to reflect changing costs and market values. Where it is not considered feasible to collect charges at a level specified in Section 6, charges should be set as close to that level as is practical.

c. Excise taxes are another means of charging specific beneficiaries for the Government services they receive. New user charges should not be proposed in cases where an excise tax currently finances the Government services that benefit specific individuals. Agencies may consider proposing a new excise tax when it would be significantly cheaper to administer than fees, and the burden of the excise tax would rest almost entirely on the user population (e.g., gasoline tax to finance highway construction). Excise taxes cannot be imposed through administrative action but rather require legislation. Legislation should meet the same criteria as in Section 7b; however, it is necessary to state explicitly the rate of the tax. Agency review of these taxes must be performed periodically and new legislation should be proposed, as appropriate, to update the tax based on changes in cost. Any excise tax proposals must be approved by the Assistant Secretary for Tax Policy at the Department of the Treasury.

d. When developing options to institute user charges administratively, agencies should review all sources of statutory authority in addition to the Independent Offices Appropriations Act that may authorize implementation of such charges.

e. In proposing new charges or modifications to existing ones, managers of other programs that provide special benefits to the same or similar user populations should be consulted. Joint legislative proposals should be made, and joint collection efforts designed to ease the burden on the users should be used, whenever possible.

f. Every effort should be made to keep the costs of collection to a minimum. The principles embodied in Circular No. A-76 (Performance of Commercial Activities) should be considered in designing the collection effort.

g. Legislative proposals must be submitted to the Office of Management and Budget in accordance with the requirements of Circular No. A-19. To ensure the proper placement of user fee initiatives in the budget account structure, agencies are encouraged to discuss proposals with OMB at an early stage of development.

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8. **Agency responsibility:** Agencies are responsible for the initiation and adoption of user charge schedules consistent with the policies in this Circular. Each agency will:

a. Identify the services and activities covered by this Circular;

b. Determine the extent of the special benefits provided;

c. Apply the principles specified in Section 6 in determining full cost or market price, as appropriate;

d. Apply the guidance in Section 7 either to institute charges through the promulgation of regulations or submit legislation as appropriate;

e. Review the user charges for agency programs biennially, to include: (1) assurance that existing charges are adjusted to reflect unanticipated changes in costs or market values; and (2) a review of all other agency programs to determine whether fees should be assessed for Government services or the user of Government goods or services. Agencies should discuss the results of the biennial review of user fees and any resultant proposals in the Chief Financial Officers Annual Report required by the Chief Financial Officers Act of 1990;

f. Ensure that the requirements of OMB Circular No. A- 123 (Internal Control Systems) and appropriate audit standards are applied to collection;

g. Maintain readily accessible records of:

- the services or activities covered by this Circular;
- the extent of special benefits provided;
- the exceptions to the general policy of this Circular;

- the information used to establish charges and the specific method(s) used to determine them; and
- the collections from each user charge imposed.
- Maintain adequate records of the information used to establish charges and provide them upon request to OMB for the evaluation of the schedules and provide data on user charges to OMB in accordance with the requirements in Circular No. A-11.

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9. **Disposition of collections:**

a. Unless a statute provides otherwise, user charge collections will be credited to the general fund of the Treasury as miscellaneous receipts, as required by 31 U.S.C. 3302.

b. Legislative proposals to permit the collections to be retained by the agency may be appropriate in certain circumstances. Proposals should meet the guidelines in Section 7b.

Proposals that allow agency retention of collections may be appropriate when a fee is levied in order to finance a service that is intended to be provided on a substantially self-sustaining basis and thus is dependent upon adequate collections.

1. Generally, the authority to use fees credited to an agency's appropriations should be subject to limits set in annual appropriations language. However, it may be appropriate to request exemption from annual appropriations control, if provision of the service is dependent on demand that is irregular or unpredictable (e.g., a fee to reimburse an agency for the cost of overtime pay of inspectors for services performed after regular duty hours).

2. As a normal rule, legislative proposals that permit fees to be credited to accounts should also be consistent with the full-cost recovery guidelines contained in this Circular. Any fees in excess of full- cost recovery and any increase in fees to recover the portion of retirement costs which recoups all (funded or unfunded) accrual costs not covered by employee contributions should be credited to the general fund of the Treasury as miscellaneous receipts.

10. **New activities:** Whenever agencies prepare legislative proposals for new or expanded Federal activities that would provide special benefits, the policies and criteria set forth in this Circular will apply.

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11. **Inquiries:** For information concerning this Circular, consult the Office of Management and Budget examiner responsible for the agency's budget estimates.

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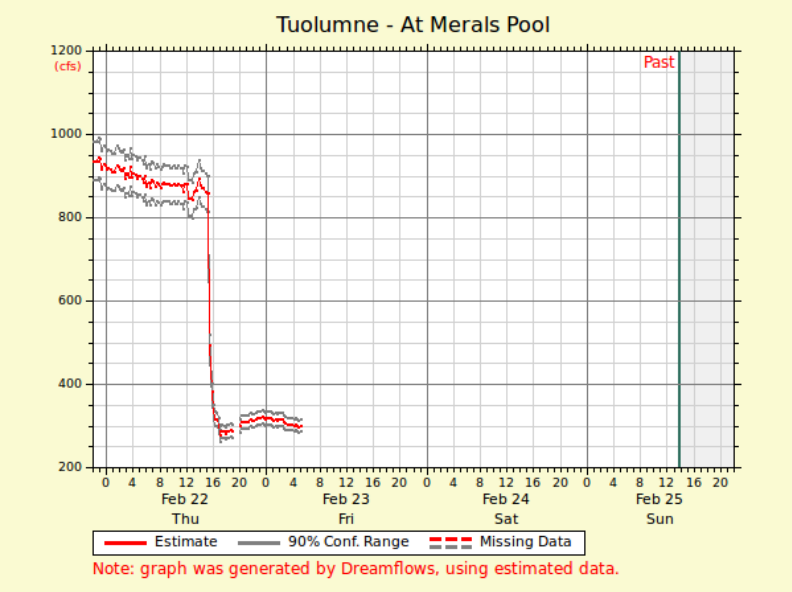
Exhibit 38



» Flows

The Main Tuolumne is a dam controlled river with managed water releases throughout the spring and summer. The designated “Wild and Scenic” section of the Tuolumne begins northeast of the town of Groveland. Here you will find the spectacular whitewater runs of this protected river canyon. Though tightly regulated by the National Park Service, this popular section of the “T” is highly sought after for rafting and kayaking.

Tuolumne River Flow Graph



Dreamflows – Tuolumne River Flows

Flow Level Descriptions

- **900 – 1400 CFS** = Low flows. Typical summer releases are perfect for kayaking and paddle rafting. Sometimes larger, heavier gear boats have a challenging time getting through more technical rapids at these flows.
- **1400 – 2500 CFS** = Medium flows. Great for aggressive first timers and experienced rafters. Plenty of Class III & IV whitewater.
- **2500 – 4000 CFS** = Medium-high flows. Great for experienced rafters and a few aggressive first timers. Plenty of Class III & IV+ whitewater.
- **4000 – 8000 CFS** = High flows. Challenging Class IV+ whitewater, exciting for experienced rafters. Big waves and swift moving water.
- **Above 8000 CFS** = Extreme high flows. Fast moving water, with powerful waves and long rapids. Experience is highly recommended. Trips at these levels are best for very aggressive people who are not afraid of falling into a very fast river with long rapids.

CFS = Cubic Feet per Second

Insider Tip: Get Started Early

Make sure to get started early because water shuts off from Holm Powerhouse at 11am. If you are doing a trip on Cherry Creek, prepare for an early morning! Also, check the water releases because Sundays are often “dry” days.

Tuolumne Watershed



The Tuolumne is one of the major rivers flowing west from the Sierra Nevada mountains in California. Originating in one of Yosemite National Park’s ice-age carved valleys, the canyon now fosters a perfect environment for whitewater enthusiasts.

The headwaters of the Tuolumne begin 13,000 feet above sea level at Mount Lyell. The river snakes its way to the sea by curving east to west, downstream until it connects with the San Joaquin River and eventually drains into the Pacific.

Flowing through what is called the Grand Canyon of the Tuolumne, the steep, V-shaped canyon walls hold flora distinctly characteristic of the coniferous forests of the foothills. The river canyon is blanketed with chaparral, manzanita, scrub brush, and oaks. Oddly enough the river canyon appears to be more lush than the Yosemite Canyon rim above even though the canyon floor typically receives less rainfall than the rim each year.

Just below O’Shaunessy Dam and the Hetch Hetchy Reservoir, the Tuolumne begins to flow through Stanislaus National Forest and is joined by the Upper Tuolumne, better known as Cherry Creek. Clavey river joins the Tuolumne mid-way through the descent. At the confluence of the two rivers, the thrilling class IV+ rapid known as Clavey Falls, provides a landmark to rafters and kayakers heading downstream. If the chance to hike along the Clavey and swim in its warm, natural granite pools arises don’t miss this highly recommended experience.

Tuolumne River

- Whitewater & Scenery
- Logistics
- Mile-by-Mile Map
- River Flows
- Places To Stay
- Places To Eat
- Things To Do
- Local Gear Shops
- Multimedia
- Tuolumne Outfitters

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- Sitemap
- Log in
-

- American River Rafting
- Kern River Rafting

Conditions on rivers can and do change quickly as weather, upstream dam fluctuations, and other phenomenon occur. Common sense and proper safety precautions are necessary at all times; CaliforniaWhitewater.com recommends ALL boaters to check flows & conditions and be realistic about your skill level in relation to the challenge of the river at its current level.

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Exhibit 39

Dreamflows Tuolumne - Cherry Creek Confluence Release Schedule

"I can't boat everyday, but I can always Dream"

River Flow at the confluence of the Tuolumne River and Cherry Creek

In the tables that follow, each date is color-coded according to the kind of release scheduled for that day:

Color	Meaning
	No scheduled release planned for this day.
	Scheduled release: Less than 750 cfs total estimated releases from the HHWP project.
	Scheduled release: 1100 cfs or more total estimated releases from the HHWP project.

NOTE: The following flows are the **minimum scheduled releases** that you can expect - actual flows **may be higher**. See the notes at the bottom of this page.
Note: All information provided by Hetch Hetchy Water and Power.
Note: The following flow schedule is **PROVISIONAL** and could change.

June 2018						
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
					1 1100 cfs 7am to 11am	**2** 1100 cfs 7am to 11am
3 1100 cfs 7am to 11am	**4** 1100 cfs 7am to 11am	**5** 1100 cfs 7am to 11am	**6** 1100 cfs 7am to 11am	**7** 1100 cfs 7am to 11am	**8** 1100 cfs 7am to 11am	**9** 1100 cfs 7am to 11am
10 1100 cfs 7am to 11am	**11** 1100 cfs 7am to 11am	**12** 1100 cfs 7am to 11am	**13**	**14** 1100 cfs 7am to 11am	**15** 1100 cfs 7am to 11am	**16** 1100 cfs 7am to 11am
17 1100 cfs 7am to 11am	**18** 1100 cfs 7am to 11am	**19** 1100 cfs 7am to 11am	**20** 1100 cfs 7am to 11am	**21** 1100 cfs 7am to 11am	**22** 1100 cfs 7am to 11am	**23** 1100 cfs 7am to 11am
24 1100 cfs 7am to 11am	**25** 1100 cfs 7am to 11am	**26** 1100 cfs 7am to 11am	**27**	**28** 1100 cfs 7am to 11am	**29** 1100 cfs 7am to 11am	**30** 1100 cfs 7am to 11am

July 2018						
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
1 1100 cfs 7am to 11am	**2** 1100 cfs 7am to 11am	**3** 1100 cfs 7am to 11am	**4** 1100 cfs 7am to 11am	**5** 1100 cfs 7am to 11am	**6** 1100 cfs 7am to 11am	**7** 1100 cfs 7am to 11am
8 1100 cfs 7am to 11am	**9** 1100 cfs 7am to 11am	**10** 1100 cfs 7am to 11am	**11**	**12** 1100 cfs 7am to 11am	**13** 1100 cfs 7am to 11am	**14** 1100 cfs 7am to 11am
15 1100 cfs 7am to 11am	**16** 1100 cfs 7am to 11am	**17** 1100 cfs 7am to 11am	**18** 1100 cfs 7am to 11am	**19** 1100 cfs 7am to 11am	**20** 1100 cfs 7am to 11am	**21** 1100 cfs 7am to 11am
22 1100 cfs 7am to 11am	**23** 1100 cfs 7am to 11am	**24** 1100 cfs 7am to 11am	**25**	**26** 1100 cfs 7am to 11am	**27** 1100 cfs 7am to 11am	**28** 1100 cfs 7am to 11am
29 1100 cfs 7am to 11am	**30** 1100 cfs 7am to 11am	**31** 1100 cfs 7am to 11am				

August 2018						
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
			1 1100 cfs 7am to 11am	**2** 1100 cfs 7am to 11am	**3** 1100 cfs 7am to 11am	**4** 1100 cfs 7am to 11am
5 1100 cfs 7am to 11am	**6** 700 cfs 6am to noon	**7** 700 cfs 6am to noon	**8**	**9** 700 cfs 6am to noon	**10** 700 cfs 6am to noon	**11** 700 cfs 6am to noon
12 700 cfs 6am to noon	**13** 700 cfs 6am to noon	**14** 700 cfs 6am to noon	**15** 700 cfs 6am to noon	**16** 700 cfs 6am to noon	**17** 700 cfs 6am to noon	**18** 700 cfs 6am to noon
19 700 cfs	**20** 700 cfs	**21** 700 cfs	**22**	**23** 700 cfs	**24** 700 cfs	**25** 700 cfs

6am to noon	6am to noon	6am to noon		6am to noon	6am to noon	6am to noon
26 700 cfs 6am to noon	**27** 700 cfs 6am to noon	**28** 700 cfs 6am to noon	**29** 700 cfs 6am to noon	**30** 700 cfs 6am to noon	**31** 700 cfs 6am to noon	

September 2018						
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
						1 700 cfs 6am to noon
2 700 cfs 6am to noon	**3** 700 cfs 6am to noon	**4** 700 cfs 6am to noon	**5**	**6**	**7**	**8**
9	**10**	**11**	**12**	**13**	**14**	**15**
16	**17**	**18**	**19**	**20**	**21**	**22**
23	**24**	**25**	**26**	**27**	**28**	**29**
30						

Water Management and Access Issues:

1. Flow rate estimates and timing are at the confluence of the Tuolumne River and Cherry Creek. It is assumed that it takes approximately two hours for water to travel from the confluence to Meral's Pool (a.k.a. Lumsden Boat Launch).

2. Flow at the confluence is a combination of power house releases and other streamflow releases. Unless otherwise noted, expect most of the flow to come down Cherry Creek, i.e. from Holm Powerhouse.

3. This is a low water year, so the "other streamflows releases" referred to in the previous item aren't expected to be huge, but they may nevertheless be significant, especially during May and June. Before heading out, be sure to check the relevant Dreamflows flow report and Bulletin Board thread to determine current and expected release trends.

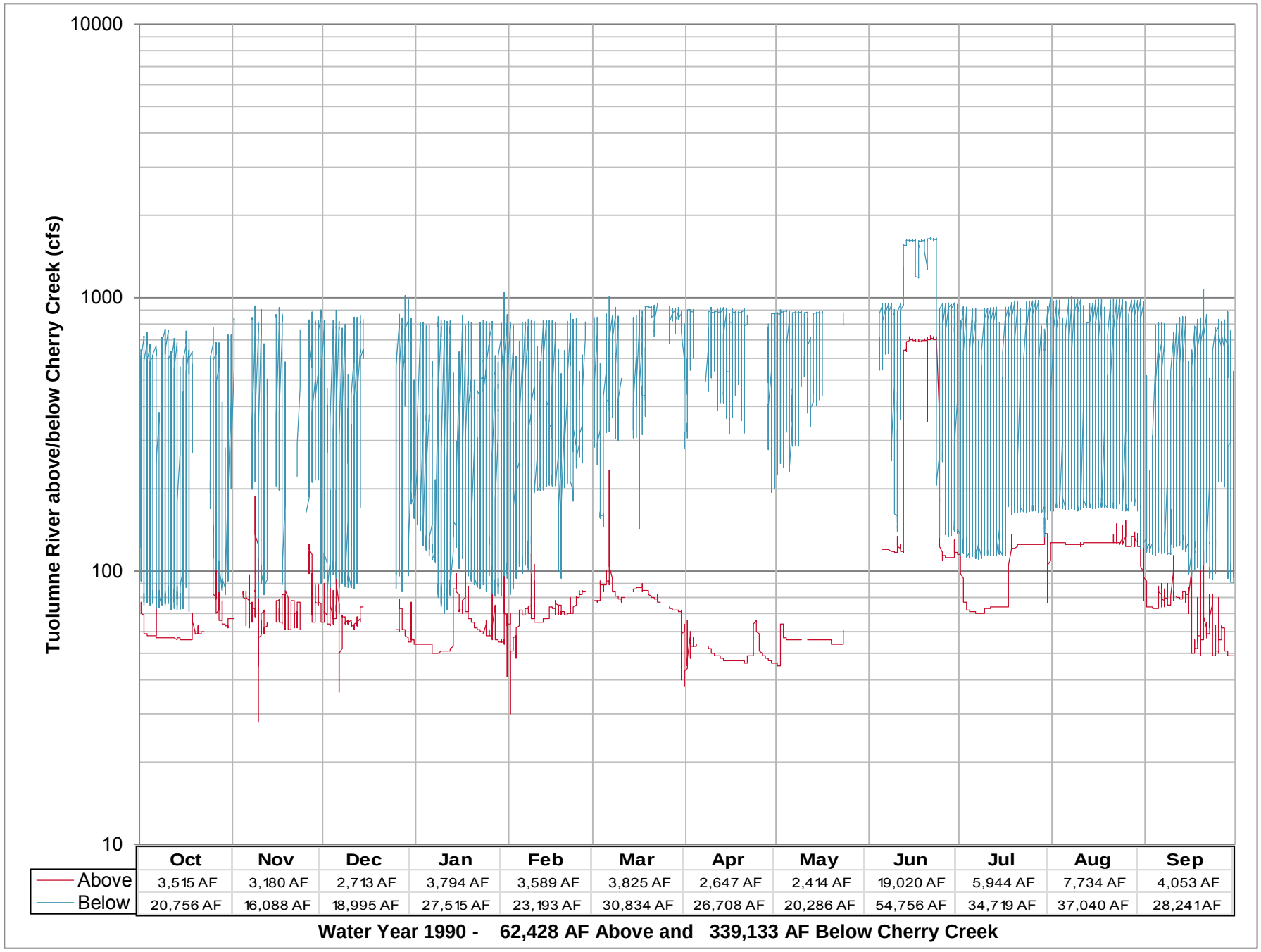
4. Flows beyond the schedule outlined schedule are at HHWP's operational discretion.

5. Users should be aware that sudden changes in powerhouse or dam releases may occur at any time due to emergency mechanical or electrical conditions. Scheduled or unplanned rapid changes in water levels and flow rates can create hazards, and users are urged to use caution and to wear all appropriate personal protective equipment.

Goto:
Home Alpha Articles Changes Events Graphs Guidebooks Links Permits Photos Ratings Schedules Xlist FAQ Sitemap

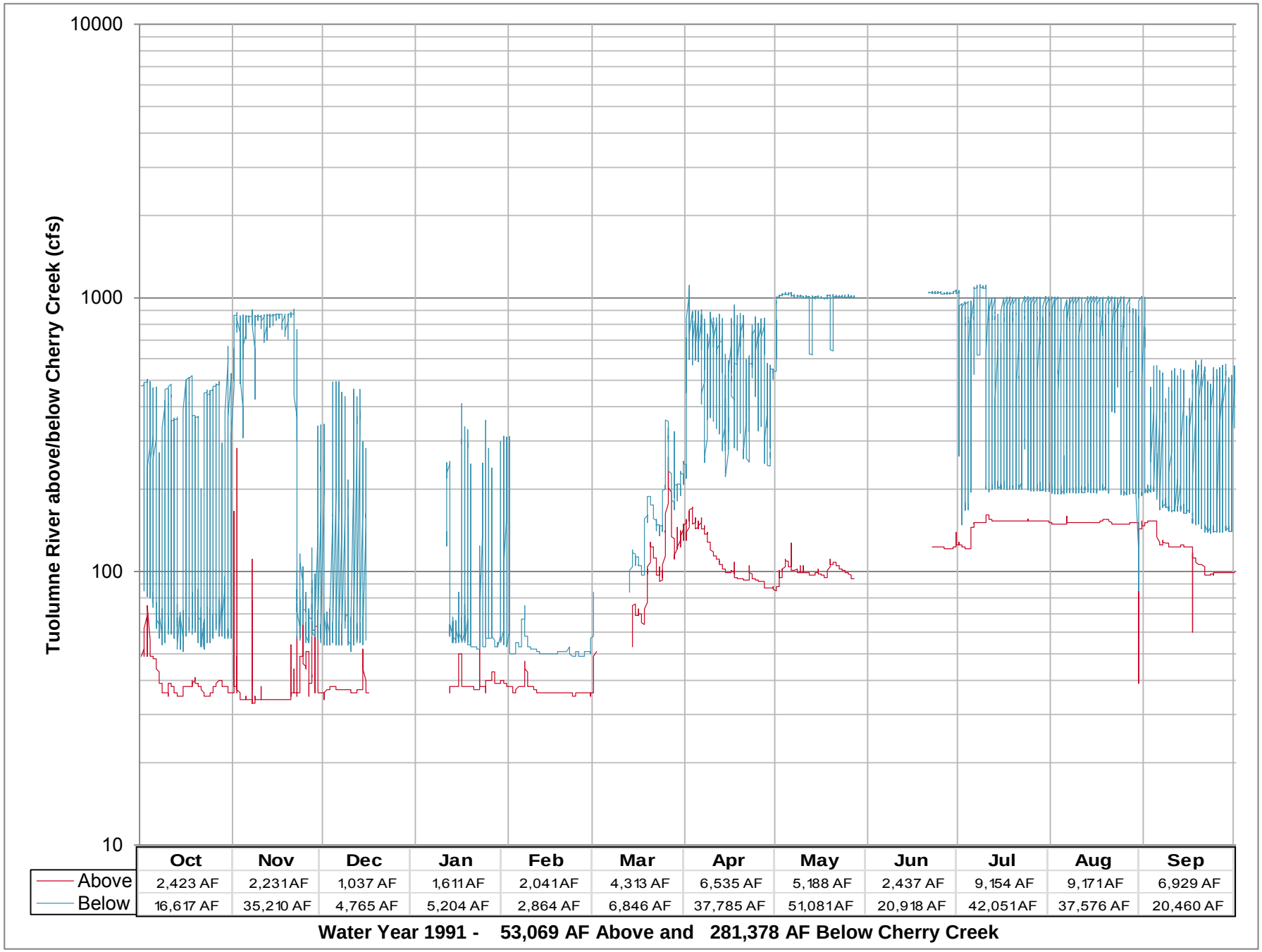
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Exhibit 40



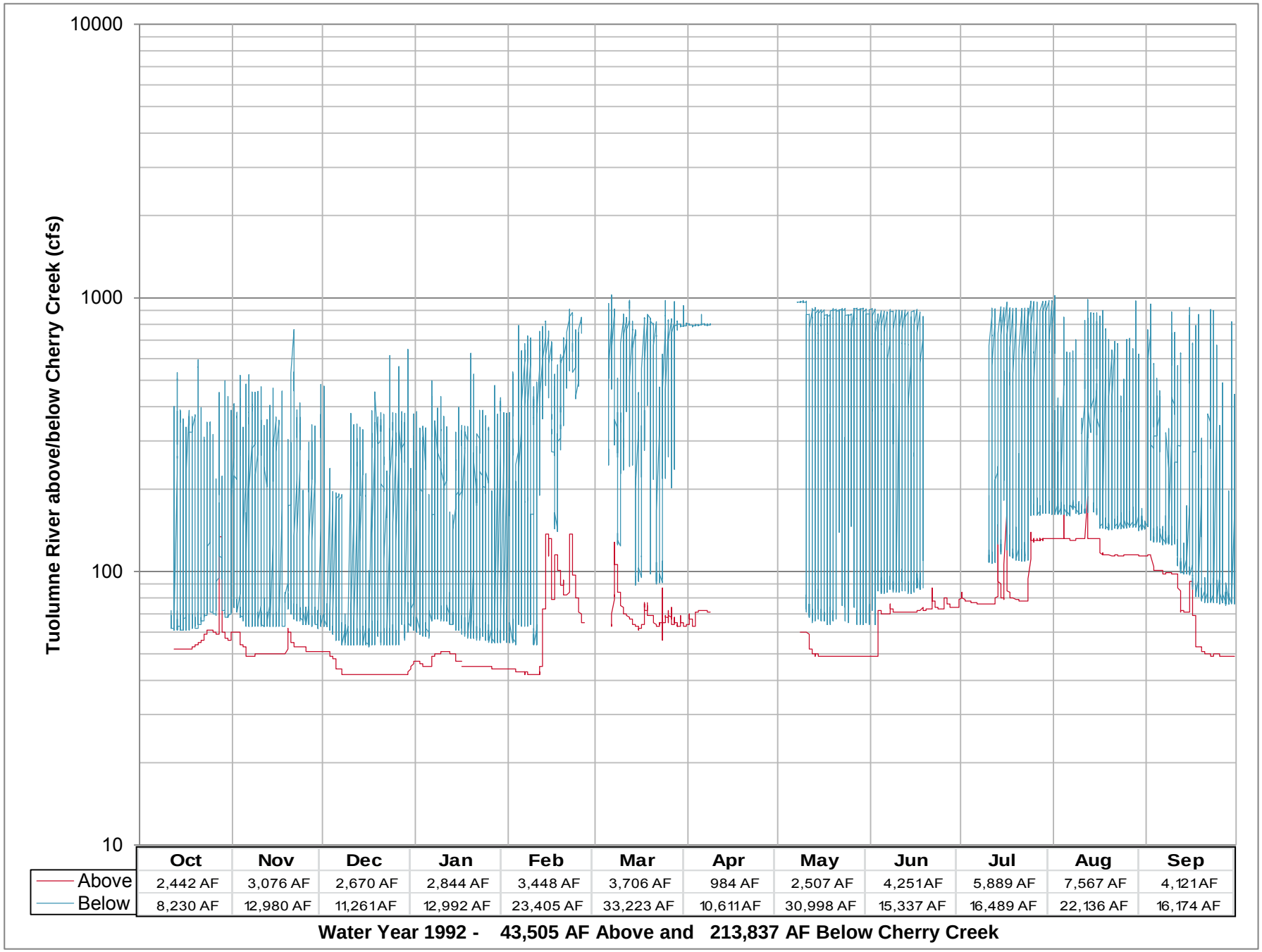
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	3,515 AF	3,180 AF	2,713 AF	3,794 AF	3,589 AF	3,825 AF	2,647 AF	2,414 AF	19,020 AF	5,944 AF	7,734 AF	4,053 AF
Below	20,756 AF	16,088 AF	18,995 AF	27,515 AF	23,193 AF	30,834 AF	26,708 AF	20,286 AF	54,756 AF	34,719 AF	37,040 AF	28,241AF

Water Year 1990 - 62,428 AF Above and 339,133 AF Below Cherry Creek



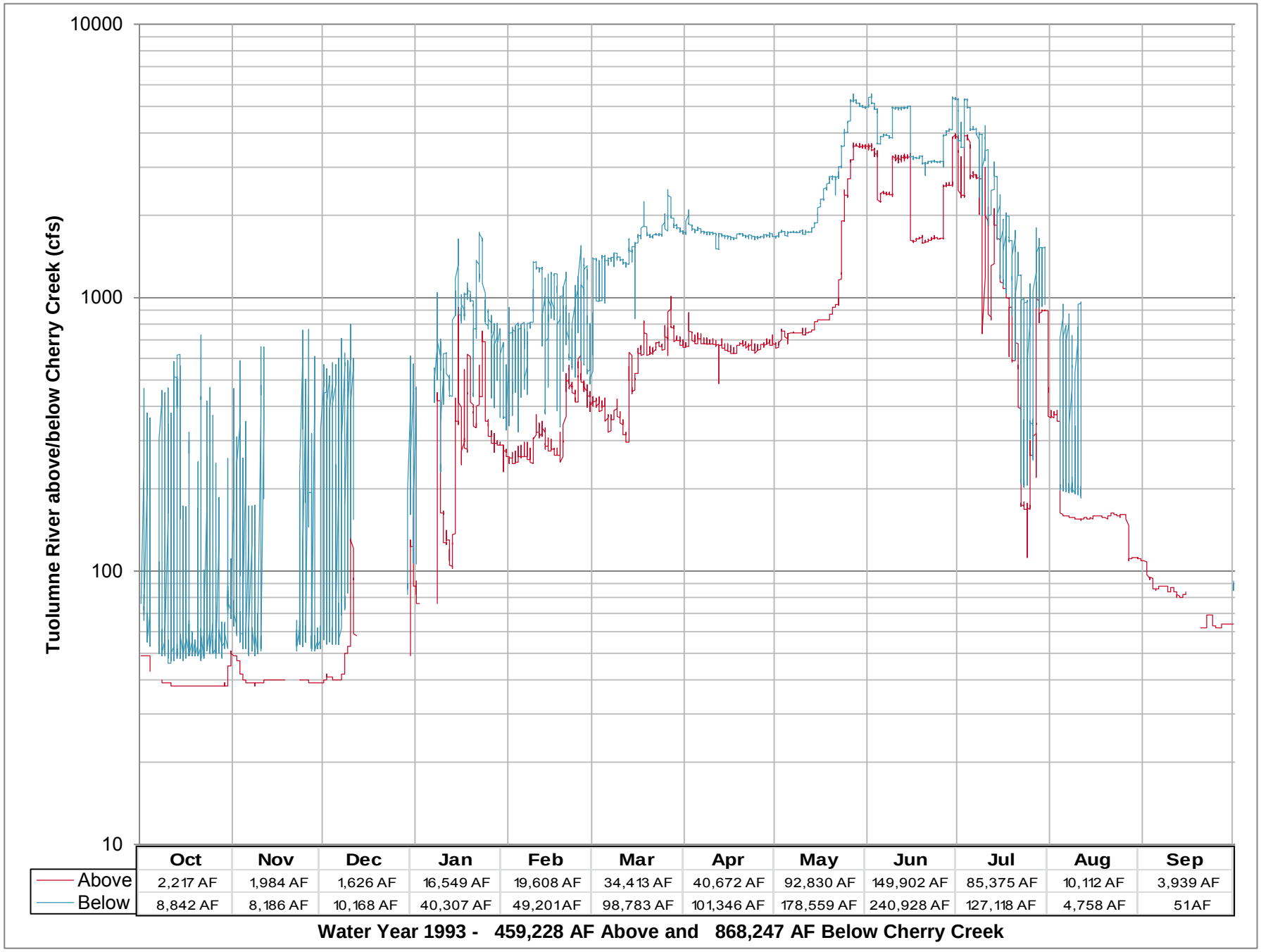
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Above	2,423 AF	2,231AF	1,037 AF	1,611AF	2,041AF	4,313 AF	6,535 AF	5,188 AF	2,437 AF	9,154 AF	9,171AF	6,929 AF
Below	16,617 AF	35,210 AF	4,765 AF	5,204 AF	2,864 AF	6,846 AF	37,785 AF	51,081AF	20,918 AF	42,051AF	37,576 AF	20,460 AF

Water Year 1991 - 53,069 AF Above and 281,378 AF Below Cherry Creek



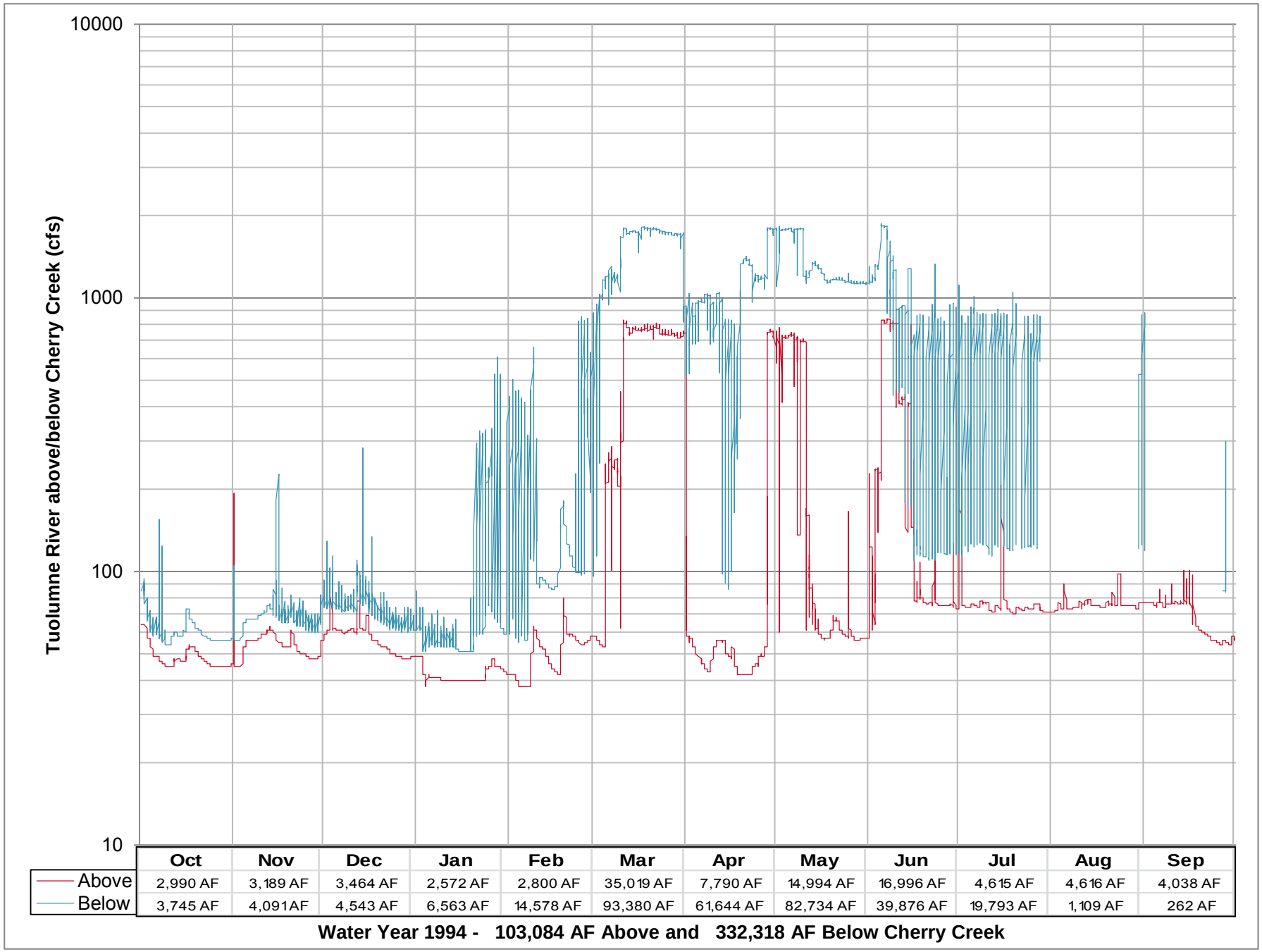
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Above	2,442 AF	3,076 AF	2,670 AF	2,844 AF	3,448 AF	3,706 AF	984 AF	2,507 AF	4,251AF	5,889 AF	7,567 AF	4,121AF
Below	8,230 AF	12,980 AF	11,261AF	12,992 AF	23,405 AF	33,223 AF	10,611AF	30,998 AF	15,337 AF	16,489 AF	22,136 AF	16,174 AF

Water Year 1992 - 43,505 AF Above and 213,837 AF Below Cherry Creek



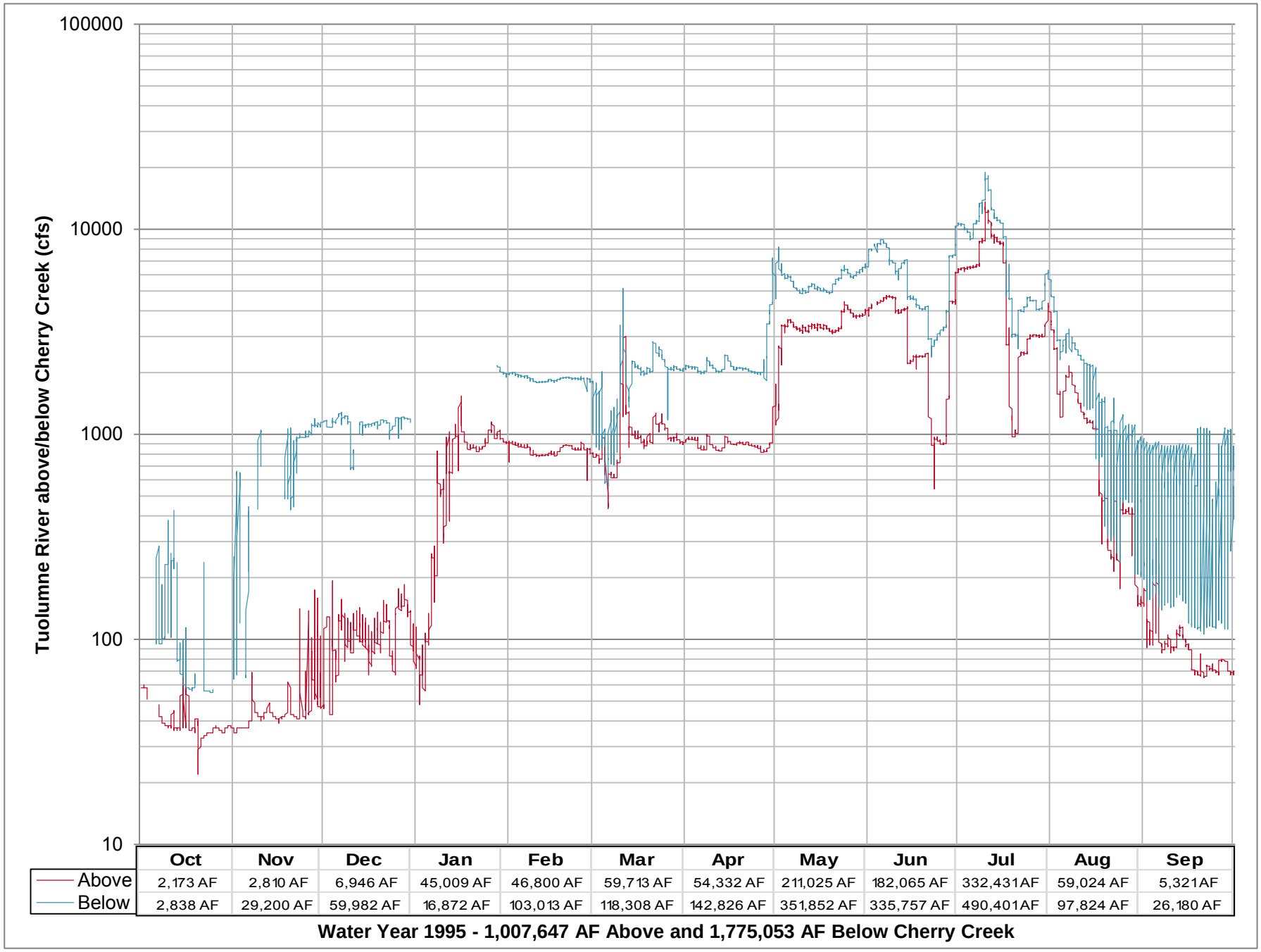
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	2,217 AF	1,984 AF	1,626 AF	16,549 AF	19,608 AF	34,413 AF	40,672 AF	92,830 AF	149,902 AF	85,375 AF	10,112 AF	3,939 AF
Below	8,842 AF	8,186 AF	10,168 AF	40,307 AF	49,201AF	98,783 AF	101,346 AF	178,559 AF	240,928 AF	127,118 AF	4,758 AF	51AF

Water Year 1993 - 459,228 AF Above and 868,247 AF Below Cherry Creek



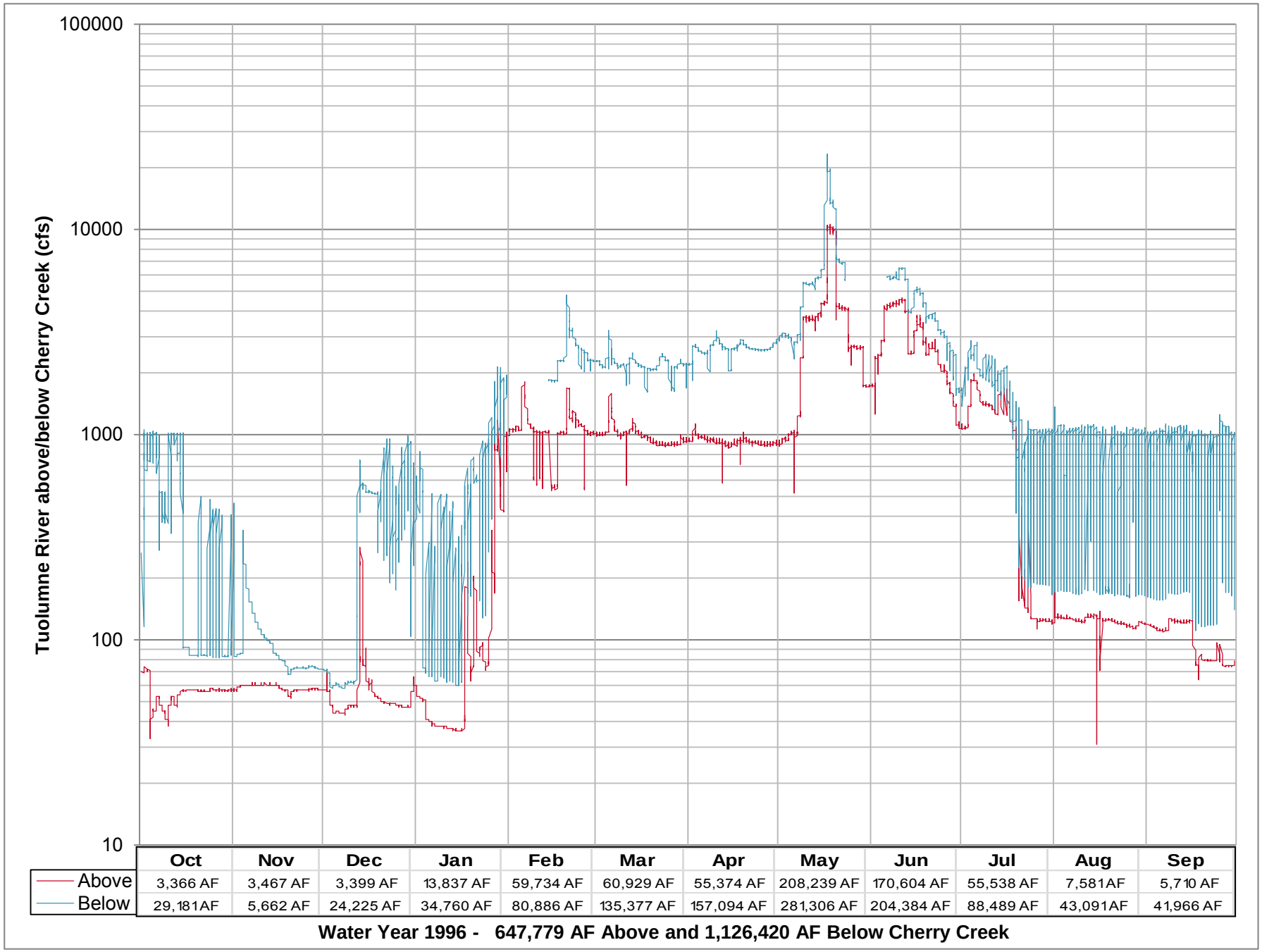
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Above	2,990 AF	3,189 AF	3,464 AF	2,572 AF	2,800 AF	35,019 AF	7,790 AF	14,994 AF	16,996 AF	4,615 AF	4,616 AF	4,038 AF
Below	3,745 AF	4,091AF	4,543 AF	6,563 AF	14,578 AF	93,380 AF	61,644 AF	82,734 AF	39,876 AF	19,793 AF	1,109 AF	262 AF

Water Year 1994 - 103,084 AF Above and 332,318 AF Below Cherry Creek



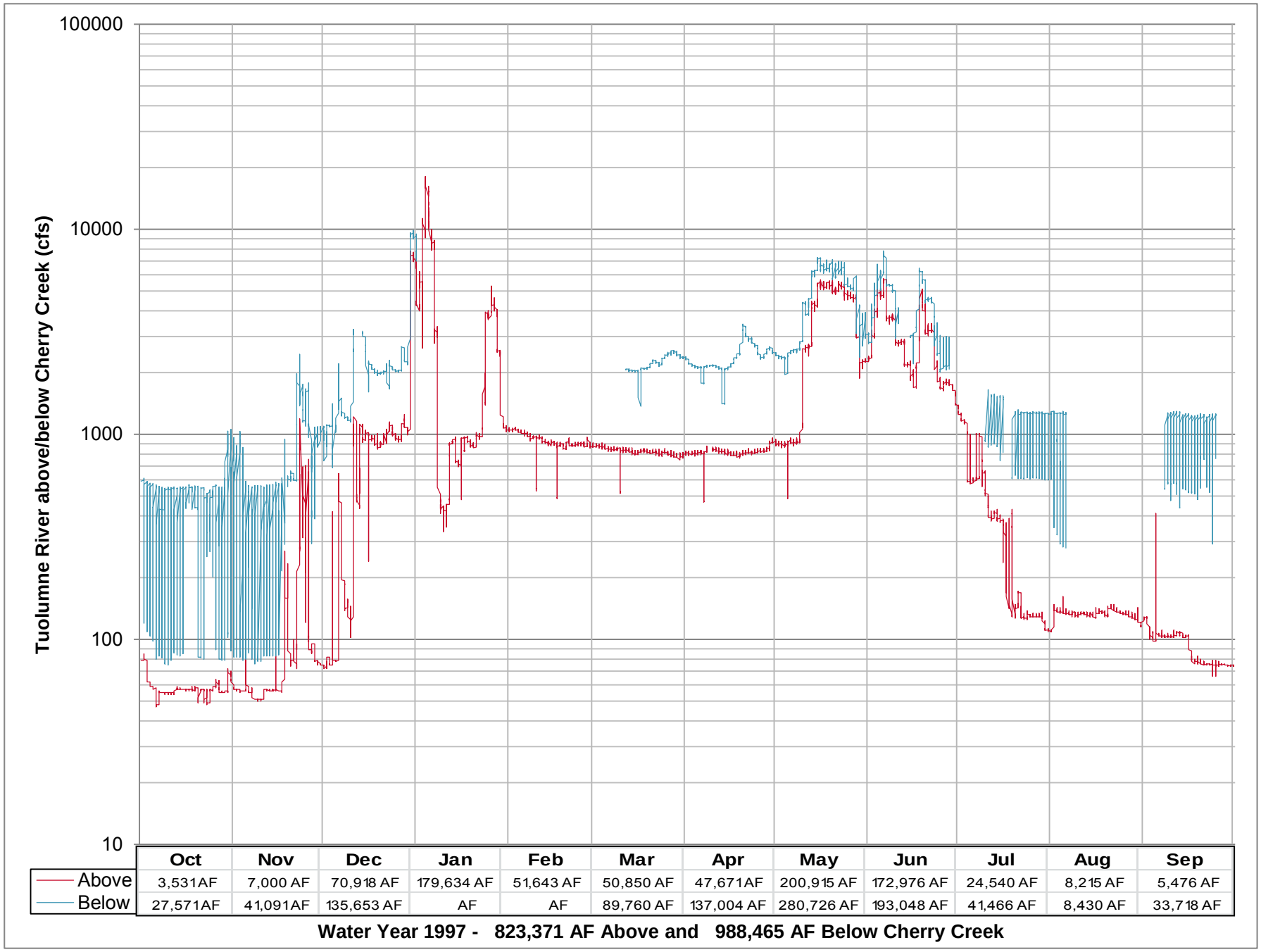
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Above	2,173 AF	2,810 AF	6,946 AF	45,009 AF	46,800 AF	59,713 AF	54,332 AF	211,025 AF	182,065 AF	332,431AF	59,024 AF	5,321AF
Below	2,838 AF	29,200 AF	59,982 AF	16,872 AF	103,013 AF	118,308 AF	142,826 AF	351,852 AF	335,757 AF	490,401AF	97,824 AF	26,180 AF

Water Year 1995 - 1,007,647 AF Above and 1,775,053 AF Below Cherry Creek



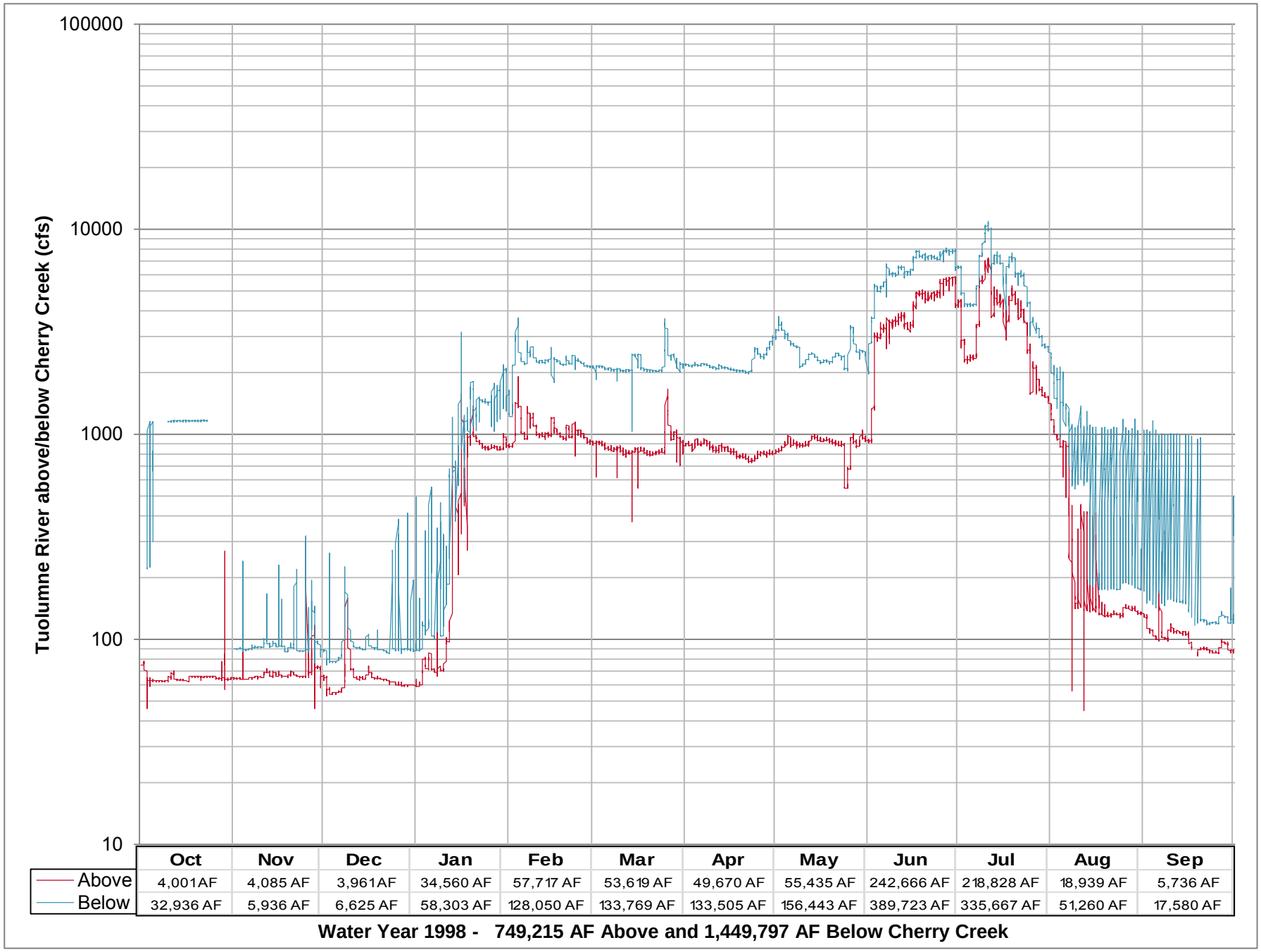
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	3,366 AF	3,467 AF	3,399 AF	13,837 AF	59,734 AF	60,929 AF	55,374 AF	208,239 AF	170,604 AF	55,538 AF	7,581AF	5,710 AF
Below	29,181AF	5,662 AF	24,225 AF	34,760 AF	80,886 AF	135,377 AF	157,094 AF	281,306 AF	204,384 AF	88,489 AF	43,091AF	41,966 AF

Water Year 1996 - 647,779 AF Above and 1,126,420 AF Below Cherry Creek



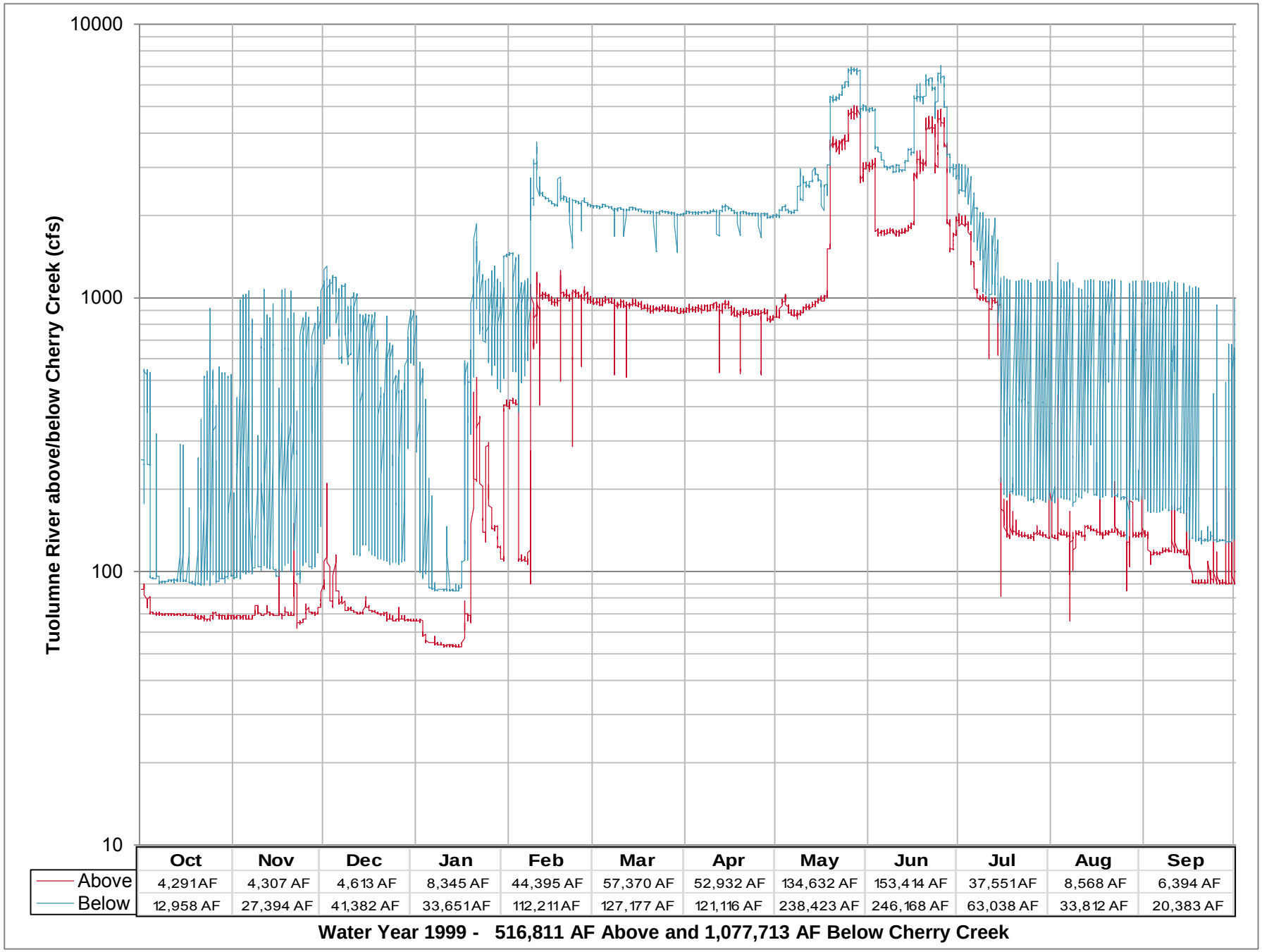
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Above	3,531AF	7,000 AF	70,918 AF	179,634 AF	51,643 AF	50,850 AF	47,671AF	200,915 AF	172,976 AF	24,540 AF	8,215 AF	5,476 AF
Below	27,571AF	41,091AF	135,653 AF	AF	AF	89,760 AF	137,004 AF	280,726 AF	193,048 AF	41,466 AF	8,430 AF	33,718 AF

Water Year 1997 - 823,371 AF Above and 988,465 AF Below Cherry Creek



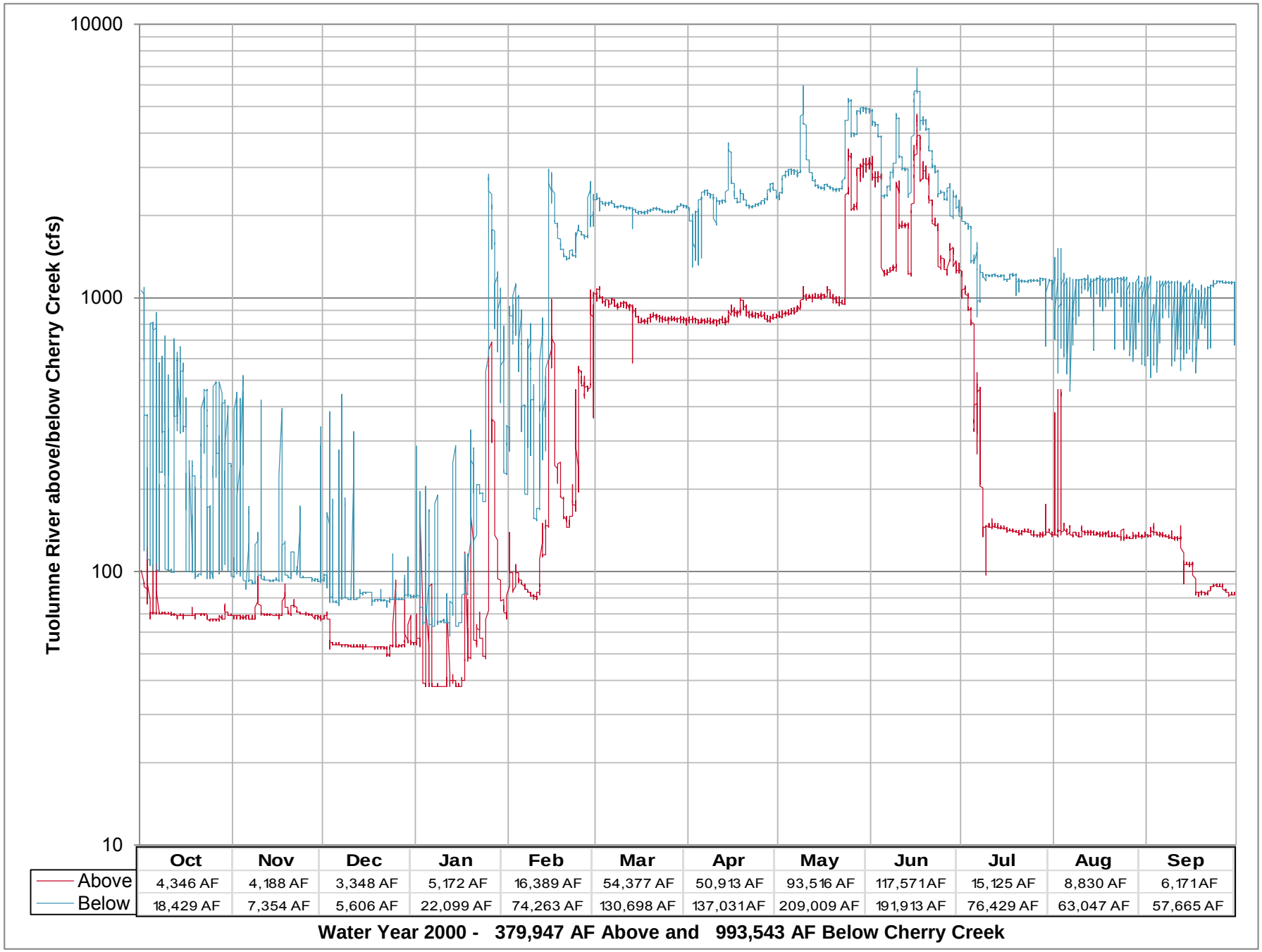
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	4,001AF	4,085 AF	3,961AF	34,560 AF	57,717 AF	53,619 AF	49,670 AF	55,435 AF	242,666 AF	218,828 AF	18,939 AF	5,736 AF
Below	32,936 AF	5,936 AF	6,625 AF	58,303 AF	128,050 AF	133,769 AF	133,505 AF	156,443 AF	389,723 AF	335,667 AF	51,260 AF	17,580 AF

Water Year 1998 - 749,215 AF Above and 1,449,797 AF Below Cherry Creek



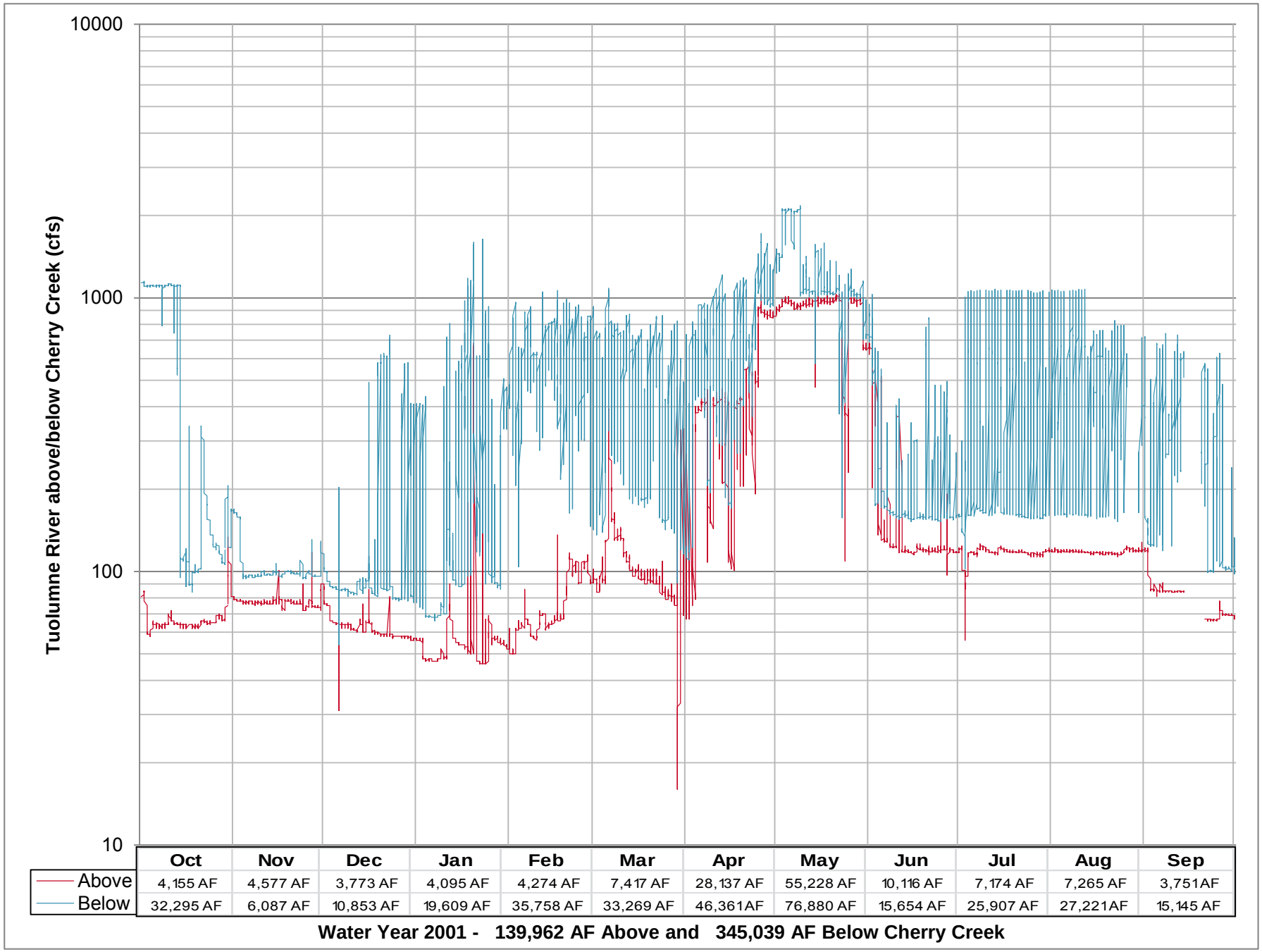
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	4,291AF	4,307 AF	4,613 AF	8,345 AF	44,395 AF	57,370 AF	52,932 AF	134,632 AF	153,414 AF	37,551AF	8,568 AF	6,394 AF
Below	12,958 AF	27,394 AF	41,382 AF	33,651AF	112,211AF	127,177 AF	121,116 AF	238,423 AF	246,168 AF	63,038 AF	33,812 AF	20,383 AF

Water Year 1999 - 516,811 AF Above and 1,077,713 AF Below Cherry Creek



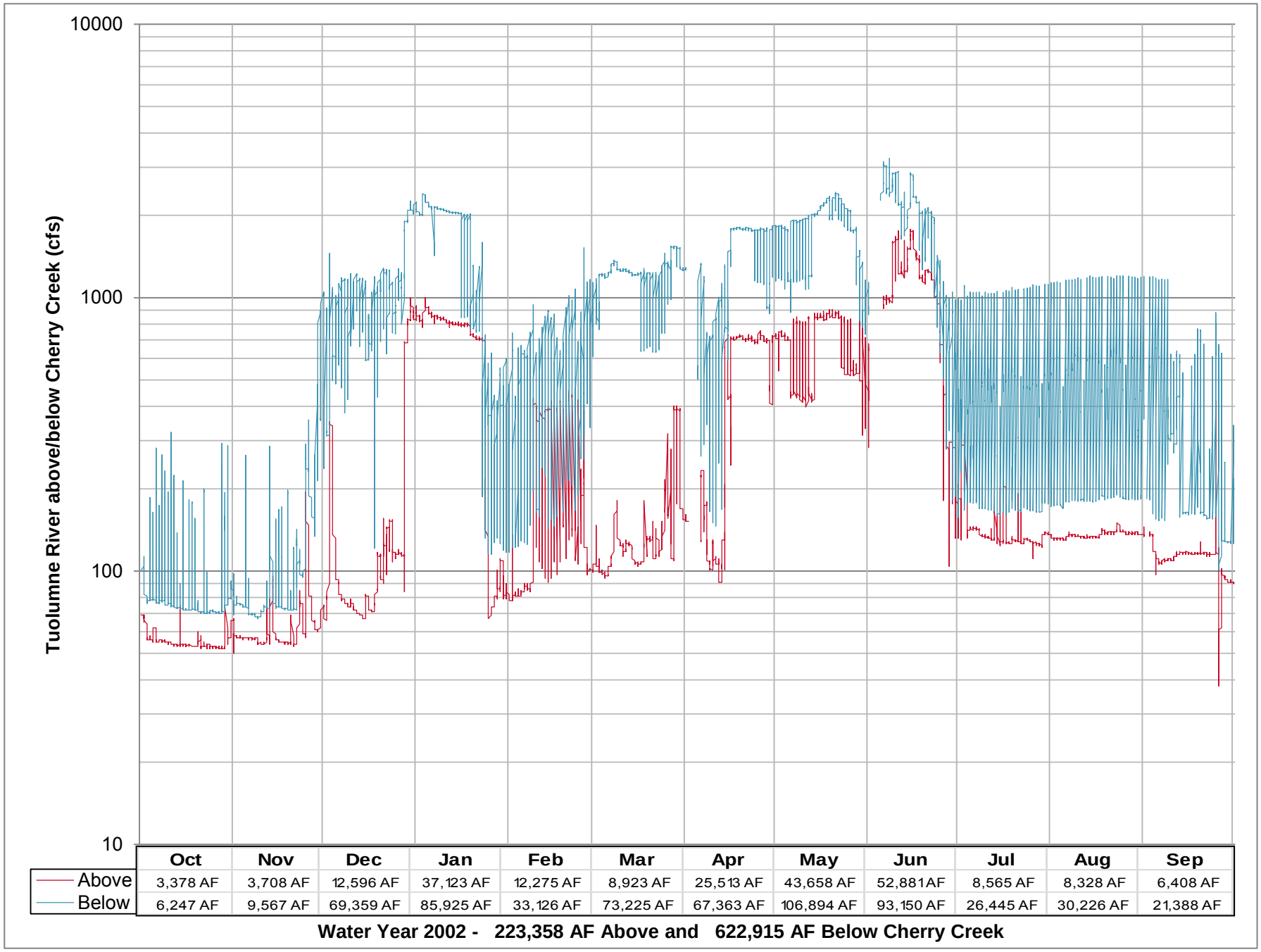
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Above	4,346 AF	4,188 AF	3,348 AF	5,172 AF	16,389 AF	54,377 AF	50,913 AF	93,516 AF	117,571AF	15,125 AF	8,830 AF	6,171AF
Below	18,429 AF	7,354 AF	5,606 AF	22,099 AF	74,263 AF	130,698 AF	137,031AF	209,009 AF	191,913 AF	76,429 AF	63,047 AF	57,665 AF

Water Year 2000 - 379,947 AF Above and 993,543 AF Below Cherry Creek



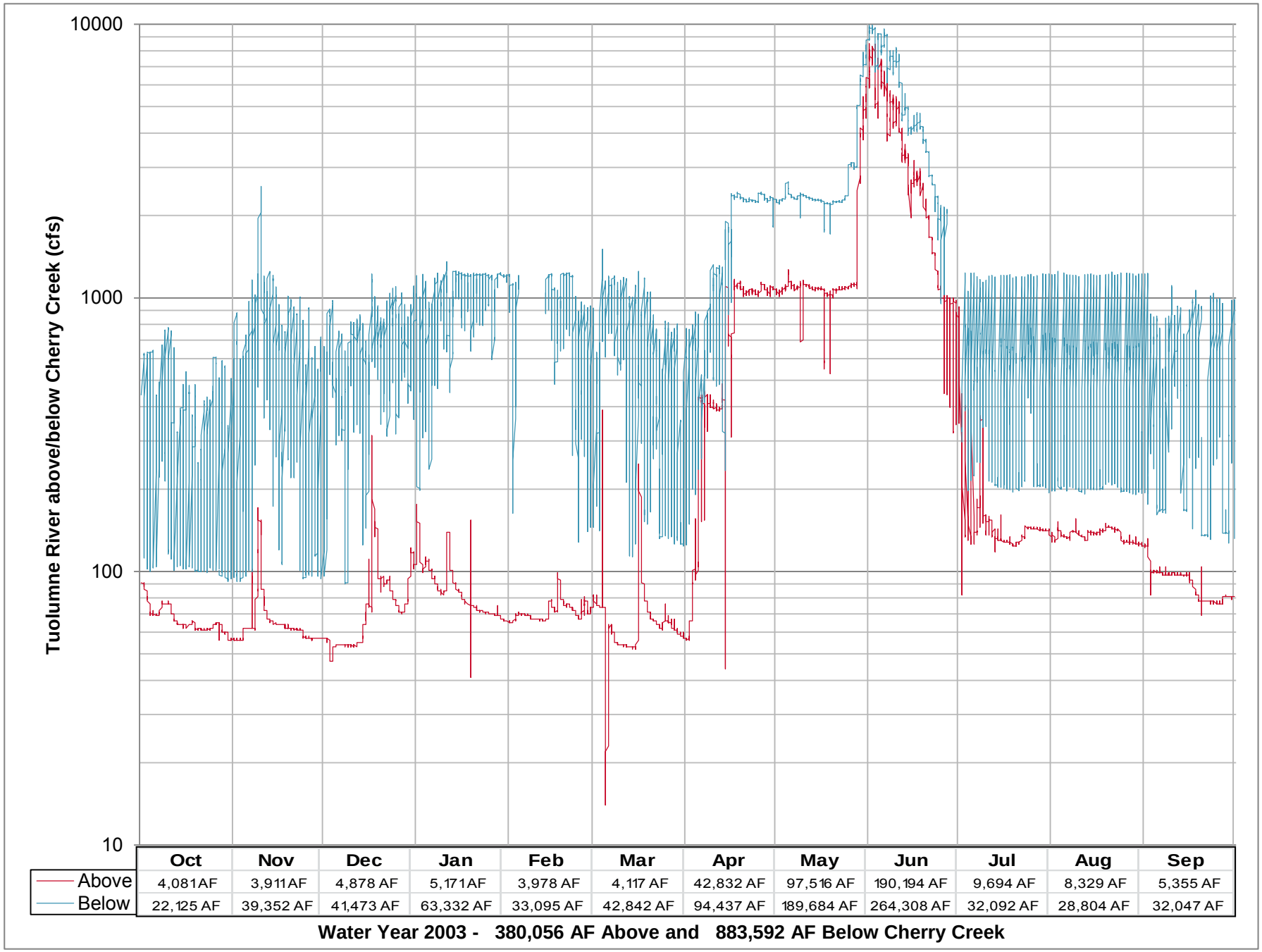
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	4,155 AF	4,577 AF	3,773 AF	4,095 AF	4,274 AF	7,417 AF	28,137 AF	55,228 AF	10,116 AF	7,174 AF	7,265 AF	3,751AF
Below	32,295 AF	6,087 AF	10,853 AF	19,609 AF	35,758 AF	33,269 AF	46,361AF	76,880 AF	15,654 AF	25,907 AF	27,221AF	15,145 AF

Water Year 2001 - 139,962 AF Above and 345,039 AF Below Cherry Creek



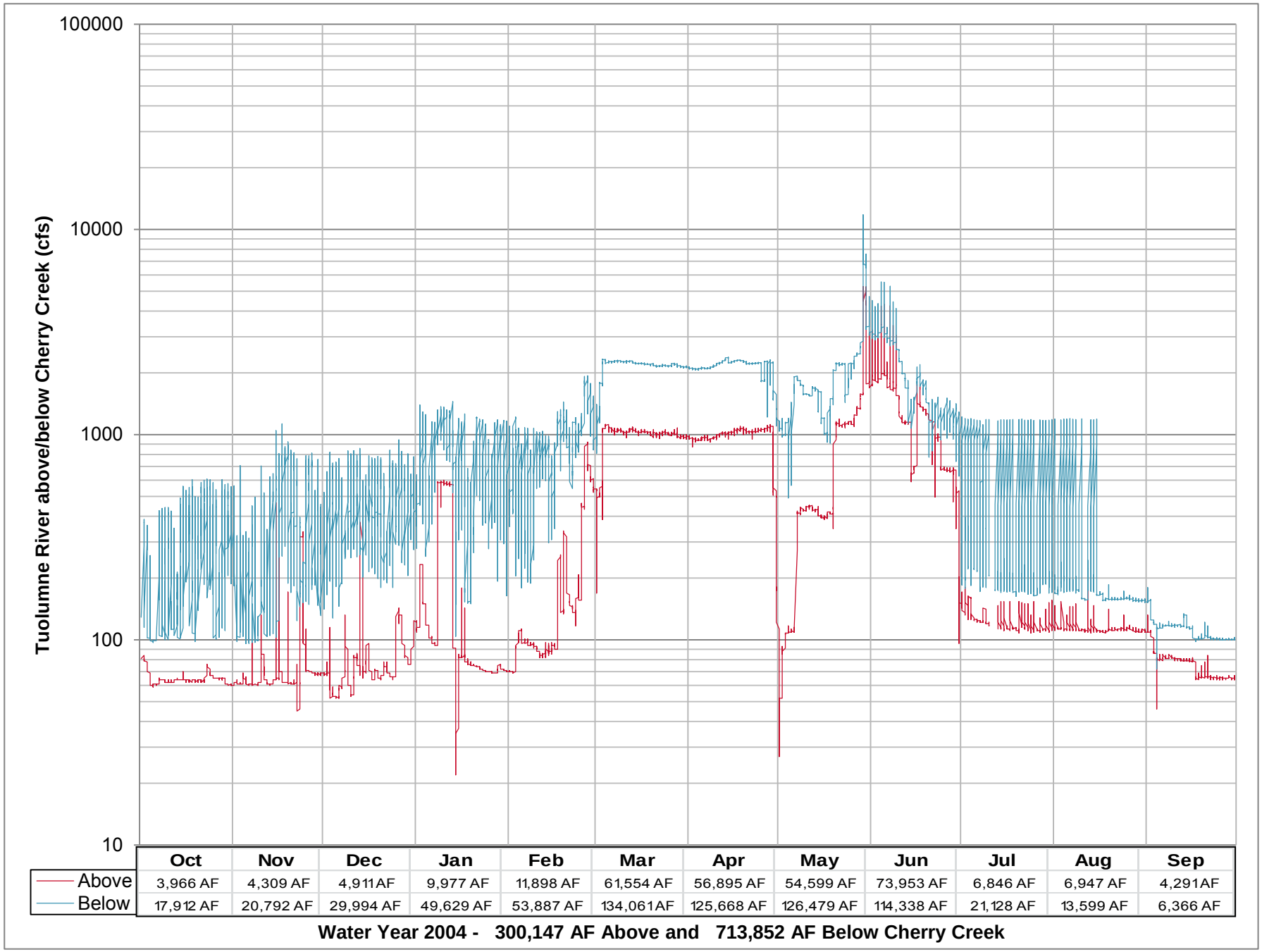
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	3,378 AF	3,708 AF	12,596 AF	37,123 AF	12,275 AF	8,923 AF	25,513 AF	43,658 AF	52,881AF	8,565 AF	8,328 AF	6,408 AF
Below	6,247 AF	9,567 AF	69,359 AF	85,925 AF	33,126 AF	73,225 AF	67,363 AF	106,894 AF	93,150 AF	26,445 AF	30,226 AF	21,388 AF

Water Year 2002 - 223,358 AF Above and 622,915 AF Below Cherry Creek



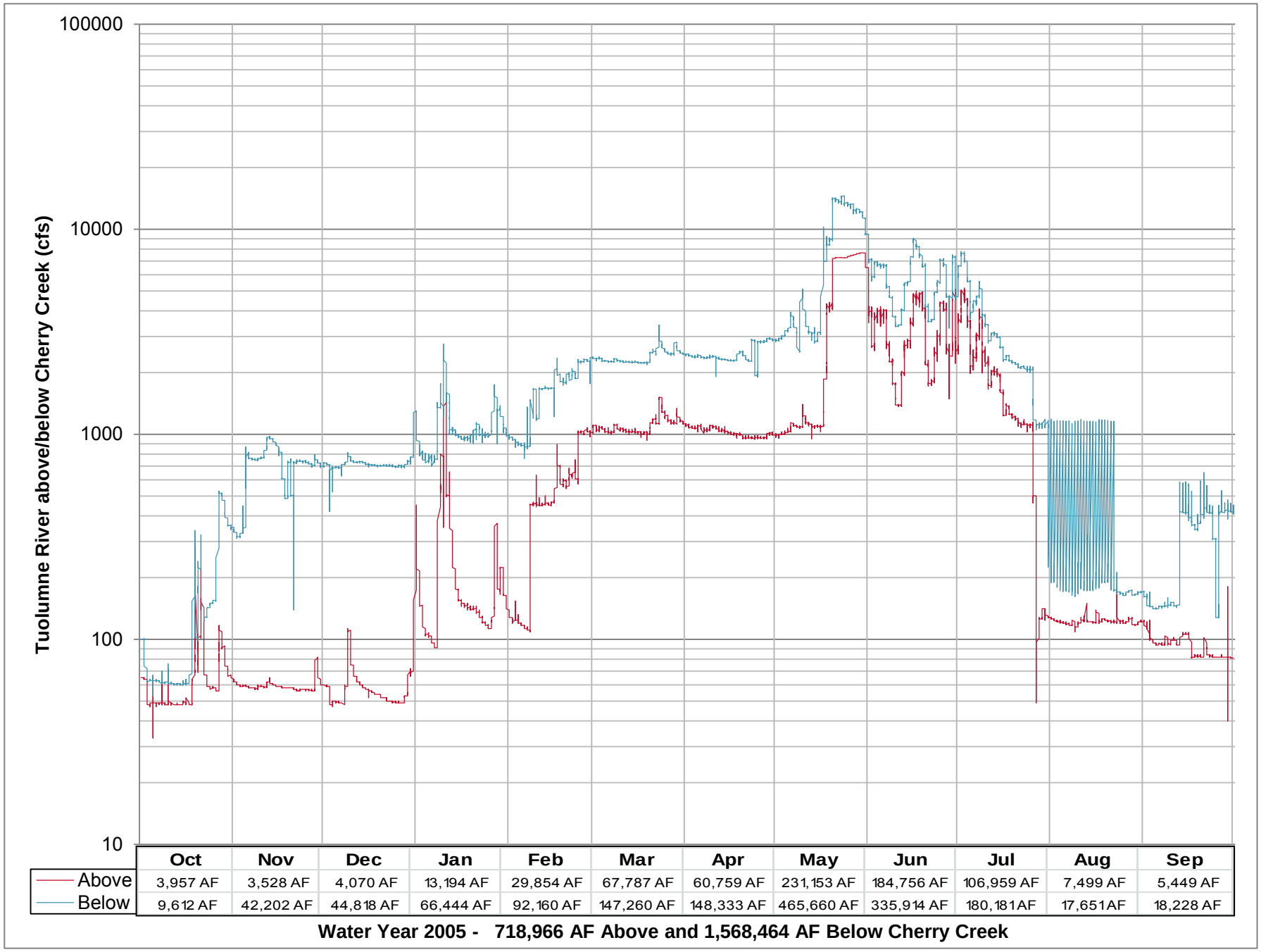
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	4,081 AF	3,911 AF	4,878 AF	5,171 AF	3,978 AF	4,117 AF	42,832 AF	97,516 AF	190,194 AF	9,694 AF	8,329 AF	5,355 AF
Below	22,125 AF	39,352 AF	41,473 AF	63,332 AF	33,095 AF	42,842 AF	94,437 AF	189,684 AF	264,308 AF	32,092 AF	28,804 AF	32,047 AF

Water Year 2003 - 380,056 AF Above and 883,592 AF Below Cherry Creek



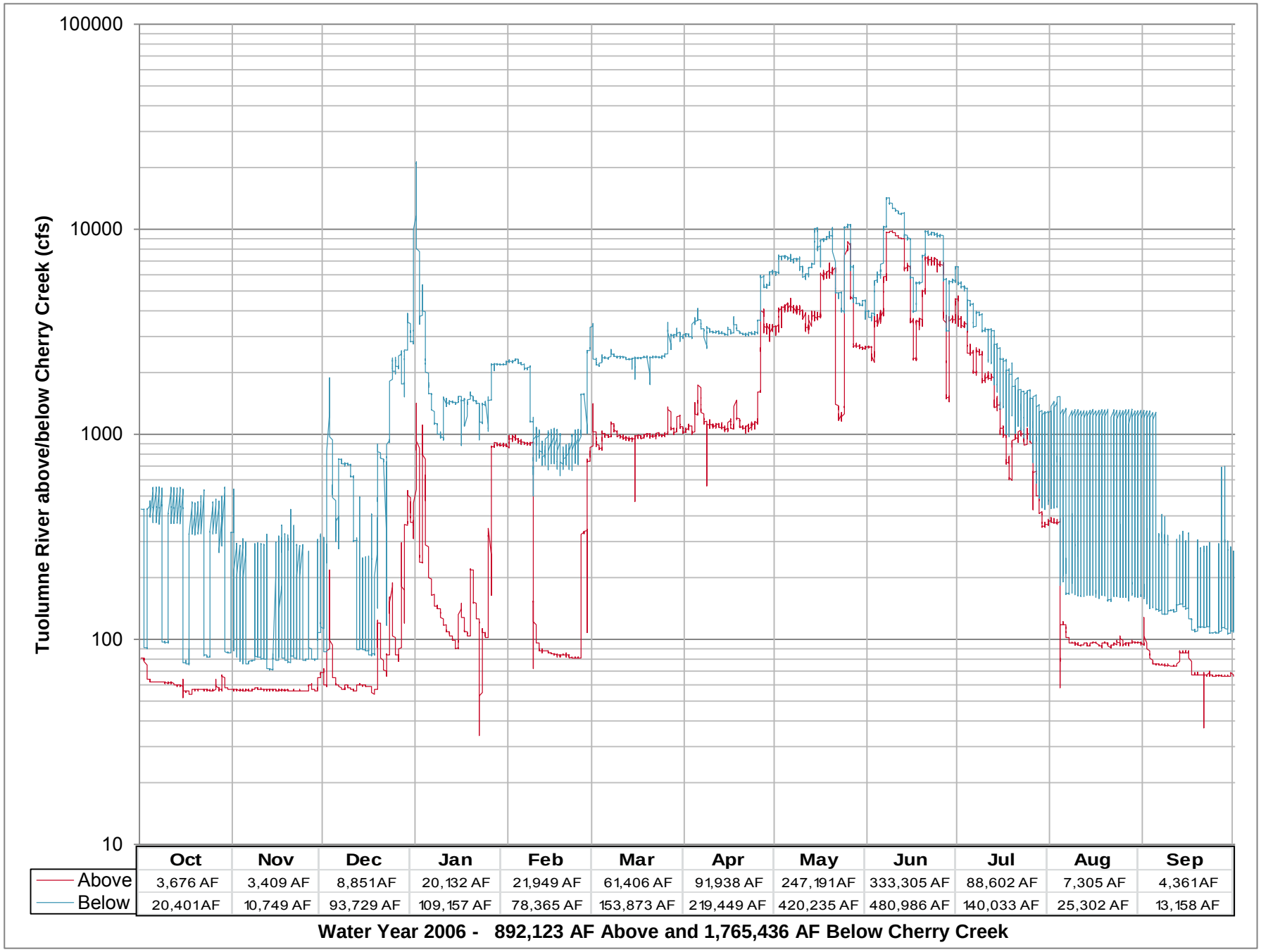
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	3,966 AF	4,309 AF	4,911AF	9,977 AF	11,898 AF	61,554 AF	56,895 AF	54,599 AF	73,953 AF	6,846 AF	6,947 AF	4,291AF
Below	17,912 AF	20,792 AF	29,994 AF	49,629 AF	53,887 AF	134,061AF	125,668 AF	126,479 AF	114,338 AF	21,128 AF	13,599 AF	6,366 AF

Water Year 2004 - 300,147 AF Above and 713,852 AF Below Cherry Creek



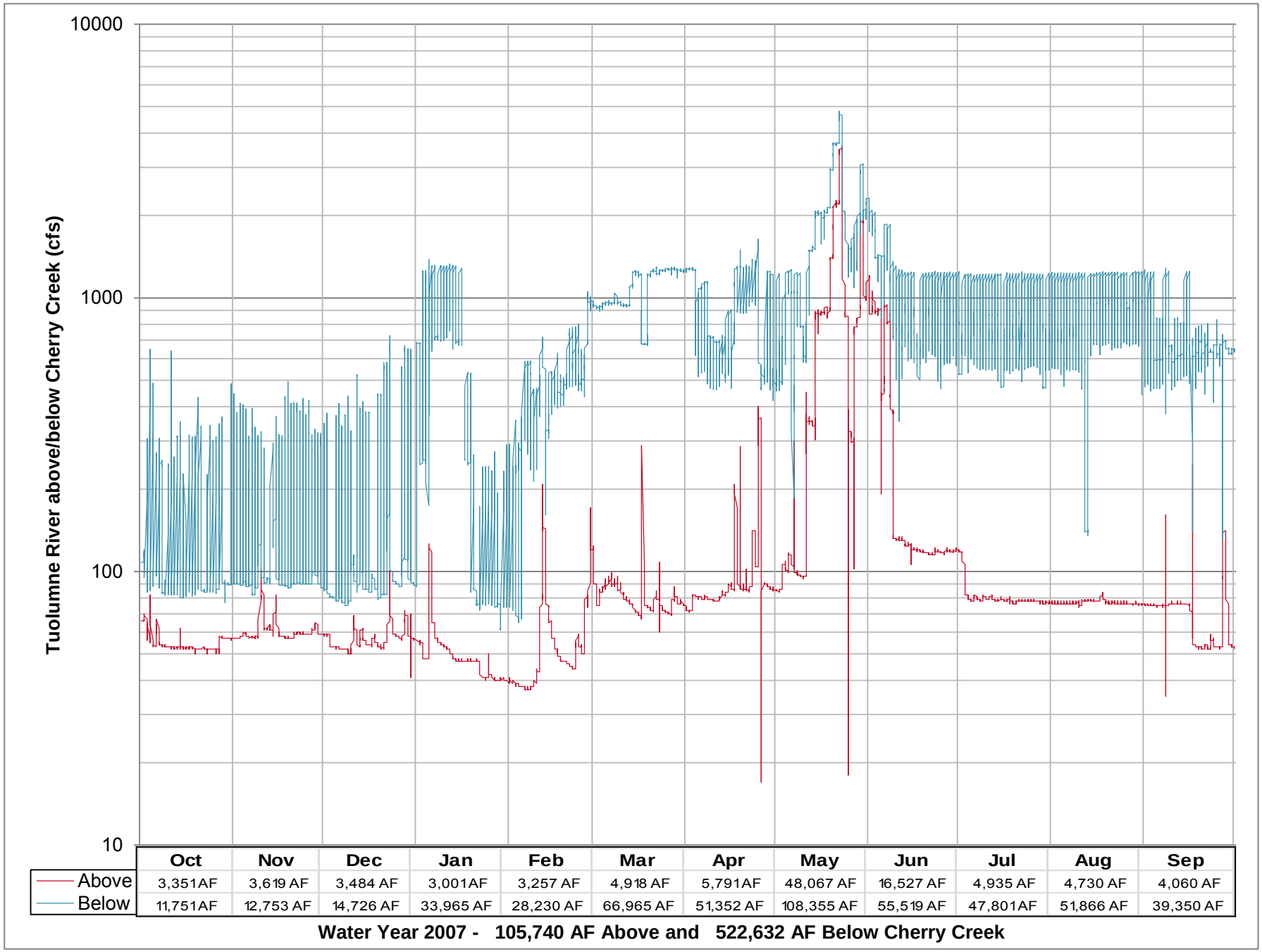
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	3,957 AF	3,528 AF	4,070 AF	13,194 AF	29,854 AF	67,787 AF	60,759 AF	231,153 AF	184,756 AF	106,959 AF	7,499 AF	5,449 AF
Below	9,612 AF	42,202 AF	44,818 AF	66,444 AF	92,160 AF	147,260 AF	148,333 AF	465,660 AF	335,914 AF	180,181AF	17,651AF	18,228 AF

Water Year 2005 - 718,966 AF Above and 1,568,464 AF Below Cherry Creek



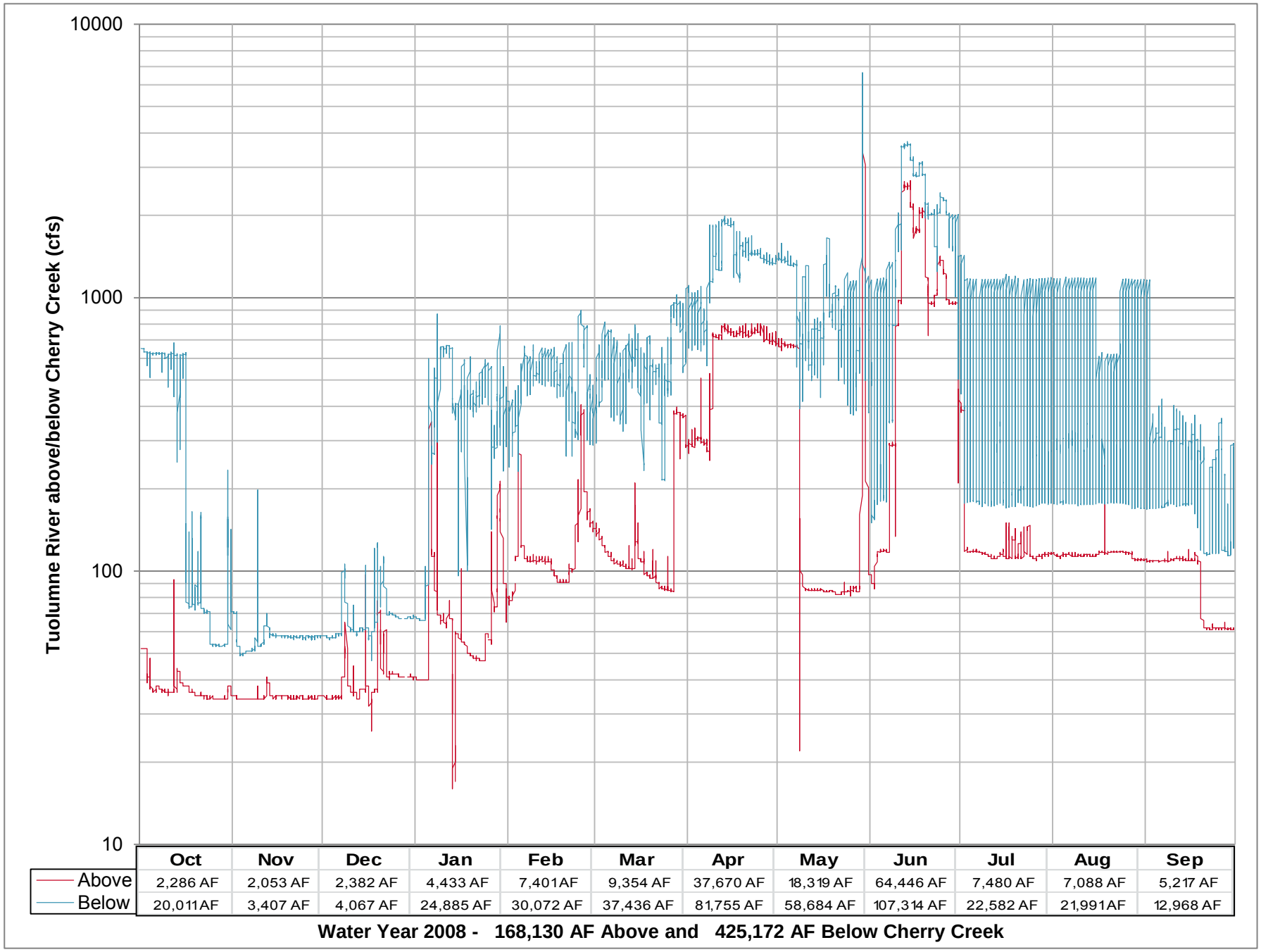
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Above	3,676 AF	3,409 AF	8,851AF	20,132 AF	21,949 AF	61,406 AF	91,938 AF	247,191AF	333,305 AF	88,602 AF	7,305 AF	4,361AF
Below	20,401AF	10,749 AF	93,729 AF	109,157 AF	78,365 AF	153,873 AF	219,449 AF	420,235 AF	480,986 AF	140,033 AF	25,302 AF	13,158 AF

Water Year 2006 - 892,123 AF Above and 1,765,436 AF Below Cherry Creek



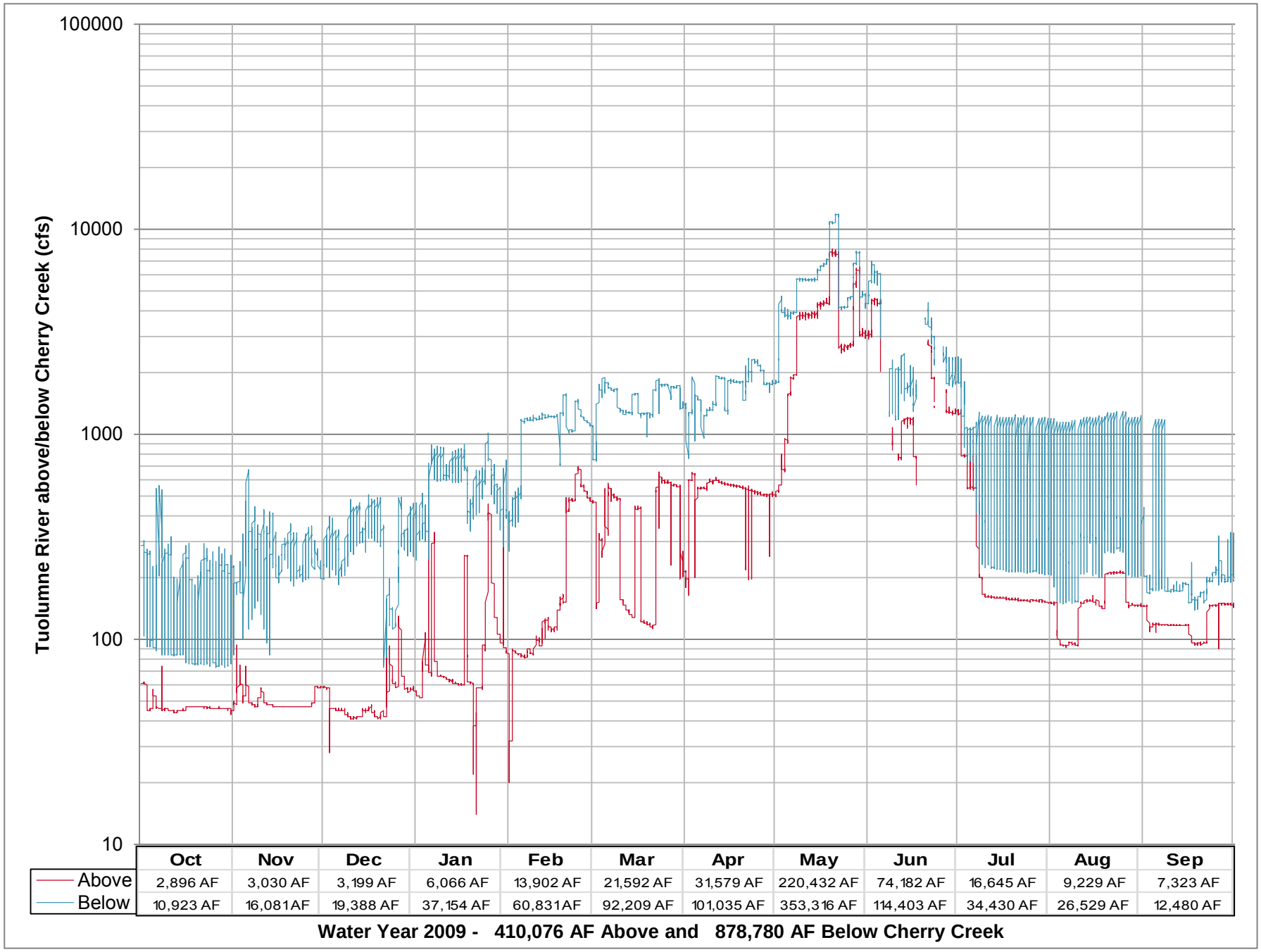
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	3,351AF	3,619 AF	3,484 AF	3,001AF	3,257 AF	4,918 AF	5,791AF	48,067 AF	16,527 AF	4,935 AF	4,730 AF	4,060 AF
Below	11,751AF	12,753 AF	14,726 AF	33,965 AF	28,230 AF	66,965 AF	51,352 AF	108,355 AF	55,519 AF	47,801AF	51,866 AF	39,350 AF

Water Year 2007 - 105,740 AF Above and 522,632 AF Below Cherry Creek



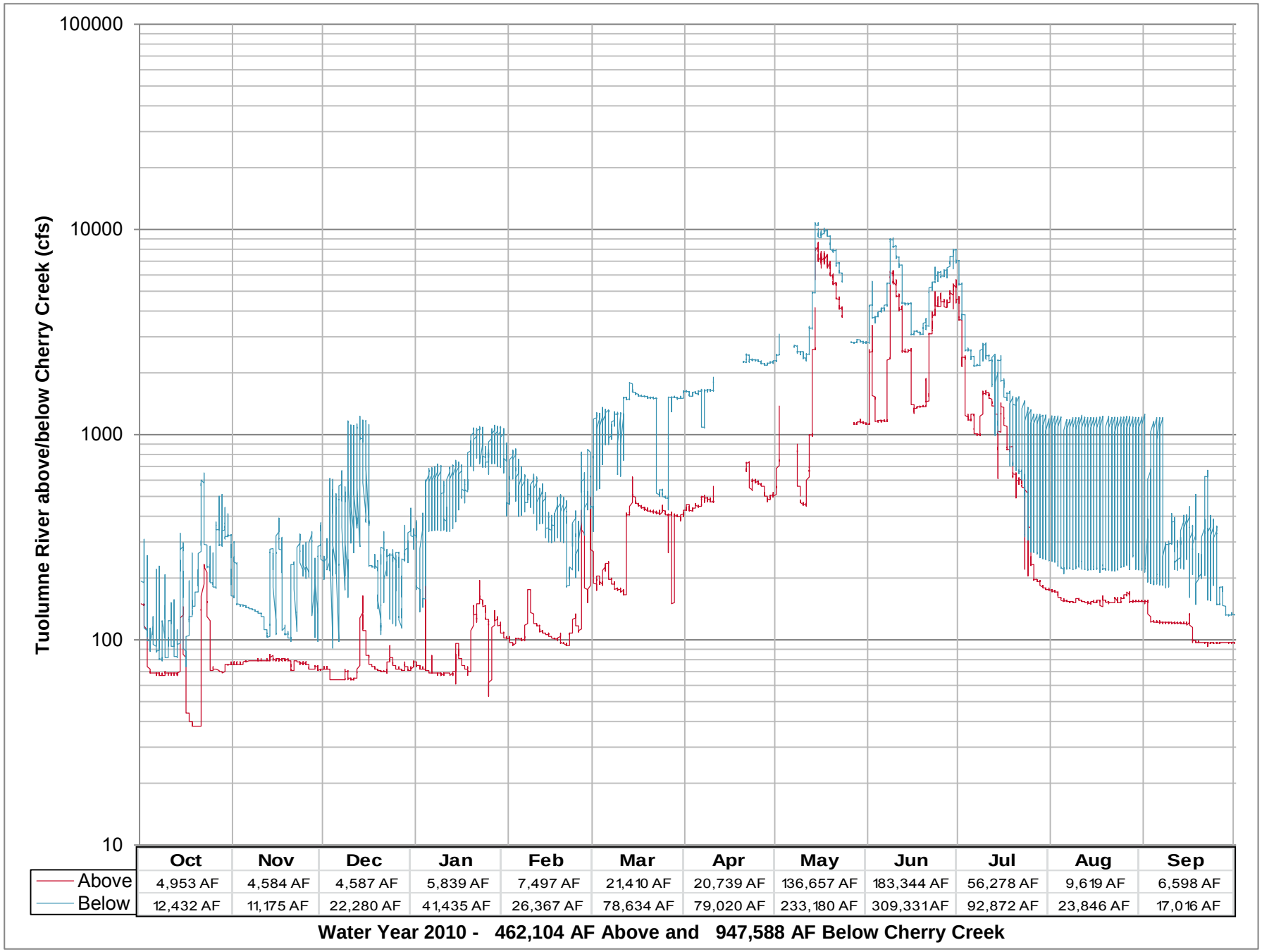
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	2,286 AF	2,053 AF	2,382 AF	4,433 AF	7,401AF	9,354 AF	37,670 AF	18,319 AF	64,446 AF	7,480 AF	7,088 AF	5,217 AF
Below	20,011AF	3,407 AF	4,067 AF	24,885 AF	30,072 AF	37,436 AF	81,755 AF	58,684 AF	107,314 AF	22,582 AF	21,991AF	12,968 AF

Water Year 2008 - 168,130 AF Above and 425,172 AF Below Cherry Creek



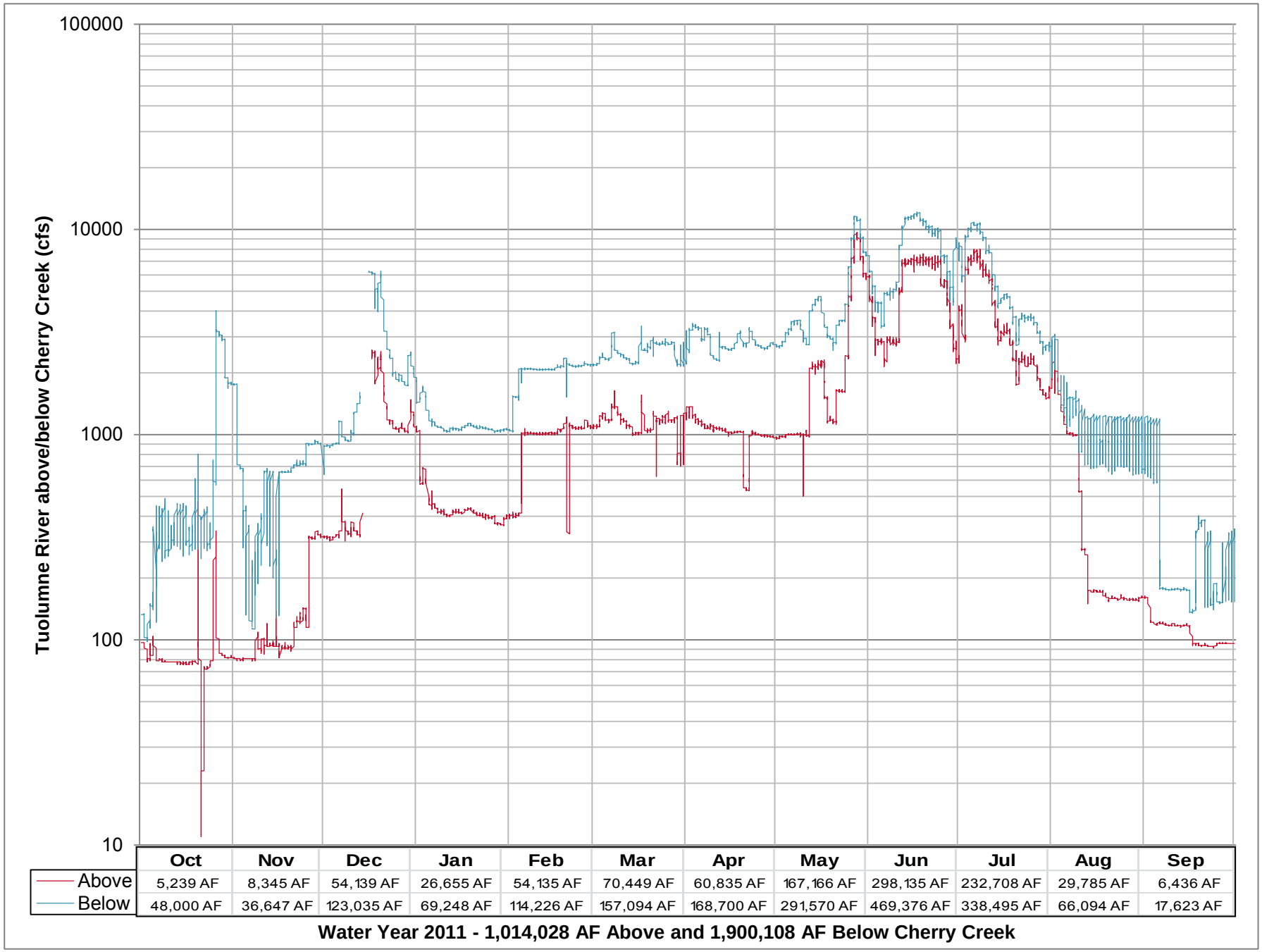
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	2,896 AF	3,030 AF	3,199 AF	6,066 AF	13,902 AF	21,592 AF	31,579 AF	220,432 AF	74,182 AF	16,645 AF	9,229 AF	7,323 AF
Below	10,923 AF	16,081AF	19,388 AF	37,154 AF	60,831AF	92,209 AF	101,035 AF	353,316 AF	114,403 AF	34,430 AF	26,529 AF	12,480 AF

Water Year 2009 - 410,076 AF Above and 878,780 AF Below Cherry Creek



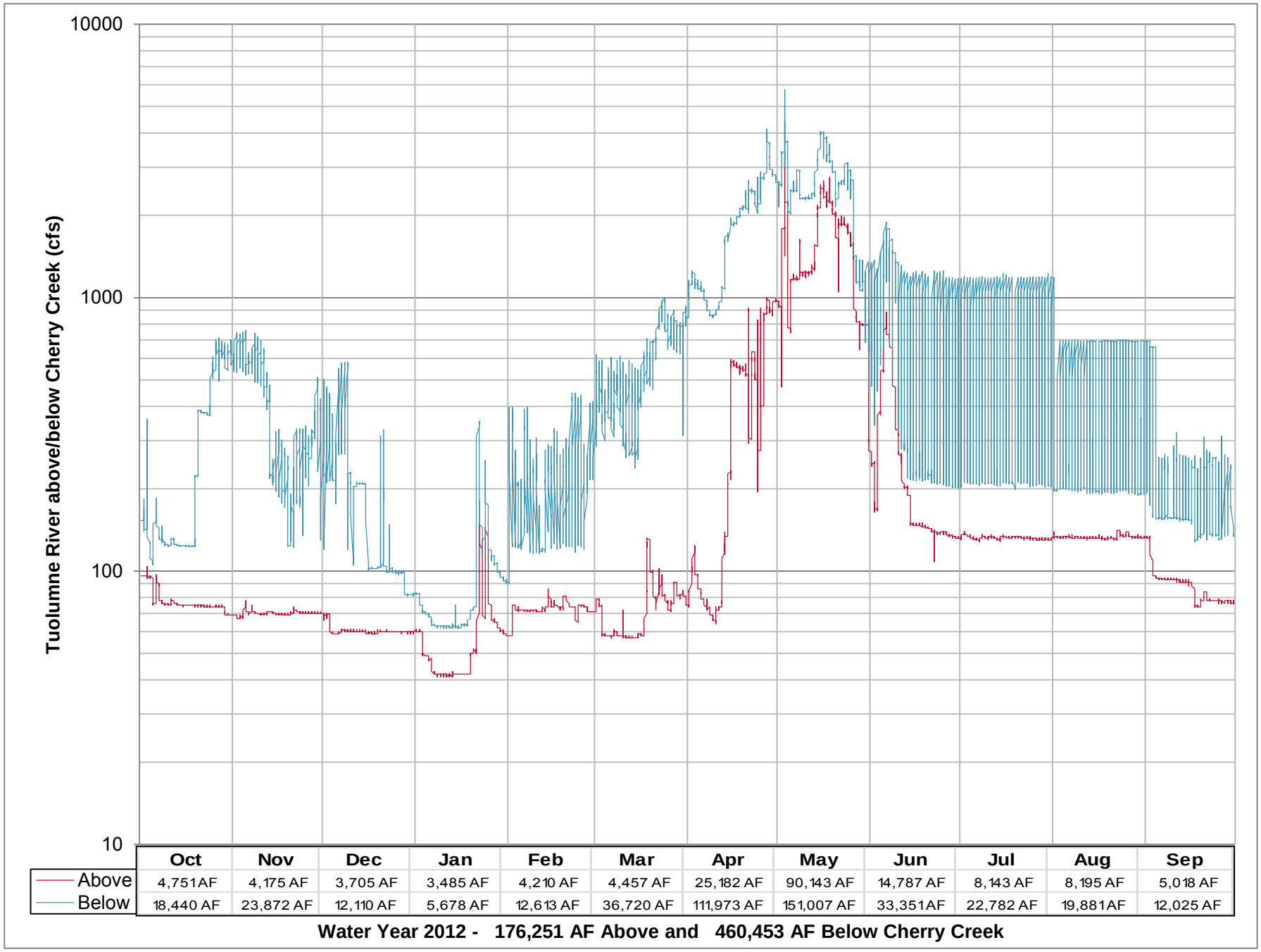
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	4,953 AF	4,584 AF	4,587 AF	5,839 AF	7,497 AF	21,410 AF	20,739 AF	136,657 AF	183,344 AF	56,278 AF	9,619 AF	6,598 AF
Below	12,432 AF	11,175 AF	22,280 AF	41,435 AF	26,367 AF	78,634 AF	79,020 AF	233,180 AF	309,331AF	92,872 AF	23,846 AF	17,016 AF

Water Year 2010 - 462,104 AF Above and 947,588 AF Below Cherry Creek



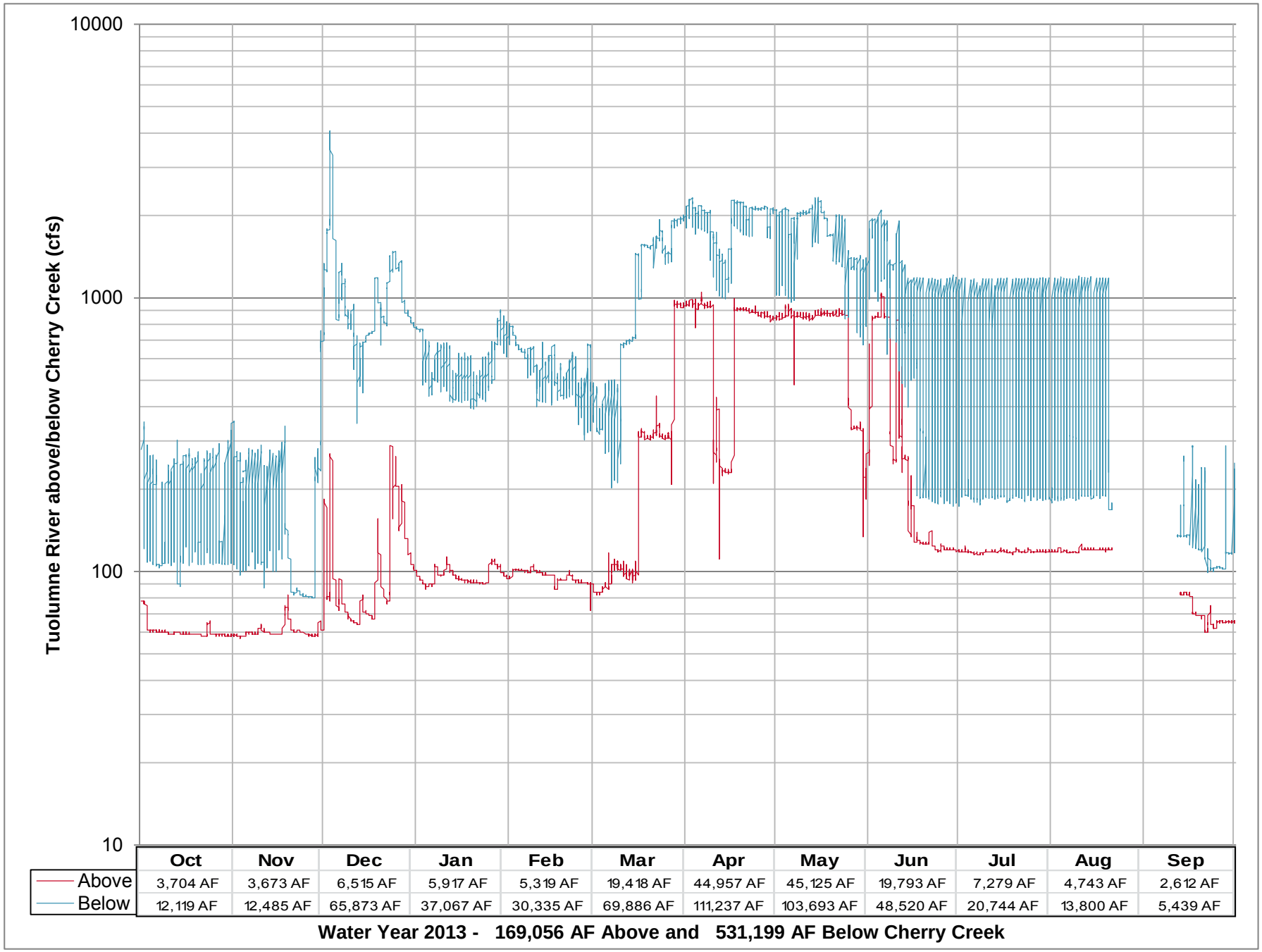
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	5,239 AF	8,345 AF	54,139 AF	26,655 AF	54,135 AF	70,449 AF	60,835 AF	167,166 AF	298,135 AF	232,708 AF	29,785 AF	6,436 AF
Below	48,000 AF	36,647 AF	123,035 AF	69,248 AF	114,226 AF	157,094 AF	168,700 AF	291,570 AF	469,376 AF	338,495 AF	66,094 AF	17,623 AF

Water Year 2011 - 1,014,028 AF Above and 1,900,108 AF Below Cherry Creek



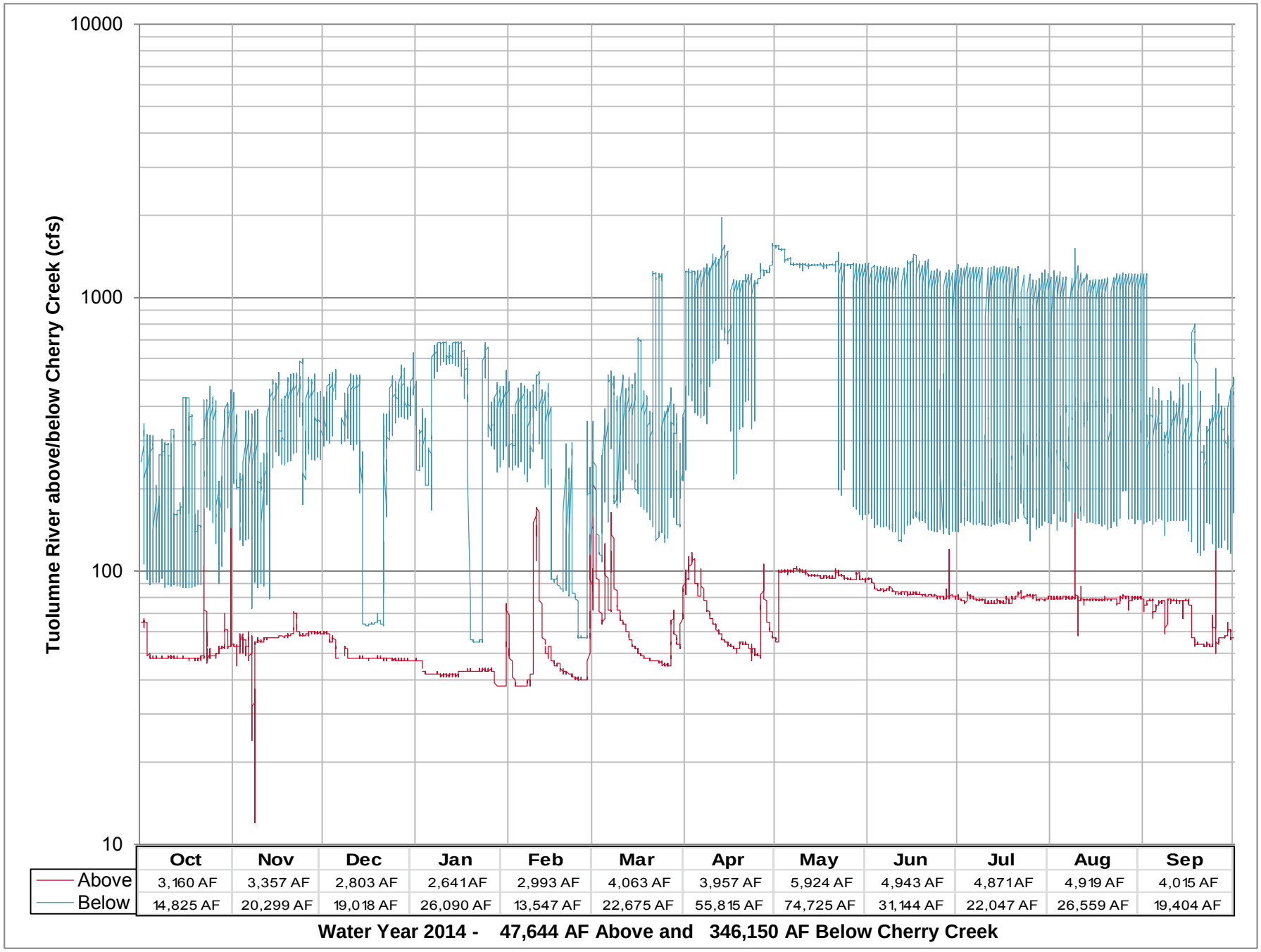
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	4,751AF	4,175 AF	3,705 AF	3,485 AF	4,210 AF	4,457 AF	25,182 AF	90,143 AF	14,787 AF	8,143 AF	8,195 AF	5,018 AF
Below	18,440 AF	23,872 AF	12,110 AF	5,678 AF	12,613 AF	36,720 AF	111,973 AF	151,007 AF	33,351AF	22,782 AF	19,881AF	12,025 AF

Water Year 2012 - 176,251 AF Above and 460,453 AF Below Cherry Creek



	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	3,704 AF	3,673 AF	6,515 AF	5,917 AF	5,319 AF	19,418 AF	44,957 AF	45,125 AF	19,793 AF	7,279 AF	4,743 AF	2,612 AF
Below	12,119 AF	12,485 AF	65,873 AF	37,067 AF	30,335 AF	69,886 AF	111,237 AF	103,693 AF	48,520 AF	20,744 AF	13,800 AF	5,439 AF

Water Year 2013 - 169,056 AF Above and 531,199 AF Below Cherry Creek



	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Above	3,160 AF	3,357 AF	2,803 AF	2,641AF	2,993 AF	4,063 AF	3,957 AF	5,924 AF	4,943 AF	4,871AF	4,919 AF	4,015 AF
Below	14,825 AF	20,299 AF	19,018 AF	26,090 AF	13,547 AF	22,675 AF	55,815 AF	74,725 AF	31,144 AF	22,047 AF	26,559 AF	19,404 AF

Water Year 2014 - 47,644 AF Above and 346,150 AF Below Cherry Creek

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Exhibit 41

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Photos of Erosion at Wards Ferry
Taken January 24-25, 2018



Photograph 1: Looking upstream from Wards Ferry Bridge with steep slopes into the river/reservoir (~30 to 40 degree slopes). Note lack of significant erosion on the west side (lower left of photograph) and along the east side of the river/reservoir between the maximum pond level (dashed red line; ~Elevation 830 ft MSL) and current level of the reservoir (~Elevation 799.5 ft MSL).

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Photograph 2: Looking upstream from Wards Ferry Bridge at the west bank of the river/reservoir showing the lack of significant erosion both above full reservoir pond level and between full reservoir pond and the drawdown level during the site visit.



Photograph 3: Looking upstream (telephoto view) from Wards Ferry Bridge at the west bank of the river/reservoir showing the lack of significant erosion both above full reservoir pond and between full reservoir pond level and drawdown level during the site visit.



Photograph 4: Looking upstream from Wards Ferry Bridge at the east bank of the river/reservoir showing the lack of significant erosion both above full reservoir pond level and between full reservoir pond and the drawdown level during the site visit.



Photograph 5: Looking downstream from Wards Ferry Bridge at both banks of the river/reservoir showing the lack of significant erosion both above full reservoir pond level and between full reservoir pond and the drawdown level during the site visit.



Photograph 6: West bank upstream of Wards Ferry Bridge showing old bridge abutment and lack of significant erosion between full reservoir pond level and drawdown level during the site visit. Minor erosion occurs along the existing access into the area and along the man-made ramp into the reservoir related to rain event runoff.



Photograph 7: East bank upstream of Wards Ferry Bridge showing the old bridge abutment and lack of significant erosion between full reservoir pond level and drawdown level during the site visit.

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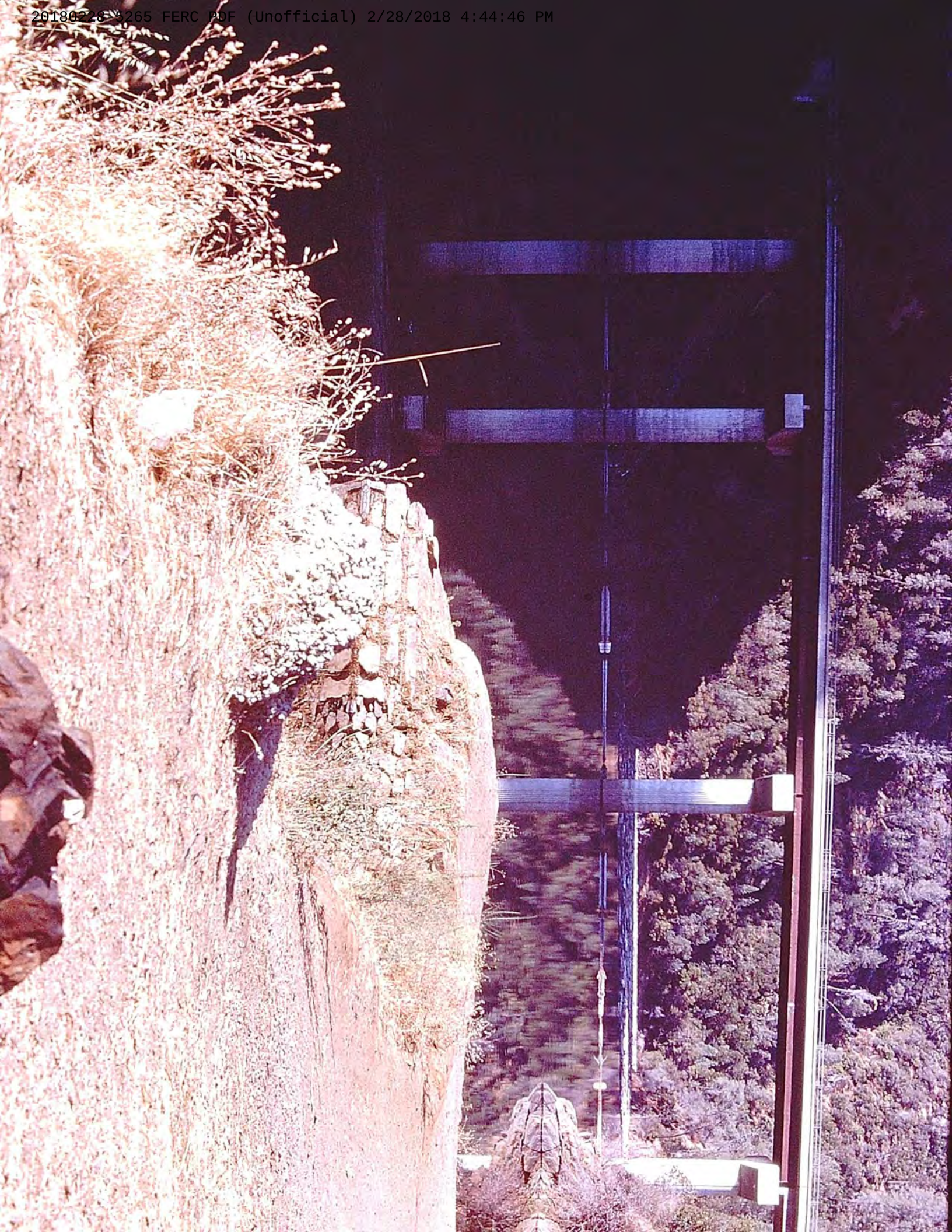
Exhibit 42



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Exhibit 43

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Exhibit 44

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Exhibit 45

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Exhibit 46

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Exhibit 47

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Exhibit 48

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Exhibit 49

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Chapter 17

The Dirt Begins to Fly

The first time John Goodier saw the Tuolumne River canyon in which his company was to build New Don Pedro Dam, he figured it would be "a tough nut to crack."

"In construction and particularly at Guy F. Atkinson we like the tough ones. That's where we make our living and the tougher they are, the better we like it," Goodier said, noting his firm had built some of the world's largest dams.

Goodier, who was Atkinson's project superintendent on the job in 1967, explained the main problems were the river, which he described as "violent," the terrain, and the heat, which was so severe that cement workers had to mix concrete with ice instead of water to keep it cool enough to work.

The dam was to be located in a V-shaped gorge with side slopes of up to 40 per cent. Access to the bottom of the gorge would be "very, very difficult." During early core exploration and surveys in 1961 the only access to much of the canyon was achieved by filling a hundred-year old canal perched on the side of the hill. Barely a Jeep's width, the outer wall built by Chinese laborers proved just as solid and secure as it had been a century earlier.

Later, after Goodier had become vice president and chief engineer of Guy F. Atkinson Company, he summarized his view of the project:

> It was an interesting job for a contractor. We started building access roads to the dam site. We did everything. It had many construction features to it: two tunnels, a shaft, a powerhouse, a switchyard, a dam and a spillway – all in one job. When we left the job, it was 100 percent complete. You like to watch a project like this develop. The terrain was rugged, but it was a nice area to live in and it was a very good assignment.

Guy F. Atkinson had been awarded a $49,693,960 prime construction contract - $3.7 million under Bechtel's engineering estimate – on August 22, 1967. This figure set the total project cost at less than the $105 million estimate made May 23, 1966, when the Modesto and Turlock Irrigation Districts and the City of San Francisco formally entered into the "fourth agreement" to proceed on New Don Pedro.

The day after bids were opened, June 22, 1967, Atkinson started mobilizing equipment in anticipation of receiving the contract.

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Formal notice to proceed had to await the California Districts Securities Commission's approval of the sale of the bonds which would fund the project. This came June 30th. Also needed was the issuance of a California Division of Dam Safety license, granted on July 6th. The Bank of America purchased the Modesto and Turlock Irrigation Districts' bonds totaling $46.5 million on August 1st at 4.12 percent interest. San Francisco's $45 million in bonds were purchased the same day by a group of Eastern banks for 3.8 per cent interest.

More than a month before the formal award of contract and issuance of the notice to proceed, the contractor and issuance of the notice to proceed, the contractor began construction of the access road to the upstream portal of the Tuolumne River diversion tunnel. Atkinson shared the districts' desire to expedite work after years of waiting for the Federal Power Commission license to be issued.

The irrigation districts did not discourage this enthusiasm. On their own part, eight months before the project was to proceed, they awarded contracts for the manufacture of powerhouse turbines, generators and other equipment. Turbines and generators are not "on the shelf" inventory items and must be built to individual specifications.

Contracts were awarded to three Japanese firms – Mitsubishi, $1,304,878, for the turbines; Mitsui, $1,163,530, for the generators, and Hitachi, $213,820, for the crane – on the basis that the manufacturers would proceed only with working drawings. They were not to build the equipment until notified that the project would proceed. A $310,352 transformer contract was signed with Savigliano of Italy on the same basis. Had the project not gone ahead, the districts were liable for the $90,000 cost of working-drawings. The four bids were $1.4 million below engineers' estimates.

In this way, the districts got a full year's jump on completion of the project.

By the time the formal notice to proceed was issued on August 22nd, Atkinson had gathered much of its equipment, ordered massive earth movers, established a field office, built a trailer camp for construction workers and their families, started clearing the dam site, begun work on the spillway high on the north bank of the Tuolumne and was building access roads.

From June 1967 until June 21, 1971, when the last of Atkinson's forces left the field, the canyon was a beehive of noise and activity, except for one brief moment September 16, 1968. Work was halted at that time in tribute to company founder Guy F. Atkinson, 93, who died four days earlier. Since staring his

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construction business in 1901, Atkinson had built a variety of projects, including Mangla Dam in West Pakistan, the world's largest hydroelectric project, more than 10 times the size of New Don Pedro; Grand Coulee Dam on the Columbia River, the largest concrete dam in the world; Trinity Dam, a Bureau of Reclamation project in Northern California, and Hetch Hetchy's Cherry Valley Dam.

In a separate contract, the districts awarded Trico Contractors of Merced the task of clearing the reservoir site, which ultimately meant cleaning 6,300 acres of land at a cost of more than $888,000. Trico went to work October 3rd.

MID Board President Thomas Beard, TID Board President E. L. Tomlinson and San Francisco Public Utilities Chairman Thomas White shared the honors as they set off a dynamite blast to mark the ceremonial start of the project.

Memorialized at the ceremony were three men active in moving the project ahead but who had not lived to see its start: James Smith, MID board president at the time of his death in 1966; Abner Crowell, who served for many years as TID board president prior to his death a short time earlier, and Robert Kirkwood, manager of San Francisco utilities form 1959 to 1964.

Irrigation Engineer Charles Crawford, who had been with the Modesto Irrigation District for 39 years, was named project coordinator, representing the three partners on the river. Charles S. Rippon, a veteran U. S. Bureau of Reclamation engineer, was named assistant.

Before work could be started on the dam proper, a diversion tunnel had to be built and the 1,267-acre dam site cleared.

Excavation of the 3,415-foot long, 30-foot diameter tunnel was started at the upstream end on September 27, 1967. The bore was 32.5 in diameter, providing room for 2.5 feet of concrete lining. Work was stepped up to three shifts daily, six days a week, upon completion of a bridge across a river on October 12th. Drilling from the downstream end began on January 11, 1968.

With crews working from both ends and driving an average of 29.7 lineal feet a day, the tunnel was "holed through" in perfect alignment of March 13th and was ready for lining on April 15th. In less than seven months the drilling teams had blasted and hauled out of the tunnel 106,934 cubic yards of rock and earth.

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As a safety precaution, Bechtel's designers insisted upon overhead steel mesh to protect miners from loose rock, walnut sized or smaller. The safety net was resisted at first by the independent-minded miners, who were used to prying off loose rock themselves. After the first 500 feet of boring, they accepted the safety measure as expediting work. While earplugs for miners also were required, many refused to wear them. Deafness was the trademark of old-time tunnel workers.

A revolutionary 40-foot long retractable form made in the shape of the full diameter of the tunnel and operated on a 92-foot long steel-beam traveler applied the concrete lining. The rig even had special vibrators for tamping and compacting the mixed cement. With pour rates of 70 yards per hour, 20.8 feet of lining was completed each day.

The long concrete and steel-lined tunnel was completed in August and on September 5th TID Chief Engineer Roy V. Meikle set off a blast of 1,200 pounds of explosives to blow away a rock plug. The huge tunnel was ready for the river.

The following day, releases from "old" Don Pedro were halted and a 40-foot high, 160-foot long coffer dam was thrown across the river. Diversions of the water was started September 7th.

While the diversion tunnel was being bored, the work of exposing the foundation rock for the dam proceeded so that construction could commence as soon as the river was diverted. Rock that could not be moved by the immense power of a D-9 Caterpillar dozer was considered stable.

Nine days after the river was diverted, the first load of dredge tailings which were to form the outer shell of the upstream side of New Don Pedro was placed. Fire hoses were used to sluice the material down around the dam's bedrock foundation.

Thus, New Don Pedro began its steady rise toward its ultimate height of 585 feet.

Near disaster struck on January 26, 1969, when floodwaters surged over the "old" Don Pedro spillway, unleashing more than 41,000 cubic feet of water per second, more than three times the capacity of the diversion tunnel. The top 15 feet of the 40-foot coffer dam and the project's bridges were washed out. The streambed was covered with 35 feet of water, which left in its wake 15 feet of silt in the previously cleaned core area.

"We lost the bridges about midnight," Goodier recalled. "It was pouring down rain and it was dark. Up river, it really was roaring. There's nothing more dynamic than an angry river."

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A full month behind schedule because of the flood, the contractor was running against a deadline which if unmet would mean the loss of a construction season. That in turn would mean a year's delay in completion. There was nothing to do but to clean up and rebuild. The deadline was made with a week to spare. Work was back on schedule by mid-summer.

Atkinson met every deadline on raising the dam. The company cut one deadline close, a single day. Goodier explained, "We did work the previous Saturday and could have worked a couple of Sundays but we didn't like to work weekends. Not only because of the added overtime, but in that hot canyon working seven days affected the men's work efficiency throughout the subsequent week."

With the river diverted, virtually no excavation was needed under the center of the dam. The river's hard bedrock was "broomed and washed" absolutely clean. Cracks and holes were filled with "dental concrete," so-called because it was used in much the same manner as when a dentist fills a tooth. Some of these cavities were rather large, though. Consolidation grouting extended 25 feet below the dam's impervious core and concrete curtain grouting was placed 200 feet under the center of the streambed. On February 27, 1969, the first of the impervious material which was to form the dam's core was placed. Ultimately the core was to be 280 feet wide.

Averaging 18 inches a day, the dam rose higher and higher for the next 15 months. Tower floodlights turned night into day and permitted three work shifts to maintain the rapid pace.

A fleet of 40 specially-built 125-ton trucks hauled materials which had been unearthed by the turn-of-the-century gold dredges. Nicknamed "belly dumps," these earth movers were mechanical marvels, the biggest trucks in the world at the time.

Powered by 750-horsepower V-16 diesel engines, they ran back and forth along a private 60-foot wide, 13-mile long specially-built haul road, delivering 75 yards of material to the dam every two or three minutes. Computer analysis had established that the most efficient highway grade was a constant 2.93 percent. The highway and the trucks' automatic transmissions were built accordingly.

Each truck cost about $165,000, as did each of four huge scoop rigs built especially to load them. Each truck carried 400 gallons of fuel, which lasted about 15 hours. When the fuel gauge indicated 25 gallons were left, the driver would radio ahead to the fuel depot to be ready for him. As he approached the

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"pit stop," he drove through an automatic truck washer. In five to 15 minutes, the earth mover would be fueled, checked, washed, serviced and back on the road.

Washing was essential at each fueling because on the dirt roads the buildup of mud would reach 5,000 pounds if trucks were not washed regularly.

The rigs operated around the clock from 8 AM Mondays to 8 PM Saturdays, stopping only for a half-hour lunch period on each shift. At the change in shifts, the new driver would meet his assigned truck at "Checkpoint Charlie," take his lunch and two-gallon water jug supplied by the contractor, mount his rig and "hit the road." Routine maintenance was performed on weekends. In 15 months, the rigs were idled only 65 shifts due to bad weather.

Dust was a constant problem as the huge trucks plowed uphill at 15 miles an hour and sped down empty at 45. Roads had to be watered constantly.

The one-on-the-job fatality during the project was Modestan Emzy Herman Hoeppner, 30, who was killed when thrown from his 6,000-gallon water truck as it plunged off a 65-foot embankment on the powerhouse access road.

In their 24-hour-a-day parade up and down the canyon wall month after month, the giant earth movers were involved in but three accidents. In each case, the behemoths backed over parked pickup trucks, flattening them.

The 6-foot, 4-inch diameter tires proved to be the weakest link in maintenance of the earth movers. They were so huge they had to be made by hand and never were quite perfect. They kept separating, especially in hot weather. Each tire cost $5,000.

Keeping the tires cool was as important as settling the dust. On much of the haul road, automatic sprinklers were installed along each side of the road, timed electrically so they would kick on a fifth of the system at a time for 10-minute intervals. These and the world's biggest road graders kept the road smooth and dust-free.

They also provided some amusement at the expense of guests of the handful of supervisory personnel who were allowed on the haul road.

"Driving down the road in the middle of August with the temperature at 105, the sprinklers would come on," Goodier explained. "The driver, of course, would be near the middle of the road, but the

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passenger, who had his window down, would be near the edge and wouldn't know what hit him when that cold water just shot right out of the side of the road."

Rainbird sprinklers at 60-foot intervals saved approximately $100,000 compared with the cost of water trucks.

Silty sand mixed with clay found near La Grange was used for the core of the dam.

Tailings which had been worked over only once by the dredges contained enough "fines" – sand and small gravel – so that they were suitable for transition materials. Tailings which twice had been used in the dredges' quest for gold were coarse enough for the shells, which also contained material excavated from tunnels, spillways and abutments. It is the thick layers of coarse rock, called shells, on each side of the dam that give the structure its strength.

Two years after work began, there were 500 men on the job. The project as a whole was 53 percent complete and the dam, now 280 feet high, was 40 percent finished. The spillways were nearly completed.

Sonora Union Democrat reporter Mark Kautz referred to the "Towering Temples on the Tuolumne" in comparing the awesome works of man in building the mammoth project with mysterious Stonehenge and the Egyptian pyramids of ancient times.

On May 28, 1970, Modestan George Koetsky wheeled his 125-ton earth mover across the dam with TID Chief Engineer Meikle riding "shotgun," to deliver the last load of material. "Topping out" ceremonies marked the completion of the dam proper. More than 250,000 trips had been made to deliver the 16,314,000 yards of material required by the dam and dikes.

The structure has three ways of controlling flood flows. One, and possibly two, of these probably never will be needed.

Internal gates installed in the diversion tunnel allow the release of 7,370 cubic feet per second of water, in addition to the 4,100 second feet maximum flow that can be released through the powerhouse turbines and 3,100 second feet through a hollow jet valve.

When these gates were installed in March 1971, Crawford expressed the hope that most if not all floods would be controlled through the power releases and the diversion tunnel gates. When flows hit 9,500 second feet at La Grange, minor downstream flooding does occur.

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The controlled spillway, construction of which began August 29, 1967, just one week after Atkinson was issued a notice to proceed, was completed December 10, 1969, five months before the dam was "topped out." This spillway was designed to handle flood flows of up to 172,000 cubic feet of water per second. Although the Army Engineers indicated flows of this magnitude might be expected once every 44 years, this volume of floodwater approximates that of the worst flood in recorded history. The Tuolumne River flood of December 1955 would have attained this magnitude had there been no dams on the river. As it was, existing dams checked the flow below La Grange to less than a fourth of that.

Three steel, radial spillway gates, each 45 feet wide, 30 feet tall and weighing 135,000 pounds, were manufactured in Japan by Kurimosto Iron Works at a cost of $233,750. They are installed at the head of a 136.5-foot rectangular, reinforced concrete discharge chute anchored horizontally and vertically by 20- and 30-foot-long rock bolts.

The last concrete had been poured on the emergency spillway near the crest of the dam on January 19, 1969. The massive concrete structure, 995 feet long and 26.4 feet wide, is anchored to bedrock by hundreds of 10- and 20-foot-long rock bolts. Designed to handle 300,000 cubic feet of runoff, the emergency spillway will be needed only in the most dramatic of floods, if ever.

Crawford commented, “If the flood for which the emergency spillway is designed ever happens, the Valley will be something else. With all the rivers in flood, the Valley will be a lake again.”

Although “topping out” marked completion of the dam itself, final cleanup still was a year away. Water could not be stored behind the structure until two important tasks had been completed: clearing the reservoir site and relocating roads and highways.

Reservoir clearing was started on October 3, 1967. Before it was finished on March 31, 1971, nearly 7,000 acres of land had been stripped of trees, brush, stumps, utility poles, driftwood, fences, buildings, anything that would float. Everything had been burned and the ashes buried. Only patches of brush designated by California Division of Fish and Game representatives were left to encourage the propagation of fish. Trico Contractors also had to remove an abandoned Hetch Hetchy Railroad bridge to improve boating safety. Anything man-made was hauled away or buried.

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Old mine shafts were located. Concrete seals were placed in the bottom of the shafts, which then were filled with dirt. Thick concrete caps were placed on entrances to the shafts. The reservoir must be as water tight as the dam.

To clear steep hillsides, especially in the vicinity of the Hetch Hetchy Aqueduct siphon at Red Mountain Bar, the ingenious Trico workers adopted the "yo-yo" system. One huge dozer was stationed firmly at the top of the hill and a second dozer was winched up and down the steep incline to do the actual clearing.

While spectacular to watch, the "yo-yo" proved not too hazardous. Only once did a "Cat" at the end of the line come loose. The huge tractor rolled over six times on the way down the steep hill, but the driver, protected by roll bars, walked away, shaken but virtually unscathed.

When the job was finished, the reservoir not only was cleared but also had a 160-mile fire-break-two-dozer blades wide around the entire site at elevation 830 feet above sea level.

Started before, 1960, the discussions on the relocation of roads were to drag on until the last minute, involving exhaustive negotiations with Tuolumne County and the California Division of Highways. In 1962 the MID found itself involved in a dispute as to whether the Highways 49-120 route should be rebuilt on the north or south side of the new reservoir.

A majority of Tuolumne County residents favored the north routing, but a vocal majority, sparked by people in the Wards Ferry area, preferred the south side. Because the southern route would be more expensive, require an extra bridge and mean a longer drive for Northern Californians headed for Yosemite, the districts argued for the northern route, but they lost. CalTrans insisted the southern route would be more convenient for its future plans to relocate the Highway 120 route to Yosemite.

One of Crawford's first actions after being appointed project coordinator in 1967 was to meet with the Highway 120 Association in Tuolumne County to discuss rerouting the Mother Lode highway, which ran through Jacksonville, and the acquisition of the town. This historic community dated from 1848, when Colonel Alden Apollo Moore Jackson, a miner turned merchant, set up a supply and amusement center in a tent for the miners along nearby Moccasin and Woods Creeks.

In August 1967 Tuolumne County signed a freeway agreement with the state providing for the relocation of the Highways 49-120 route in the Chinese Camp and Jacksonville areas. The county had held

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up the agreement for two years to insure that funds for the $2.5 million, 8-mile realignment were not charged against the county's annual allocation of $1 million in state highway funds.

After seven years of discussions, the districts and the California State Division of Highways reached agreement in March 1968, allowing the state to proceed with relocations and providing for payment by the project. The districts paid only for the replacement of highways "in kind," with any improvements financed by the state. The districts also agreed to pay "extraordinary" maintenance costs which the state might face on the new routes during the first three years of operation. Implementation of this provision was never required.

Bridges were a jinx for the project.

Weak steel was discovered in the Jacksonville Bridge after the failure of a Sacramento area bridge which had been built with steel from the same supplier. Replacement of the steel delayed construction for four months. The realigned route was not opened until April 1971, less than two weeks before the water backing up behind New Don Pedro Dam flooded the old bridge.

The districts paid contractor Peter Kewitt & Son an additional $55,000 to go to a 10-hour seven-day-week schedule to complete work early enough to catch the spring river runoff in a slightly below-normal water season. This move saved for storage an additional 390,000 acre feet of water.

Among the other historic landmarks which would be inundated by the reservoir was the Wards Ferry Bridge 12 miles east of Sonora. The original span dated to 1878 when citizens personally donated the funds to build it. It was destroyed by fire 13 years later to hide the robbery and murder of two bridge tenders. Six years later, Tuolumne County replaced it with a 173-foot steel span.

It wasn't until December 1968 that the districts agreed to construct a new bridge at Wards Ferry. This was part of a lengthy compact between the mountain county and the two Valley irrigation districts which also included the construction of a bridge at Stevens Bar, relocation of River Road and provision of five turnarounds on roads which would dead-end at the reservoir's edge.

A 10-ton crane overturned after work finally got under way on the Wards Ferry Bridge in January 1971 and damaged the nearly completed deck. This accident forced considerable reconstruction and the bridge, one of the last to be completed, was not opened to the traffic until August 1972.

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In the meantime, on May 18, 1971, the tired old Wards Ferry Bridge collapsed while the contractor was blasting near the right abutment of the new span.

Major problems were experienced also in the construction of the 1,441-foot Stevens Bar Bridge on the Jacksonville-Stent Road near Moccasin Creek. Continuous slides in the steep cuts on the bridge approaches caused the loss of 73 work days.

The Moccasin Bridge suffered less serious problems with cracking bearing pads. Difficulties were overcome and the route was opened November 25, 1970, but not until the districts had agreed to accept the responsibility for extraordinary maintenance for a period of five years. No serious problems developed during that period, however. Careful monitoring over a 10-year period showed this problem had not weakened the structure.

The new dam was ready to store water on November 2, 1970, and the portals of the old Don Pedro Dam were opened for the last time to release water downstream.

Water edged up the face of New Don Pedro Dam rapidly at first, reaching the 250-foot mark within 24 hours. As the water then rose more slowly but steadily, it climbed the upstream face of the old concrete dam which in 1923 had been the tallest such structure in the world.

Old Don Pedro disappeared under the surface of Don Pedro Lake on April 12, 1970, and was not visible again for six-and-a-half years. It reappeared in 1977 when the reservoir level was drawn down during the drought.

The water lapped over the historic town of Jacksonville in June 1970. Ultimately, the community, lively in the gold rush days, would be under 200 feet of water. The John Terry family, the last to depart, was typical of those forced to move, waiting until the last possible minute.

Land acquisition is never an easy task in large public works projects. New Don Pedro was no exception.

Old-time residents fought the districts all the way. For instance, John Turner, who operated the Taco House restaurant on an unpatented mining claim at Moccasin, called irrigation district representatives “worse than rattlesnakes.” Claiming he knew because as a youth he was a professional snake hunter in Mexico and Guatemala, the 73-year-old Turner said rattlers warn before they struck. Crawford, identifying

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himself “as one of the rattlesnakes,” countered by noting that Turner, who did not own the land on which he operated his restaurant, had known about the project for five years.

Land acquisition condemnation trials and negotiations were to continue long after the reservoir was completed.

A critical element of the entire project, especially as far as paying for it is concerned, is the hydroelectric generating facilities. Called for was an outdoor powerhouse with three generators capable of producing an average output of 638 million kilowatt hours of electricity annually.

Excavation of the 2,890-foot long power tunnel tapering in diameter from 18.5 feet at the upstream end to 16 feet downstream began on April 1, 1968. It was completed in 51 weeks, the most difficult part being the downstream section. Approximately one-third of the tunnel is flat, then for over a quarter of its length, it drops 81 feet on a uniform slope. The pressure of the water it carries builds as the tunnel turns down to a 50 percent slope, plunging 154.2 feet in a short 222-foot section. It then levels out for 50 feet before entering the turbines.

The flat section of the tunnel has concrete walls and the balance is lined with steel.

At the eastern end of the dam near its upstream face, 300 feet below the maximum surface level of the reservoir, a 21-by-12-foot steel gate operating on a dozen 33-inch diameter wheels provides for emergency closure. The 81-ton gate was fabricated by Voest of Austria. It was so large that it caused major problems getting through German railroad tunnels to reach the seaport from which it was to be shipped to Stockton and then carried by rail and truck to the New Don Pedro Dam site. The gate was installed on July 23, 1970.

The same month the three 61-ton transformers built in Italy were received at the Port of Stockton, the heaviest electrical equipment ever imported by this country.

At the other end of the tunnel, there were problems. The huge manifolds which divided the water into a six-foot diameter flood-control outlet and three 8-foot diameter tubes to feed the turbines were 99 days late on delivery. Furthermore, the flood-control outlet as improperly designed so it had to be rebuilt on the sight.

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The manifold, consisting of three “Ys” serving the turbines, the flood-control outlet and connections, weighed 400 tons. The units were shipped to Oakdale, where they were stress-relieved in gas-fired ovens. Most of the welds had to be redone.

Each section then was trucked 30 miles to the site for final assembly. The largest section of the manifold, weighing nearly 200 tons, proved most troublesome.

Not far out of Oakdale, the driver of the special rig hauling the steel monster approached a power line which he feared was too low to clear. When he applied the brakes, the load shifted and crumpled the trailer.

After a considerable struggle, the massive “Y” was loaded onto another trailer. About two-thirds of a mile down the road, the truck hit a soft spot in the paving. The trailer wheels sank up to the bed. Another struggle.

Finally, the load reached the project haul road which was built to support heavy weights, but the difference in grade between the access road and the haul road was such that the long trailer hung up in the middle. Had it not been so heavy, it would have worked like a teeter-totter. After much head scratching and conversation by the crews, the two biggest pieces of equipment were hooked to the truck tractor and the whole load was dragged off the ridge. For a moment it was feared that the huge earth moving tractors would pull the truck apart before moving the stranded trailer.

The tunnel and all its equipment were operational by August 1970.

Meanwhile, the construction of the powerhouse proceeded, with the excavation starting July 15, 1968. The first concrete for the foundation was poured on April 14, 1969. The powerhouse, 99 feet wide and 171 feet long, nearly fills the Tuolumne River canyon; only the switchyard separates it from the downstream toe of the dam.

Because of the weight of the turbines and generators, a tremendous amount of reinforcement steel was enclosed in the structure.

Goodier recalled that on summer days the builders had problems with independent-minded iron workers hired to place the reinforcing steel into the concrete foundations. One morning, the superintendent fired two “re-bar” workers for drinking beer on the job. Going upstream to play in the river, they found a

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raft and opted for a joy ride. Suddenly, they found themselves in fast water at the mouth of the 30-foot diameter diversion tunnel, which was running about half full.

"Talk about white water. That was real white water," Goodier said. "The raft hit a center pier at the mouth of the tunnel and the partially intoxicated rod-busters were knocked off, but when the raft got around the pier they were able to grab hold of it and hang on for dear life."

There was little doubt they would have drowned had they not caught the raft; a body will sink quickly in the foam of white water because it is so full of air. They survived the fast two-thirds of a mile swim through the tunnel, but Goodier surmised that was the wildest ride the pair ever had. They were last seen headed for home on a dead run, probably quite sober.

Non-movable parts of the turbines were installed during the first-stage pouring of concrete, which was completed in September 1970. Turbines were embedded further during the second-stage concrete pouring, at which time the generator floor also was constructed.

Next, the generators were put in place, followed by more than two weeks of operational testing. With the water rising rapidly behind the new dam, the first generator was pressed into power production on December 11, 1970, well ahead of schedule. This was done mainly to lower the water level of the reservoir because of the anxiety that the growing lake would flood the still-unfinished Jacksonville bridge and other roads whose relocation had not been completed.

The second generator was placed on the line of February 2, 1971, and the third on March 10, 1971. The powerhouse was in full operation, serving both districts.

Modesto's share of the energy would meet about a quarter of its needs. Turlock was more fortunate in that it had about 75 per cent of its power requirements met by New Don Pedro. In the years to come, the Modesto Irrigation District was to be faced with the need to search far and wide for more energy to serve a growing population.

Formal dedication ceremonies were held May 22, 1971, when some 3,000 people heard San Francisco Mayor Joseph Alioto declare:

> We have harnessed a great river to serve man. There is a vision, imagination, a sense of beauty about it. Environment and development will never meet, but a delicate balance of the two has been achieved at Don Pedro Dam.

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MID Board President Mathew Fiscalini, the master of ceremonies, noted that twice within a half century people had gathered on the spot to dedicate a great dam, first in 1923 and then in 1971.

When all the bills were paid, the New Don Pedro Dam and Powerhouse project had cost $115,697,000.

Millions of dollars in bond funds not yet needed for progress payments to contractors were invested in various ways. In one instance, several thousand dollars in interest was earned in a single day because district officials hurried down a Sacramento street from the Department of Beaches and Parks with a multi-million dollar check in order to deposit it before the banks closed.

The $8,293,000 earned by investing the bond money reduced the total amount each agency paid toward the project's total cost. In the end, San Francisco paid out $47,380,000, the TID $32,071,000 and the MID $14,865,000, for a total of $94,316,000. The $8,293,000 earned interest plus the Davis-Grunsky $7,623,000 and the Army Engineers $5,464,000 paid the balance of the total $115,696,000 cost of the project.

The construction of New Don Pedro rivals the monumental undertakings of the Modesto Irrigation District's creation a century ago, the building of old Don Pedro 65 years ago and the decision a half century ago to enter the retail power business. Each required courage, vision and determination.

In many ways, however, the completion of New Don Pedro marked the end of an era and the start of a new period filled with the challenges of obtaining new power sources, domestic water supplies and recreation management in a computerized environment undreamed of in 1887.

Continued courage, vision and determination have been demanded of those who are and will continue to meet these challenges successfully.

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Chapter 18

Recreation, the 'Frosting on the Cake'

Even before the completion of New Don Pedro Dam, the Modesto Irrigation District entered the recreation field somewhat reluctantly. In designing the project, Bechtel engineers described recreation development as "frosting on the cake." Before the work was completed, the districts had put far more frosting on the cake than was anticipated initially.

The Federal Power Commission, the State of California and common sense ruled that recreation demands upon reservoir the size of Don Pedro Lake would be tremendous. After all, California's fifth largest reservoir was to extend 26 miles upstream, have a surface area of 13,000 acres and a shoreline of 160 miles. With a population of 600,000 living within 50 miles of lake and 6.3 million within 150 miles, 400,000 visitors were expected annually. Adequate provisions had to be made to meet this demand.

Although required to develop recreation resources as part of its basic construction project, the districts initially wanted no part of operating the facility when it was completed.

The California Department of Water Resources was willing to fund much of the recreation development, but the state Department of Parks and Recreation made it clear at the outset that it wanted no part of operating the project. Although it had established a state park at Turlock's regulating reservoir, the agency claimed the New Don Pedro site did not warrant similar consideration because it had neither native landscape nor historical importance. Furthermore, it contended there were enough recreational opportunities at other Central Sierra foothill reservoirs.

In the fall of 1967 when construction of New Don Pedro got under way, project sponsors were inclined to meet the minimum requirements of the FPC license. They also were firm in their determination to get some other agency to operate the facilities. This had been done at Modesto Reservoir, where the Stanislaus County Parks Department had developed and now maintains recreation facilities. Turlock's Owens Reservoir had become Turlock Lake State Park.

Even after the California Water Commission approved an initial $7 million grant for basic recreation development, a majority of MID directors were not enthusiastic about entering the recreation field, despite editorial pressure from *The Modesto Bee* to do so. Thomas K. Beard, MID board president at

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the time who became a positive force in subsequent development of recreation facilities, recalls, “There were a lot of people worked up about the district going into the recreation business.”

The turning point came when San Francisco Public Utilities Manager James K. Carr arranged a tour of Northern California recreation projects. Irrigation district directors saw what could be accomplished at places such as the National Park Service’s Whiskeytown Reservoir and the U. S. Forest Service’s Shasta Lake, and what should not be done at Napa County’s Lake Berryessa. As undersecretary of interior under Presidents John F. Kennedy and Lyndon B. Johnson, Carr had played a major role in the development of the Shasta-Trinity-Whiskeytown National Recreation Area, working closely with the legislative father of the project, Northern California Congressman Harold T. (Bizz) Johnson.

Those making the tour returned determined to do a first-class job at Don Pedro Lake. Over their “nervous stage,” MID directors urged increasing the design capacity by an additional 100,000 visitors per year and, with their partner, went to work to achieve a goal of providing excellent recreation facilities. Before they were done, $7 million was invested in the effort.

The Don Pedro Recreation Agency, comprised of representatives of the three Tuolumne River partners – the Modesto and Turlock Irrigation Districts and the City of San Francisco, was created to oversee the development and operation until a suitable agency could be found to take over.

A retired veteran of 37 years of experience in recreation and conservation management with the U. S. Forest Service, George S. James was hired as recreation agency manager. As a federal forester, James had been regional director of all national forests in the northeastern quarter of the United States, ranging from Minnesota and Missouri to New England.

MID President Beard summarized the district’s determination to provide excellent recreation opportunities with the comment, “We always thought of water and power as the main purpose of this (New Don Pedro_ project, but recreation has become a third equally important use.”

Beard’s philosophy was endorsed enthusiastically by fellow MID Directors Mathew Fiscalini and Milton Kidd, who played crucial roles in the decision to develop more than the minimum required. The latter was described by recreation area manager James as a “ball of fire when it came to recreation development.”

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Kidd, who had served as an MID director for 35 years including three terms as president, died suddenly on February 5, 1971, while in San Francisco for joint meetings on the New Don Pedro Project and did not live to see the realization of his dream of the recreation area achieving statewide acclaim.

Eulogized as a “man of the people,” Kidd had served on the MID Board of Directors longer than any other person. Not only was he a forceful supporter of developing the best possible recreation facilities, he also had taken an active role in all aspects of the New Don Pedro Project and other modernization programs of the rapidly-expanding Modesto district’s operations through a challenging three-and-a-half decades of service.

He was succeeded on the district’s board of directors by his nephew, John E. Kidd, who shared his enthusiasm for recreation and represented the MID on the joint agency that implemented the Don Pedro Lake recreation program.

One of the first steps to expand the recreation opportunities was the purchase of additional land to provide better boat-launching ramps and other facilities. Construction contracts were awarded. All buildings were of pole-type construction with rough-sawn redwood to blend into the environment. All utilities were placed underground. The districts and San Francisco set about creating, in James’ words, “a hospitable environment.”

A private Lake Don Pedro Corporation, headed by Emory Bonnier of Turlock, was formed and became the successful bidder for concession operations at the west end of the lake. The concessionaire returns to the districts and San Francisco 4.5 percent of its gross earnings, which currently top the $2 million mark annually. Twice expanded, the marina now has 234 slips for motor and sail boats, a houseboat dock for 66 boats and moorings for an additional 129 houseboats. The concession operations also include a restaurant and related marina, grocery and visitor services.

By the time the recreation area was dedicated formally on May 7, 1972, Don Pedro Lake already was enjoying considerable use by boaters, water skiers, fishermen, swimmers, campers and picnickers. In spite of low-water levels during the summer of 1972, the reservoir park facilities continued “to pack them in.”

Meanwhile, the search for a permanent operator continued.

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Tuolumne County, the Federal Bureau of Land Management, National Park Service, U. S. Forest Service and the Federal Bureau of Outdoor Recreation all expressed interest in managing the facilities.

As early as 1967 Tuolumne County Supervisor Ralph Thiel campaigned to have his county take over the management. He claimed Tuolumne County was responsible for the inclusion of recreation requirements in the FPC license and should take advantage of it.

Modesto directors and their partners were concerned, however, about the adequacy of Tuolumne County's resources to handle such a massive undertaking. This concern was increased by visits to Lake Berryessa, where Napa County had contracted the entire operation to a concessionaire in a manner similar to what Tuolumne County was planning. Lake Berryessa's recreation operations were considered distressing.

Not everyone in Tuolumne County favored county involvement. The county Farm Bureau urged the board of supervisors to "stick to government" and not get involved in ventures such as this. Ultimately, Tuolumne County modified its demand that the county operate the park. The county continued to insist, however, that no federal agency should take over.

This became a moot point when all federal agencies subsequently declined to participate. The last to abandon the idea was the Federal Bureau of Land Management, which manages the publicly owned foothill lands in the vicinity of the reservoir. The desire was there, but congressional appropriations were not.

The districts and San Francisco came to the realization in 1979 that they were left with the responsibility of not only developing recreation facilities but also of operating and maintaining them.

Although it was a decision made largely by default, hindsight has proved it to be most wise.

Once the decision was made, the determination that the recreation area would be operated and maintained at the highest standards of quality was reaffirmed. The districts also insisted that it be self sufficient once necessary improvements had been made.

Until this time recreation area managers had been employed on an interim basis, part of their responsibility being to find another operating agency.

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Recognizing that they were in the recreation business for keeps, the Don Pedro Lake Recreation Agency in April 1980 hired Carl Rust, a retired U. S. Forest Service recreation and resources specialist. He was given the task of achieving the two goals: modernization and self sufficiency.
Both have been achieved under Rust's management.

Today the districts take great pride in the operation of what is rated as one of the best recreation areas in the West. State and federal recreation agencies point to Don Pedro Lake as the prime example of how it should be done.

That the public has responded is shown by visitor figures for 1986. Visits to recreation areas such as Yosemite National Park, the Stanislaus National Forest and nearby Exchequer Reservoir were on the decline. Don Pedro Lake, however, is attracting more people, currently hovering at or above the maximum design capacity of 500,000 visitor days of use annually. On Memorial Day 1986 there were 10,000 people at the lake. The total visitor-day use for the three-day weekend was 30,000. There were 3,000 boats on the lake at times that weekend. In the fall of 1986 reservations for 1987 were running well ahead of past records.

Today Don Pedro Lake offers 550 tent and recreation vehicle campsites, complete with hot water showers. About half of these are at Fleming Meadow at the eastern end of the dam. Also located there are the largest boat launching area, picnic areas, a white sand-lined swimming lagoon with filtered water and an extensive marina, restaurant and grocery facilities.

The Blue Oak Recreation Area on the west end of the dam, formerly called Mexican Gulch, has campgrounds, a picnic area and boat-launching facilities. Moccasin Point 18 miles up the lake has camping and picnic areas, and a marina and concession services operated by the R. D. Meeker family.

Two hundred seventy-four houseboats, including two rental fleets, are moored at the Fleming Meadow and Moccasin marina. Fishing is good. Swimming, power boating, sailing are excellent. Campgrounds and picnic areas are clean and restaurants and other concession services well received.

The districts and the city have insisted upon maintaining high standards of cleanliness and sanitation throughout the area's history. Directors emphasized the importance of family-type recreation and as a result Don Pedro is described as "everybody's lake."

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The recreation opportunities at the popular reservoir are among the best in the state, disproving completely the California Beaches and Parks Department's earlier contention that there had been enough water-oriented recreation opportunities in Central California.

While Modesto Irrigation District directors and their partners in New Don Pedro's operation were learning the ropes about recreation management, they still were involved in the fishery problems.

In 1965 when the United States Supreme Court let stand a lower court decision upholding the validity of the Federal Power Commission's New Don Pedro license requirements, on issue was the required releases from New Don Pedro to sustain the salmon fishery. When state Davis-Grunsky funds were sought to help finance solving the fishery problems as well as the Don Pedro Lake recreation development, the state required, in addition to the water releases, the improvement and maintenance of some 2 million square feet of gravel-spawning beds along a 17.2 mile downstream stretch of the Tuolumne River between La Grange and Waterford.

Involved were the areas from which contractors had taken gold dredge tailings for use in building New Don Pedro Dam. In many areas the districts had not acquired title to the property, buying only the tailings. When the areas were to be reworked for spawning beds, the property owners objected. Ultimately the purchases were not required.

While the state fish and game emphasis at the time was on improved spawning beds, the districts in November 1970 voluntarily increased releases from New Don Pedro to aid in the fall salmon-spawning run in the river.

In September 1971 the districts, following fish and game specifications, were forced to complete the first-stage spawning bed rehabilitation of 1 million square feet in an area where the districts did hold title to the land. Spawning beds described as "plush" were created, but the fish didn't especially care for them. Initial on-the-scene reports indicated that most of the more than 20,000 salmon which came up the river that fall spurned the man-made beds and found natural beds.

Although subsequent Fish and Game Department reports claimed that 60 percent of the run had used 18 percent of the beds, the state agency changed its mind. The districts, after all the fuss, now were not required to rehabilitate the remainder of the designated gravel beds. Fishery experts decided once again

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that the key to improved spawning would be found in the controlled releases of water, not man-made spawning beds. Thus, $1 million in Davis-Grunsky funds earmarked for this purpose was withdrawn.

Although state fish and game biologists were to change directions several times, constant reservoir releases favorable to spawning were maintained, even though on many occasions water had to be diverted through both the MID and TID main canals and dumped back into the river below the spawning areas.

Fluctuations in the salmon run have been recorded, but in the fall of 1985 more than 40,000 fish swam up the Tuolumne to spawn. In the opinion of long-time La Grange resident Bill Keeler, an ardent fisherman who has watched the salmon run for 75 years, 1985 was the best he has seen, before or after construction of New Don Pedro.

Under the provisions of the Federal Power Commission license and subsequent cooperative agreements between the districts and the state and federal agencies, a program to monitor and evaluate the salmon fishery will continue until 1993 at a cost to the irrigation districts of several hundreds of thousands of dollars. The study that was initiated shortly after the issuance of the FPC license was delayed due to changing philosophies within the state and federal fish and game agencies.

After negotiating with the fish and game agencies in 1986, MID Chief Executive Officer H. L. Brooks, said the current release schedule of between 100 and 385 cubic feet per second between October 1st and the end of April each year and no less than 3 second feet of water the remainder of the year appears satisfactory.

Brooks warned, however, that the districts must diligently protect their water supplies in considering any future water-release flow agreements.

The results of this study undoubtedly will provide further information on the enhancement of fisheries in other areas. Thus, in agreeing to finance the research, the Modesto and Turlock districts once again are proving themselves pathfinders in efforts which will benefit the rest of the state and nation.

The local dispute had statewide implications in another direction.

As a result of protests by the riverside property owner, California Attorney General Evelle J. Younger ruled that the Tuolumne River proper was open for boating, fishing, hunting and recreation purposes, much to the objections of the property owners. Historically, property owners had prevented such intrusions, some by erecting fences across the river.

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The ruling, confirmed and broadened in subsequent years by case law resulting from court actions, now has statewide implications as to the accessibility of rivers bordered by private property.

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Exhibit 50

BREAKING NEWS

http://www.herald-dispatch.com/features_entertainment/outdoor-tourism-changes-with-whitewater-declines/article_0acc8055-29c2-5c16-9c48-1e4d8b3eadd3.html

Outdoor tourism changes with whitewater declines

By DAVE LAVENDER Feb 20, 2017



Courtesy of Class VI-Mountain River Whitewater rafters are pictured at Sweet's Falls rapid on the Upper Gauley River. Fall season on the Gauley River begins Friday, Sept. 11.

Courtesy of Class VI-Mountain Ri

One of the founders of Adventures on the Gorge, Dave Arnold, knows that winter in the whitewater rafting industry is for "eddying out" - resting up, looking ahead and scouting to see where the wild outdoors adventure industry will take them next.

These days, the industry is seeing fewer tourists on the river, but finding success attracting tourists to outdoor adventures on land, including zip-lining and other activities.

Recently released by the West Virginia Division of Natural Resources, which tracks the number of people rafting in the state each month, the 2016 commercial rafting numbers show that 100,312 people rafted the New and Gauley rivers last year, down 4,687 people from 2015. The annual rafting report highlights outfitters on the Cheat, Gauley, New, Shenandoah and Tygart rivers in West Virginia. The epicenter for guided tours is the New River Gorge area.

"The statewide industry numbers were down just slightly from the year before," said Arnold, Adventures on the Gorge spokesman. "We attribute this to the severe flooding, which occurred in June."

That said, Arnold - whose company, Adventures on the Gorge, assisted 43,481 of those people with rafting experiences, making up 43 percent of the market - said that the numbers of rafters have decreased since the heyday back in mid-to-late 1990s and early 2000s, when as many as 225,000 visitors would come to whitewater raft in West Virginia.

"I used to tell people as the numbers were going down, look at that stadium at Marshall when it is full, and that is how many people are gone. Then it was look at that full stadium at West Virginia, and that is how many people are gone. And now it is look at the full stadiums at Ohio State and Michigan, and that is a huge number of people who are gone from the marketplace."

At its height, there were 30 whitewater outfitters in West Virginia. Now there are eight with most of them operating at large, resort-style base camps at either ACE Adventures or Adventures on the Gorge, with only a handful of other mom and pop outfitters such as Cantrell's also holding on.

Outdoor activities are an important part of West Virginia's overall tourism industry, responsible for about 10 percent of the state's annual overnight stays, according to the Longwoods Travel USA annual study. The largest contributor to overnight stays are people visiting family and friends, about 47 percent, but outdoors, casinos, special events and the state's cities are important drivers in the portion of tourism visits that officials say can be influenced by marketing.

Strategic changes

Arnold said when the numbers for the whitewater industry began to decline, the owners started looking more to the model of the ski industry, which is the state's number one outdoor adventure tourism draw bringing in more than 800,000 ski visits a year to the state's five downhill ski resorts.

"We adopted the resort theme, and we started building more lodging and restaurants," Arnold said. "So now even though the industry is taking less people down the river, we are employing more people and making more money."

Adventures on the Gorge offers a base camp that features an outdoor sports buffet of nearly two dozen adventures that includes bus trips down into the Gorge for whitewater rafting, but that also includes popular zip-line canopy tours such as their TreeTops (which has been named a Top 10 canopy tour in the U.S.), their aerial playground TimberTrek for younger adventurers, as well as a trips to nearby Summersville Lake for kayaking, standup paddleboarding and more.

Add to that fact that the two large resorts, AOTG and ACE, both have a bevy of lodging including deluxe resort-style cabins, as well as AOTG's destination restaurant, Smokey's On the Gorge, which has been featured on Food Network's Best of Mountain Lodges, and you see how tourists are now spending more per visit than back in the 1990s, when raft companies were lucky to have bathrooms and a rustic bar near their primitive campgrounds.

"I can tell you that our customers spend about $280 per person per trip, and when you are looking at the economics of it, this one always surprises me, that they say the number one expense of tourists here is transportation costs," Arnold said. "I think the number $280 probably only covers half what the real expense is."

Rafting decline factors

While last year's June flood hit the rafting industry in the heart of its New River season causing the numbers to drop, Arnold said the customer decline since the peak of the industry probably directly relate to the state's expenditures on marketing the industry, as well as a decline in the number of millennials interested in whitewater rafting.

"It's a bunch of things, and the number one thing is probably the amount of dollars spent on marketing West Virginia," Arnold said. "When I was the chairman of the tourism board, we had $30 million from gaming, and it was huge. But (former governor) Bob Wise felt like it was too much money - and maybe it was - and took the funds down a lot."

Arnold also sees generational changes.

"The other thing is that a lot of millennials are risk adverse, while the boomers were risk takers. I scratch my head at that, but they are more calculated in what they do," he said. "But I think overall it is having less marketing dollars and the changing demographics that have led to less numbers rafting."

With year-round adventures including winter-time canopy tours at AOTG and skiing nearby, Arnold said one good thing in winter is that they get by with nearly all of their cabins rented every weekend. That said in winter the massive campus is pretty quiet with a summer team of 600 seasonal employees trimmed to 50 in winter.

"Our cabins are usually all rented on weekends with mostly couples romantic getaways and a much higher portion of West Virginia residents coming to the Gorge," Arnold said. "In the summer, we only have about 28 percent of our customers from West Virginia, whereas in the winter it's 92 percent so three times that, and all of a sudden we have more West Virginians here who want to have a mountain getaway, and maybe go skiing or go on the canopy tours, which when we get snow is like zip-lining through magicland."

For more about whitewater rafting in W est Virginia:

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Go online at https://gotowv.com/adventure-play/whitewater-lake/whitewater-rafting/ to link to all the whitewater rafting resorts in West Virginia.

Welcome to the discussion.

Keep it Clean. Please avoid obscene, vulgar, lewd, racist or sexually-oriented language.
PLEASE TURN OFF YOUR CAPS LOCK.
Don't Threaten. Threats of harming another person will not be tolerated.
Be Truthful. Don't knowingly lie about anyone or anything.
Be Nice. No racism, sexism or any sort of -ism that is degrading to another person.
Be Proactive. Use the 'Report' link on each comment to let us know of abusive posts.
Share with Us. We'd love to hear eyewitness accounts, the history behind an article.

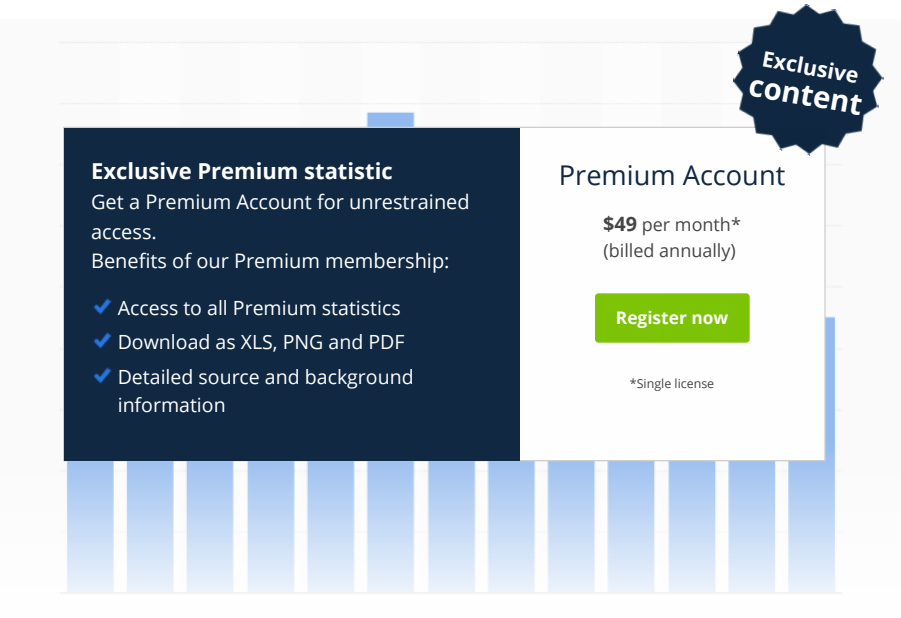
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Exhibit 51

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PREMIUM

Total number of kayaks sold in the U.S. from 2001 to 2013



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DESCRIPTION SOURCE MORE INFORMATION

The timeline depicts how many kayaks were sold ir each year from 2000 to 2013. In 2010, a total of 228,000 kayaks were sold in the United States, a decrease of 10.2 percent compared to the previous year.

More statistics and facts on recreational boating

Kayaking in the U.S. - additional information

The number of kayaks sold in the United States peaked in 2006 at just over 393 thousand and has since declined sharply, reaching 225.8 thousand in 2013 – a decline of nearly 43 percent. The retail market value of kayak sales was 122 million U.S. dollars in 2013, falling from 196 million in 2006. Conversely, according to the Outdoor Foundation, number of people participating in kayaking in the U has increased year-on-year since 2006.

Kayaking involves the use of a double-bladed padd to propel a kayak – a boat in which the paddler fac forward with their legs in front – across a body of water. Thought to be at least 4,000 years old, kayak were invented by indigenous peoples from Arctic regions, such as the Inuit, for fishing. The original kayaks were made from animal skins, wood and whale bone. Today, made from a variety of materia from carbon fiber to plastic, the average price of a kayak in the U.S. is 540 U.S. dollars.

There are different types of kayaking, including recreational, sea/touring and whitewater kayaking. Whitewater kayaking is considered a more extreme form of kayaking in which the participant may padc on anything from moving water to fast-moving anc challenging whitewater. In 2012, 316 thousand you adults between the ages of 18 and 24 years participated in whitewater kayaking in the U.S.

Hide

Sales growth of kayak related products in the U.S. 2015-2016
DIY sales in the U.S. 2017, by store type
DIY sales in the U.S. 2018, by store type

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Exhibit 52

ACTUAL

FEDERAL ENERGY REGULATORY COMMISSION
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MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
ASSESSMENT TABLE FOR FERC ACTUAL ADMINISTRATIVE CHARGES

PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
FERC Adjusted Administrative Cost							$59,431,651
Maximum Charge							$1,446,826
Total Charge for Projects above Maximum Charge (11 Projects)							$15,915,086
Total FERC Adjusted Administrative Cost less Charges for Projects above Maximum							$43,516,565
Total Charge Factor						41,268,283	
Total Individual Charge Factors (ICFs) for Projects above Maximum						14,360,218	
Total Charge Factor less Total ICFs for Projects above Maximum						26,908,065	
Unit Charge Factor							$1.617231
00018	IDAHO POWER COMPANY	A	42,217	42,069	0	46,950	75,928
00020	PACIFICORP	A	77,450	130,692	0	92,153	149,032
00067	SOUTHERN CALIFORNIA EDISON CO.	C	373,350	280,244	1,569	404,760	654,590
00077	PACIFIC GAS & ELECTRIC COMPANY	A	9,959	8,605	0	10,927	17,671
00096	PACIFIC GAS & ELECTRIC COMPANY	A	162,720	312,991	0	197,932	320,101
00120	SOUTHERN CALIFORNIA EDISON CO.	A	165,376	629,703	0	236,218	382,018
00137	PACIFIC GAS & ELECTRIC COMPANY	A	206,004	815,989	0	297,803	481,616
00175	PACIFIC GAS & ELECTRIC COMPANY	A	130,500	379,768	0	173,224	280,143
00178	PACIFIC GAS & ELECTRIC COMPANY	A	11,475	32,846	0	15,170	24,533
00233	PACIFIC GAS & ELECTRIC COMPANY	A	312,330	1,208,177	0	448,250	724,923
00271	ENTERGY ARKANSAS, INC	A	65,300	201,840	0	88,007	142,327
00287	MIDWEST HYDRO, LLC	A	3,680	21,068	0	6,050	9,784
00289	LOUISVILLE GAS & ELECTRIC COMPANY	A	95,572	320,434	0	131,621	212,861
00298	SOUTHERN CALIFORNIA EDISON CO.	A	6,848	36,503	0	10,955	17,716
00309	BRASCAN POWER PINEY & DEEP CREEK LLC	A	28,800	66,657	0	36,299	58,703
00344	SOUTHERN CALIFORNIA EDISON CO.	A	2,250	0	0	2,250	3,638
00346	ALLETE, INC	A	18,000	111,135	0	30,503	49,330
00349	ALABAMA POWER COMPANY	A	182,493	389,656	0	226,329	366,026
00362	TWIN CITIES HYDRO, LLC	A	17,920	115,831	0	30,951	50,054
00372	SOUTHERN CALIFORNIA EDISON CO.	A	2,520	5,422	0	3,130	5,061
00382	SOUTHERN CALIFORNIA EDISON CO.	A	12,000	0	0	12,000	19,406
00400	PUBLIC SERVICE CO. OF COLORADO	A	3,500	8,183	0	4,421	7,149

Maximum Charge
* Estimated (MWH)

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ACTUAL

FEDERAL ENERGY REGULATORY COMMISSION
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MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
ASSESSMENT TABLE FOR FERC ACTUAL ADMINISTRATIVE CHARGES

PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
00401	INDIANA MICHIGAN POWER COMPANY	A	1,680	5,338	0	2,281	3,688
00405	EXELON GENERATION COMPANY, LLC	A	574,540	1,459,901	0	738,779	1,194,776
00432	DUKE ENERGY PROGRESS, INC.	A	108,000	320,286	0	144,032	232,932
00459	UNION ELECTRIC COMPANY	A	242,590	723,100	0	323,939	523,884
00469	ALLETE, INC	A	4,000	25,301	0	6,846	11,071
00485	GEORGIA POWER COMPANY	A	173,000	461,600	0	224,930	363,763
00487	PPL HOLTWOOD, LLC	A	44,000	54,608	0	50,143	81,092
00503	IDAHO POWER COMPANY	A	25,000	114,622	0	37,895	61,284
00516	SOUTH CAROLINA ELECTRIC AND GAS CO	A	207,300	297,899	0	240,814	389,451
00539	LOCK 7 HYDRO PARTNERS, LLC.	A	2,100	10,883	0	3,324	5,375
00606	PACIFIC GAS & ELECTRIC COMPANY	A	4,440	20,991	0	6,802	11,000
00619	PG & E AND CITY OF SANTA CLARA, CA	A	84,825	256,768	0	113,711	183,896
00739	APPALACHIAN POWER COMPANY	A	75,000	276,149	0	106,067	171,534
00785	CONSUMERS POWER COMPANY	A	2,550	14,369	0	4,167	6,739
00803	PACIFIC GAS & ELECTRIC COMPANY	A	26,651	42,926	0	31,480	50,910
00906	VIRGINIA ELECTRIC AND POWER COMPANY	A	7,500	9,532	0	8,572	13,862
00935	PACIFICORP	A	136,000	500,503	0	192,307	311,004
01025	SAFE HABOR WATER POWER CORP	A	380,390	834,324	0	474,252	766,974
01061	PACIFIC GAS & ELECTRIC COMPANY	A	1,800	11,147	0	3,054	4,939
010854	UP HYDRO	A	2,000	0	0	2,000	3,234
01121	PACIFIC GAS & ELECTRIC COMPANY	A	36,075	123,838	0	50,007	80,872
01175	APPALACHIAN POWER COMPANY	A	28,800	174,925	0	48,479	78,401
01218	GEORGIA POWER COMPANY	A	5,400	24,485	0	8,155	13,188
012451	LOWER ST. ANTHONY FALLS, SAF HYDRO, LLC	A	10,320	52,165	0	16,189	26,181
012555	CUBE HYDRO PARTNERS, LLC	A	6,000	16,287	0	7,832	12,666
01267	GREENWOOD COUNTY ATTORNEY	A	15,000	38,271	0	19,305	31,220
01290	APPALACHIAN POWER COMPANY	A	14,760	90,292	0	24,918	40,298
01333	PACIFIC GAS & ELECTRIC COMPANY	A	6,750	15,303	0	8,472	13,701
01354	PACIFIC GAS & ELECTRIC COMPANY	A	28,700	17,945	0	30,719	49,679
01388	SOUTHERN CALIFORNIA EDISON CO.	A	11,250	13,159	0	12,730	20,587
01389	SOUTHERN CALIFORNIA EDISON CO.	A	11,850	31,293	0	15,370	24,856
01390	SOUTHERN CALIFORNIA EDISON CO.	A	3,000	5,623	0	3,633	5,875
01394	SOUTHERN CALIFORNIA EDISON CO.	A	28,565	89,676	0	38,654	62,512
01403	PACIFIC GAS & ELECTRIC COMPANY	A	12,000	59,492	0	18,693	30,230

Maximum Charge
* Estimated (MWH)

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MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
ASSESSMENT TABLE FOR FERC ACTUAL ADMINISTRATIVE CHARGES

PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge	
01651	LOWER VALLEY ENERGY, INC.	A	1,537	0	0	1,537	2,485	
01744	PACIFICORP	A	3,848	13,503	0	5,367	8,679	
01759	WISCONSIN ELECTRIC POWER COMPANY	A	1,800	6,818	0	2,567	4,151	
01855	TRANSCANADA HYDRO NORTHEAST, INC.	A	40,800	190,663	0	62,250	100,672	
01864	UPPER PENINSULA POWER COMPANY	A	12,000	64,945	0	19,306	31,222	
01869	NORTHWESTERN CORPORATION	A	92,625	467,225	0	145,188	234,802	
01881	PPL HOLTWOOD, LLC	A	112,540	824,031	0	205,244	331,926	
01888	YORK HAVEN POWER COMPANY	A	19,627	126,572	0	33,866	54,769	
01889	FIRSTLIGHT HYDRO GENERATING COMPANY	A	67,709	285,020	0	99,774	161,357	
01892	TRANSCANADA HYDRO NORTHEAST, INC.	A	35,625	148,870	0	52,373	84,699	
01893	PUBLIC SERVICE CO. OF NEW HAMPSHIRE	A	29,900	126,162	0	44,093	71,308	
01894	SOUTH CAROLINA ELECTRIC AND GAS CO	C	526,080	523,456	706,813	531,958	860,298	
01904	TRANSCANADA HYDRO NORTHEAST, INC.	A	32,400	148,674	0	49,126	79,448	
01927	PACIFICORP	A	194,210	717,464	0	274,925	444,617	
01930	SOUTHERN CALIFORNIA EDISON CO.	A	26,300	147,080	0	42,847	69,293	
01933	SOUTHERN CALIFORNIA EDISON CO.	A	6,300	4,727	0	6,832	11,048	
01934	SOUTHERN CALIFORNIA EDISON CO.	A	3,000	7,167	0	3,806	6,155	
01940	WISCONSIN PUBLIC SERVICE CORP	A	2,625	14,380	0	4,243	6,861	
01951	GEORGIA POWER COMPANY	A	45,000	140,295	0	60,783	98,300	
01953	CONSOLIDATED WATER POWER CO.	A	7,200	51,115	0	12,951	20,944	
01960	DAIRYLAND POWER COOPERATIVE	A	17,640	95,038	0	28,332	45,819	
01962	PACIFIC GAS & ELECTRIC COMPANY	A	180,000	563,738	0	243,421	393,667	
01966	WISCONSIN PUBLIC SERVICE CORP	A	17,250	116,240	0	30,327	49,045	
01971	IDAHO POWER COMPANY	A	1,166,925	4,743,583	0	1,700,578	1,446,826	#
01975	IDAHO POWER COMPANY	A	68,600	290,527	0	101,284	163,799	
01979	WISCONSIN PUBLIC SERVICE CORP	A	4,200	27,198	0	7,260	11,741	
01980	WISCONSIN ELECTRIC POWER COMPANY	A	21,500	112,664	0	34,175	55,268	
01982	NORTHERN STATES POWER COMPANY (WI)	A	33,750	149,264	0	50,542	81,738	
01984	WISCONSIN RIVER POWER COMPANY	A	35,000	246,017	0	62,677	101,363	
01988	PACIFIC GAS & ELECTRIC COMPANY	A	193,160	359,332	0	233,585	377,760	
01999	WISCONSIN PUBLIC SERVICE CORP	A	5,400	38,848	0	9,770	15,800	
02009	VIRGINIA ELECTRIC AND POWER COMPANY	A	324,000	891,188	0	424,259	686,124	
02017	SOUTHERN CALIFORNIA EDISON CO.	A	98,822	311,370	0	133,851	216,467	
02030	PORTLAND GENERAL ELECTRIC COMPANY	A	370,650	1,424,390	0	530,894	858,578	

Maximum Charge
* Estimated (MWH)

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MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
ASSESSMENT TABLE FOR FERC ACTUAL ADMINISTRATIVE CHARGES

PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
02032	LOWER VALLEY ENERGY, INC.	A	1,631	0	0	1,631	2,637
02047	ERIE BOULEVARD HYDROPOWER, LP	A	30,000	111,599	0	42,555	68,821
02055	IDAHO POWER COMPANY	A	82,800	378,373	0	125,367	202,747
02056	NORTHERN POWER WISCONSIN CORPORATION	A	13,896	91,658	0	24,208	39,149
02058	AVISTA CORPORATION	A	751,000	3,289,485	0	1,121,067	1,446,826
02061	IDAHO POWER COMPANY	A	60,000	190,391	0	81,419	131,673
02071	PACIFICORP	A	134,000	594,222	0	200,850	324,820
02073	WISCONSIN ELECTRIC POWER COMPANY	A	9,600	33,689	0	13,390	21,654
02074	WISCONSIN ELECTRIC POWER COMPANY	A	2,800	9,695	0	3,891	6,292
02077	TRANSCANADA HYDRO NORTHEAST, INC.	A	278,260	614,583	0	347,401	561,827
02082	PACIFICORP	A	168,973	499,536	0	225,171	364,153
02084	ERIE BOULEVARD HYDROPOWER, LP	A	102,389	380,072	0	145,147	234,736
02085	SOUTHERN CALIFORNIA EDISON CO.	A	150,938	600,072	0	218,446	353,277
02090	GREEN MOUNTAIN POWER CORP.	A	5,520	16,013	0	7,321	11,839
02105	PACIFIC GAS & ELECTRIC COMPANY	A	342,628	591,767	0	409,202	661,774
02106	PACIFIC GAS & ELECTRIC COMPANY	A	340,500	1,244,264	0	480,480	777,046
02107	PACIFIC GAS & ELECTRIC COMPANY	A	142,830	331,112	0	180,080	291,230
02110	CONSOLIDATED WATER POWER CO.	A	3,840	32,738	0	7,523	12,166
02111	PACIFICORP	A	240,000	724,512	0	321,508	519,952
02130	PACIFIC GAS & ELECTRIC COMPANY	A	88,650	429,584	0	136,978	221,525
02131	WISCONSIN ELECTRIC POWER COMPANY	A	7,200	30,542	0	10,636	17,200
02142	BROOKFIELD WHITE PINE HYDRO LLC	A	76,400	192,522	0	98,059	158,584
02146	ALABAMA POWER COMPANY	A	960,900	2,916,490	0	1,289,005	1,446,826
02150	PUGET SOUND ENERGY, INC	A	170,030	694,977	0	248,215	401,420
02155	PACIFIC GAS & ELECTRIC COMPANY	A	7,000	24,395	0	9,745	15,759
02161	SPECIALTY PAPERS ACQUISITIONS, LLC	A	2,120	10,764	0	3,331	5,387
02165	ALABAMA POWER COMPANY	A	53,985	0	0	53,985	87,306
02165A	ALABAMA POWER COMPANY	A	157,500	274,455	0	188,376	304,647
02169	BROOKFIELD SMOKEY MOUNTAIN HYDRO	A	377,700	1,236,007	0	516,751	835,705
02170	CHUGACH ELECTRIC ASSOCIATION INC.	A	19,380	60,695	0	26,208	42,384
02174	SOUTHERN CALIFORNIA EDISON CO.	A	10,500	10,249	0	11,653	18,845
02175	SOUTHERN CALIFORNIA EDISON CO.	A	154,850	440,970	0	204,459	330,657
02177	GEORGIA POWER COMPANY	A	129,300	489,221	0	184,337	298,115
02180	PCA HYDRO, INC.	A	3,000	16,790	0	4,889	7,906

Maximum Charge
* Estimated (MWH)

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ACTUAL

FEDERAL ENERGY REGULATORY COMMISSION
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MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
ASSESSMENT TABLE FOR FERC ACTUAL ADMINISTRATIVE CHARGES

PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
02181	NORTHERN STATES POWER COMPANY (WI)	A	5,400	33,540	0	9,173	14,834
02188	NORTHWESTERN CORPORATION	A	289,300	1,768,389	0	488,244	789,603
02192	CONSOLIDATED WATER POWER CO.	A	6,232	34,955	0	10,164	16,437
02194	BROOKFIELD WHITE PINE HYDRO LLC	A	4,000	7,312	0	4,823	7,799
02195	PORTLAND GENERAL ELECTRIC COMPANY	A	136,645	621,177	0	206,527	334,001
02197	YADKIN, INC.	A	212,440	927,868	0	316,825	512,379
02203	ALABAMA POWER COMPANY	A	46,944	157,890	0	64,707	104,646
02205	GREEN MOUNTAIN POWER CORP.	A	21,050	76,562	0	29,663	47,971
02206	DUKE ENERGY PROGRESS, INC.	A	108,600	317,908	0	144,365	233,471
02207	SPECIALTY PAPERS ACQUISITIONS, LLC	A	3,050	25,067	0	5,870	9,493
02210	APPALACHIAN POWER COMPANY	C	636,000	603,236	499,397	666,409	1,077,737
02211	DUKE ENERGY INDIANA, INC.	A	64,800	358,449	0	105,126	170,012
02212	DOMTAR PAPER COMPANY, LLC	A	3,708	16,390	0	5,552	8,978
02219	GARKANE POWER ASSOCIATION, INC.	A	4,300	21,822	0	6,755	10,924
02221	EMPIRE DISTRICT ELECTRIC CO.	A	15,975	60,641	0	22,797	36,868
02232	DUKE ENERGY CAROLINAS, LLC	A	819,102	1,725,385	0	1,013,208	1,446,826
02233	PORTLAND GENERAL ELECTRIC COMPANY	A	15,655	93,651	0	26,191	42,356
02237	GEORGIA POWER COMPANY	A	16,800	31,350	0	20,327	32,873
02239	TOMAHAWK POWER & PULP COMPANY	A	2,509	13,354	0	4,011	6,486
02255	DOMTAR WISCONSIN DAM CORP	A	3,324	25,080	0	6,146	9,939
02256	CONSOLIDATED WATER POWER CO.	A	9,182	56,802	0	15,572	25,183
02277	UNION ELECTRIC COMPANY	B	442,500	297,515	413,686	442,500	715,624
02280	SENECA GENERATION, LLC	C	451,800	548,134	734,956	458,343	741,246
02283	BROOKFIELD WHITE PINE HYDRO LLC	A	37,232	170,970	0	56,466	91,318
02284	BROOKFIELD WHITE PINE HYDRO LLC	A	18,975	90,222	0	29,125	47,101
02287	PUBLIC SERVICE CO. OF NEW HAMPSHIRE	A	15,000	97,980	0	26,023	42,085
02288	PUBLIC SERVICE CO. OF NEW HAMPSHIRE	A	2,153	10,450	0	3,329	5,383
02290	SOUTHERN CALIFORNIA EDISON CO.	A	40,200	191,537	0	61,748	99,860
02291	DOMTAR WISCONSIN DAM CORP	A	3,443	19,226	0	5,606	9,066
02292	DOMTAR WISCONSIN DAM CORP	A	3,535	27,029	0	6,576	10,634
02300	GREAT LAKES HYDRO AMERICA, LLC	A	3,675	13,203	0	5,160	8,344
02301	NORTHWESTERN CORPORATION	A	12,000	51,290	0	17,770	28,738
02302	BROOKFIELD WHITE PINE HYDRO LLC	A	36,354	137,190	0	51,788	83,753
02306	GREAT BAY HYDRO CORP	A	4,675	17,799	0	6,677	10,798

Maximum Charge
* Estimated (MWH)

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ACTUAL

FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF THE CHIEF FINANCIAL OFFICER

MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
ASSESSMENT TABLE FOR FERC ACTUAL ADMINISTRATIVE CHARGES

PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
02307	ALASKA ELECTRIC LIGHT & POWER CO.	A	10,300	58,460	0	16,877	27,294
02309	PSEG FOSSIL LLC	B	364,500	488,085	672,813	364,500	589,480
02310	PACIFIC GAS & ELECTRIC COMPANY	A	181,200	608,413	0	249,646	403,735
02311	GREAT LAKES HYDRO AMERICA, LLC	A	4,800	13,733	0	6,345	10,261
02315	SOUTH CAROLINA ELECTRIC AND GAS CO	A	4,400	22,675	0	6,951	11,241
02318	ERIE BOULEVARD HYDROPOWER, LP	A	20,000	52,014	0	25,852	41,808
02320	ERIE BOULEVARD HYDROPOWER, LP	A	48,323	276,517	0	79,431	128,458
02322	BROOKFIELD WHITE PINE HYDRO LLC	A	8,775	49,680	0	14,364	23,229
02323	TRANSCANADA HYDRO NORTHEAST, INC.	A	74,716	210,918	0	98,444	159,206
02325	BROOKFIELD WHITE PINE HYDRO LLC	A	12,825	76,857	0	21,472	34,725
02326	GREAT LAKES HYDRO AMERICA, LLC	A	3,218	16,126	0	5,032	8,137
02327	GREAT LAKES HYDRO AMERICA, LLC	A	7,920	39,708	0	12,387	20,032
02329	BROOKFIELD WHITE PINE HYDRO LLC	A	83,700	326,085	0	120,385	194,690
02330	ERIE BOULEVARD HYDROPOWER, LP	A	14,080	62,900	0	21,156	34,214
02331	DUKE ENERGY CAROLINAS, LLC	A	20,000	61,249	0	26,891	43,488
02332	DUKE ENERGY CAROLINAS, LLC	A	8,500	12,211	0	9,874	15,968
02333	RUMFORD FALLS HYDRO, LLC	A	44,500	223,754	0	69,672	112,675
02334	NAEA ENERGY MASSACHUSETTS LLC	A	3,600	3,434	0	3,986	6,446
02335	BROOKFIELD WHITE PINE HYDRO LLC	A	13,125	87,193	0	22,934	37,089
02336	GEORGIA POWER COMPANY	A	18,000	70,068	0	25,883	41,858
02337	PACIFICORP	A	7,200	29,195	0	10,484	16,955
02342	PACIFICORP	A	13,700	0	0	13,700	22,156
02343	CUBE HYDRO PARTNERS, LLC	A	2,850	13,329	0	4,350	7,034
02351	PUBLIC SERVICE CO. OF COLORADO	B	300,000	296,512	468,226	300,000	485,169
02354	GEORGIA POWER COMPANY	A	168,400	443,718	0	218,318	353,070
02355	EXELON GENERATION COMPANY, LLC	B	828,000	1,153,097	1,485,806	828,000	1,339,066
02357	WISCONSIN ELECTRIC POWER COMPANY	A	8,000	40,159	0	12,518	20,244
02360	ALLETE, INC	A	87,600	525,893	0	146,763	237,349
02362	ALLETE, INC	A	2,100	4,367	0	2,591	4,190
02363	SAPPI CLOQUET LLC	A	6,500	29,852	0	9,858	15,942
02364	MADISON PAPER CORP.	A	18,800	73,954	0	27,120	43,859
02365	MADISON PAPER CORP.	A	9,000	43,303	0	13,872	22,434
02375	VERSO ANDROSCOGGIN POWER LLC	A	19,725	54,467	0	25,853	41,810
02376	APPALACHIAN POWER COMPANY	A	12,525	0	0	12,525	20,255

Maximum Charge
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ACTUAL

FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF THE CHIEF FINANCIAL OFFICER

MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
ASSESSMENT TABLE FOR FERC ACTUAL ADMINISTRATIVE CHARGES

PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
02381	PACIFICORP	A	7,350	29,231	0	10,638	17,204
02385	FH OPCO, LLC	A	11,775	54,424	0	17,898	28,945
02390	LAKE SUPERIOR DISTRICT POWER CO.	A	7,800	53,390	0	13,806	22,327
02392	AMPERSAND GILMAN HYDRO LP	A	4,845	24,358	0	7,585	12,266
02394	WISCONSIN ELECTRIC POWER COMPANY	A	7,800	37,768	0	12,049	19,486
02402	UPPER PENINSULA POWER COMPANY	A	2,200	8,432	0	3,149	5,092
02404	THUNDER BAY POWER, LLC	A	7,250	35,669	0	11,263	18,214
02407	ALABAMA POWER COMPANY	A	125,600	408,626	0	171,570	277,468
02411	STS HYDROPOWER LTD & DAN RIVER INC	A	4,500	18,983	0	6,636	10,731
02413	GEORGIA POWER COMPANY	C	324,000	374,026	312,982	342,604	554,069
02416	AQUENERGY SYSTEMS LLC	A	6,200	9,087	0	7,222	11,679
02420	PACIFICORP	A	30,000	59,412	0	36,684	59,326
02422	GREAT LAKES HYDRO AMERICA, LLC	A	3,173	15,705	0	4,940	7,989
02423	GREAT LAKES HYDRO AMERICA, LLC	A	7,900	52,409	0	13,796	22,311
02425	CUBE HYDRO PARTNERS, LLC	A	3,000	12,833	0	4,444	7,186
02431	WISCONSIN ELECTRIC POWER COMPANY	A	5,335	17,749	0	7,332	11,857
02433	WISCONSIN PUBLIC SERVICE CORP	A	7,150	27,451	0	10,238	16,557
02436	CONSUMERS POWER COMPANY	A	7,229	31,592	0	10,783	17,438
02438	SENECA FALLS POWER CORPORATION	A	7,440	13,282	0	8,934	14,448
02440	NORTHERN STATES POWER COMPANY (WI)	A	21,600	97,765	0	32,599	52,720
02446	STS HYDROPOWER, LTD.	A	3,203	16,345	0	5,042	8,154
02447	CONSUMERS POWER COMPANY	A	7,950	30,479	0	11,379	18,402
02448	CONSUMERS POWER COMPANY	A	3,885	17,155	0	5,815	9,404
02449	CONSUMERS POWER COMPANY	A	3,975	19,804	0	6,203	10,031
02450	CONSUMERS POWER COMPANY	A	6,609	29,576	0	9,936	16,068
02451	CONSUMERS POWER COMPANY	A	5,418	18,469	0	7,496	12,122
02452	CONSUMERS POWER COMPANY	A	29,600	110,573	0	42,039	67,986
02453	CONSUMERS POWER COMPANY	A	6,000	27,054	0	9,044	14,626
02454	ALLETE, INC	A	1,800	12,201	0	3,173	5,131
02456	PUBLIC SERVICE CO. OF NEW HAMPSHIRE	A	8,400	40,935	0	13,005	21,032
02457	PUBLIC SERVICE CO. OF NEW HAMPSHIRE	A	6,375	26,213	0	9,324	15,079
02458	GREAT LAKES HYDRO AMERICA, LLC	A	70,810	318,878	0	106,684	172,532
02459	LAKE LYNN GENERATION, LLC	A	51,203	103,969	0	62,900	101,723
02466	APPALACHIAN POWER COMPANY	A	2,400	0	0	2,400	3,881

Maximum Charge
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ACTUAL

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MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
ASSESSMENT TABLE FOR FERC ACTUAL ADMINISTRATIVE CHARGES

PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
02468	CONSUMERS POWER COMPANY	A	7,473	39,888	0	11,960	19,342
02474	ERIE BOULEVARD HYDROPOWER, LP	A	18,050	48,862	0	23,547	38,080
02482	ERIE BOULEVARD HYDROPOWER, LP	A	81,600	352,739	0	121,283	196,142
02485	FIRSTLIGHT HYDRO GENERATING COMPANY	B	1,166,800	1,014,075	1,347,610	1,166,800	1,446,826
02486	WISCONSIN ELECTRIC POWER COMPANY	A	3,600	16,741	0	5,483	8,867
02491	NORTHERN STATES POWER COMPANY (WI)	A	49,200	204,637	0	72,222	116,799
02493	PUGET SOUND ENERGY, INC	A	44,400	184,425	0	65,148	105,359
02503	DUKE ENERGY CAROLINAS, LLC	C	867,600	1,337,916	1,454,069	909,060	1,446,826
02506	UPPER PENINSULA POWER COMPANY	A	8,985	31,769	0	12,559	20,310
02512	HAWKS NEST HYDRO LLC	A	107,475	638,502	0	179,307	289,980
02513	GREEN MOUNTAIN POWER CORP.	A	7,200	36,753	0	11,335	18,331
02514	APPALACHIAN POWER COMPANY	A	30,100	96,284	0	40,932	66,196
02516	CUBE HYDRO PARTNERS, LLC	A	1,900	9,566	0	2,976	4,812
02519	BROOKFIELD WHITE PINE HYDRO LLC	A	2,190	10,476	0	3,369	5,448
02520	GREAT LAKES HYDRO AMERICA, LLC	A	19,200	116,683	0	32,327	52,280
02522	WISCONSIN PUBLIC SERVICE CORP	A	3,520	13,379	0	5,025	8,126
02525	WISCONSIN PUBLIC SERVICE CORP	A	6,400	19,622	0	8,607	13,919
02527	BROOKFIELD WHITE PINE HYDRO LLC	A	21,600	100,173	0	32,869	53,156
02528	BROOKFIELD WHITE PINE HYDRO LLC	A	6,550	26,492	0	9,530	15,412
02529	BROOKFIELD WHITE PINE HYDRO LLC	A	7,200	45,119	0	12,276	19,853
02530	BROOKFIELD WHITE PINE HYDRO LLC	A	10,875	46,450	0	16,101	26,039
02531	BROOKFIELD WHITE PINE HYDRO LLC	A	7,812	29,251	0	11,103	17,956
02532	ALLETE, INC	A	4,718	35,792	0	8,745	14,142
02534	BLACK BEAR HYDRO PARTNERS, LLC	A	6,400	43,566	0	11,301	18,276
02535	SOUTH CAROLINA ELECTRIC AND GAS CO	A	17,280	65,600	0	24,660	39,880
02536	NORTHBROOK WISCONSIN, LLC	A	9,100	0	0	9,100	14,716
02538	ERIE BOULEVARD HYDROPOWER, LP	A	8,000	44,256	0	12,979	20,990
02539	ERIE BOULEVARD HYDROPOWER, LP	A	38,800	138,276	0	54,356	87,906
02545	AVISTA CORPORATION	A	146,070	770,953	0	232,802	376,494
02546	WISCONSIN PUBLIC SERVICE CORP	A	3,840	23,881	0	6,527	10,555
02548	NORTHBROOK LYONS FALLS, LLC	A	8,644	45,716	0	13,787	22,296
02551	INDIANA MICHIGAN POWER COMPANY	A	3,900	16,718	0	5,781	9,349
02554	ERIE BOULEVARD HYDROPOWER, LP	A	6,000	24,231	0	8,726	14,111
02556	MESSALONSKEE STREAM HYDRO, LLC	A	5,975	20,745	0	8,309	13,437

Maximum Charge
* Estimated (MWH)

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ACTUAL

FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF THE CHIEF FINANCIAL OFFICER

MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
ASSESSMENT TABLE FOR FERC ACTUAL ADMINISTRATIVE CHARGES

PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
02558	GREEN MOUNTAIN POWER CORP.	A	14,349	12,496	0	15,755	25,479
02561	SHO-ME POWER ELEC. COOPERATIVE	A	3,000	0	0	3,000	4,851
02566	CONSUMERS POWER COMPANY	A	3,250	8,955	0	4,257	6,884
02567	NORTHERN STATES POWER COMPANY (WI)	A	36,000	209,791	0	59,601	96,388
02569	ERIE BOULEVARD HYDROPOWER, LP	A	29,600	119,211	0	43,011	69,558
02570	AEP GENERATION RESOURCES, INC	A	47,475	219,253	0	72,141	116,668
02572	GREAT LAKES HYDRO AMERICA, LLC	A	37,500	218,914	0	62,128	100,475
02574	MERIMIL LIMITED PARTNERSHIP	A	6,915	32,507	0	10,572	17,097
02576	FIRSTLIGHT HYDRO GENERATING COMPANY	C	114,900	171,168	4,702	133,804	216,391
02579	INDIANA MICHIGAN POWER COMPANY	A	4,800	26,980	0	7,835	12,671
02580	CONSUMERS POWER COMPANY	A	14,255	65,419	0	21,615	34,956
02582	ROCHESTER GAS & ELECTRIC CORP.	A	14,800	8,623	0	15,770	25,503
02583	ROCHESTER GAS & ELECTRIC CORP.	A	43,875	121,209	0	57,511	93,008
02584	ROCHESTER GAS & ELECTRIC CORP.	A	3,000	3,539	0	3,398	5,495
02586	POWERSOUTH ENERGY COOPERATIVE	A	8,250	22,823	0	10,818	17,495
02587	LAKE SUPERIOR DISTRICT POWER CO.	A	1,650	12,504	0	3,057	4,943
02590	CONSOLIDATED WATER POWER CO.	A	6,368	30,241	0	9,770	15,800
02594	NORTHERN LIGHTS, INC.	A	4,500	25,729	0	7,395	11,959
02595	WISCONSIN PUBLIC SERVICE CORP	A	7,000	22,437	0	9,524	15,402
02599	CONSUMERS POWER COMPANY	A	13,884	51,943	0	19,728	31,904
02600	BANGOR PACIFIC HYDRO ASSOCIATES	A	12,975	99,091	0	24,123	39,012
02609	CURTIS/PALMER HYDRO CO, LP	A	58,800	290,012	0	91,426	147,856
02611	HYDRO KENNEBEC, LLC	A	15,433	58,449	0	22,009	35,593
02614	AMERICAN MUNICIPAL POWER	A	70,575	0	0	70,575	114,136
02615	BRASSUA (OWNERS) HYDROELECTRIC LIMITED P	A	4,178	16,772	0	6,065	9,808
02616	ERIE BOULEVARD HYDROPOWER, LP	A	18,500	46,023	0	23,678	38,292
02619	DUKE ENERGY CAROLINAS, LLC	A	1,800	4,386	0	2,293	3,708
02620	LOCKHART POWER COMPANY	A	18,000	59,861	0	24,734	40,000
02621	LOCKHART POWER COMPANY	A	1,900	7,016	0	2,689	4,348
02628	ALABAMA POWER COMPANY	A	142,500	164,353	0	160,990	260,357
02630	PACIFICORP	A	41,560	210,956	0	65,293	105,593
02631	WORONOCO HYDRO, LLC	A	2,700	10,517	0	3,883	6,279
02639	NORTHERN STATES POWER COMPANY (WI)	A	30,750	132,523	0	45,659	73,841
02645	ERIE BOULEVARD HYDROPOWER, LP	A	44,800	179,237	0	64,964	105,061

Maximum Charge
* Estimated (MWH)

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PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge	
02651	INDIANA MICHIGAN POWER COMPANY	A	3,440	12,577	0	4,855	7,851	
02652	PACIFICORP	A	4,150	27,478	0	7,241	11,710	
02661	PACIFIC GAS & ELECTRIC COMPANY	A	20,000	58,504	0	26,582	42,989	
02662	FIRSTLIGHT HYDRO GENERATING COMPANY	A	2,003	3,772	0	2,427	3,925	
02663	ALLETE, INC	A	1,528	10,993	0	2,765	4,471	
02666	BLACK BEAR HYDRO PARTNERS, LLC	A	3,440	27,834	0	6,571	10,626	
02669	BEAR SWAMP POWER COMPANY, LLC	C	666,000	493,520	643,091	673,289	1,088,863	
02670	NORTHERN STATES POWER COMPANY (WI)	A	8,680	67,151	0	16,234	26,254	
02674	GREEN MOUNTAIN POWER CORP.	A	2,600	10,133	0	3,740	6,048	
02680	CONSUMERS POWER COMPANY	B	1,657,500	1,695,422	2,348,742	1,657,500	1,446,826	#
02686	DUKE ENERGY CAROLINAS, LLC	A	19,525	75,471	0	28,015	45,306	
02687	PACIFIC GAS & ELECTRIC COMPANY	A	69,300	200,916	0	91,903	148,628	
02689	N.E.W. HYDRO, LLC	A	1,811	9,414	0	2,870	4,641	
02692	DUKE ENERGY CAROLINAS, LLC	A	43,200	222,956	0	68,283	110,429	
02696	TOWN OF STUYVESANT/STUYVESANT FALLS HYDR	A	4,200	9,301	0	5,246	8,483	
02697	NORTHERN STATES POWER COMPANY (WI)	A	6,000	47,904	0	11,389	18,418	
02698	DUKE ENERGY CAROLINAS, LLC	A	23,885	85,190	0	33,469	54,127	
02701	ERIE BOULEVARD HYDROPOWER, LP	A	39,750	213,629	0	63,783	103,151	
02710	BLACK BEAR HYDRO PARTNERS, LLC	A	2,332	35,763	0	6,355	10,277	
02712	BLACK BEAR HYDRO PARTNERS, LLC	A	1,950	22,667	0	4,500	7,277	
02713	ERIE BOULEVARD HYDROPOWER, LP	A	28,560	80,045	0	37,565	60,751	
02716	VIRGINIA ELECTRIC AND POWER COMPANY	B	2,484,000	3,375,741	4,182,241	2,484,000	1,446,826	#
02722	PACIFICORP	A	5,000	11,456	0	6,289	10,170	
02725	OGLETHORPE CORP. & GEORGIA POWER	B	904,000	1,448,265	1,925,680	904,000	1,446,826	
02726	IDAHO POWER COMPANY	A	21,770	123,216	0	35,632	57,625	
02727	BLACK BEAR HYDRO PARTNERS, LLC	A	8,925	29,972	0	12,297	19,887	
02731	GREEN MOUNTAIN POWER CORP.	A	3,000	11,015	0	4,239	6,855	
02735	PACIFIC GAS & ELECTRIC COMPANY	B	1,050,000	0	0	1,050,000	1,446,826	
02736	IDAHO POWER COMPANY	A	92,250	246,512	0	119,983	194,040	
02737	GREEN MOUNTAIN POWER CORP.	A	2,250	6,637	0	2,997	4,846	
02738	NEW YORK STATE ELECTRIC & GAS CORP.	A	38,910	148,158	0	55,578	89,882	
02740	DUKE ENERGY CAROLINAS, LLC	B	1,065,000	2,216,279	2,818,431	1,065,000	1,446,826	
02742	COOPPER VALLEY ELECTRIC ASSOCIATION, INC	A	12,000	57,590	0	18,479	29,884	
02743	KODAK ELECTRIC ASSOCIATION, INC	A	30,000	123,486	0	43,892	70,983	

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ACTUAL

FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF THE CHIEF FINANCIAL OFFICER

MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
ASSESSMENT TABLE FOR FERC ACTUAL ADMINISTRATIVE CHARGES

PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
02744	N.E.W. HYDRO, LLC	A	4,433	27,004	0	7,471	12,082
02769	ALLEGHENY ELEC COOP & CT BANK &	A	20,250	67,996	0	27,900	45,120
02777	IDAHO POWER COMPANY	A	34,500	179,647	0	54,710	88,478
02778	IDAHO POWER COMPANY	A	11,875	61,625	0	18,808	30,416
02785	BOYCE HYDRO POWER, LLC	A	3,300	9,920	0	4,416	7,141
02790	BOOTT HYDRO INC/ GE CREDIT CO	A	24,750	69,471	0	32,566	52,666
02800	LAWRENCE HYDRO ELECTRIC ASSOCIATES	A	16,800	62,988	0	23,886	38,629
02814	PATERSON MUNI & GREAT FALLS HYDRO	A	11,025	10,387	0	12,194	19,720
02835	NEW YORK STATE ELECTRIC & GAS CORP.	A	2,640	0	0	2,640	4,269
02837	ERIE BOULEVARD HYDROPOWER, LP	A	10,080	31,905	0	13,669	22,105
02848	IDAHO POWER COMPANY	A	12,420	42,307	0	17,180	27,784
02850	HAMPSHIRE PAPER COMPANY INC	A	3,449	16,332	0	5,286	8,548
02854	VIDALIA/CATALYST, LTD. PARTNERSHIP	A	192,000	1,096,880	0	315,399	510,072
02861	PONTOOK HYD PART/NH WATER RES. BRD.	A	9,600	54,679	0	15,751	25,473
02879	GREEN MOUNTAIN POWER CORP.	A	8,775	23,122	0	11,376	18,397
02880	AQUENERGY SYSTEMS LLC	A	4,140	10,071	0	5,273	8,527
02883	AQUENERGY SYSTEMS LLC	A	5,925	27,668	0	9,038	14,616
02899	MILNER DAM, INC.	A	59,475	33,916	0	63,291	102,356
02901	HOLCOMB ROCK COMPANY	A	1,875	6,089	0	2,560	4,140
02931	S. D. WARREN	A	1,900	6,499	0	2,631	4,254
02934	NEW YORK STATE ELECTRIC & GAS CORP.	A	18,503	46,261	0	23,707	38,339
02942	S. D. WARREN	A	2,400	13,136	0	3,878	6,271
02966	CLEMENT DAM HYDROELECTRIC, LLC	A	2,400	5,797	0	3,052	4,935
02973	FALLS RIVER RURAL ELECTRIC CORP., INC	A	4,800	14,365	0	6,416	10,376
02984	S. D. WARREN	A	1,800	7,200	0	2,610	4,220
03021	ALLEGHENY HYDRO # 8&9, US BANK NAT. ASSO	A	30,375	195,669	0	52,388	84,723
03023	BLACKSTONE HYDRO, INC.	A	1,725	2,171	0	1,969	3,184
03033	ARKANSAS ELECTRIC COOP CORP.	A	102,600	369,085	0	144,122	233,078
03043	AECC ABD MERIDIAN TRUST COMPANY	A	33,188	129,343	0	47,739	77,204
03044	ARKANSAS ELECTRIC COOP CORP.	A	32,400	156,056	0	49,956	80,790
03133	BROOKFIELD WHITE PINE HYDRO LLC	A	2,010	15,878	0	3,796	6,139
03174	PTARMIGAN RESOURCES & ENERGY, INC.	A	5,000	22,741	0	7,558	12,223
03189	ROCK CREEK LIMITED PARTNERSHIP	A	5,130	1,279	0	5,274	8,529
03207	PENNSYLVANIA RENEWABLE RESOURCES	A	15,000	38,549	0	19,337	31,272

Maximum Charge
* Estimated (MWH)

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PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
03239	KOMA KULSHAN ASSOCIATES, LP	A	12,000	44,336	0	16,988	27,473
03240	BRIAR-HYDRO ASSOCIATES	A	4,283	17,719	0	6,276	10,149
03251	CORNELL UNIVERSITY	A	1,718	4,173	0	2,187	3,536
03255	CUBE HYDRO PARTNERS, LLC	A	3,000	11,978	0	4,348	7,031
03342	BRIAR HYDRO ASSOCIATES	A	4,598	17,696	0	6,589	10,655
03407	MAGIC RESERVOIR HYDROELECTRIC, INC.	A	9,000	17,192	0	10,934	17,682
03428	MILLER HYDRO GROUP, INC.	A	19,400	84,914	0	28,953	46,823
03442	MINE FALLS LTD PTR/NASHUA CITY	A	3,000	6,269	0	3,705	5,991
03472	SUMMIT HYDROPOWER	A	2,781	6,345	0	3,495	5,652
03494	CUBE HYDRO PARTNERS, LLC	A	8,550	37,858	0	12,809	20,715
03509	LITTLE FALLS HYDROELECTRIC ASSOC.	A	13,598	47,542	0	18,947	30,641
03574	TIBER MONTANA, LLC	A	7,500	52,609	0	13,419	21,701
03671	CUBE HYDRO PARTNERS, LLC	A	9,525	39,496	0	13,968	22,589
03819	STS HYDROPOWER, LTD.	A	2,798	5,972	0	3,470	5,611
03820	GENERAL ELECTRIC COMPANY	A	2,220	0	0	2,220	3,590
04026	ANDROSCOGGIN RESERVOIR CO.	A	5,325	28,788	0	8,564	13,849
04113	OSWEGO HYDRO PARTNERS, L.P.	A	3,180	9,388	0	4,236	6,850
04114	LOWER SARANAC HYDRO PARTNERS LLC	A	9,300	23,450	0	11,938	19,306
04334	EONY GENERATION LIMITED	A	3,645	6,119	0	4,333	7,007
04349	EONY GENERATION LIMITED	A	11,775	48,876	0	17,274	27,936
04428	CONSOLIDATE HYDRO NEW YORK, LLC	A	2,828	2,878	0	3,152	5,097
04472	ERIE BOULEVARD HYDROPOWER, LP	A	4,868	18,054	0	6,899	11,157
04644	STEVENS & THOMPSON PAPER CO., INC.,	A	10,500	20,418	0	12,797	20,695
04684	GR CATALYST ONE, LLC	A	3,525	14,366	0	5,141	8,314
04784	TOPSHAM HYDRO PARTNERS, DAIMLERCHRYSLER	A	13,875	64,827	0	21,168	34,233
04796	NORTHBROOK NEW YORK, LLC	A	32,625	120,504	0	46,182	74,686
04881	ADA COUNTY AND FULCRUM INC.	A	3,705	12,167	0	5,074	8,205
04885	TWIN FALLS HYDRO ASSOCIATES	A	24,000	74,171	0	32,344	52,307
04900	TRAFALGAR POWER, INC.	A	2,753	9,286	0	3,798	6,142
05062	QUINEBAUG ASSOCIATES, LLC	A	2,167	8,531	0	3,127	5,057
05073	BENTON FALLS ASSOCIATES	A	4,330	17,143	0	6,259	10,122
05089	FALLS RIVER RURAL ELECTRIC CORP., INC	A	7,448	29,813	0	10,802	17,469
05223	INTERNATIONAL FALLS POWER COMPANY	A	14,475	53,212	0	20,461	33,090
05276	NIMO AND NORTHERN ELECTRIC POWER CO	A	44,000	184,464	0	64,752	104,718

Maximum Charge
* Estimated (MWH)

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MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
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PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
05313	HYDRO ENERGIES CORPORATION	A	1,838	4,330	0	2,325	3,760
05376	HORSESHOE BEND HYDROELECTRIC CO	A	7,850	0	0	7,850	12,695
05461	NIMO AND SOUTH GLENS FALLS LTD	A	15,698	62,425	0	22,721	36,745
05698	TRITON POWER COMPANY	A	1,725	4,955	0	2,283	3,692
05867	ALICE FALLS HYDRO LLC	A	2,100	0	0	2,100	3,396
05931	ROSEBURG RES. CO. & MEGA RENEWABLES	A	6,893	0	0	6,893	11,147
05984	ERIE BOULEVARD HYDROPOWER, LP	A	7,360	28,403	0	10,555	17,069
06015	ROCK CREEK HYDRO INC/ BP HYDRO ASSO	A	1,898	7,635	0	2,757	4,458
06032	ALBANY ENGINEERING CORPORATION	A	4,500	20,402	0	6,795	10,989
06058	HYDRO DEVELOPMENT GROUP, INC (NY)	A	1,900	11,212	0	3,161	5,112
06066	MCCALLUM ENTERPRISES I & SHELTON	A	8,500	23,141	0	11,103	17,956
06115	PYRITES ASSOCIATES	A	7,200	23,746	0	9,871	15,963
06221	BLACK CREEK HYDRO, INC.	A	3,698	405	0	3,744	6,054
06597	MONADNOCK PAPER MILLS, INC.	A	1,889	3,491	0	2,282	3,690
06641	AMERICAN MUNICIPAL POWER	A	72,000	0	0	72,000	116,440
06689	BRIAR-HYDRO ASSOCIATES	A	2,813	11,475	0	4,104	6,637
06780	HYDRO SIERRA ENERGY LLC	A	1,963	2,983	0	2,299	3,718
06896	HYPOWER, INC.	A	14,500	42,268	0	19,255	31,139
06902	AMERICAN MUNICIPAL POWER	A	34,995	0	0	34,995	56,594
06951	TALLASSEE SHOALS, LLC	A	1,991	664	0	2,066	3,341
07000	ERIE BOULEVARD HYDROPOWER, LP	A	2,220	7,134	0	3,023	4,888
07120	STS HYDROPOWER, LTD.	A	4,950	9,781	0	6,050	9,784
07153	VICTORY MILLS COMPANY, INC.	A	1,650	5,440	0	2,262	3,658
07186	MISSISQUOI ASSOCIATES	A	24,968	68,662	0	32,693	52,872
07194	BIRCH PWR CO. AND SORENSON LEASING, LLC	A	2,650	11,466	0	3,940	6,371
07282	ROARING CREEK RANCH	A	2,025	7,514	0	2,870	4,641
07320	ERIE BOULEVARD HYDROPOWER, LP	A	3,353	18,484	0	5,432	8,784
07352	TUG HILL ENERGY. INC.	A	1,636	2,413	0	1,907	3,084
07387	ERIE BOULEVARD HYDROPOWER, LP	A	2,700	15,941	0	4,493	7,266
07481	NYSD LIMITED PARTNERSHIP	A	10,830	41,648	0	15,515	25,091
07563	SOUTH FORK II ASSOC. LP	A	4,770	12,267	0	6,150	9,945
08277	VERSO ANDROSCOGGIN POWER LLC	A	10,350	26,710	0	13,355	21,598
08278	CRYSTAL SPRINGS HYDRO, LP	A	2,878	10,437	0	4,052	6,553
08296	MALACHA HYDRO LIMTED PARTNERSHIP &	A	29,925	15,781	0	31,700	51,266

Maximum Charge
* Estimated (MWH)

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08315	EAGLE CREEK SARTELL HYDRO, LLC	A	9,525	39,419	0	13,960	22,576
08361	OLSEN POWER PARTNERS	A	5,003	2,835	0	5,322	8,606
08377	ISABELLA PARTNERS	A	11,950	5,951	0	12,620	20,409
08646	FACKRELL, ROBERT	A	3,075	8,648	0	4,048	6,546
08909	BIG WOOD CANAL CO & BP HYDRO ASSOC	A	4,770	13,740	0	6,316	10,214
09028	BANISTER HYDRO, INC.	A	1,785	4,401	0	2,280	3,687
09074	WARRENSBURG HYDROPOWER LTD PTR	A	2,903	10,748	0	4,112	6,650
09260	SISSONVILLE LIMITED PARTNERSHIP	A	2,198	11,861	0	3,532	5,712
09690	EAGLE CREEK RENEWABLE	A	9,975	17,102	0	11,899	19,243
09709	ECOSPONSIBLE LLC	A	1,710	0	0	1,710	2,765
09821	TRAFALGAR POWER, INC.	A	3,675	9,833	0	4,781	7,731
09840	APPOMATTOX RIVER ASSOC, LP	A	2,850	12,806	0	4,291	6,939
09885	MARYSVILLE HYDRO PARTNERS	A	9,075	34,921	0	13,004	21,030
09951	STS FRENCH LANDING/VAN BUREN, (MI)	A	1,800	6,249	0	2,503	4,047
10228	AMERICAN MUNICIPAL POWER	A	84,000	0	0	84,000	135,847
10253	CONSOLIDATED HYDRO SOUTHEAST,INC &	A	3,300	11,623	0	4,608	7,452
10254	CONSOLIDATED HYDRO SOUTHEAST,INC &	A	1,950	7,934	0	2,843	4,597
10440	BBL HYDRO, INC.	A	4,500	20,980	0	6,860	11,094
10461	ERIE BOULEVARD HYDROPOWER, LP	A	6,800	33,785	0	10,601	17,144
10468	MARSH VALLEY DEVELOPMENT, INC.	A	1,650	4,453	0	2,151	3,478
10481	EAGLE CREEK RENEWABLE	A	3,975	6,586	0	4,716	7,626
10482	AER NY-GEN, LLC	A	11,775	5,648	0	12,410	20,069
10615	TOWER KLEBER LIMITED PARTNERSHIP	A	1,800	0	0	1,800	2,911
10805	MIDWEST HYDRAULIC COMPANY, LLC	A	7,200	27,784	0	10,326	16,699
10808	BOYCE HYDRO POWER, LLC	A	4,800	20,668	0	7,125	11,522
10819	IDAHO WATER RESOURCE BOARD	A	2,500	19,492	0	4,693	7,589
10853	OTTER TAIL POWER COMPANY	A	3,450	20,892	0	5,800	9,379
10855	UPPER PENINSULA POWER COMPANY	A	11,200	44,164	0	16,169	26,149
11077	ALASKA POWER AND TELEPHONE COMPANY	A	4,000	15,960	0	5,796	9,373
11162	WISCONSIN POWER AND LIGHT CO.	A	29,000	155,829	0	46,531	75,251
11175	CROWN HYDRO COMPANY	A	3,400	0	0	3,400	5,498
11243	CORDOVA ELECTRIC COOPERATIVE, INC.	A	6,000	16,771	0	7,887	12,755
11408	ERIE BOULEVARD HYDROPOWER, LP	A	36,250	109,018	0	48,515	78,459
11437	JORDAN HYDRO ELECTRIC PARTNERSHIP, LTD	A	4,400	0	0	4,400	7,115

Maximum Charge
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PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
11475	GREEN MOUNTAIN POWER CORP.	A	2,251	5,346	0	2,852	4,612
11478	GREEN MOUNTAIN POWER CORP.	A	2,200	4,461	0	2,702	4,369
11480	HAIDA ENERGY	A	5,000	0	0	5,000	8,086
11588	ALASKA POWER AND TELEPHONE COMPANY	A	3,000	7,718	0	3,868	6,255
11830	WISCONSIN ELECTRIC POWER COMPANY	A	12,000	46,897	0	17,276	27,939
11831	WISCONSIN ELECTRIC POWER COMPANY	A	9,000	36,080	0	13,059	21,119
11879	FALLS RIVER RURAL ELECTRIC CORP., INC	A	3,300	0	0	3,300	5,336
11945	DORENA HYDRO, LLC	A	7,500	0	0	7,500	12,129
12379	ALASKA ELECTRIC LIGHT AND POWER	A	14,300	93,290	0	24,795	40,099
12514	NORTHERN INDIANA PUBLIC SERVICE COMPANY	A	16,400	45,331	0	21,500	34,770
12589	PUBLIC SERVICE CO. OF COLORADO	A	8,000	3,377	0	8,380	13,552
12597	TURNBULL HYDRO, LLC	A	7,700	14,882	0	9,374	15,159
12598	TURNBULL HYDRO, LLC	A	5,300	9,921	0	6,416	10,376
12632	EAST TEXAS ELECTRIC COOPERATIVE, INC	A	24,000	0	0	24,000	38,813
12667	AMERICAN MUNICIPAL POWER	A	105,000	0	0	105,000	169,809
13526	BOWERSOCK MILLS & POWER CO (KS)	A	7,000	29,596	0	10,330	16,705
480	**PRIVATE LICENSEES**		**33,657,965**	**82,537,316**	**20,020,814**	**41,268,283**	**59,431,651**

Maximum Charge
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PUBLIC LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
FERC Adjusted Administrative Cost							$12,909,696
Maximum Charge							$1,446,826
Total Charge for Projects above Maximum Charge (2 Projects)							$2,893,652
Total FERC Adjusted Administrative Cost less Charges for Projects above Maximum							$10,016,044
Total Charge Factor						15,332,185	
Total Individual Charge Factors (ICFs) for Projects above Maximum						4,385,200	
Total Charge Factor less Total ICFs for Projects above Maximum						10,946,985	
Unit Charge Factor							$0.914959
00013	GREEN ISLAND AND POWER AUTHORITY	A	48,000	31,924	0	48,000	43,918
00184	EL DORADO IRRIGATION DIST.	A	21,000	0	0	21,000	19,214
00201	PETERSBURG, CITY OF	A	2,000	0	0	2,000	1,829
00420	KETCHIKAN PUBLIC UTILITIES	A	4,200	0	0	4,200	3,842
00553	SEATTLE, CITY OF	A	650,250	9,611,076	0	616,436	564,013
00637	CHELAN COUNTY, P.U.D. NO. 1	A	59,200	435,917	0	4,902	4,485
00659	CRISP COUNTY POWER	A	15,200	0	0	15,200	13,907
00663	PUERTO RICO ELEC. POWER AUTHORITY	A	5,003	0	0	5,003	4,577
00925	OTTUMWA, CITY OF (IA)	A	3,200	0	0	3,200	2,927
00943	CHELAN COUNTY, P.U.D. NO. 1	A	422,212	2,576,372	0	363,628	332,704
01005	CITY OF BOULDER, COLORADO	A	5,000	0	0	5,000	4,574
012107	GRANITE COUNTY MT	A	2,000	0	0	2,000	1,829
01250	PASADENA, CITY OF/WATER & POWER	A	3,000	0	0	3,000	2,744
01256	LOUP RIVER PUBLIC POWER DISTRICT	A	49,658	0	0	49,658	45,435
01417	CENTRAL NEBRASKA PUBLIC POWER &	A	86,342	0	0	86,342	78,999
01494	GRAND RIVER DAM AUTHORITY	A	105,176	0	0	105,176	96,231
01835	NEBRASKA PUBLIC POWER DISTRICT	A	26,100	0	0	26,100	23,880
01862	TACOMA, CITY OF (WA)	A	115,687	590,017	0	105,321	96,364
01922	KETCHIKAN PUBLIC UTILITIES	A	7,103	0	0	7,103	6,498
01991	BONNERS CITY LIGHT DEPT.	A	3,938	28,535	0	3,027	2,769
02000	POWER AUTH OF THE STATE OF NEW YORK	A	912,000	7,238,820	0	902,169	825,447

Maximum Charge
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02005	OAKDALE/S.SAN JOAQUIN IRR. DIST.	A	82,500	0	0	82,500	75,484	
02016	TACOMA, CITY OF (WA)	A	462,000	2,041,805	0	420,792	385,007	
02019	UTICA POWER AUTHORITY	A	4,500	0	0	4,500	4,117	
02031	SPRINGVILLE, CITY OF (UT)	A	2,000	0	0	2,000	1,829	
02067	OAKDALE/S.SAN JOAQUIN IRR. DIST.	A	17,100	0	0	17,100	15,645	
02079	PLACER COUNTY WATER AGENCY	A	223,753	0	0	223,753	204,724	
02088	SOUTH FEATHER WATER AND POWER AGENCY	A	117,300	0	0	117,300	107,324	
02101	SACRAMENTO MUNICIPAL UTILITY DIST.	A	637,683	1,586,539	0	636,755	582,604	
02114	GRANT COUNTY OF WASHINGTON P U D #2	A	1,410,000	9,915,925	0	1,255,647	1,148,865	
02144	SEATTLE, CITY OF	A	1,003,253	9,611,076	0	951,083	870,201	
02145	CHELAN COUNTY, P.U.D. NO. 1	A	865,760	5,828,580	0	745,631	682,221	
02149	DOUGLAS COUNTY, PUD #1	A	774,000	4,142,414	0	410,499	375,589	
02179	MERCED IRRIGATION DISTRICT	A	101,250	0	0	101,250	92,639	
02183	GRAND RIVER DAM AUTHORITY	A	108,000	0	0	108,000	98,815	
02213	COWLITZ COUNTY PUD #1	A	66,800	255,562	0	53,010	48,501	
02216	POWER AUTH OF THE STATE OF NEW YORK	A	2,755,500	0	0	2,755,500	1,446,826	#
02230	SITKA, CITY AND BOROUGH OF	A	7,540	0	0	7,540	6,898	
02244	ENERGY NORTHWEST	A	26,100	0	0	26,100	23,880	
02246	YUBA COUNTY WATER AGENCY	A	361,875	0	0	361,875	331,100	
02266	NEVADA IRRIGATION DISTRICT	A	79,920	0	0	79,920	73,123	
02299	TURLOCK IRRIGATION DISTRICT &	A	168,015	0	0	168,015	153,726	
02409	CALAVERAS COUNTY WATER DISTRICT	A	258,726	0	0	258,726	236,723	
02426	LOS ANGELES, CITY OF	C	1,629,700	0	0	1,629,700	1,446,826	#
02441	NORWICH, CITY OF (CT)	A	2,250	0	0	2,250	2,058	
02442	WATERTOWN, CITY OF (NY)	A	6,600	0	0	6,600	6,038	
02467	MERCED IRRIGATION DISTRICT	A	3,450	0	0	3,450	3,156	
02524	GRAND RIVER DAM AUTHORITY	A	259,808	0	0	259,808	237,713	
02533	CITY OF BRAINERD	A	3,267	0	0	3,267	2,989	
02547	SWANTON, VILLLAGE OF (VT)	A	10,800	0	0	10,800	9,881	
02589	MARQUETTE, CITY OF (MI)	A	3,900	0	0	3,900	3,568	
02629	MORRISVILLE WATER & LIGHT DEPT.	A	5,100	0	0	5,100	4,666	
02685	POWER AUTH OF THE STATE OF NEW YORK	B	1,160,000	1,047	0	841,773	770,187	
02705	SEATTLE, CITY OF	A	2,125	9,611,076	0	2,014	1,842	

Maximum Charge
* Estimated (MWH)

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ACTUAL

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MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
ASSESSMENT TABLE FOR FERC ACTUAL ADMINISTRATIVE CHARGES

PUBLIC LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
02720	NORWAY, CITY OF MICHIGAN	A	5,136	0	0	5,136	4,699
02741	KINGS RIVER CONSERVATION DISTRICT	A	165,000	238,381	0	165,000	150,968
02756	CITY OF BURLINGTON, VERMONT	A	7,425	0	0	7,425	6,793
02780	SOLANO IRRIGATION DISTRICT (CA)	A	11,475	39,088	0	11,475	10,499
02818	SITKA, CITY AND BOROUGH OF	A	16,500	0	0	16,500	15,096
02821	PORTLAND, CITY OF/BUREAU HYDROPOWER	A	35,625	56,802	0	35,625	32,595
02832	BOISE-KUNA IRRIGATION DISTRICT ETAL	A	101,250	283,262	0	101,250	92,639
02833	PUD #1 OF LEWIS COUNTY (WA)	A	69,975	0	0	69,975	64,024
02839	LYNDONVILLE, VILLAGE OF	A	2,048	0	0	2,048	1,873
02841	UKIAH MUNICIPAL ELECTRIC SYSTEM(CA)	A	3,500	0	0	3,500	3,202
02842	IDAHO FALLS, CITY OF	A	24,600	0	0	24,600	22,507
02849	EAST COLUMBIA BASIN IRRIGATION DIST	A	26,025	0	0	26,025	23,811
02853	MT. DEPT OF NATURAL RESOURCES &	A	9,660	0	0	9,660	8,838
02888	REDDING, CITY OF (CA)	A	3,240	0	0	3,240	2,964
02891	TALLAHASSEE, CITY OF, ELEC. DEPT.	A	10,875	0	0	10,875	9,950
02892	FRIANT POWER AUTHORITY (CA)	A	27,375	33,393	0	27,375	25,047
02903	CALAVERAS COUNTY WATER DISTRICT	A	2,650	3,883	0	2,650	2,424
02911	SOUTHEAST ALASKA POWER AGENCY	A	21,975	69,084	0	21,975	20,106
02916	EAST BAY MUNICIPAL UTILITY DISTRICT	A	33,048	0	0	33,048	30,237
02937	QUINCY COLUMBIA BASIN IRRIG DIST	A	9,367	0	0	9,367	8,570
02952	IDAHO FALLS, CITY OF	A	22,600	117,054	0	10,069	9,212
02958	MADERA IRRIGATION DISTRICT	A	3,645	5,342	0	3,645	3,335
02959	SEATTLE, CITY OF	A	16,704	9,611,076	0	15,835	14,488
02964	STURGIS, CITY OF (MI)	A	2,720	0	0	2,720	2,488
02975	TRI-DAM POWER AUTHORITY	A	16,200	0	0	16,200	14,822
02997	SOUTH SUTTER WATER DISTRICT (CA)	A	6,803	21,489	0	6,803	6,224
03015	SOUTHEAST ALASKA POWER AGENCY	A	20,025	64,993	0	20,025	18,322
03074	SPOKANE, CITY OF (WA)	A	17,700	68,636	0	318	290
03083	OKLAHOMA MUNICIPAL POWER AUTHORITY	A	31,425	68,187	0	31,425	28,752
03190	SANTA CLARA ELECTRIC DEPT (CA)	A	6,825	9,734	0	6,825	6,244
03193	SANTA CLARA ELECTRIC DEPT (CA)	A	4,898	10,845	0	4,898	4,481
03206	NEW MARTINSVILLE, CITY OF WEST VA	A	35,700	192,592	0	35,700	32,664
03295	EAST COLUMBIA BASIN IRRIGATION DIST	A	92,025	0	0	92,025	84,199

Maximum Charge
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MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
ASSESSMENT TABLE FOR FERC ACTUAL ADMINISTRATIVE CHARGES

PUBLIC LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
03351	SONOMA COUNTY WATER AGENCY	A	2,790	0	0	2,790	2,552
03449	NORTH LITTLE ROCK, CITY OF	A	39,000	130,570	0	29,721	27,193
03451	BEAVER FALLS MUNICIPAL AUTHORITY	A	5,018	0	0	5,018	4,591
03571	CENTRAL OREGON IRRIGATION DISTRICT	A	5,498	34,895	0	5,498	5,030
03603	ASPEN, CITY OF (CO)	A	5,003	0	0	5,003	4,577
03623	THE YOUGHIOGHENY AUTHORITY	A	7,125	34,704	0	7,125	6,519
03701	SOUTHERN CALIFORNIA PUBLIC PWR AUTHORITY	A	13,600	39,468	0	13,600	12,443
03755	BOUNTIFUL, CITY OF (UT)	A	4,500	5,747	0	4,500	4,117
03842	EAST COLUMBIA BASIN IRRIGATION DIST	A	2,175	0	0	2,175	1,990
03843	EAST COLUMBIA BASIN IRRIGATION DIST	A	2,400	0	0	2,400	2,195
03865	GUADALUPE-BLANCO RIVER AUTHORITY	A	6,075	22,657	0	6,075	5,558
03940	CITY OF GARLAND, TX	A	2,700	7,986	0	2,700	2,470
03947	KAWEAH RIVER POWER AUTHORITY	A	20,090	77,913	0	20,090	18,381
04031	PERU, CITY OF (IL)	A	7,500	0	0	7,500	6,862
04108	ST. CLOUD, CITY (MN)	A	8,850	0	0	8,850	8,097
04117	METROPOLITAN DISTRICT	A	3,000	6,095	0	3,000	2,744
04129	OLCESE WATER DISTRICT	A	14,025	12,374	0	14,025	12,832
04204	BATESVILLE, CITY OF (AK)	A	3,900	0	0	3,900	3,568
04285	LOGAN, CITY OF (UT)	A	7,725	0	0	7,725	7,068
04306	HASTINGS, CITY OF	A	3,975	21,505	0	3,975	3,636
04354	GEM, RIDGEVIEW & OWYHEE IRRIGATION	A	4,340	9,072	0	4,340	3,970
04359	GEM, RIDGEVIEW & OWYHEE IRRIGATION	A	8,167	0	0	8,167	7,472
04597	WEBER-BOX CONSER. DIST. & BOUNTIFUL	A	1,800	4,296	0	1,800	1,646
04656	BOISE-KUNA IRRIGATION DISTRICT ETAL	A	15,680	65,443	0	15,680	14,346
04659	INDEPENDENCE COUNTY (AR)	A	3,900	0	0	3,900	3,568
04660	INDEPENDENCE COUNTY (AR)	A	3,500	0	0	3,500	3,202
04720	FARMINGTON, CITY OF (NM)	A	30,225	100,244	0	30,225	27,654
05044	AUGUSTA CANAL AUTHORITY	A	2,475	25,779	0	2,475	2,264
05226	LOS ALAMOS, NEW MEXICO	A	6,000	0	0	6,000	5,489
05264	EUGENE WATER & ELECTRIC BOARD	A	12,000	0	0	12,000	10,979
05334	CHARTER TOWNSHIP OF YPSILANTI	A	1,920	0	0	1,920	1,756
05357	OWYHEE IRRIGATION DISTRICT	A	1,875	1,179	0	1,875	1,715
05596	BEDFORD, CITY OF VIRGINIA	A	5,775	21,878	0	5,775	5,283

Maximum Charge
* Estimated (MWH)

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ASSESSMENT TABLE FOR FERC ACTUAL ADMINISTRATIVE CHARGES

PUBLIC LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
05891	DESCHUTES VALLEY WATER DISTRICT	A	4,793	0	0	4,793	4,385
06842	ABERDEEN AND TACOMA, CITIES OF (WA)	A	11,100	32,015	0	10,065	9,209
07076	NORTHERN WASCO COUNTY PEOPLES DIST	A	4,900	36,765	0	4,900	4,483
07161	DOUGLAS, COUNTY OF OREGON	A	1,658	0	0	1,658	1,517
07396	LOS ALAMOS, NEW MEXICO	A	13,800	0	0	13,800	12,626
08221	ALASKA ENERGY AUTHORITY	A	119,700	0	0	119,700	109,520
08914	RIO BLANCO WATER CONSERVANCY DIST.	A	1,900	9,252	0	1,900	1,738
09194	PASSAIC VALLEY WATER COMMISSION	A	2,400	0	0	2,400	2,195
09195	COLORADO SPRINGS UTILITIES	A	26,600	0	0	26,600	24,337
09310	MT. PLEASANT, CITY OF (UT)	A	1,800	0	0	1,800	1,646
09988	AUGUSTA CANAL AUTHORITY	A	2,125	19,381	0	2,125	1,944
10359	SNOHOMISH COUNTY, WA P.U.D. NO. 1	A	7,500	0	0	7,500	6,862
10551	OSWEGO, CITY OF (NY)	A	10,192	0	0	10,192	9,325
10813	SUMMERSVILLE, TOWN OF (WV)	A	80,000	190,780	0	80,000	73,196
10896	DANVILLE, CITY OF (VA)	A	10,670	0	0	10,670	9,762
11006	LEWISTON, CITY OF (ME)	A	1,695	0	0	1,695	1,550
11286	CITY OF ABBEVILLE	A	2,600	0	0	2,600	2,378
11841	KETCHIKAN PUBLIC UTILITIES	A	4,600	0	0	4,600	4,208
12775	CITY OF SPEARFISH	A	4,000	0	0	4,000	3,659
137	**PUBLIC LICENSEES**		**16,605,502**	**75,310,524**	**0**	**15,332,185**	**12,909,696**
617	**Projects**		**50,263,467**	**157,847,840**	**20,020,814**	**56,600,468**	**72,341,347**

Maximum Charge
* Estimated (MWH)

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MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
ASSESSMENT TABLE FOR OTHER FEDERAL AGENCIES ADMINISTRATIVE

PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
Other Federal Agency Cost							$3,812,657
Maximum Charge							$134,102
Total Charge for Projects above Maximum Charge (3 Projects)							$402,306
Total Other Federal Agency Cost less Charges for Projects above Maximum							$3,410,351
Total Other Federal Agency Charge Factor						41,268,271	
Total Individual Charge Factors (ICFs) for Projects above Maximum						5,842,078	
Total Charge Factor less Total ICFs for Projects above Maximum						35,426,193	
Unit Charge Factor							0.096266
00018	IDAHO POWER COMPANY	A	42,217	42,069	0	46,950	$4,519
00020	PACIFICORP	A	77,450	130,692	0	92,153	$8,871
00067	SOUTHERN CALIFORNIA EDISON CO.	C	373,350	280,244	1,569	404,760	$38,964
00077	PACIFIC GAS & ELECTRIC COMPANY	A	9,959	8,605	0	10,927	$1,051
00096	PACIFIC GAS & ELECTRIC COMPANY	A	162,720	312,991	0	197,932	$19,054
00120	SOUTHERN CALIFORNIA EDISON CO.	A	165,376	629,703	0	236,218	$22,739
00137	PACIFIC GAS & ELECTRIC COMPANY	A	206,004	815,989	0	297,803	$28,668
00175	PACIFIC GAS & ELECTRIC COMPANY	A	130,500	379,768	0	173,224	$16,675
00178	PACIFIC GAS & ELECTRIC COMPANY	A	11,475	32,846	0	15,170	$1,460
00233	PACIFIC GAS & ELECTRIC COMPANY	A	312,330	1,208,177	0	448,250	$43,151
00271	ENTERGY ARKANSAS, INC	A	65,300	201,840	0	88,007	$8,472
00287	MIDWEST HYDRO, LLC	A	3,680	21,068	0	6,050	$582
00289	LOUISVILLE GAS & ELECTRIC COMPANY	A	95,572	320,434	0	131,621	$12,670
00298	SOUTHERN CALIFORNIA EDISON CO.	A	6,848	36,503	0	10,955	$1,054
00309	BRASCAN POWER PINEY & DEEP CREEK LLC	A	28,800	66,657	0	36,299	$3,494
00344	SOUTHERN CALIFORNIA EDISON CO.	A	2,250	0	0	2,250	$216
00346	ALLETE, INC	A	18,000	111,135	0	30,503	$2,936
00349	ALABAMA POWER COMPANY	A	182,493	389,656	0	226,329	$21,787
00362	TWIN CITIES HYDRO, LLC	A	17,920	115,831	0	30,951	$2,979
00372	SOUTHERN CALIFORNIA EDISON CO.	A	2,520	5,422	0	3,130	$301
00382	SOUTHERN CALIFORNIA EDISON CO.	A	12,000	0	0	12,000	$1,155

Maximum Charge
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MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
ASSESSMENT TABLE FOR OTHER FEDERAL AGENCIES ADMINISTRATIVE

PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
00400	PUBLIC SERVICE CO. OF COLORADO	A	3,500	8,183	0	4,421	$425
00401	INDIANA MICHIGAN POWER COMPANY	A	1,680	5,338	0	2,281	$219
00405	EXELON GENERATION COMPANY, LLC	A	574,540	1,459,901	0	738,779	$71,119
00432	DUKE ENERGY PROGRESS, INC.	A	108,000	320,286	0	144,032	$13,865
00459	UNION ELECTRIC COMPANY	A	242,590	723,100	0	323,939	$31,184
00469	ALLETE, INC	A	4,000	25,301	0	6,846	$659
00485	GEORGIA POWER COMPANY	A	173,000	461,600	0	224,930	$21,653
00487	PPL HOLTWOOD, LLC	A	44,000	54,608	0	50,143	$4,827
00503	IDAHO POWER COMPANY	A	25,000	114,622	0	37,895	$3,648
00516	SOUTH CAROLINA ELECTRIC AND GAS CO	A	207,300	297,899	0	240,814	$23,182
00539	LOCK 7 HYDRO PARTNERS, LLC.	A	2,100	10,883	0	3,324	$319
00606	PACIFIC GAS & ELECTRIC COMPANY	A	4,440	20,991	0	6,802	$654
00619	PG & E AND CITY OF SANTA CLARA, CA	A	84,825	256,768	0	113,711	$10,946
00739	APPALACHIAN POWER COMPANY	A	75,000	276,149	0	106,067	$10,210
00785	CONSUMERS POWER COMPANY	A	2,550	14,369	0	4,167	$401
00803	PACIFIC GAS & ELECTRIC COMPANY	A	26,651	42,926	0	31,480	$3,030
00906	VIRGINIA ELECTRIC AND POWER COMPANY	A	7,500	9,532	0	8,572	$825
00935	PACIFICORP	A	136,000	500,503	0	192,307	$18,512
01025	SAFE HABOR WATER POWER CORP	A	380,390	834,324	0	474,252	$45,654
01061	PACIFIC GAS & ELECTRIC COMPANY	A	1,800	11,147	0	3,054	$294
010854	UP HYDRO	A	2,000	0	0	2,000	$192
01121	PACIFIC GAS & ELECTRIC COMPANY	A	36,075	123,838	0	50,007	$4,813
01175	APPALACHIAN POWER COMPANY	A	28,800	174,925	0	48,479	$4,666
01218	GEORGIA POWER COMPANY	A	5,400	24,485	0	8,155	$785
012451	LOWER ST. ANTHONY FALLS, SAF HYDRO, LLC	A	10,320	52,165	0	16,189	$1,558
012555	CUBE HYDRO PARTNERS, LLC	A	6,000	16,287	0	7,832	$753
01267	GREENWOOD COUNTY ATTORNEY	A	15,000	38,271	0	19,305	$1,858
01290	APPALACHIAN POWER COMPANY	A	14,760	90,292	0	24,918	$2,398
01333	PACIFIC GAS & ELECTRIC COMPANY	A	6,750	15,303	0	8,472	$815
01354	PACIFIC GAS & ELECTRIC COMPANY	A	28,700	17,945	0	30,719	$2,957
01388	SOUTHERN CALIFORNIA EDISON CO.	A	11,250	13,159	0	12,730	$1,225
01389	SOUTHERN CALIFORNIA EDISON CO.	A	11,850	31,293	0	15,370	$1,479
01390	SOUTHERN CALIFORNIA EDISON CO.	A	3,000	5,623	0	3,633	$349

Maximum Charge
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MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
ASSESSMENT TABLE FOR OTHER FEDERAL AGENCIES ADMINISTRATIVE

PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge	
01394	SOUTHERN CALIFORNIA EDISON CO.	A	28,565	89,676	0	38,654	$3,721	
01403	PACIFIC GAS & ELECTRIC COMPANY	A	12,000	59,492	0	18,693	$1,799	
01651	LOWER VALLEY ENERGY, INC.	A	1,537	0	0	1,537	$147	
01744	PACIFICORP	A	3,848	13,503	0	5,367	$516	
01759	WISCONSIN ELECTRIC POWER COMPANY	A	1,800	6,818	0	2,567	$247	
01855	TRANSCANADA HYDRO NORTHEAST, INC.	A	40,800	190,663	0	62,250	$5,992	
01864	UPPER PENINSULA POWER COMPANY	A	12,000	64,945	0	19,306	$1,858	
01869	NORTHWESTERN CORPORATION	A	92,625	467,225	0	145,188	$13,976	
01881	PPL HOLTWOOD, LLC	A	112,540	824,031	0	205,244	$19,758	
01888	YORK HAVEN POWER COMPANY	A	19,627	126,572	0	33,866	$3,260	
01889	FIRSTLIGHT HYDRO GENERATING COMPANY	A	67,709	285,020	0	99,774	$9,604	
01892	TRANSCANADA HYDRO NORTHEAST, INC.	A	35,625	148,870	0	52,373	$5,041	
01893	PUBLIC SERVICE CO. OF NEW HAMPSHIRE	A	29,900	126,162	0	44,093	$4,244	
01894	SOUTH CAROLINA ELECTRIC AND GAS CO	C	526,080	523,456	706,813	531,958	$51,209	
01904	TRANSCANADA HYDRO NORTHEAST, INC.	A	32,400	148,674	0	49,126	$4,729	
01927	PACIFICORP	A	194,210	717,464	0	274,925	$26,466	
01930	SOUTHERN CALIFORNIA EDISON CO.	A	26,300	147,080	0	42,847	$4,124	
01933	SOUTHERN CALIFORNIA EDISON CO.	A	6,300	4,727	0	6,832	$657	
01934	SOUTHERN CALIFORNIA EDISON CO.	A	3,000	7,167	0	3,806	$366	
01940	WISCONSIN PUBLIC SERVICE CORP	A	2,625	14,380	0	4,243	$408	
01951	GEORGIA POWER COMPANY	A	45,000	140,295	0	60,783	$5,851	
01953	CONSOLIDATED WATER POWER CO.	A	7,200	51,115	0	12,951	$1,246	
01960	DAIRYLAND POWER COOPERATIVE	A	17,640	95,038	0	28,332	$2,727	
01962	PACIFIC GAS & ELECTRIC COMPANY	A	180,000	563,738	0	243,421	$23,433	
01966	WISCONSIN PUBLIC SERVICE CORP	A	17,250	116,240	0	30,327	$2,919	
01971	IDAHO POWER COMPANY	A	1,166,925	4,743,583	0	1,700,578	$134,102	#
01975	IDAHO POWER COMPANY	A	68,600	290,527	0	101,284	$9,750	
01979	WISCONSIN PUBLIC SERVICE CORP	A	4,200	27,198	0	7,260	$698	
01980	WISCONSIN ELECTRIC POWER COMPANY	A	21,500	112,664	0	34,175	$3,289	
01982	NORTHERN STATES POWER COMPANY (WI)	A	33,750	149,264	0	50,542	$4,865	
01984	WISCONSIN RIVER POWER COMPANY	A	35,000	246,017	0	62,677	$6,033	
01988	PACIFIC GAS & ELECTRIC COMPANY	A	193,160	359,332	0	233,585	$22,486	
01999	WISCONSIN PUBLIC SERVICE CORP	A	5,400	38,848	0	9,770	$940	

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ASSESSMENT TABLE FOR OTHER FEDERAL AGENCIES ADMINISTRATIVE

PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
02009	VIRGINIA ELECTRIC AND POWER COMPANY	A	324,000	891,188	0	424,259	$40,841
02017	SOUTHERN CALIFORNIA EDISON CO.	A	98,822	311,370	0	133,851	$12,885
02030	PORTLAND GENERAL ELECTRIC COMPANY	A	370,650	1,424,390	0	530,894	$51,107
02032	LOWER VALLEY ENERGY, INC.	A	1,631	0	0	1,631	$157
02047	ERIE BOULEVARD HYDROPOWER, LP	A	30,000	111,599	0	42,555	$4,096
02055	IDAHO POWER COMPANY	A	82,800	378,373	0	125,367	$12,068
02056	NORTHERN POWER WISCONSIN CORPORATION	A	13,896	91,658	0	24,208	$2,330
02058	AVISTA CORPORATION	A	751,000	3,289,485	0	1,121,067	$107,920
02061	IDAHO POWER COMPANY	A	60,000	190,391	0	81,419	$7,837
02071	PACIFICORP	A	134,000	594,222	0	200,850	$19,335
02073	WISCONSIN ELECTRIC POWER COMPANY	A	9,600	33,689	0	13,390	$1,289
02074	WISCONSIN ELECTRIC POWER COMPANY	A	2,800	9,695	0	3,891	$374
02077	TRANSCANADA HYDRO NORTHEAST, INC.	A	278,260	614,583	0	347,401	$33,442
02082	PACIFICORP	A	168,973	499,536	0	225,171	$21,676
02084	ERIE BOULEVARD HYDROPOWER, LP	A	102,389	380,072	0	145,147	$13,972
02085	SOUTHERN CALIFORNIA EDISON CO.	A	150,938	600,072	0	218,446	$21,028
02090	GREEN MOUNTAIN POWER CORP.	A	5,520	16,013	0	7,321	$704
02105	PACIFIC GAS & ELECTRIC COMPANY	A	342,628	591,767	0	409,202	$39,392
02106	PACIFIC GAS & ELECTRIC COMPANY	A	340,500	1,244,264	0	480,480	$46,254
02107	PACIFIC GAS & ELECTRIC COMPANY	A	142,830	331,112	0	180,080	$17,335
02110	CONSOLIDATED WATER POWER CO.	A	3,840	32,738	0	7,523	$724
02111	PACIFICORP	A	240,000	724,512	0	321,508	$30,950
02130	PACIFIC GAS & ELECTRIC COMPANY	A	88,650	429,584	0	136,978	$13,186
02131	WISCONSIN ELECTRIC POWER COMPANY	A	7,200	30,542	0	10,636	$1,023
02142	BROOKFIELD WHITE PINE HYDRO LLC	A	76,400	192,522	0	98,059	$9,439
02146	ALABAMA POWER COMPANY	A	960,900	2,916,490	0	1,289,005	$124,087
02150	PUGET SOUND ENERGY, INC	A	170,030	694,977	0	248,215	$23,894
02155	PACIFIC GAS & ELECTRIC COMPANY	A	7,000	24,395	0	9,745	$938
02161	SPECIALTY PAPERS ACQUISITIONS, LLC	A	2,120	10,764	0	3,331	$320
02165	ALABAMA POWER COMPANY	A	53,985	0	0	53,985	$5,196
02165A	ALABAMA POWER COMPANY	A	157,500	274,455	0	188,376	$18,134
02169	BROOKFIELD SMOKEY MOUNTAIN HYDRO	A	377,700	1,236,007	0	516,751	$49,745
02170	CHUGACH ELECTRIC ASSOCIATION INC.	A	19,380	60,695	0	26,208	$2,522

Maximum Charge
* Estimated (MWH)

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MAJOR PROJECTS IN FY 2016 BY LICENSEE CATEGORY
ASSESSMENT TABLE FOR OTHER FEDERAL AGENCIES ADMINISTRATIVE

PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
02174	SOUTHERN CALIFORNIA EDISON CO.	A	10,500	10,249	0	11,653	$1,121
02175	SOUTHERN CALIFORNIA EDISON CO.	A	154,850	440,970	0	204,459	$19,682
02177	GEORGIA POWER COMPANY	A	129,300	489,221	0	184,337	$17,745
02180	PCA HYDRO, INC.	A	3,000	16,790	0	4,889	$470
02181	NORTHERN STATES POWER COMPANY (WI)	A	5,400	33,540	0	9,173	$883
02188	NORTHWESTERN CORPORATION	A	289,300	1,768,389	0	488,244	$47,001
02192	CONSOLIDATED WATER POWER CO.	A	6,232	34,955	0	10,164	$978
02194	BROOKFIELD WHITE PINE HYDRO LLC	A	4,000	7,312	0	4,823	$464
02195	PORTLAND GENERAL ELECTRIC COMPANY	A	136,645	621,177	0	206,527	$19,881
02197	YADKIN, INC.	A	212,440	927,868	0	316,825	$30,499
02203	ALABAMA POWER COMPANY	A	46,944	157,890	0	64,707	$6,229
02205	GREEN MOUNTAIN POWER CORP.	A	21,050	76,562	0	29,663	$2,855
02206	DUKE ENERGY PROGRESS, INC.	A	108,600	317,908	0	144,365	$13,897
02207	SPECIALTY PAPERS ACQUISITIONS, LLC	A	3,050	25,067	0	5,870	$565
02210	APPALACHIAN POWER COMPANY	C	636,000	603,236	499,397	666,409	$64,152
02211	DUKE ENERGY INDIANA, INC.	A	64,800	358,449	0	105,126	$10,120
02212	DOMTAR PAPER COMPANY, LLC	A	3,708	16,390	0	5,552	$534
02219	GARKANE POWER ASSOCIATION, INC.	A	4,300	21,822	0	6,755	$650
02221	EMPIRE DISTRICT ELECTRIC CO.	A	15,975	60,641	0	22,797	$2,194
02232	DUKE ENERGY CAROLINAS, LLC	A	819,102	1,725,385	0	1,013,208	$97,537
02233	PORTLAND GENERAL ELECTRIC COMPANY	A	15,655	93,651	0	26,191	$2,521
02237	GEORGIA POWER COMPANY	A	16,800	31,350	0	20,327	$1,956
02239	TOMAHAWK POWER & PULP COMPANY	A	2,509	13,354	0	4,011	$386
02255	DOMTAR WISCONSIN DAM CORP	A	3,324	25,080	0	6,146	$591
02256	CONSOLIDATED WATER POWER CO.	A	9,182	56,802	0	15,572	$1,499
02277	UNION ELECTRIC COMPANY	B	442,500	297,515	413,686	442,500	$42,597
02280	SENECA GENERATION, LLC	C	451,800	548,134	734,956	458,343	$44,122
02283	BROOKFIELD WHITE PINE HYDRO LLC	A	37,232	170,970	0	56,466	$5,435
02284	BROOKFIELD WHITE PINE HYDRO LLC	A	18,975	90,222	0	29,125	$2,803
02287	PUBLIC SERVICE CO. OF NEW HAMPSHIRE	A	15,000	97,980	0	26,023	$2,505
02288	PUBLIC SERVICE CO. OF NEW HAMPSHIRE	A	2,153	10,450	0	3,329	$320
02290	SOUTHERN CALIFORNIA EDISON CO.	A	40,200	191,537	0	61,748	$5,944
02291	DOMTAR WISCONSIN DAM CORP	A	3,443	19,226	0	5,606	$539

Maximum Charge
* Estimated (MWH)

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PRIVATE LICENSEES

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02292	DOMTAR WISCONSIN DAM CORP	A	3,535	27,029	0	6,576	$633
02300	GREAT LAKES HYDRO AMERICA, LLC	A	3,675	13,203	0	5,160	$496
02301	NORTHWESTERN CORPORATION	A	12,000	51,290	0	17,770	$1,710
02302	BROOKFIELD WHITE PINE HYDRO LLC	A	36,354	137,190	0	51,788	$4,985
02306	GREAT BAY HYDRO CORP	A	4,675	17,799	0	6,677	$642
02307	ALASKA ELECTRIC LIGHT & POWER CO.	A	10,300	58,460	0	16,877	$1,624
02309	PSEG FOSSIL LLC	B	364,500	488,085	672,813	364,500	$35,089
02310	PACIFIC GAS & ELECTRIC COMPANY	A	181,200	608,413	0	249,646	$24,032
02311	GREAT LAKES HYDRO AMERICA, LLC	A	4,800	13,733	0	6,345	$610
02315	SOUTH CAROLINA ELECTRIC AND GAS CO	A	4,400	22,675	0	6,951	$669
02318	ERIE BOULEVARD HYDROPOWER, LP	A	20,000	52,014	0	25,852	$2,488
02320	ERIE BOULEVARD HYDROPOWER, LP	A	48,323	276,517	0	79,431	$7,646
02322	BROOKFIELD WHITE PINE HYDRO LLC	A	8,775	49,680	0	14,364	$1,382
02323	TRANSCANADA HYDRO NORTHEAST, INC.	A	74,716	210,918	0	98,444	$9,476
02325	BROOKFIELD WHITE PINE HYDRO LLC	A	12,825	76,857	0	21,472	$2,067
02326	GREAT LAKES HYDRO AMERICA, LLC	A	3,218	16,126	0	5,032	$484
02327	GREAT LAKES HYDRO AMERICA, LLC	A	7,920	39,708	0	12,387	$1,192
02329	BROOKFIELD WHITE PINE HYDRO LLC	A	83,700	326,085	0	120,385	$11,589
02330	ERIE BOULEVARD HYDROPOWER, LP	A	14,080	62,900	0	21,156	$2,036
02331	DUKE ENERGY CAROLINAS, LLC	A	20,000	61,249	0	26,891	$2,588
02332	DUKE ENERGY CAROLINAS, LLC	A	8,500	12,211	0	9,874	$950
02333	RUMFORD FALLS HYDRO, LLC	A	44,500	223,754	0	69,672	$6,707
02334	NAEA ENERGY MASSACHUSETTS LLC	A	3,600	3,434	0	3,986	$383
02335	BROOKFIELD WHITE PINE HYDRO LLC	A	13,125	87,193	0	22,934	$2,207
02336	GEORGIA POWER COMPANY	A	18,000	70,068	0	25,883	$2,491
02337	PACIFICORP	A	7,200	29,195	0	10,484	$1,009
02342	PACIFICORP	A	13,700	0	0	13,700	$1,318
02343	CUBE HYDRO PARTNERS, LLC	A	2,850	13,329	0	4,350	$418
02351	PUBLIC SERVICE CO. OF COLORADO	B	300,000	296,512	468,226	300,000	$28,879
02354	GEORGIA POWER COMPANY	A	168,400	443,718	0	218,318	$21,016
02355	EXELON GENERATION COMPANY, LLC	B	828,000	1,153,097	1,485,806	828,000	$79,708
02357	WISCONSIN ELECTRIC POWER COMPANY	A	8,000	40,159	0	12,518	$1,205
02360	ALLETE, INC	A	87,600	525,893	0	146,763	$14,128

Maximum Charge
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PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
02362	ALLETE, INC	A	2,100	4,367	0	2,591	$249
02363	SAPPI CLOQUET LLC	A	6,500	29,852	0	9,858	$948
02364	MADISON PAPER CORP.	A	18,800	73,954	0	27,120	$2,610
02365	MADISON PAPER CORP.	A	9,000	43,303	0	13,872	$1,335
02375	VERSO ANDROSCOGGIN POWER LLC	A	19,725	54,467	0	25,853	$2,488
02376	APPALACHIAN POWER COMPANY	A	12,525	0	0	12,525	$1,205
02381	PACIFICORP	A	7,350	29,231	0	10,638	$1,024
02385	FH OPCO, LLC	A	11,775	54,424	0	17,898	$1,722
02390	LAKE SUPERIOR DISTRICT POWER CO.	A	7,800	53,390	0	13,806	$1,329
02392	AMPERSAND GILMAN HYDRO LP	A	4,845	24,358	0	7,585	$730
02394	WISCONSIN ELECTRIC POWER COMPANY	A	7,800	37,768	0	12,049	$1,159
02402	UPPER PENINSULA POWER COMPANY	A	2,200	8,432	0	3,149	$303
02404	THUNDER BAY POWER, LLC	A	7,250	35,669	0	11,263	$1,084
02407	ALABAMA POWER COMPANY	A	125,600	408,626	0	171,570	$16,516
02411	STS HYDROPOWER LTD & DAN RIVER INC	A	4,500	18,983	0	6,636	$638
02413	GEORGIA POWER COMPANY	C	324,000	374,026	312,982	342,604	$32,981
02416	AQUENERGY SYSTEMS LLC	A	6,200	9,087	0	7,222	$695
02420	PACIFICORP	A	30,000	59,412	0	36,684	$3,531
02422	GREAT LAKES HYDRO AMERICA, LLC	A	3,173	15,705	0	4,940	$475
02423	GREAT LAKES HYDRO AMERICA, LLC	A	7,900	52,409	0	13,796	$1,328
02425	CUBE HYDRO PARTNERS, LLC	A	3,000	12,833	0	4,444	$427
02431	WISCONSIN ELECTRIC POWER COMPANY	A	5,335	17,749	0	7,332	$705
02433	WISCONSIN PUBLIC SERVICE CORP	A	7,150	27,451	0	10,238	$985
02436	CONSUMERS POWER COMPANY	A	7,229	31,592	0	10,783	$1,038
02438	SENECA FALLS POWER CORPORATION	A	7,440	13,282	0	8,934	$860
02440	NORTHERN STATES POWER COMPANY (WI)	A	21,600	97,765	0	32,599	$3,138
02446	STS HYDROPOWER, LTD.	A	3,203	16,345	0	5,042	$485
02447	CONSUMERS POWER COMPANY	A	7,950	30,479	0	11,379	$1,095
02448	CONSUMERS POWER COMPANY	A	3,885	17,155	0	5,815	$559
02449	CONSUMERS POWER COMPANY	A	3,975	19,804	0	6,203	$597
02450	CONSUMERS POWER COMPANY	A	6,609	29,576	0	9,936	$956
02451	CONSUMERS POWER COMPANY	A	5,418	18,469	0	7,496	$721
02452	CONSUMERS POWER COMPANY	A	29,600	110,573	0	42,039	$4,046

Maximum Charge
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PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
02453	CONSUMERS POWER COMPANY	A	6,000	27,054	0	9,044	$870
02454	ALLETE, INC	A	1,800	12,201	0	3,173	$305
02456	PUBLIC SERVICE CO. OF NEW HAMPSHIRE	A	8,400	40,935	0	13,005	$1,251
02457	PUBLIC SERVICE CO. OF NEW HAMPSHIRE	A	6,375	26,213	0	9,324	$897
02458	GREAT LAKES HYDRO AMERICA, LLC	A	70,810	318,878	0	106,684	$10,270
02459	LAKE LYNN GENERATION, LLC	A	51,203	103,969	0	62,900	$6,055
02466	APPALACHIAN POWER COMPANY	A	2,400	0	0	2,400	$231
02468	CONSUMERS POWER COMPANY	A	7,473	39,888	0	11,960	$1,151
02474	ERIE BOULEVARD HYDROPOWER, LP	A	18,050	48,862	0	23,547	$2,266
02482	ERIE BOULEVARD HYDROPOWER, LP	A	81,600	352,739	0	121,283	$11,675
02485	FIRSTLIGHT HYDRO GENERATING COMPANY	B	1,166,800	1,014,075	1,347,610	1,166,800	$112,323
02486	WISCONSIN ELECTRIC POWER COMPANY	A	3,600	16,741	0	5,483	$527
02491	NORTHERN STATES POWER COMPANY (WI)	A	49,200	204,637	0	72,222	$6,952
02493	PUGET SOUND ENERGY, INC	A	44,400	184,425	0	65,148	$6,271
02503	DUKE ENERGY CAROLINAS, LLC	C	867,600	1,337,916	1,454,069	909,060	$87,511
02506	UPPER PENINSULA POWER COMPANY	A	8,985	31,769	0	12,559	$1,209
02512	HAWKS NEST HYDRO LLC	A	107,475	638,502	0	179,307	$17,261
02513	GREEN MOUNTAIN POWER CORP.	A	7,200	36,753	0	11,335	$1,091
02514	APPALACHIAN POWER COMPANY	A	30,100	96,284	0	40,932	$3,940
02516	CUBE HYDRO PARTNERS, LLC	A	1,900	9,566	0	2,976	$286
02519	BROOKFIELD WHITE PINE HYDRO LLC	A	2,190	10,476	0	3,369	$324
02520	GREAT LAKES HYDRO AMERICA, LLC	A	19,200	116,683	0	32,327	$3,112
02522	WISCONSIN PUBLIC SERVICE CORP	A	3,520	13,379	0	5,025	$483
02525	WISCONSIN PUBLIC SERVICE CORP	A	6,400	19,622	0	8,607	$828
02527	BROOKFIELD WHITE PINE HYDRO LLC	A	21,600	100,173	0	32,869	$3,164
02528	BROOKFIELD WHITE PINE HYDRO LLC	A	6,550	26,492	0	9,530	$917
02529	BROOKFIELD WHITE PINE HYDRO LLC	A	7,200	45,119	0	12,276	$1,181
02530	BROOKFIELD WHITE PINE HYDRO LLC	A	10,875	46,450	0	16,101	$1,549
02531	BROOKFIELD WHITE PINE HYDRO LLC	A	7,812	29,251	0	11,103	$1,068
02532	ALLETE, INC	A	4,718	35,792	0	8,745	$841
02534	BLACK BEAR HYDRO PARTNERS, LLC	A	6,400	43,566	0	11,301	$1,087
02535	SOUTH CAROLINA ELECTRIC AND GAS CO	A	17,280	65,600	0	24,660	$2,373
02536	NORTHBROOK WISCONSIN, LLC	A	9,100	0	0	9,100	$876

Maximum Charge
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PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
02538	ERIE BOULEVARD HYDROPOWER, LP	A	8,000	44,256	0	12,979	$1,249
02539	ERIE BOULEVARD HYDROPOWER, LP	A	38,800	138,276	0	54,356	$5,232
02545	AVISTA CORPORATION	A	146,070	770,953	0	232,802	$22,410
02546	WISCONSIN PUBLIC SERVICE CORP	A	3,840	23,881	0	6,527	$628
02548	NORTHBROOK LYONS FALLS, LLC	A	8,644	45,716	0	13,787	$1,327
02551	INDIANA MICHIGAN POWER COMPANY	A	3,900	16,718	0	5,781	$556
02554	ERIE BOULEVARD HYDROPOWER, LP	A	6,000	24,231	0	8,726	$840
02556	MESSALONSKEE STREAM HYDRO, LLC	A	5,975	20,745	0	8,309	$799
02558	GREEN MOUNTAIN POWER CORP.	A	14,349	12,496	0	15,755	$1,516
02561	SHO-ME POWER ELEC. COOPERATIVE	A	3,000	0	0	3,000	$288
02566	CONSUMERS POWER COMPANY	A	3,250	8,955	0	4,257	$409
02567	NORTHERN STATES POWER COMPANY (WI)	A	36,000	209,791	0	59,601	$5,737
02569	ERIE BOULEVARD HYDROPOWER, LP	A	29,600	119,211	0	43,011	$4,140
02570	AEP GENERATION RESOURCES, INC	A	47,475	219,253	0	72,141	$6,944
02572	GREAT LAKES HYDRO AMERICA, LLC	A	37,500	218,914	0	62,128	$5,980
02574	MERIMIL LIMITED PARTNERSHIP	A	6,915	32,507	0	10,572	$1,017
02576	FIRSTLIGHT HYDRO GENERATING COMPANY	C	114,900	171,168	4,702	133,804	$12,880
02579	INDIANA MICHIGAN POWER COMPANY	A	4,800	26,980	0	7,835	$754
02580	CONSUMERS POWER COMPANY	A	14,255	65,419	0	21,615	$2,080
02582	ROCHESTER GAS & ELECTRIC CORP.	A	14,800	8,623	0	15,770	$1,518
02583	ROCHESTER GAS & ELECTRIC CORP.	A	43,875	121,209	0	57,511	$5,536
02584	ROCHESTER GAS & ELECTRIC CORP.	A	3,000	3,539	0	3,398	$327
02586	POWERSOUTH ENERGY COOPERATIVE	A	8,250	22,823	0	10,818	$1,041
02587	LAKE SUPERIOR DISTRICT POWER CO.	A	1,650	12,504	0	3,057	$294
02590	CONSOLIDATED WATER POWER CO.	A	6,368	30,241	0	9,770	$940
02594	NORTHERN LIGHTS, INC.	A	4,500	25,729	0	7,395	$711
02595	WISCONSIN PUBLIC SERVICE CORP	A	7,000	22,437	0	9,524	$916
02599	CONSUMERS POWER COMPANY	A	13,884	51,943	0	19,728	$1,899
02600	BANGOR PACIFIC HYDRO ASSOCIATES	A	12,975	99,091	0	24,123	$2,322
02609	CURTIS/PALMER HYDRO CO, LP	A	58,800	290,012	0	91,426	$8,801
02611	HYDRO KENNEBEC, LLC	A	15,433	58,449	0	22,009	$2,118
02614	AMERICAN MUNICIPAL POWER	A	70,575	0	0	70,575	$6,793
02615	BRASSUA (OWNERS) HYDROELECTRIC LIMITED P	A	4,178	16,772	0	6,065	$583

Maximum Charge
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02616	ERIE BOULEVARD HYDROPOWER, LP	A	18,500	46,023	0	23,678	$2,279	
02619	DUKE ENERGY CAROLINAS, LLC	A	1,800	4,386	0	2,293	$220	
02620	LOCKHART POWER COMPANY	A	18,000	59,861	0	24,734	$2,381	
02621	LOCKHART POWER COMPANY	A	1,900	7,016	0	2,689	$258	
02628	ALABAMA POWER COMPANY	A	142,500	164,353	0	160,990	$15,497	
02630	PACIFICORP	A	41,560	210,956	0	65,293	$6,285	
02631	WORONOCO HYDRO, LLC	A	2,700	10,517	0	3,883	$373	
02639	NORTHERN STATES POWER COMPANY (WI)	A	30,750	132,523	0	45,659	$4,395	
02645	ERIE BOULEVARD HYDROPOWER, LP	A	44,800	179,237	0	64,964	$6,253	
02651	INDIANA MICHIGAN POWER COMPANY	A	3,440	12,577	0	4,855	$467	
02652	PACIFICORP	A	4,150	27,478	0	7,241	$697	
02661	PACIFIC GAS & ELECTRIC COMPANY	A	20,000	58,504	0	26,582	$2,558	
02662	FIRSTLIGHT HYDRO GENERATING COMPANY	A	2,003	3,772	0	2,427	$233	
02663	ALLETE, INC	A	1,528	10,993	0	2,765	$266	
02666	BLACK BEAR HYDRO PARTNERS, LLC	A	3,440	27,834	0	6,571	$632	
02669	BEAR SWAMP POWER COMPANY, LLC	C	666,000	493,520	643,091	673,289	$64,815	
02670	NORTHERN STATES POWER COMPANY (WI)	A	8,680	67,151	0	16,234	$1,562	
02674	GREEN MOUNTAIN POWER CORP.	A	2,600	10,133	0	3,740	$360	
02680	CONSUMERS POWER COMPANY	B	1,657,500	1,695,422	2,348,742	1,657,500	$134,102	#
02686	DUKE ENERGY CAROLINAS, LLC	A	19,525	75,471	0	28,015	$2,696	
02687	PACIFIC GAS & ELECTRIC COMPANY	A	69,300	200,916	0	91,903	$8,847	
02689	N.E.W. HYDRO, LLC	A	1,811	9,414	0	2,870	$276	
02692	DUKE ENERGY CAROLINAS, LLC	A	43,200	222,956	0	68,283	$6,573	
02696	TOWN OF STUYVESANT/STUYVESANT FALLS HYDR	A	4,200	9,301	0	5,246	$505	
02697	NORTHERN STATES POWER COMPANY (WI)	A	6,000	47,904	0	11,389	$1,096	
02698	DUKE ENERGY CAROLINAS, LLC	A	23,885	85,190	0	33,469	$3,221	
02701	ERIE BOULEVARD HYDROPOWER, LP	A	39,750	213,629	0	63,783	$6,140	
02710	BLACK BEAR HYDRO PARTNERS, LLC	A	2,332	35,763	0	6,355	$611	
02712	BLACK BEAR HYDRO PARTNERS, LLC	A	1,950	22,667	0	4,500	$433	
02713	ERIE BOULEVARD HYDROPOWER, LP	A	28,560	80,045	0	37,565	$3,616	
02716	VIRGINIA ELECTRIC AND POWER COMPANY	B	2,484,000	3,375,741	4,182,241	2,484,000	$134,102	#
02722	PACIFICORP	A	5,000	11,456	0	6,289	$605	
02725	OGLETHORPE CORP. & GEORGIA POWER	B	904,000	1,448,265	1,925,680	904,000	$87,024	

Maximum Charge
* Estimated (MWH)

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PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
02726	IDAHO POWER COMPANY	A	21,770	123,216	0	35,632	$3,430
02727	BLACK BEAR HYDRO PARTNERS, LLC	A	8,925	29,972	0	12,297	$1,183
02731	GREEN MOUNTAIN POWER CORP.	A	3,000	11,015	0	4,239	$408
02735	PACIFIC GAS & ELECTRIC COMPANY	B	1,050,000	0	0	1,050,000	$101,079
02736	IDAHO POWER COMPANY	A	92,250	246,512	0	119,983	$11,550
02737	GREEN MOUNTAIN POWER CORP.	A	2,250	6,637	0	2,997	$288
02738	NEW YORK STATE ELECTRIC & GAS CORP.	A	38,910	148,158	0	55,578	$5,350
02740	DUKE ENERGY CAROLINAS, LLC	B	1,065,000	2,216,279	2,818,431	1,065,000	$102,523
02742	COOPPER VALLEY ELECTRIC ASSOCIATION, INC	A	12,000	57,590	0	18,479	$1,778
02743	KODAK ELECTRIC ASSOCIATION, INC	A	30,000	123,486	0	43,892	$4,225
02744	N.E.W. HYDRO, LLC	A	4,433	27,004	0	7,471	$719
02769	ALLEGHENY ELEC COOP & CT BANK &	A	20,250	67,996	0	27,900	$2,685
02777	IDAHO POWER COMPANY	A	34,500	179,647	0	54,710	$5,266
02778	IDAHO POWER COMPANY	A	11,875	61,625	0	18,808	$1,810
02785	BOYCE HYDRO POWER, LLC	A	3,300	9,920	0	4,416	$425
02790	BOOTT HYDRO INC/ GE CREDIT CO	A	24,750	69,471	0	32,566	$3,135
02800	LAWRENCE HYDRO ELECTRIC ASSOCIATES	A	16,800	62,988	0	23,886	$2,299
02814	PATERSON MUNI & GREAT FALLS HYDRO	A	11,025	10,387	0	12,194	$1,173
02835	NEW YORK STATE ELECTRIC & GAS CORP.	A	2,640	0	0	2,640	$254
02837	ERIE BOULEVARD HYDROPOWER, LP	A	10,080	31,905	0	13,669	$1,315
02848	IDAHO POWER COMPANY	A	12,420	42,307	0	17,180	$1,653
02850	HAMPSHIRE PAPER COMPANY INC	A	3,449	16,332	0	5,286	$508
02854	VIDALIA/CATALYST, LTD. PARTNERSHIP	A	192,000	1,096,880	0	315,399	$30,362
02861	PONTOOK HYD PART/NH WATER RES. BRD.	A	9,600	54,679	0	15,751	$1,516
02879	GREEN MOUNTAIN POWER CORP.	A	8,775	23,122	0	11,376	$1,095
02880	AQUENERGY SYSTEMS LLC	A	4,140	10,071	0	5,273	$507
02883	AQUENERGY SYSTEMS LLC	A	5,925	27,668	0	9,038	$870
02899	MILNER DAM, INC.	A	59,475	33,916	0	63,291	$6,092
02901	HOLCOMB ROCK COMPANY	A	1,875	6,089	0	2,560	$246
02931	S. D. WARREN	A	1,900	6,499	0	2,631	$253
02934	NEW YORK STATE ELECTRIC & GAS CORP.	A	18,503	46,261	0	23,707	$2,282
02942	S. D. WARREN	A	2,400	13,136	0	3,878	$373
02966	CLEMENT DAM HYDROELECTRIC, LLC	A	2,400	5,797	0	3,052	$293

Maximum Charge
* Estimated (MWH)

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PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
02973	FALLS RIVER RURAL ELECTRIC CORP., INC	A	4,800	14,365	0	6,416	$617
02984	S. D. WARREN	A	1,800	7,200	0	2,610	$251
03021	ALLEGHENY HYDRO # 8&9, US BANK NAT. ASSO	A	30,375	195,669	0	52,388	$5,043
03023	BLACKSTONE HYDRO, INC.	A	1,725	2,171	0	1,969	$189
03033	ARKANSAS ELECTRIC COOP CORP.	A	102,600	369,085	0	144,122	$13,874
03043	AECC ABD MERIDIAN TRUST COMPANY	A	33,188	129,343	0	47,739	$4,595
03044	ARKANSAS ELECTRIC COOP CORP.	A	32,400	156,056	0	49,956	$4,809
03133	BROOKFIELD WHITE PINE HYDRO LLC	A	2,010	15,878	0	3,796	$365
03174	PTARMIGAN RESOURCES & ENERGY, INC.	A	5,000	22,741	0	7,558	$727
03189	ROCK CREEK LIMITED PARTNERSHIP	A	5,130	1,279	0	5,274	$507
03207	PENNSYLVANIA RENEWABLE RESOURCES	A	15,000	38,549	0	19,337	$1,861
03239	KOMA KULSHAN ASSOCIATES, LP	A	12,000	44,336	0	16,988	$1,635
03240	BRIAR-HYDRO ASSOCIATES	A	4,283	17,719	0	6,276	$604
03251	CORNELL UNIVERSITY	A	1,718	4,173	0	2,187	$210
03255	CUBE HYDRO PARTNERS, LLC	A	3,000	11,978	0	4,348	$418
03342	BRIAR HYDRO ASSOCIATES	A	4,598	17,696	0	6,589	$634
03407	MAGIC RESERVOIR HYDROELECTRIC, INC.	A	9,000	17,192	0	10,934	$1,052
03428	MILLER HYDRO GROUP, INC.	A	19,400	84,914	0	28,953	$2,787
03442	MINE FALLS LTD PTR/NASHUA CITY	A	3,000	6,269	0	3,705	$356
03472	SUMMIT HYDROPOWER	A	2,781	6,345	0	3,495	$336
03494	CUBE HYDRO PARTNERS, LLC	A	8,550	37,858	0	12,809	$1,233
03509	LITTLE FALLS HYDROELECTRIC ASSOC.	A	13,598	47,542	0	18,947	$1,823
03574	TIBER MONTANA, LLC	A	7,500	52,609	0	13,419	$1,291
03671	CUBE HYDRO PARTNERS, LLC	A	9,525	39,496	0	13,968	$1,344
03819	STS HYDROPOWER, LTD.	A	2,798	5,972	0	3,470	$334
03820	GENERAL ELECTRIC COMPANY	A	2,220	0	0	2,220	$213
04026	ANDROSCOGGIN RESERVOIR CO.	A	5,325	28,788	0	8,564	$824
04113	OSWEGO HYDRO PARTNERS, L.P.	A	3,180	9,388	0	4,236	$407
04114	LOWER SARANAC HYDRO PARTNERS LLC	A	9,300	23,450	0	11,938	$1,149
04334	EONY GENERATION LIMITED	A	3,645	6,119	0	4,333	$417
04349	EONY GENERATION LIMITED	A	11,775	48,876	0	17,274	$1,662
04428	CONSOLIDATE HYDRO NEW YORK, LLC	A	2,828	2,878	0	3,152	$303
04472	ERIE BOULEVARD HYDROPOWER, LP	A	4,868	18,054	0	6,899	$664

Maximum Charge
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PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
04644	STEVENS & THOMPSON PAPER CO., INC.,	A	10,500	20,418	0	12,797	$1,231
04684	GR CATALYST ONE, LLC	A	3,525	14,366	0	5,141	$494
04784	TOPSHAM HYDRO PARTNERS, DAIMLERCHRYSLER	A	13,875	64,827	0	21,168	$2,037
04796	NORTHBROOK NEW YORK, LLC	A	32,625	120,504	0	46,182	$4,445
04881	ADA COUNTY AND FULCRUM INC.	A	3,705	12,167	0	5,074	$488
04885	TWIN FALLS HYDRO ASSOCIATES	A	24,000	74,171	0	32,344	$3,113
04900	TRAFALGAR POWER, INC.	A	2,753	9,286	0	3,798	$365
05062	QUINEBAUG ASSOCIATES, LLC	A	2,167	8,531	0	3,127	$301
05073	BENTON FALLS ASSOCIATES	A	4,330	17,143	0	6,259	$602
05089	FALLS RIVER RURAL ELECTRIC CORP., INC	A	7,448	29,813	0	10,802	$1,039
05223	INTERNATIONAL FALLS POWER COMPANY	A	14,475	53,212	0	20,461	$1,969
05276	NIMO AND NORTHERN ELECTRIC POWER CO	A	44,000	184,464	0	64,752	$6,233
05313	HYDRO ENERGIES CORPORATION	A	1,838	4,330	0	2,325	$223
05376	HORSESHOE BEND HYDROELECTRIC CO	A	7,850	0	0	7,850	$755
05461	NIMO AND SOUTH GLENS FALLS LTD	A	15,698	62,425	0	22,721	$2,187
05698	TRITON POWER COMPANY	A	1,725	4,955	0	2,283	$219
05867	ALICE FALLS HYDRO LLC	A	2,100	0	0	2,100	$202
05931	ROSEBURG RES. CO. & MEGA RENEWABLES	A	6,893	0	0	6,893	$663
05984	ERIE BOULEVARD HYDROPOWER, LP	A	7,360	28,403	0	10,555	$1,016
06015	ROCK CREEK HYDRO INC/ BP HYDRO ASSO	A	1,898	7,635	0	2,757	$265
06032	ALBANY ENGINEERING CORPORATION	A	4,500	20,402	0	6,795	$654
06058	HYDRO DEVELOPMENT GROUP, INC (NY)	A	1,900	11,212	0	3,161	$304
06066	MCCALLUM ENTERPRISES I & SHELTON	A	8,500	23,141	0	11,103	$1,068
06115	PYRITES ASSOCIATES	A	7,200	23,746	0	9,871	$950
06221	BLACK CREEK HYDRO, INC.	A	3,698	405	0	3,744	$360
06597	MONADNOCK PAPER MILLS, INC.	A	1,889	3,491	0	2,282	$219
06641	AMERICAN MUNICIPAL POWER	A	72,000	0	0	72,000	$6,931
06689	BRIAR-HYDRO ASSOCIATES	A	2,813	11,475	0	4,104	$395
06780	HYDRO SIERRA ENERGY LLC	A	1,963	2,983	0	2,299	$221
06896	HYPOWER, INC.	A	14,500	42,268	0	19,255	$1,853
06902	AMERICAN MUNICIPAL POWER	A	34,995	0	0	34,995	$3,368
06951	TALLASSEE SHOALS, LLC	A	1,991	664	0	2,066	$198
07000	ERIE BOULEVARD HYDROPOWER, LP	A	2,220	7,134	0	3,023	$291

Maximum Charge
* Estimated (MWH)

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PRIVATE LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge
07120	STS HYDROPOWER, LTD.	A	4,950	9,781	0	6,050	$582
07153	VICTORY MILLS COMPANY, INC.	A	1,650	5,440	0	2,262	$217
07186	MISSISQUOI ASSOCIATES	A	24,968	68,662	0	32,693	$3,147
07194	BIRCH PWR CO. AND SORENSON LEASING, LLC	A	2,650	11,466	0	3,940	$379
07282	ROARING CREEK RANCH	A	2,025	7,514	0	2,870	$276
07320	ERIE BOULEVARD HYDROPOWER, LP	A	3,353	18,484	0	5,432	$522
07352	TUG HILL ENERGY. INC.	A	1,636	2,413	0	1,907	$183
07387	ERIE BOULEVARD HYDROPOWER, LP	A	2,700	15,941	0	4,493	$432
07481	NYSD LIMITED PARTNERSHIP	A	10,830	41,648	0	15,515	$1,493
07563	SOUTH FORK II ASSOC. LP	A	4,770	12,267	0	6,150	$592
08277	VERSO ANDROSCOGGIN POWER LLC	A	10,350	26,710	0	13,355	$1,285
08278	CRYSTAL SPRINGS HYDRO, LP	A	2,878	10,437	0	4,052	$390
08296	MALACHA HYDRO LIMTED PARTNERSHIP &	A	29,925	15,781	0	31,700	$3,051
08315	EAGLE CREEK SARTELL HYDRO, LLC	A	9,525	39,419	0	13,960	$1,343
08361	OLSEN POWER PARTNERS	A	5,003	2,835	0	5,322	$512
08377	ISABELLA PARTNERS	A	11,950	5,951	0	12,620	$1,214
08646	FACKRELL, ROBERT	A	3,075	8,648	0	4,048	$389
08909	BIG WOOD CANAL CO & BP HYDRO ASSOC	A	4,770	13,740	0	6,316	$608
09028	BANISTER HYDRO, INC.	A	1,785	4,401	0	2,280	$219
09074	WARRENSBURG HYDROPOWER LTD PTR	A	2,903	10,748	0	4,112	$395
09260	SISSONVILLE LIMITED PARTNERSHIP	A	2,198	11,861	0	3,532	$340
09690	EAGLE CREEK RENEWABLE	A	9,975	17,102	0	11,899	$1,145
09709	ECOSPONSIBLE LLC	A	1,710	0	0	1,710	$164
09821	TRAFALGAR POWER, INC.	A	3,675	9,833	0	4,781	$460
09840	APPOMATTOX RIVER ASSOC, LP	A	2,850	12,806	0	4,291	$413
09885	MARYSVILLE HYDRO PARTNERS	A	9,075	34,921	0	13,004	$1,251
09951	STS FRENCH LANDING/VAN BUREN, (MI)	A	1,800	6,249	0	2,503	$240
10228	AMERICAN MUNICIPAL POWER	A	84,000	0	0	84,000	$8,086
10253	CONSOLIDATED HYDRO SOUTHEAST,INC &	A	3,300	11,623	0	4,608	$443
10254	CONSOLIDATED HYDRO SOUTHEAST,INC &	A	1,950	7,934	0	2,843	$273
10440	BBL HYDRO, INC.	A	4,500	20,980	0	6,860	$660
10461	ERIE BOULEVARD HYDROPOWER, LP	A	6,800	33,785	0	10,601	$1,020
10468	MARSH VALLEY DEVELOPMENT, INC.	A	1,650	4,453	0	2,151	$207

Maximum Charge
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PRIVATE LICENSEES

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10481	EAGLE CREEK RENEWABLE	A	3,975	6,586	0	4,716	$453
10482	AER NY-GEN, LLC	A	11,775	5,648	0	12,410	$1,194
10615	TOWER KLEBER LIMITED PARTNERSHIP	A	1,800	0	0	1,800	$173
10805	MIDWEST HYDRAULIC COMPANY, LLC	A	7,200	27,784	0	10,326	$994
10808	BOYCE HYDRO POWER, LLC	A	4,800	20,668	0	7,125	$685
10819	IDAHO WATER RESOURCE BOARD	A	2,500	19,492	0	4,693	$451
10853	OTTER TAIL POWER COMPANY	A	3,450	20,892	0	5,800	$558
10855	UPPER PENINSULA POWER COMPANY	A	11,200	44,164	0	16,169	$1,556
11077	ALASKA POWER AND TELEPHONE COMPANY	A	4,000	15,960	0	5,796	$557
11162	WISCONSIN POWER AND LIGHT CO.	A	29,000	155,829	0	46,531	$4,479
11175	CROWN HYDRO COMPANY	A	3,400	0	0	3,400	$327
11243	CORDOVA ELECTRIC COOPERATIVE, INC.	A	6,000	16,771	0	7,887	$759
11408	ERIE BOULEVARD HYDROPOWER, LP	A	36,250	109,018	0	48,515	$4,670
11437	JORDAN HYDRO ELECTRIC PARTNERSHIP, LTD	A	4,400	0	0	4,400	$423
11475	GREEN MOUNTAIN POWER CORP.	A	2,251	5,346	0	2,852	$274
11478	GREEN MOUNTAIN POWER CORP.	A	2,200	4,461	0	2,702	$260
11480	HAIDA ENERGY	A	5,000	0	0	5,000	$481
11588	ALASKA POWER AND TELEPHONE COMPANY	A	3,000	7,718	0	3,868	$372
11830	WISCONSIN ELECTRIC POWER COMPANY	A	12,000	46,897	0	17,276	$1,663
11831	WISCONSIN ELECTRIC POWER COMPANY	A	9,000	36,080	0	13,059	$1,257
11879	FALLS RIVER RURAL ELECTRIC CORP., INC	A	3,300	0	0	3,300	$317
11945	DORENA HYDRO, LLC	A	7,500	0	0	7,500	$722
12379	ALASKA ELECTRIC LIGHT AND POWER	A	14,300	93,290	0	24,795	$2,386
12514	NORTHERN INDIANA PUBLIC SERVICE COMPANY	A	16,400	45,331	0	21,500	$2,069
12589	PUBLIC SERVICE CO. OF COLORADO	A	8,000	3,377	0	8,380	$806
12597	TURNBULL HYDRO, LLC	A	7,700	14,882	0	9,374	$902
12598	TURNBULL HYDRO, LLC	A	5,300	9,921	0	6,416	$617
12632	EAST TEXAS ELECTRIC COOPERATIVE, INC	A	24,000	0	0	24,000	$2,310
12667	AMERICAN MUNICIPAL POWER	A	105,000	0	0	105,000	$10,107
13526	BOWERSOCK MILLS & POWER CO (KS)	A	7,000	29,596	0	10,330	$994
480	**PRIVATE LICENSEES**		**33,657,965**	**82,537,316**	**20,020,814**	**41,268,271**	**$3,812,657**

Maximum Charge
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PUBLIC LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge	
Other Federal Agency Cost							$2,892,491	
Maximum Charge							$134,102	
Total Charge for Projects above Maximum Charge (11 Projects)							$1,475,122	
Total Other Federal Agency Cost less Charges for Projects above Maximum							$1,417,369	
Total Other Federal Agency Charge Factor						15,332,185		
Total Individual Charge Factors (ICFs) for Projects above Maximum						11,165,985		
Total Charge Factor less Total ICFs for Projects above Maximum						4,166,200		
Unit Charge Factor							0.340207	
00013	GREEN ISLAND AND POWER AUTHORITY	A	48,000	31,924	0	48,000	$16,329	
00184	EL DORADO IRRIGATION DIST.	A	21,000	0	0	21,000	$7,144	
00201	PETERSBURG, CITY OF	A	2,000	0	0	2,000	$680	
00420	KETCHIKAN PUBLIC UTILITIES	A	4,200	0	0	4,200	$1,428	
00553	SEATTLE, CITY OF	A	650,250	9,611,076	0	616,436	$134,102	#
00637	CHELAN COUNTY, P.U.D. NO. 1	A	59,200	435,917	0	4,902	$1,667	
00659	CRISP COUNTY POWER	A	15,200	0	0	15,200	$5,171	
00663	PUERTO RICO ELEC. POWER AUTHORITY	A	5,003	0	0	5,003	$1,702	
00925	OTTUMWA, CITY OF (IA)	A	3,200	0	0	3,200	$1,088	
00943	CHELAN COUNTY, P.U.D. NO. 1	A	422,212	2,576,372	0	363,628	$123,707	
01005	CITY OF BOULDER, COLORADO	A	5,000	0	0	5,000	$1,701	
012107	GRANITE COUNTY MT	A	2,000	0	0	2,000	$680	
01250	PASADENA, CITY OF/WATER & POWER	A	3,000	0	0	3,000	$1,020	
01256	LOUP RIVER PUBLIC POWER DISTRICT	A	49,658	0	0	49,658	$16,893	
01417	CENTRAL NEBRASKA PUBLIC POWER &	A	86,342	0	0	86,342	$29,373	
01494	GRAND RIVER DAM AUTHORITY	A	105,176	0	0	105,176	$35,781	
01835	NEBRASKA PUBLIC POWER DISTRICT	A	26,100	0	0	26,100	$8,879	
01862	TACOMA, CITY OF (WA)	A	115,687	590,017	0	105,321	$35,830	
01922	KETCHIKAN PUBLIC UTILITIES	A	7,103	0	0	7,103	$2,416	
01991	BONNERS CITY LIGHT DEPT.	A	3,938	28,535	0	3,027	$1,029	
02000	POWER AUTH OF THE STATE OF NEW YORK	A	912,000	7,238,820	0	902,169	$134,102	#

Maximum Charge
* Estimated (MWH)

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ASSESSMENT TABLE FOR OTHER FEDERAL AGENCIES ADMINISTRATIVE

PUBLIC LICENSEES

Project	Licensee	Project Type	Prorated Kilowatts	Annual Generated (MWH)	Pumped (MWH)	Charge Factor	Annual Charge	
02005	OAKDALE/S.SAN JOAQUIN IRR. DIST.	A	82,500	0	0	82,500	$28,066	
02016	TACOMA, CITY OF (WA)	A	462,000	2,041,805	0	420,792	$134,102	#
02019	UTICA POWER AUTHORITY	A	4,500	0	0	4,500	$1,530	
02031	SPRINGVILLE, CITY OF (UT)	A	2,000	0	0	2,000	$680	
02067	OAKDALE/S.SAN JOAQUIN IRR. DIST.	A	17,100	0	0	17,100	$5,817	
02079	PLACER COUNTY WATER AGENCY	A	223,753	0	0	223,753	$76,121	
02088	SOUTH FEATHER WATER AND POWER AGENCY	A	117,300	0	0	117,300	$39,905	
02101	SACRAMENTO MUNICIPAL UTILITY DIST.	A	637,683	1,586,539	0	636,755	$134,102	#
02114	GRANT COUNTY OF WASHINGTON P U D #2	A	1,410,000	9,915,925	0	1,255,647	$134,102	#
02144	SEATTLE, CITY OF	A	1,003,253	9,611,076	0	951,083	$134,102	#
02145	CHELAN COUNTY, P.U.D. NO. 1	A	865,760	5,828,580	0	745,631	$134,102	#
02149	DOUGLAS COUNTY, PUD #1	A	774,000	4,142,414	0	410,499	$134,102	#
02179	MERCED IRRIGATION DISTRICT	A	101,250	0	0	101,250	$34,445	
02183	GRAND RIVER DAM AUTHORITY	A	108,000	0	0	108,000	$36,742	
02213	COWLITZ COUNTY PUD #1	A	66,800	255,562	0	53,010	$18,034	
02216	POWER AUTH OF THE STATE OF NEW YORK	A	2,755,500	0	0	2,755,500	$134,102	#
02230	SITKA, CITY AND BOROUGH OF	A	7,540	0	0	7,540	$2,565	
02244	ENERGY NORTHWEST	A	26,100	0	0	26,100	$8,879	
02246	YUBA COUNTY WATER AGENCY	A	361,875	0	0	361,875	$123,111	
02266	NEVADA IRRIGATION DISTRICT	A	79,920	0	0	79,920	$27,189	
02299	TURLOCK IRRIGATION DISTRICT &	A	168,015	0	0	168,015	$57,159	
02409	CALAVERAS COUNTY WATER DISTRICT	A	258,726	0	0	258,726	$88,019	
02426	LOS ANGELES, CITY OF	C	1,629,700	0	0	1,629,700	$134,102	#
02441	NORWICH, CITY OF (CT)	A	2,250	0	0	2,250	$765	
02442	WATERTOWN, CITY OF (NY)	A	6,600	0	0	6,600	$2,245	
02467	MERCED IRRIGATION DISTRICT	A	3,450	7,571	0	3,450	$1,173	
02524	GRAND RIVER DAM AUTHORITY	A	259,808	0	0	259,808	$88,387	
02533	CITY OF BRAINERD	A	3,160	0	0	3,267	$1,111	
02547	SWANTON, VILLLAGE OF (VT)	A	10,800	0	0	10,800	$3,674	
02589	MARQUETTE, CITY OF (MI)	A	3,900	0	0	3,900	$1,326	
02629	MORRISVILLE WATER & LIGHT DEPT.	A	5,100	0	0	5,100	$1,735	
02685	POWER AUTH OF THE STATE OF NEW YORK	B	1,160,000	1,047	0	841,773	$134,102	#
02705	SEATTLE, CITY OF	A	2,125	9,611,076	0	2,014	$685	

Maximum Charge
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PUBLIC LICENSEES

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02720	NORWAY, CITY OF MICHIGAN	A	5,136	0	0	5,136	$1,747
02741	KINGS RIVER CONSERVATION DISTRICT	A	165,000	238,381	0	165,000	$56,133
02756	CITY OF BURLINGTON, VERMONT	A	7,425	0	0	7,425	$2,526
02780	SOLANO IRRIGATION DISTRICT (CA)	A	11,475	39,088	0	11,475	$3,903
02818	SITKA, CITY AND BOROUGH OF	A	16,500	0	0	16,500	$5,613
02821	PORTLAND, CITY OF/BUREAU HYDROPOWER	A	35,625	56,802	0	35,625	$12,119
02832	BOISE-KUNA IRRIGATION DISTRICT ETAL	A	101,250	283,262	0	101,250	$34,445
02833	PUD #1 OF LEWIS COUNTY (WA)	A	69,975	0	0	69,975	$23,805
02839	LYNDONVILLE, VILLAGE OF	A	2,048	0	0	2,048	$696
02841	UKIAH MUNICIPAL ELECTRIC SYSTEM(CA)	A	3,500	0	0	3,500	$1,190
02842	IDAHO FALLS, CITY OF	A	24,600	0	0	24,600	$8,369
02849	EAST COLUMBIA BASIN IRRIGATION DIST	A	26,025	0	0	26,025	$8,853
02853	MT. DEPT OF NATURAL RESOURCES &	A	9,660	0	0	9,660	$3,286
02888	REDDING, CITY OF (CA)	A	3,240	0	0	3,240	$1,102
02891	TALLAHASSEE, CITY OF, ELEC. DEPT.	A	10,875	0	0	10,875	$3,699
02892	FRIANT POWER AUTHORITY (CA)	A	27,375	33,393	0	27,375	$9,313
02903	CALAVERAS COUNTY WATER DISTRICT	A	2,650	3,883	0	2,650	$901
02911	SOUTHEAST ALASKA POWER AGENCY	A	21,975	69,084	0	21,975	$7,475
02916	EAST BAY MUNICIPAL UTILITY DISTRICT	A	33,048	0	0	33,048	$11,243
02937	QUINCY COLUMBIA BASIN IRRIG DIST	A	9,367	0	0	9,367	$3,186
02952	IDAHO FALLS, CITY OF	A	22,600	117,054	0	10,069	$3,425
02958	MADERA IRRIGATION DISTRICT	A	3,645	5,342	0	3,645	$1,240
02959	SEATTLE, CITY OF	A	16,704	9,611,076	0	15,835	$5,387
02964	STURGIS, CITY OF (MI)	A	2,720	0	0	2,720	$925
02975	TRI-DAM POWER AUTHORITY	A	16,200	0	0	16,200	$5,511
02997	SOUTH SUTTER WATER DISTRICT (CA)	A	6,803	21,489	0	6,803	$2,314
03015	SOUTHEAST ALASKA POWER AGENCY	A	20,025	64,993	0	20,025	$6,812
03074	SPOKANE, CITY OF (WA)	A	17,700	68,636	0	318	$108
03083	OKLAHOMA MUNICIPAL POWER AUTHORITY	A	31,425	68,187	0	31,425	$10,690
03190	SANTA CLARA ELECTRIC DEPT (CA)	A	6,825	9,734	0	6,825	$2,321
03193	SANTA CLARA ELECTRIC DEPT (CA)	A	4,898	10,845	0	4,898	$1,666
03206	NEW MARTINSVILLE, CITY OF WEST VA	A	35,700	192,592	0	35,700	$12,145
03295	EAST COLUMBIA BASIN IRRIGATION DIST	A	92,025	0	0	92,025	$31,307

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03351	SONOMA COUNTY WATER AGENCY	A	2,790	0	0	2,790	$949
03449	NORTH LITTLE ROCK, CITY OF	A	39,000	130,570	0	29,721	$10,111
03451	BEAVER FALLS MUNICIPAL AUTHORITY	A	5,018	0	0	5,018	$1,707
03571	CENTRAL OREGON IRRIGATION DISTRICT	A	5,498	34,895	0	5,498	$1,870
03603	ASPEN, CITY OF (CO)	A	5,003	0	0	5,003	$1,702
03623	THE YOUGHIOGHENY AUTHORITY	A	7,125	34,704	0	7,125	$2,423
03701	SOUTHERN CALIFORNIA PUBLIC PWR AUTHORITY	A	13,600	39,468	0	13,600	$4,626
03755	BOUNTIFUL, CITY OF (UT)	A	4,500	5,747	0	4,500	$1,530
03842	EAST COLUMBIA BASIN IRRIGATION DIST	A	2,175	0	0	2,175	$739
03843	EAST COLUMBIA BASIN IRRIGATION DIST	A	2,400	0	0	2,400	$816
03865	GUADALUPE-BLANCO RIVER AUTHORITY	A	6,075	22,657	0	6,075	$2,066
03940	CITY OF GARLAND, TX	A	2,700	7,986	0	2,700	$918
03947	KAWEAH RIVER POWER AUTHORITY	A	20,090	77,913	0	20,090	$6,834
04031	PERU, CITY OF (IL)	A	7,500	0	0	7,500	$2,551
04108	ST. CLOUD, CITY (MN)	A	8,850	0	0	8,850	$3,010
04117	METROPOLITAN DISTRICT	A	3,000	6,095	0	3,000	$1,020
04129	OLCESE WATER DISTRICT	A	14,025	12,374	0	14,025	$4,771
04204	BATESVILLE, CITY OF (AK)	A	3,900	0	0	3,900	$1,326
04285	LOGAN, CITY OF (UT)	A	7,695	0	0	7,725	$2,628
04306	HASTINGS, CITY OF	A	3,975	21,505	0	3,975	$1,352
04354	GEM, RIDGEVIEW & OWYHEE IRRIGATION	A	4,340	9,072	0	4,340	$1,476
04359	GEM, RIDGEVIEW & OWYHEE IRRIGATION	A	8,167	0	0	8,167	$2,778
04597	WEBER-BOX CONSER. DIST. & BOUNTIFUL	A	1,800	4,296	0	1,800	$612
04656	BOISE-KUNA IRRIGATION DISTRICT ETAL	A	15,680	65,443	0	15,680	$5,334
04659	INDEPENDENCE COUNTY (AR)	A	3,900	0	0	3,900	$1,326
04660	INDEPENDENCE COUNTY (AR)	A	3,500	0	0	3,500	$1,190
04720	FARMINGTON, CITY OF (NM)	A	30,225	100,244	0	30,225	$10,282
05044	AUGUSTA CANAL AUTHORITY	A	2,475	25,779	0	2,475	$842
05226	LOS ALAMOS, NEW MEXICO	A	6,000	0	0	6,000	$2,041
05264	EUGENE WATER & ELECTRIC BOARD	A	12,000	0	0	12,000	$4,082
05334	CHARTER TOWNSHIP OF YPSILANTI	A	1,920	0	0	1,920	$653
05357	OWYHEE IRRIGATION DISTRICT	A	1,875	1,179	0	1,875	$637
05596	BEDFORD, CITY OF VIRGINIA	A	5,775	21,878	0	5,775	$1,964

Maximum Charge
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05891	DESCHUTES VALLEY WATER DISTRICT	A	4,793	0	0	4,793	$1,630
06842	ABERDEEN AND TACOMA, CITIES OF (WA)	A	11,100	32,015	0	10,065	$3,424
07076	NORTHERN WASCO COUNTY PEOPLES DIST	A	4,900	36,765	0	4,900	$1,667
07161	DOUGLAS, COUNTY OF OREGON	A	1,658	0	0	1,658	$564
07396	LOS ALAMOS, NEW MEXICO	A	13,800	0	0	13,800	$4,694
08221	ALASKA ENERGY AUTHORITY	A	119,700	0	0	119,700	$40,722
08914	RIO BLANCO WATER CONSERVANCY DIST.	A	1,900	9,252	0	1,900	$646
09194	PASSAIC VALLEY WATER COMMISSION	A	2,400	0	0	2,400	$816
09195	COLORADO SPRINGS UTILITIES	A	26,600	0	0	26,600	$9,049
09310	MT. PLEASANT, CITY OF (UT)	A	1,800	0	0	1,800	$612
09988	AUGUSTA CANAL AUTHORITY	A	2,125	19,381	0	2,125	$722
10359	SNOHOMISH COUNTY, WA P.U.D. NO. 1	A	7,500	0	0	7,500	$2,551
10551	OSWEGO, CITY OF (NY)	A	10,192	0	0	10,192	$3,467
10813	SUMMERSVILLE, TOWN OF (WV)	A	80,000	190,780	0	80,000	$27,216
10896	DANVILLE, CITY OF (VA)	A	10,670	0	0	10,670	$3,629
11006	LEWISTON, CITY OF (ME)	A	1,695	0	0	1,695	$576
11286	CITY OF ABBEVILLE	A	2,600	0	0	2,600	$884
11841	KETCHIKAN PUBLIC UTILITIES	A	4,600	0	0	4,600	$1,564
12775	CITY OF SPEARFISH	A	4,000	0	0	4,000	$1,360
137	**PUBLIC LICENSEES**		**16,605,502**	**75,310,524**	**0**	**15,332,185**	**$2,892,491**
617	**Projects**		**50,263,467**	**157,847,840**	**20,020,814**	**56,600,468**	**6,705,148**

Maximum Charge
* Estimated (MWH)

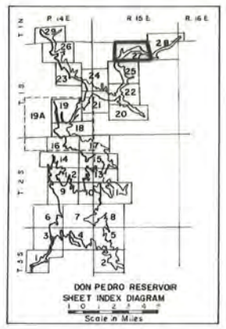
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Exhibit 53

T.1N.,R.15E.,M.D.B.&M.

T.1S.,R.15E.



THIS MAP CORRECTLY REPRESENTS TOPOGRAPHY SHOWN ON PHOTOGRAMMETRIC MAPS COMPILED BY FAIRCHILD AERIAL SURVEYS INC., R.M. TOWILL INC. AND TELEDYNE GEOTRONICS AND SURVEYS MADE BY ME, OR UNDER MY DIRECTION WHILE EMPLOYED BY THE TURLOCK IRRIGATION DISTRICT AND MODESTO IRRIGATION DISTRICT.

JOHN R. DUFF
L.S. 2244, CALIFORNIA

THIS MAP IS FILED IN COMPLIANCE WITH ARTICLE 35 OF THE LICENSE FOR FEDERAL POWER COMMISSION PROJECT NO. 2299 SUBMITTED BY THE UNDERSIGNED THIS 30 TH. DAY OF AUGUST 1974.

TURLOCK IRRIGATION DISTRICT
BY: H. RICHARD CLAUSS, PRESIDENT

MODESTO IRRIGATION DISTRICT
BY: RICHARD E. PENNEY, PRESIDENT

T.I.D. & M.I.D. 0.50 AC.

T.I.D. & M.I.D. 37.88 AC.

MAX. NORMAL WATER SURFACE EL. 830

T.I.D. & M.I.D. 0.41 AC.

Woody Debris beaching & burning area #2
APN# 065-020-26-00

Woody Debris beaching & burning area #1
APN# 065-020-25-00

U.S.A.

TUOLUMNE RIVER

POWERHOUSE

Match Line Sheet No. 28

Sheet No. 27
Match Line Sheet No. 25

PROJECT BOUNDARY TRAVERSE

NO.	BEARING	DIST.
25-41	N.61°55'00"E.	251.33
27-1	N.10°04'00"E.	171.64
27-2	N.49°01'00"E.	494.06
27-3	N.76°48'00"E.	200.48
27-4	N.16°01'00"E.	245.74
27-5	N.76°10'00"E.	271.91
27-6	N.19°51'00"E.	141.40
27-7	N.47°24'00"E.	641.20
27-8	N.71°51'00"E.	256.78
27-9	N. 1°51'00"W.	341.18
27-10	N.69°00'00"E.	202.73
27-11	N.19°24'00"E.	373.20
27-12	N.40°42'00"E.	236.13
27-13	N.78°00'00"E.	273.99
27-14	N. 8°15'00"E.	202.09
27-15	S.69°27'00"E.	205.06
27-16	N.31°41'00"E.	205.84
27-17	N.64°11'00"E.	645.39
27-18	N.81°05'00"E.	103.25
27-19		

NO.	BEARING	DIST.
27-19	N.65°10'00"E.	592.83
27-20	N.83°44'00"E.	366.25
27-21	N.31°13'00"E.	115.76
27-22	N.71°49'00"E.	557.56
27-23	N.71°49'00"E.	284.53
27-24	N.71°49'00"E.	276.74
27-25	S.80°58'00"E.	656.13
27-26	S.51°45'00"E.	110.89
27-27	S.51°45'00"E.	297.83
27-28	S. 8°28'00"E.	971.58
27-29	S.44°30'00"E.	328.11
27-30	S. 2°53'00"E.	218.28
27-31	S.73°08'00"E.	392.90
27-32	S.11°42'00"E.	202.20
27-33	S.84°29'00"E.	394.83
27-34	N.28°04'00"E.	187.00
27-35	N.73°41'00"E.	668.96
27-36	N.89°03'00"E.	364.05
27-37	S.63°34'00"E.	379.69
27-38		

NO.	BEARING	DIST.
27-38	S.42°25'00"E.	594.58
27-39	S.55°52'00"E.	393.85
27-40	S.59°32'00"E.	1073.11
27-41	S.84°23'00"E.	500.49
27-42	N.76°49'00"E.	156.20
27-43		
28-47		
27-44	N.71°50'00"W.	323.90
27-45	N.75°58'00"W.	428.80
27-46	N.59°46'00"W.	343.72
27-47	N.18°16'00"W.	309.59
27-48	N.62°19'00"W.	368.12
27-49	N.28°25'00"W.	118.40
27-50	N.28°25'00"W.	459.97
27-51	N.76°43'00"W.	611.08
27-52	S.77°52'00"W.	504.27
27-53	S.73°34'00"W.	717.32
27-54	N.63°29'00"W.	472.70
27-55	N. 7°16'00"W.	899.23
27-56	N. 7°16'00"W.	57.45

NO.	BEARING	DIST.
27-56	N.17°48'00"W.	575.57
27-57	N.51°06'00"W.	366.23
27-58	N.67°18'00"W.	357.69
27-59	N.80°53'00"W.	296.75
27-60	S.88°18'00"W.	540.24
27-61	S.65°37'00"W.	569.46
27-62	S.65°37'00"W.	72.93
27-63	S.80°25'00"W.	366.12
27-64	S.73°40'00"W.	558.52
27-65	S.69°37'00"W.	889.75
27-66	S.63°01'00"W.	473.26
27-67	S.63°01'00"W.	479.34
27-68	S.59°39'00"W.	732.34
27-69	S.30°51'00"W.	639.53
27-70	N.53°44'00"W.	302.62
27-71	N.12°37'00"W.	205.98
27-72	N. 4°09'00"W.	580.52
27-73	N.54°52'00"W.	312.63
27-74	N.54°52'00"W.	224.21
27-75		

NO.	BEARING	DIST.
27-75	S.50°08'00"W.	200.68
27-76	S.50°08'00"W.	28.63
27-77	S.44°54'00"E.	405.17
27-78	S.14°50'00"W.	351.71
27-79	S.14°41'00"E.	512.75
27-80	S.54°18'00"W.	245.05
27-81	S.41°38'00"W.	276.96
27-82	S.35°31'00"E.	626.57
27-83	S.49°21'00"W.	414.31
27-84	S.49°21'00"W.	824.58
27-85	S.69°13'00"W.	115.52
27-86	S.46°07'00"W.	435.66
27-87	S.37°24'00"W.	299.61
27-88	N.47°29'00"W.	160.20
27-89	S.66°08'00"W.	323.69
27-90	S. 4°22'00"W.	118.34
27-91	S.48°06'00"E.	196.16
27-92	S. 6°13'00"W.	209.97
27-93		

LEGEND
- PROJECT BOUNDARY
- FOUND CORNER
- FOUND CORNER, SET PIPE
- PROPORTIONED CORNER, SET PIPE
- MONUMENT SET ON PROJECT BOUNDARY
- PRIMARY HORIZONTAL CONTROL STATION

Scale
400 0 400 800 1200 1600 2000

Contour interval 10 Feet
Datum is Mean Sea Level

COORDINATES, BEARINGS AND DISTANCES ARE BASED ON THE CALIFORNIA STATE COORDINATE SYSTEM, ZONE 3

EXHIBIT K SHEET 27

PROJECT NO. 2299 CALIFORNIA

TURLOCK IRRIGATION DISTRICT
MODESTO IRRIGATION DISTRICT

DON PEDRO PROJECT

DON PEDRO RESERVOIR

TOPOGRAPHY, PROPERTY & PROJECT BOUNDARY

2299-112

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PROJECT BOUNDARY TRAVERSE

NO.	BEARING	DIST.
27-43		
28-1	N.76°49'00"E.	199.15
28-2	N.69°31'00"E.	700.26
28-3	S.66°28'00"E.	708.94
28-4	N.31°48'00"E.	176.49
28-5	N.58°10'00"W.	959.30
28-5A	N.13°34'59"E.	451.56
28-6A	N.24°46'31"E.	143.18
28-6B	N.33°41'24"E.	252.39
28-7A	S.87°49'08"E.	84.34
28-8	N.21°36'00"E.	260.00
28-9	N.38°19'00"E.	1017.55
28-10	N.46°55'00"E.	199.57
28-11	N.46°55'00"E.	456.45
28-12	N.62°21'00"E.	564.49
28-13	N.75°37'00"E.	1252.23
28-14	S.87°31'00"E.	450.57
28-15	S.87°31'00"E.	220.06
28-16	N.76°19'00"E.	507.39
28-16	N.43°45'00"E.	682.52
28-17	N.38°31'00"E.	1159.28
28-18	N.62°02'00"E.	985.06
28-19	N.55°54'00"E.	1214.71
28-20	N.35°22'00"E.	305.17
28-21	N.35°22'00"E.	2901.63
28-22	N.55°33'00"W.	378.22
28-23	S.35°18'00"W.	2347.48
28-24	S.35°18'00"W.	809.92
28-25	S.35°18'00"W.	97.39
28-26	S.62°54'00"W.	723.66
28-27	S.50°59'00"W.	508.36
28-28	S.71°25'00"W.	473.71
28-29	S.55°11'00"W.	420.27
28-30	S.43°50'00"W.	485.18
28-31	S.37°12'00"W.	865.01
28-32	S.58°54'00"W.	503.35
28-33	N.77°32'00"W.	604.15
28-34	N.79°32'00"W.	211.08
28-35	S.72°14'00"W.	491.45
28-36	S.66°38'00"W.	496.73
28-37	S.72°49'00"W.	592.44
28-38	S.60°27'00"W.	642.63
28-39	S.48°30'00"W.	232.50
28-40	S.48°30'00"W.	436.28
28-41	S.37°50'00"W.	1320.59
28-42	S.31°38'00"W.	183.80
28-43	S.52°38'56"E.	89.78
28-43A	S.28°18'03"W.	147.65
28-43B	S.47°43'35"W.	74.33
28-43C	S.27°00'46"W.	286.23
28-44A	S.33°49'47"W.	200.31
28-44B	S.17°56'00"W.	255.00
28-45	S.60°54'00"W.	283.81
28-46	N.71°50'00"W.	214.96
28-47		

THIS MAP CORRECTLY REPRESENTS TOPOGRAPHY SHOWN ON PHOTOGRAMMETRIC MAPS COMPILED BY FAIRCHILD AERIAL SURVEYS INC., R.M. TOWILL INC. AND TELEDYNE GEOTRONICS AND SURVEYS MADE BY ME, OR UNDER MY DIRECTION WHILE EMPLOYED BY THE TURLOCK IRRIGATION DISTRICT AND MODESTO IRRIGATION DISTRICT.

JOHN S. DUFF
L.S. 2244, CALIFORNIA

THIS MAP IS FILED IN COMPLIANCE WITH ARTICLE 35 OF THE LICENSE FOR FEDERAL POWER COMMISSION PROJECT NO. 2299 SUBMITTED BY THE UNDERSIGNED THIS 30 TH. DAY OF AUGUST 1974.

TURLOCK IRRIGATION DISTRICT
BY: _____
N. RICHARD CLAUSS, PRESIDENT

MODESTO IRRIGATION DISTRICT
BY: _____
RICHARD E. PENNEY, PRESIDENT

T.1N.,R.15E.
T.1N.,R.16E.
T.1S.,R.15E.
T.1S.,R.16E., M.D.B. & M.

U.S.A.
U.S.A. 22.69 AC.
U.S.A. 3.48 AC.
U.S.A. 42.27 AC.
U.S.A. 5.29 AC.

BOSTON M.S. 4573 (Not Patented)
FREE LANCE EXT. 4 M.S. 4929
FREE LANCE M.S. 4028

RIVER
TUOLUMNE
DEER CREEK

MAX. NORMAL WATER SURFACE EL. 830

T.I.D. & M.I.D. 12.01 AC.

OLD WARDS FERRY BRIDGE REMOVED

TUOLUMNE COUNTY 80' BRIDGE & ROAD EASEMENT

Wards Ferry Bridge

Woody Debris beaching & burning area #3 at the mouth of Deer Creek
APN# 065-010-15-00

DON PEDRO RESERVOIR SHEET INDEX DIAGRAM
Scale in Miles

LEGEND
- PROJECT BOUNDARY
- FOUND CORNER
- FOUND CORNER, SET PIPE
- PROPORTIONED CORNER, SET PIPE
- MONUMENT SET ON PROJECT BOUNDARY
- PRIMARY HORIZONTAL CONTROL STATION

Scale 1" = 400'
400 0 400 800 1200 1600 2000
Contour Interval 10 Feet
Datum is Mean Sea Level
COORDINATES, BEARINGS AND DISTANCES ARE BASED ON THE CALIFORNIA STATE COORDINATE SYSTEM, ZONE 3

Revised July 15, 1980

EXHIBIT K SHEET 28

PROJECT NO. 2299 CALIFORNIA
TURLOCK IRRIGATION DISTRICT
MODESTO IRRIGATION DISTRICT

DON PEDRO PROJECT
DON PEDRO RESERVOIR
TOPOGRAPHY, PROPERTY & PROJECT BOUNDARY

2299-146


Woody Debris beaching & burning area #2
Tuolumne River Arm of Don Pedro Reservoir
Wards Ferry Bridge
Woody Debris beaching & burning area #1
Woody Debris beaching & burning area #3
Don Pedro Reservoir
Jacksonville Rd
Hwy. 120 / 49
Moccasin Pt. Recreation Area
Golden Chain Hwy
49
New Priest Grade Rd
Moccasin
Ferretti Rd
Main St
Groveland
Hwy. 120
Big Oak Flat
Merrell Rd
N
2 mi
Google earth

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Exhibit 54

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Synopsis of DPRA experience in trying to obtain BLM Approved Prescribed Burn Plan for 2017 Tuolumne River Woody Debris Burn Project:

1542 square miles of the Tuolumne River Watershed, located primarily within Stanislaus National Forest, Yosemite National Park and Bureau of Land Management (BLM) owned lands, drains into Don Pedro Reservoir. During wet years, woody debris from these federally owned upstream lands flows into the upper reaches of Don Pedro where it accumulates and creates impassable floating debris jams and also becomes a public boating safety hazard.

In 1988 under Article 52, the Federal Energy Regulatory Commission (FERC) required the Turlock Irrigation District (TID) and the Modesto Irrigation District (MID), the operators of Don Pedro Reservoir, to establish a Log & Debris Removal Plan. The primary objective of this plan was to prevent the floating woody debris accumulations from blocking Tuolumne River rafter access to their take-out location at the Wards Ferry Bridge. The secondary objective of this plan was to prevent the woody debris from spreading over the reservoir surface and becoming a boating safety hazard.

Representatives of the BLM Mother Lode Field Office were co-signers of this FERC approved 1988 Log & Debris Removal Plan. This plan stipulated that the Don Pedro Recreation Agency (DPRA), which is a department of TID and the agency responsible for managing recreation at Don Pedro Reservoir, was responsible for implementing this Log & Debris Removal Plan. The approved method to dispose of woody debris accumulations per this Log & Debris Removal Plan was to boom off and then beach and burn the debris with the annual reservoir draw down each fall & winter. The plan also stated that the burning operation was to be implemented in cooperation with the BLM.

All suitable lands for beaching and burning this debris in the area of Don Pedro Reservoir where the debris accumulates are completely within the FERC project boundary of Don Pedro Reservoir and are also completely within the reservoir basin but they are owned by the BLM. Since 1988, DPRA has beached and burned this debris each fall / winter with a CAL Fire and Air Pollution Control District (APCD) Burn Permit on these BLM lands. The BLM has never notified DPRA that a BLM Burn Permit was also required.

2017 was a very wet year that brought very high flows and approximately 40 acres of floating woody debris down into Don Pedro Reservoir from the federal lands upstream. As required by our 1988 FERC Log & Debris Removal Plan, DPRA staff boomed off this debris over suitable beaching areas owned by the BLM with plans to beach it and burn it when the reservoir was drawn down the following fall and winter.

On May 1, 2017, I was notified by Jim Eicher, Assistant Field Office Manager, BLM Mother Lode Field Office (CA) and Gerry Martinez, Fire Management Officer, Mother Lode Central Coast BLM (CA), that DPRA would be required to obtain a BLM Approved Prescribed Burn Plan this year before we would be permitted to burn woody debris on any BLM lands.

Here is a synopsis of our experience in trying to obtain this BLM Approved Prescribed Burn Plan since we were first notified of this requirement on May 1, 2017:

- May 1, 2017- Notified of BLM Approved Prescribed Burn Plan Requirement, informed by Jim Eicher that we would be required to file a NEPA document and Gerry Martinez would provide me with the specific requirements for filing a prescribed burn plan. Gerry Martinez requested that I send him maps showing the locations where we planned to beach and burn the debris.
- May 22, 2017- Sent maps to Gerry Martinez via file sharing software
- May 23, 2017- Gerry Martinez acknowledged receiving maps and debris burn information, he said he would be working with the BLM Field Office to determine the process to authorize this work.
- July 25, 2017- Contacted Jim Eicher from BLM Motherlode Field Office after receiving no further information from Gerry Martinez. Eicher stated that he was waiting to hear back from BLM Fire Program on the steps the Districts would be required to take to get an approved Burn Plan. Eicher requested exact burn locations with

Lat. And Long. For each burning area, so that he could check for adjacent sensitive resources. Eicher notified us that Districts would be required to pay for all BLM costs associated with implementing this burn plan along with the costs for the NEPA document.

- July 27, 2017- provided Jim Eicher (BLM) Lat. & Long. Information, BLM parcel information and photos for each proposed woody debris beaching and burning area.
- Aug. 3, 2017- contacted by Bill Haige, Motherlode Field Office Manager who informed me that the simplest way to expedite our planned woody debris burning operation would be for us to provide the BLM with a copy of our original enabling legislation from Congress that authorizes the districts to operate and maintain the Don Pedro Project within the FERC project boundaries.
- Aug. 8, 2017 – emailed copies of 1988 FERC approved log and debris removal plan to Jim Eicher and BLM Motherlode Field Office (attention: Bill Haige). Informed them that our FERC license was our enabling legislation which authorized us to operate and manage the BLM owned lands within the Don Pedro project.
- Aug. 14, 2017 – still had not received specific guidance or requirements from BLM as to how to apply for a BLM approved Prescribed Burn Plan. Emailed Jim Eicher requesting further guidance and information so we could proceed with filing our plan for BLM approval.
- Aug. 14, 2017 – Jim Eicher responded, informed me that there were sensitive cultural resources near two of our burn areas, reminded me that we must put together a NEPA document, stated he would be sending me the burn plan template and also said that we could work out an agreement to allow TID and CAL Fire to be the contractor to carry out the burning on BLM land without requiring BLM staff to be present the whole time we were burning. He said he was trying to find an example of such an agreement.
- Aug. 15, 2017 – Received Prescribed Burn Plan required documents (application) from Jim Eicher, informed that these must be completely filled out and submitted to BLM in order to proceed with burning operation on BLM lands. Directed by Eicher to contact Gerry Martinez and other BLM Fire staff should I need assistance in completing these forms. Eicher requested that we provide him our contact persons with CAL Fire who would be facilitating our burn operation.
- Aug. 23, 2017 – Provided Eicher and Gerry Martinez our CAL Fire Battalion Chief's contact information.
- Aug. 23, 2017 – Notified by Jim Eicher that CAL Fire would be the contractor to carry out the duties of the Fire Plan requirements.
- Sept. 15, 2017 – Met with Gerry Martinez (BLM) Fire Management Officer and Jude Acosta, CAL Fire Battalion Chief regarding Burn Plan. Assured by Gerry Martinez that we would be authorized to burn debris as long as CAL Fire staff were available to assist with burning operation. Informed by Gerry Martinez that he was bringing on a Fuels Technician in October who would be assigned to reviewing and completing our Prescribed Burn Plan.
- Sept. 19, 2017 – Filed preliminary draft prescribed burn plan with Gerry Martinez and Jim Eicher from the BLM.
- Oct. 2, 2017 – Commenced fuel break construction on upslope side of beached woody debris using Tuolumne County Sheriff's Dept. inmate labor crews.
- Oct. 10, 2017 – Filed NEPA document with Jim Eicher, Gerry Martinez and Burns Brimhall (Fuels/Range Technician) from BLM
- Nov. 3, 2017 – Transported Burns Brimhall, BLM Fuels/Range Technician and Tuol. Co. APCD office to burning locations to inspect proposed burn sites. Assured by Burns Brimhall that our fuel break preparation for safe burning was more than adequate.
- Nov. 8, 2017 – received Tuol. Co APCD burn permit, forwarded this permit to Jim Eicher, Burns Brimhall and Gerry Martinez from BLM.
- Nov. 10, 2017 – fuel break construction completed.
- Nov. 17, 2017 – Prescribed draft BLM Burn Plan completed by Burns Brimhall, sent up to Sacramento BLM offices for final review and approval by BLM Fire management staff.
- Nov. 20, 2017 – Issued CAL Fire permit to proceed with burn

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- Nov. 21, 29, 30, 2017 – Informed by Burns Brimhall, BLM, that plan was still being reviewed and had not received final approval yet.
- Dec. 8, 2017- Informed by Burns Brimhall, BLM that burn plan was still at the BLM state office awaiting approval. He did not anticipate final approval until January. Said he would be back in touch with us once approval was received.

David Jigour
Recreation Division Manager
Lake Operations
Don Pedro Recreation Agency
Turlock Irrigation District
209-852-2396 ext. 8718

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Exhibit 55

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From: David R. Jigour
To: "Paul Campbell"; Austin Ewell
Cc: kerry_rae@ios.doi.gov; Christopher C. Collett
Subject: RE: BLM Contact
Date: Tuesday, December 12, 2017 8:01:18 PM
Attachments: Synopsis for Dept of Interior.docx

Hello Austin,

Thank you for this opportunity to share with you the experience we have had this past year in our attempts to comply with BLM Prescribed Burn Plan requirements in order to dispose of a large amount of woody debris that washed into our reservoir from federally owned lands upstream this past year. This woody debris if not disposed of by burning becomes a major public safety hazard on our reservoir and also can completely block access to the take out location for Tuolumne Wild and Scenic River rafters.

So you can have more information if needed, I have attached a more detailed synopsis and description of our floating woody debris issue and experience, including names and dates, that we encountered in trying to comply with BLM requirements. Below is a more brief synopsis.

We have tried very hard to meet all of the BLM requirements so that we could burn this beached debris before our reservoir rose again and all of the debris re-floated. We have submitted all required documents yet our prescribed burn plan is still being reviewed by fire personnel in the BLM state office in Sacramento. Meanwhile our reservoir has risen over 3 feet and much of the woody debris that could have been burned in late November when conditions were suitable for burning is now floating again. We have been assured by BLM staff that we should receive approval by January, 2018, to burn, but have not been provided any guarantee that we will receive this approval.

- Approx. 40 acres of floating woody debris washed into Don Pedro Reservoir in 2017
- In accordance with a 1988 FERC order, DPRA boomed off this debris in order to beach it with the fall reservoir draw down and burn it to dispose of it when conditions were suitable. BLM Mother Lode Field Office staff signed onto this plan in 1988. All suitable land where this debris can be beached and burned is owned by the BLM.
- May, 2017, BLM Mother Lode Field Office staff informed us that we must also file a BLM prescribed burn plan before we could burn on BLM owned lands within the FERC licensed Don Pedro project. We have never been informed of this requirement in the 29 years that we have been burning this debris on BLM owned lands within the Don Pedro project.
- BLM Mother Lode Field Office staff did not provide us with the required documents to file this plan until mid-August
- Filed draft Burn plan with BLM in Sept.
- Filed required NEPA document with BLM in October
- Completed all required fuel breaks by early November
- Issued Air Pollution Control District permit and CAL Fire permit by November
- BLM is still reviewing our Burn Plan, so we have not been able to burn this debris yet.
- Our lake is rising, if we do not receive BLM approval to burn soon, this debris will re-float and have to be re-captured again next year.

We have expended thousands of dollars in inmate crew labor and DPRA Labor costs preparing this woody debris for burning in addition to acquiring firefighting equipment required by our prescribed burn plan, paying a contractor to provide a NEPA document and Archeologists as required by the burn plan requirments. We have also expended additional funds to pay for CAL Fire State inmate crews that we had to schedule to have available, as required by the burn plan should we be authorized to burn by the BLM. In the meantime, the CA BLM office does not seem to be able to provide us with any definite burn plan approval date so that we can plan accordingly to have the required staff and resources available to dispose of this debris in 2018 as soon as the opportunity avails itself.

If you are able to contact the local CA BLM offices on our behalf to help facilitate and expedite this burn plan approval such assistance would be much appreciated.

David R. Jigour
Recreation Division Manager
Lake Operations
Don Pedro Recreation Agency
Turlock Irrigation District
209-852-2396 ext. 8718
www.donpedrolake.com

From: Paul Campbell [mailto:paul.campbell@mid.org]
Sent: Saturday, December 09, 2017 3:05 PM
To: Austin Ewell <austin_ewell@ios.doi.gov>
Cc: kerry_rae@ios.doi.gov; David R. Jigour <drjigour@TID.ORG>
Subject: Re: BLM Contact

Austin,

Thank you very much for the quick reply. I am coping David Jigour, Recreation Division Manager for Don Pedro Recreation Agency. David has encountered significant delays in obtaining the go ahead to dispose of significant quantities of logs and debris that threatens to harm our boating and rafting recreational activities. It is required by FERC to beach and burn these debris and suddenly this year the BLM Agency has asserted itself into what was a normal activity to remedy the collection of debris. We have missed several good opportunities to properly dispose of the debris with no good explanation for the delay. I will ask David to provide a short synopsis of his interactions with BLM, he will also provide you with dates set and comments received with each interaction. It is our sense that if an agency is going to assert itself and exercise authority, it should be done expediently and with clarity. These delays have not been in the public interest and they certainly do not build what should be a

mutually respectful relationship between agencies who serve the public. I am confident this is not in the spirit of the Secretary of the Interior and his bold leadership, rather in may be in spite of his commitment to a better run department.

Very Respectfully,

Paul

Sent from my iPad

On Dec 8, 2017, at 1:42 PM, Austin Ewell <austin_ewell@ios.doi.gov> wrote:

> Hi Paul,
>
> Thank you for your email and sharing your experience. I am happy to look into your question and see if we can find you a good point of contact.
>
> Thanks,
>
> Austin
>
> Sent from my iPhone
>
> > On Dec 8, 2017, at 11:25 AM, Paul Campbell <paul.campbell@mid.org> wrote:
> >
> > Hi Austin,
> >
> > Do you have a good contact for the BLM for our area in Central California? We have had a very difficult time getting burn permits for disposal of trapped logs in our lake. We started the process in May and as of today we have no permit and missed several optimal days to have burned these logs.
> >
> > Thanks
> >
> > Paul
> >
> > Sent from my iPad

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Exhibit 56

Burn Area # 1 photos - August 30, 2017 – Lake elevation = 811.9 ASL







Burn Area # 2 photos - August 30, 2017 – Lake elevation = 811.9 ASL











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Burn Area # 3 photos - August 30, 2017 – Lake elevation = 811.9 ASL





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Exhibit 57

Wards Ferry Bridge Swimming Hole Tuolumne River



Spring time wildflower views enroute to Wards Ferry Bridge over the Tuolu
Terri Metz

An out of the way place to swim and fish, as well as boat and picnic as long as you don't mind carrying your equipment a little ways, is at Wards Ferry Bridge which spans the Tuolumne River just above Don Pedro Reservoir, in between Groveland and Sonora.

Wards Ferry Road, with its tight turns and sheer drops, a narrow mountain shelf of a road that zigzags down into the steep canyon of Deer Creek, crosses the Tuolumne River and climbs up and out the other side improving only somewhat the early trail that connected Sonora with Big Oak Flat and Groveland.

The Wards Ferry road begins at the apex of the "Deer Flat Loop" and is reached from the western end of Groveland by way of the Groveland–Deer Flat road, or from the indicated Wards Ferry turnoff in the eastern outskirts of Big Oak Flat.



Contact Information

Yosemite Chamber of Commerce

209-962-0429

18653 Main Street
P.O. Box 1263
Groveland, CA 95321 US

info@groveland.org

Visit Website >

Related



Natural Beauty

Nearby

The road climbs precariously to the sides of the steep Deer Creek gorge on a narrow shelf high above the slender creek, overlooking tops of trees that grip the canyon wall below. Descending rapidly, turning to switch back at a lower level, you come to the bottom and cross Deer Creek on a slender bridge at the end of the canyon. There is space to park here, and it is a cool, forested spot to rest.



Moccasin Bay, Don Pedro Lake

Within a mile you approach the waters of the Tuolumne River and upper reaches of Don Pedro Reservoir, a rounding curve of the road brings you to the high bridge. It was here, just a few hundred yards above the junction of Deer Creek with the Tuolumne River that, in 1850, Joseph Ward built a sturdy ferry of hand cut logs and operated it himself. Footmen paid 25 cents to cross, horsemen – 50 cents.



Groveland is for the Birds (Bird Watching in the Groveland Area)

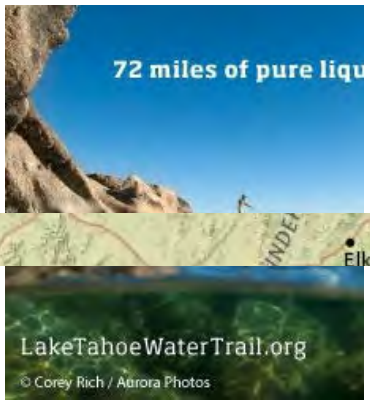
The present structure that spans the upper reaches of Don Pedro Reservoir was constructed in the early 1970's. The old abutments are still visible up river from the new bridge. When the lake is at its highest levels, all vestige of the old bridge near the site of the original ferry that Ward built, is hidden by the waters.



Citizen's/Chinese Cemetery

The Wards Ferry Bridge is the "pull out" point for white water rafters on the Tuolumne River.

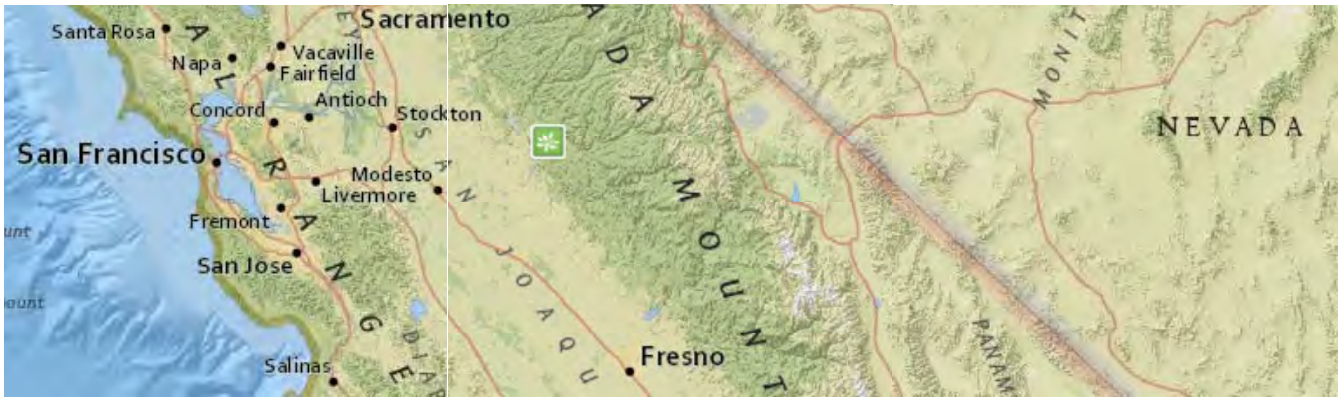
On the Sonora side of the bridge the road climbs over 1000 feet in the few miles before the junction of the



the way. you pass the turn offs to Tuolumne and Standard before reaching Sonora

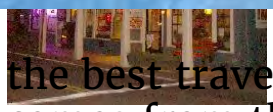
Location





Latitude: 37.8764455 **Longitude:** -120.2954865 **Elevation:** 815 ft





the best travel advice comes from the people who live here

Jenn Edwards

Recreational Opportunities

Swimming and Fishing, Picnicking, and Boating if your craft is portable.

Seasons Accessible

All year round

Fees

None

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Exhibit 58

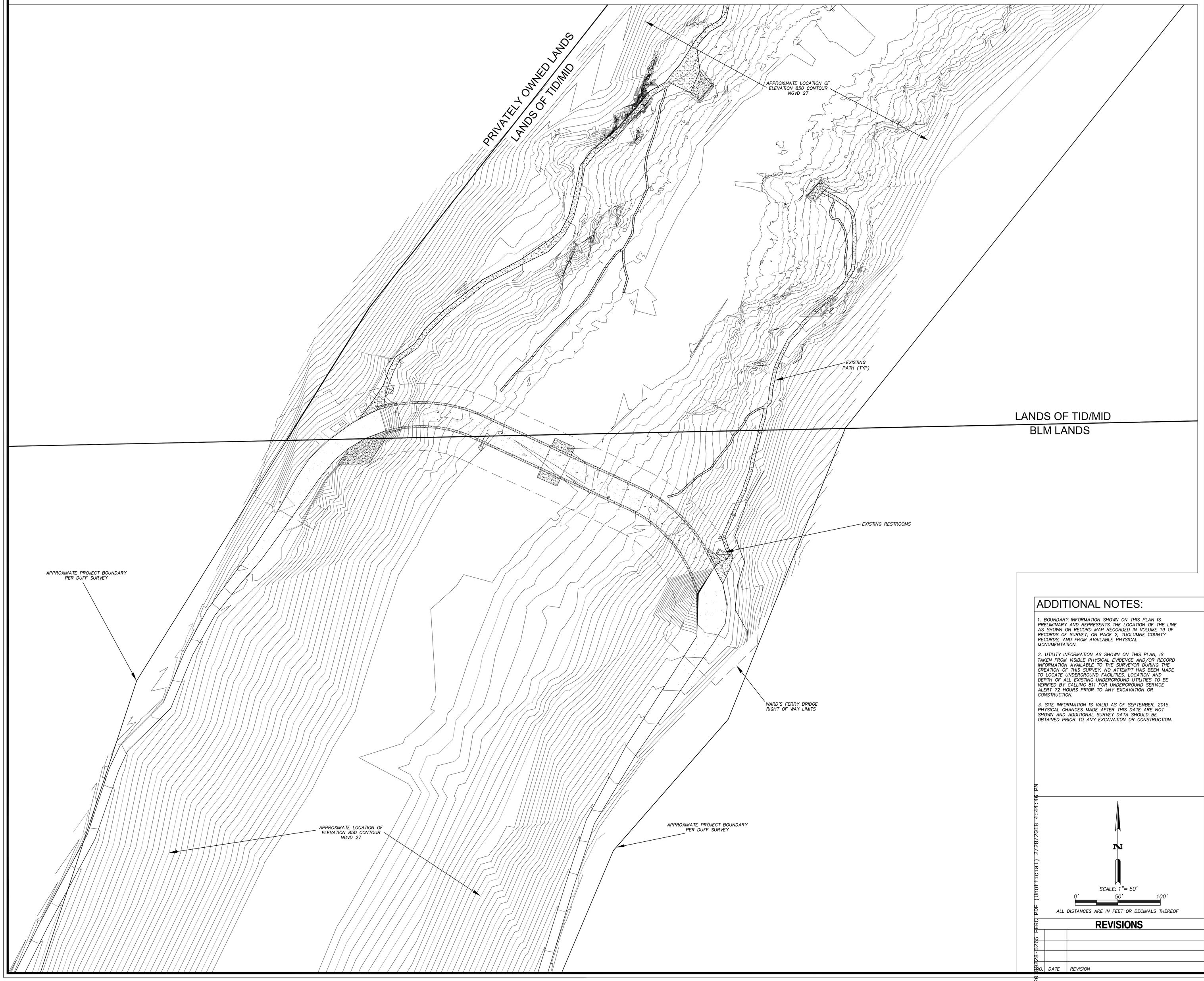
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Exhibit 59

TOPOGRAPHIC SURVEY

BEING A TOPOGRAPHIC SURVEY OF WARD'S FERRY BRIDGE, LOCATED IN SECTION 2, TOWNSHIP 1 SOUTH, RANGE 15 EAST, MOUNT DIABLO BASELINE AND MERIDIAN LOCATED IN TUOLUMNE COUNTY, CALIFORNIA



SURVEYORS STATEMENT

THIS TOPOGRAPHIC SURVEY WAS PERFORMED BY ME AND OR UNDER MY DIRECTION IN AUGUST AND SEPTEMBER OF 2015 AT THE REQUEST OF THE TURLOCK IRRIGATION DISTRICT TO FACILITATE THE PLANNING OF THE PROPOSED RAFTING TAKEOUT TO BE LOCATED IN THIS VICINITY.

_____

TRISTAN S. HIGGINS PLS
(ONLY AN ORIGINAL SIGNATURE CONSTITUTES THIS SURVEY)

LEGEND

- ▲ MONUMENT FOUND AS NOTED
- ◉ PRIMARY GPS CONTROL (SEE DESCRIPTION)
- △ SET MONUMENT AS NOTED
- ○ SET PK NAIL WITH TAG T.I.D. SURVEY CONTROL
- m MEASURED ON THIS SURVEY
- SNF SEARCHED NOTHING FOUND
- —·— CENTERLINE
- —o—o— EXISTING CHAIN LINK FENCE
- GB GRADE BREAK
- SCR STANISLAUS COUNTY RECORDS
- EXISTING HOSE BIB
- EXISTING BACK FLOW PREVENTER
- EXISTING WATER VALVE
- EXISTING UTILITY BOX
- EXISTING POWER POLE
- EXISTING GAS VALVE
- EXISTING UTILITY VAULT
- EXISTING TREE
- EXISTING BUSH
- EXISTING GRASS AREA
- EXISTING STONE
- EXISTING CONCRETE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING STORM DRAIN MANHOLE
- EXISTING STORM GRATE
- EXISTING DROP INLET
- EXISTING IRRIGATION VALVE
- EXISTING OVERHEAD ELECTRICAL LINE
- EXISTING LAMP POST

ADDITIONAL NOTES:

1. BOUNDARY INFORMATION SHOWN ON THIS PLAN IS PRELIMINARY AND REPRESENTS THE LOCATION OF THE LINE AS SHOWN ON RECORD MAP RECORDED IN VOLUME 19 OF RECORDS OF SURVEY, ON PAGE 2, TUOLUMNE COUNTY RECORDS, AND FROM AVAILABLE PHYSICAL MONUMENTATION.

2. UTILITY INFORMATION AS SHOWN ON THIS PLAN, IS TAKEN FROM VISIBLE PHYSICAL EVIDENCE AND/OR RECORD INFORMATION AVAILABLE TO THE SURVEYOR DURING THE CREATION OF THIS SURVEY. NO ATTEMPT HAS BEEN MADE TO LOCATE UNDERGROUND FACILITIES. LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED BY CALLING 811 FOR UNDERGROUND SERVICE ALERT 72 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION.

3. SITE INFORMATION IS VALID AS OF SEPTEMBER, 2015. PHYSICAL CHANGES MADE AFTER THIS DATE ARE NOT SHOWN AND ADDITIONAL SURVEY DATA SHOULD BE OBTAINED PRIOR TO ANY EXCAVATION OR CONSTRUCTION.

N

SCALE: 1" = 50'

0' 50' 100'

ALL DISTANCES ARE IN FEET OR DECIMALS THEREOF

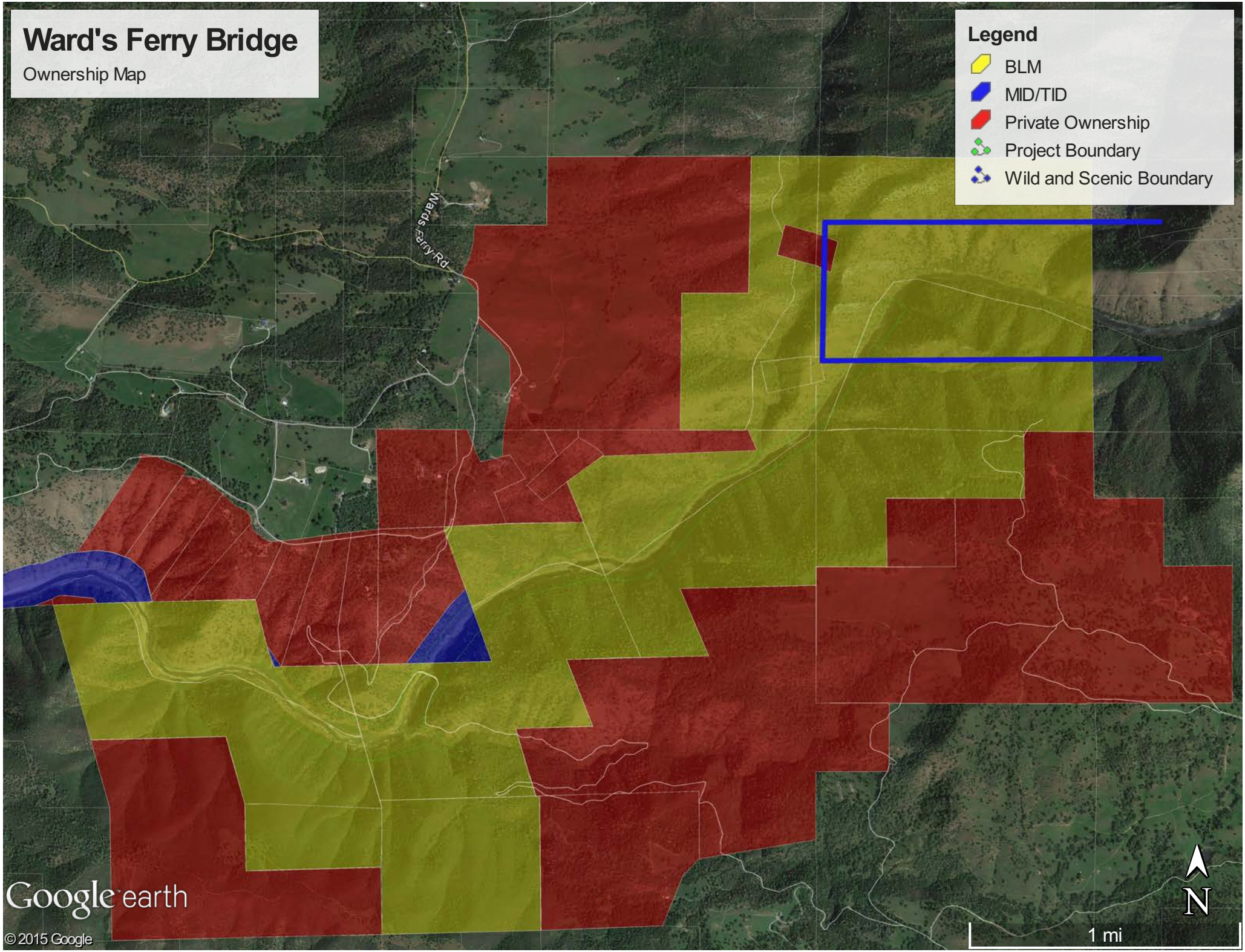
REVISIONS

NO.	DATE	REVISION

WATER & POWER
Serving Central California Since 1887
333 E. CANAL DRIVE
TURLOCK, CA 95381
TEL: (209) 883-8300

SHEET 1 OF 1

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Ward's Ferry Bridge
Ownership Map
Legend
BLM
MID/TID
Private Ownership
Project Boundary
Wild and Scenic Boundary
Ward's Ferry Rd
Google earth
© 2015 Google
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Exhibit 60

RAFTING - VISITORS	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
American River Touring Association (ARTA) Permit App. ☐ Insurance ☐ Fees ☐	320	337	318	272	209	319	517	554	633	682	
Whitewater Voyages Permit App. ☐ Insurance ☐ Fees ☐	624	587	733	459	352	338	-0-				
O.A.R.S Permit App. ☐ Insurance ☐ Fees ☐	299	289	276	275	230	282	540	511	378	525	
All-Outdoors Whitewater Rafting Permit App. ☐ Insurance ☐ Fees ☐	772	595	631	705	689	804	1076	988	1155	1188	
Sierra Mac River Trips Permit App. ☐ Insurance ☐ Fees ☐	697	673	606	635	883	601	780	802	885	886	
Zephyr Whitewater Expeditions Permit App. ☐ Insurance ☐ Fees ☐	831	629	751	691	n/a	541	-0-				
	3543	**3110**	**3315**	**3037**	**2363**	**2885**	**2913**	**2855**	**3051**	**3281**	

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Exhibit 61

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PRELIMINARY
REPRESENTATION OF
CONCEPT BY OTHERS

ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	
CHECKED BY	MICHAEL GARELLO
CHECKED BY	
DRAWN BY	DON DADE
DESIGNED BY	
DESIGNED BY	
PROJECT NUMBER	10051314

LA GRANGE AND DON PEDRO DAMS
NMFS DOWNSTREAM
FISH PASAGE CONCEPT

GENERAL

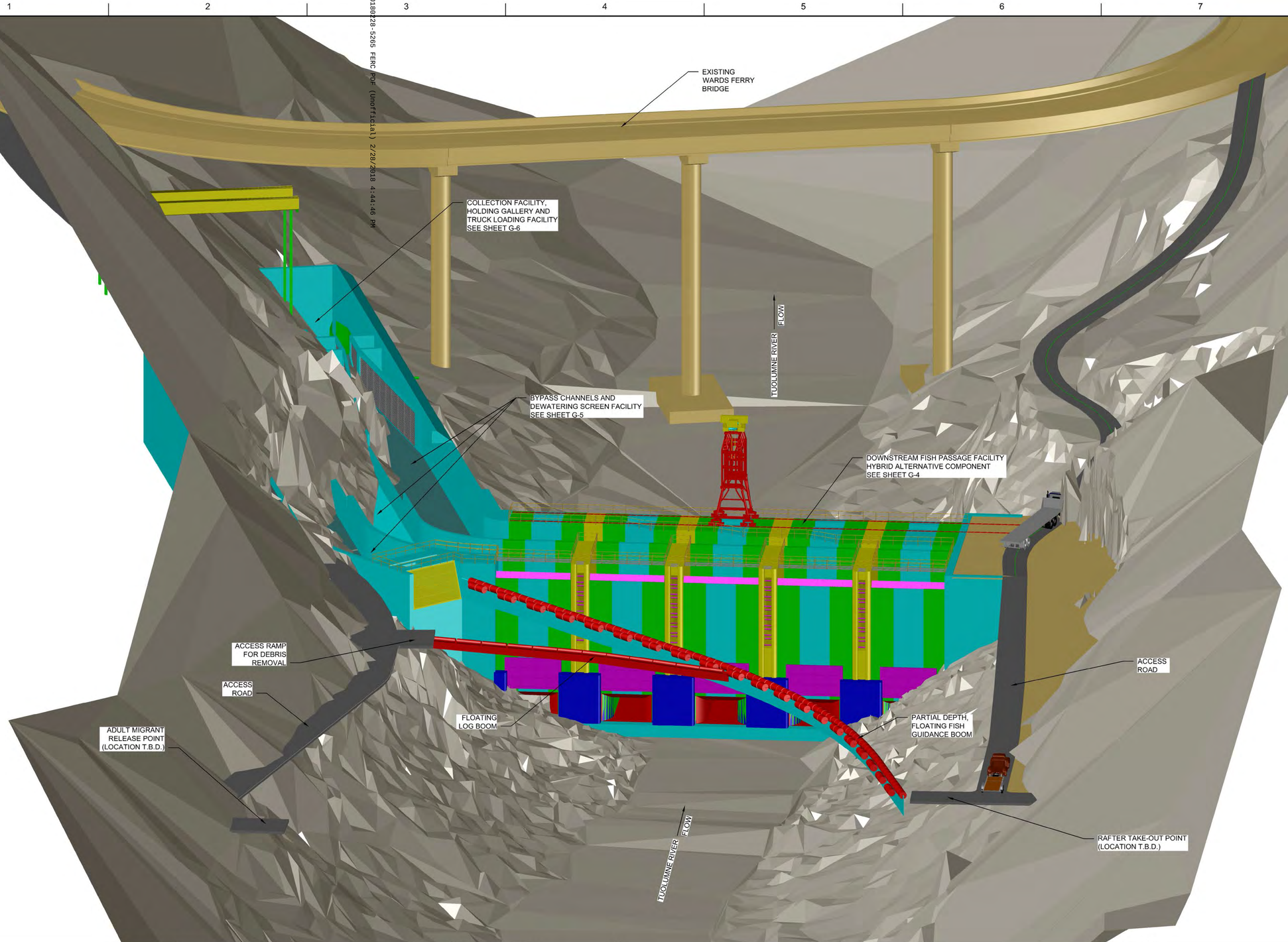
UPSTREAM VIEW

0 1" 2"

DATE	JANUARY 2018
SCALE	AS SHOWN

SHEET
G-2

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PRELIMINARY
REPRESENTATION OF
CONCEPT BY OTHERS

ISSUE	DATE	DESCRIPTION

PROJECT MANAGER	
CHECKED BY	MICHAEL GARELLO
CHECKED BY	
DRAWN BY	DON DADE
DESIGNED BY	
DESIGNED BY	
PROJECT NUMBER	10051314

LA GRANGE AND DON PEDRO DAMS
NMFS DOWNSTREAM
FISH PASAGE CONCEPT

GENERAL

DOWNSTREAM VIEW

0 1" 2"

DATE	JANUARY 2018
SCALE	AS SHOWN

SHEET **G-3**

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Exhibit 62

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TUOLUMNE RIVER EXPEDITIONS, INC.

INFORMATION COPY
MO
ISSUED TO | DATE
THIS COPY MAY BE DISCARDED

RECEIVED
MAY 1 1995

Laurie Park
HETCH HETCHY WATER AND POWER
1155 Market St. 4th Floor
San Francisco, CA. 94103

April 25, 1995

Dear Laurie:

Thank you very much for your generous hospitality and wonderful lunch last Friday. Our annual meeting is a highly anticipated event and we enjoy the friendly and open relationship that has developed over the years.

As always, we learned quite a bit at the meeting. Some of it was good, some of it was not so good, but it was all educational.

We greatly appreciate the flexibility that you have shown in the past to enhance the Tuolumne River rafting experience. Peaking at Holm early in the morning, providing flows in August and September, and communicating with us about your release schedules have all been extremely beneficial to us. This year, your efforts to moderate the peak flows and keep the river level below 8,000 cfs at Meral's pool are also very valuable. We appreciate your commitment to recreation on the Tuolumne River.

During the meeting, it became evident that there was still some more flexibility to configure your operations to accommodate our needs. After thorough, but certainly not complete, discussion, we have arrived at the following priorities for 1995:

1. A minimum of 4 hours of peak release out of Holm Powerhouse, beginning at 7:00 am, Monday through Saturday. As explained, this is the minimum window that allows us to offer trips during the post-runoff season and the timing is critical due to trips that are camping 6 - 8 hours downstream of Holm Powerhouse. Also, a quick "ramp-up" by 7:00 and a slower "ramp-down" works best for us because the initial wave seems to move downstream quicker and the slow drop allows us to notice the end of the release and react if we need to.

2. Releases through at least the second weekend of September. Seeing a gradual shortening of our season is a disturbing trend. September is a fantastic month on the Tuolumne and we hope that you can find a way to continue the releases through at least the middle of the month. The situation is particularly painful this year due to the shortening of our Spring season because of access problems. Any help this year would be even more valuable.

P.O. BOX 371, SONORA, CA. 95370

representing
ALL-OUTDOORS, ARTA, AHWAHNEE, ECHO, OARS, OUTDOOR ADVENTURES, SIERRA MAC, WHITEWATER VOYAGES, and ZEPHYR

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3. Releases on holidays, particularly Mondays. As mentioned, two consecutive days without water is disastrous to us, (we lose two launch days whereas one day without water doesn't cause us to lose any launch days). We greatly appreciate your commitment to provide water on the few critical days where this is a problem, (Memorial Day, Fourth of July holiday, and Labor Day).

4. Sunday releases on holiday weekends. This greatly enhances our trips and certainly enhances the experience of the non-commercial rafters, (do-it-yourselfers), for whom these weekends are very popular.

We had further discussion about shortening the daily flows in exchange for a longer season, but we would like to gather more experience with a four hour release during this season before we respond to that possibility.

In addition to the priorities listed above, the prompt information we receive from you about release schedules and changes is invaluable. "The Hetch Hetchy FAX" is a critical part of our planning process and we appreciate your efforts to keep us informed. The most useful tool for us is information pertaining to future releases and anticipated changes, and this information is most beneficial when we receive it as far in advance as possible.

Once again, on behalf of all nine Tuolumne outfitters and the thousands of people we serve, thank you for meeting with us and considering our needs. Thanks also to the Moccasin staff for preparing lunch and fulfilling our appetites. We look forward to a wonderful season on the river and wish you the best of luck in managing the runoff.

Sincerely,
TUOLUMNE RIVER EXPEDITIONS, INC.

STEVE.

Stephen Welch
President

cc: Larry Klein
TRE members

Distribution: Moccasin - K. Cooper
M. Gass
N. Rickson
SF - M. Tsang

Enc.

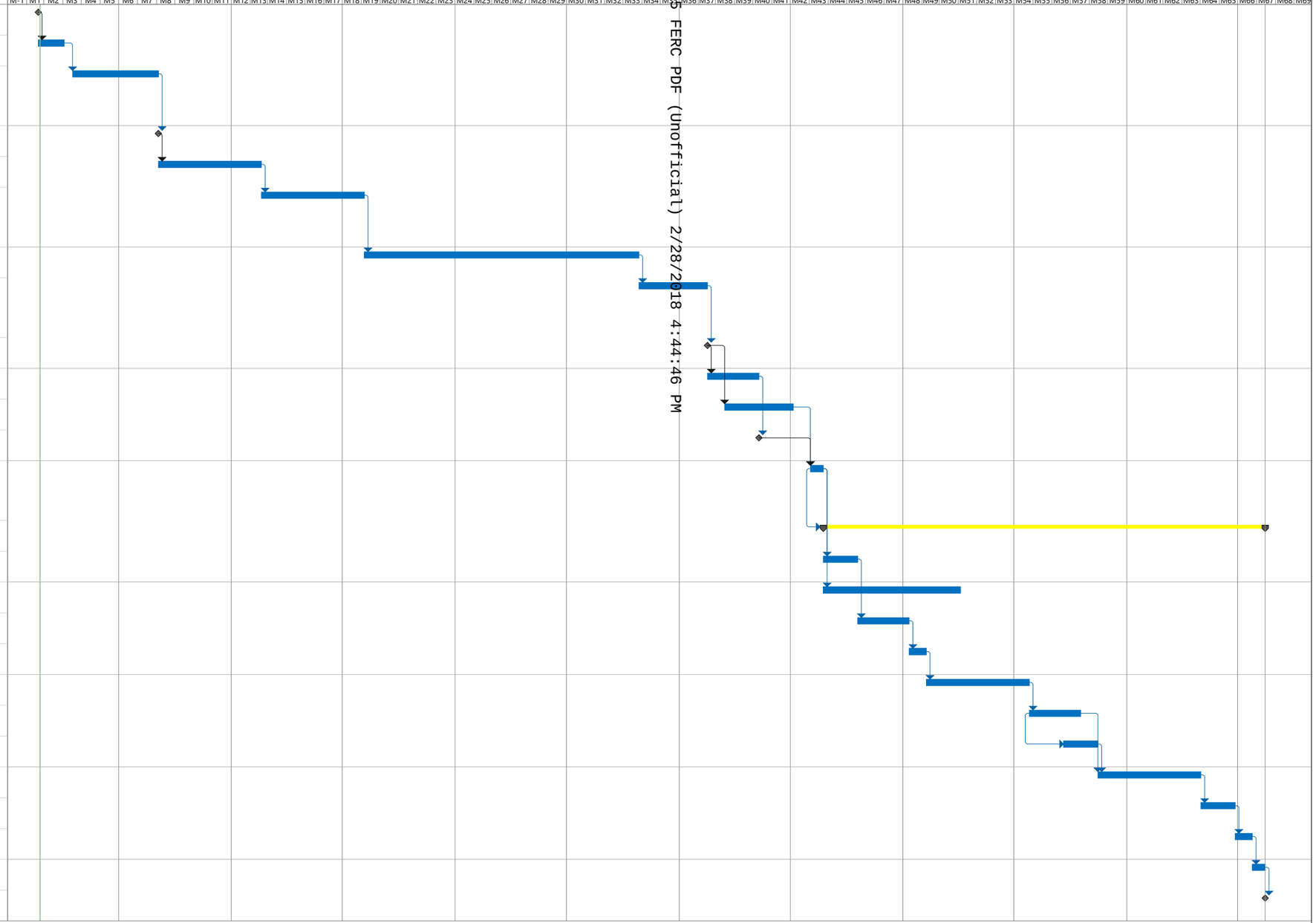
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Exhibit 63

Wards Ferry Day Use Recreation Access

BLM Condition #13

ID	Task Name	Duration
1	FERC issues new license with BLM mandatory conditions	0 days
2	Districts review and accept license	30 days
3	Districts meet monthly with all parties to initiate consultation, as required by BLM, on takeout planning, design , aesthetics, and construction sequence	5 mons
4	Complete the planning process with all interested parties	0 days
5	60% Design	6 mons
6	Prepare and file applications for U.S. Army Corp of Engineers (USACE) 404 permit (fill below the normal high water line) and CEQA process	6 mons
7	USACE 404 and CEQA processes	16 mons
8	Complete design including all modifications required by terms of the three permits above	4 mons
9	File all with FERC for approval	0 days
10	RFP and Bid Process	3 mons
11	FERC Approval Process	4 mons
12	Select contractor	0 days
13	Contractor mobilizes on site, including shut down Wards Ferry road for all other traffic	3 wks
14	**Wards Ferry Road Closure**	**515 days**
15	Pre-construction Wards Ferry Road Improvement	2 mons
16	Parking lot excavation, grading, pavillion, tables	8 mons
17	River-right cofferdam	3 mons
18	MSE wall on river-right blasting and site prep	1 mon
19	River-Right MSE Wall	6 mons
20	Remove River-Right Cofferdam	3 mons
21	River-Left Cofferdam	2 mons
22	MSE wall on river-Left blasting and site prep	6 mons
23	Complete MSE wall river-left	2 mons
24	Remove River-Left Cofferdam	1 mon
25	Demob	3 wks
26	Complete	0 days



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Exhibit 64

Trail Design Parameters

Hiker/Pedestrian (FSH 2309.18, Section 23.11, Exhibit 01)

Design Parameters are technical guidelines for the survey, design, construction, maintenance, and assessment of National Forest System trails, based on their Designed Use and Trail Class and consistent with their management intent.[1] Local deviations from any Design Parameter may be established based on trail-specific conditions, topography, or other factors, provided that the deviations are consistent with the general intent of the applicable Trail Class.

Designed Use HIKER/PEDESTRIAN		Trail Class 1	Trail Class 2	Trail Class 3[2]	Trail Class 4[2]	Trail Class 5[2]
Design Tread Width	**Wilderness** (Single Lane)	0″ – 12″	6″ – 18″	12″ – 24″ Exception: may be 36″ – 48″ at steep side slopes	18″ – 24″ Exception: may be 36″ – 48″ at steep side slopes	Not applicable
	Non-Wilderness (Single Lane)	0″ – 12″	6″ – 18″	18″ – 36″	24″ – 60″	36″ – 72″
	Non-Wilderness (Double Lane)	36″	36″	36″ – 60″	48″ – 72″	72″ – 120″
	Structures (Minimum Width)	18″	18″	18″	36″	36″
Design Surface[3]	**Type**	Native, ungraded May be continuously rough	Native, limited grading May be continuously rough	Native, with some onsite borrow or imported material where needed for stabilization and occasional grading Intermittently rough	Native with improved sections of borrow or imported material, and routine grading Minor roughness	Likely imported material, and routine grading Uniform, firm, and stable
	Protrusions	≤ 24″ Likely common and continuous	≤ 6″ May be common and continuous	≤ 3″ May be common, not continuous	≤ 3″ Uncommon, not continuous	No protrusions
	Obstacles (Maximum Height)	24″	14″	10″	8″	No obstacles
Design Grade[3]	**Target Grade**	5% – 25%	5% – 18%	3% – 12%	2% – 10%	2% – 5%
	Short Pitch Maximum	40%	35%	25%	15%	5% FSTAG: 5% – 12%[2]
	Maximum Pitch Density	20% – 40% of trail	20% – 30% of trail	10% – 20% of trail	5% – 20% of trail	0% – 5% of trail

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Designed Use HIKER/PEDESTRIAN		Trail Class 1	Trail Class 2	Trail Class 3[2]	Trail Class 4[2]	Trail Class 5[2]
Design Cross Slope	Target Cross Slope	Natural side slope	5% – 20%	5% – 10%	3% – 7%	2% – 3% (or crowned)
	Maximum Cross Slope	Natural side slope	25%	15%	10%	3%
Design Clearing	Height	6′	6′ – 7′	7′ – 8′	8′ – 10′	8′ – 10′
	Width	≥ 24″ Some vegetation may encroach into clearing area	24″ – 48″ Some light vegetation may encroach into clearing area	36″ – 60″	48″ – 72″	60″ – 72″
	Shoulder Clearance	3″ – 6″	6″ – 12″	12″ – 18″	12″ – 18″	12″ – 24″
Design Turn	Radius	No minimum	2′ – 3′	3′ – 6′	4′ – 8′	6′ – 8′

[1] For definitions of Design Parameter attributes (for example, Design Tread Width and Short Pitch Maximum) see FSH 2309.18, Section 05.

[2] Trail Classes 3, 4, and 5, in particular, have the potential to provide accessible passage. If assessing or designing trails for accessibility, refer to the Forest Service Trail Accessibility Guidelines (FSTAG) for more specific technical provisions and tolerances (FSM 2350).

[3] The determination of trail-specific Design Grade, Design Surface, and other Design Parameters should be based upon soils, hydrological conditions, use levels, erosion potential, and other factors contributing to surface stability and overall sustainability of the trail.

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Exhibit 65

Trail Class Matrix (FSH 2353, Section 14.2, Exhibit 01)

Trail Classes are general categories reflecting trail development scale, arranged along a continuum. The Trail Class identified for a National Forest System (NFS) trail prescribes its development scale, representing its intended design and management standards.[1] Local deviations from any Trail Class descriptor may be established based on trail-specific conditions, topography, or other factors, provided that the deviations do not undermine the general intent of the applicable Trail Class.

Identify the appropriate Trail Class for each National Forest System trail or trail segment based on the management intent in the applicable land management plan, travel management direction, trail-specific decisions, and other related direction. Apply the Trail Class that most closely matches the management intent for the trail or trail segment, which may or may not reflect the current condition of the trail.

Trail Attributes	Trail Class 1 Minimally Developed	Trail Class 2 Moderately Developed	Trail Class 3 Developed	Trail Class 4 Highly Developed	Trail Class 5 Fully Developed
Tread & Traffic Flow	• Tread intermittent and often indistinct • May require route finding • Single lane with no allowances constructed for passing • Predominantly native materials	• Tread continuous and discernible, but narrow and rough • Single lane with minor allowances constructed for passing • Typically native materials	• Tread continuous and obvious • Single lane, with allowances constructed for passing where required by traffic volumes in areas with no reasonable passing opportunities available • Native or imported materials	• Tread wide and relatively smooth with few irregularities • Single lane, with allowances constructed for passing where required by traffic volumes in areas with no reasonable passing opportunities available • Double lane where traffic volumes are high and passing is frequent • Native or imported materials • May be hardened	• Tread wide, firm, stable, and generally uniform • Single lane, with frequent turnouts where traffic volumes are low to moderate • Double lane where traffic volumes are moderate to high • Commonly hardened with asphalt or other imported material
Obstacles	• Obstacles common, naturally occurring, often substantial and intended to provide increased challenge • Narrow passages; brush, steep grades, rocks and logs present	• Obstacles may be common, substantial, and intended to provide increased challenge • Blockages cleared to define route and protect resources • Vegetation may encroach into trailway	• Obstacles may be common, but not substantial or intended to provide challenge • Vegetation cleared outside of trailway	• Obstacles infrequent and insubstantial • Vegetation cleared outside of trailway	• Obstacles not present • Grades typically < 8%

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Trail Attributes	Trail Class 1 Minimally Developed	Trail Class 2 Moderately Developed	Trail Class 3 Developed	Trail Class 4 Highly Developed	Trail Class 5 Fully Developed
Constructed Features & Trail Elements	• Structures minimal to non-existent • Drainage typically accomplished without structures • Natural fords • Typically no bridges	• Structures of limited size, scale, and quantity; typically constructed of native materials • Structures adequate to protect trail infrastructure and resources • Natural fords • Bridges as needed for resource protection and appropriate access	• Structures may be common and substantial; constructed of imported or native materials • Natural or constructed fords • Bridges as needed for resource protection and appropriate access	• Structures frequent and substantial; typically constructed of imported materials • Constructed or natural fords • Bridges as needed for resource protection and user convenience • Trailside amenities may be present	• Structures frequent or continuous; typically constructed of imported materials • May include bridges, boardwalks, curbs, handrails, trailside amenities, and similar features
Signs[2]	• Route identification signing limited to junctions • Route markers present when trail location is not evident • Regulatory and resource protection signing infrequent • Destination signing, unless required, generally not present • Information and interpretive signing generally not present	• Route identification signing limited to junctions • Route markers present when trail location is not evident • Regulatory and resource protection signing infrequent • Destination signing typically infrequent outside of wilderness; generally not present in wilderness • Information and interpretive signing not common	• Route identification signing at junctions and as needed for user reassurance • Route markers as needed for user reassurance • Regulatory and resource protection signing may be common • Destination signing likely outside of wilderness; generally not present in wilderness • Information and interpretive signs may be present outside of wilderness	• Route identification signing at junctions and as needed for user reassurance • Route markers as needed for user reassurance • Regulatory and resource protection signing common • Destination signing common outside of wilderness; generally not present in wilderness • Information and interpretive signs may be common outside of wilderness • Accessibility information likely displayed at trailhead	• Route identification signing at junctions and for user reassurance • Route markers as needed for user reassurance • Regulatory and resource protection signing common • Destination signing common • Information and interpretive signs common • Accessibility information likely displayed at trailhead
Typical Recreation Environs & Experience[3]	• Natural, unmodified • ROS: Typically Primitive to Roaded Natural • WROS: Typically Primitive to Semi-Primitive	• Natural, essentially unmodified • ROS: Typically Primitive to Roaded Natural • WROS: Typically Primitive to Semi-Primitive	• Natural, primarily unmodified • ROS: Typically Primitive to Roaded Natural • WROS: Typically Semi-Primitive to Transition	• May be modified • ROS: Typically Semi-Primitive to Rural • WROS: Typically Portal or Transition	• May be highly modified • Commonly associated with visitor centers or high-use recreation sites • ROS: Typically Roaded Natural to Urban • Generally not present in wilderness

[1] For National Quality Standards for Trails, Potential Appropriateness of Trail Classes for Managed Uses, Design Parameters, and other related guidance, refer to FSM 2353, FSH 2309.18, and other applicable agency references.

[2] For standards and guidelines for the use of signs and posters along trails, refer to the Sign and Poster Guidelines for the Forest Service (EM-7100-15).

[3] The Trail Class Matrix shows the combinations of Trail Class and Recreation Opportunity Spectrum (ROS) or Wilderness Recreation Opportunity Spectrum (WROS) settings that commonly occur, although trails in all Trail Classes may and do occur in all settings. For guidance on the application of the ROS and WROS, refer to FSM 2310 and 2353 and FSH 2309.18.

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Exhibit 66

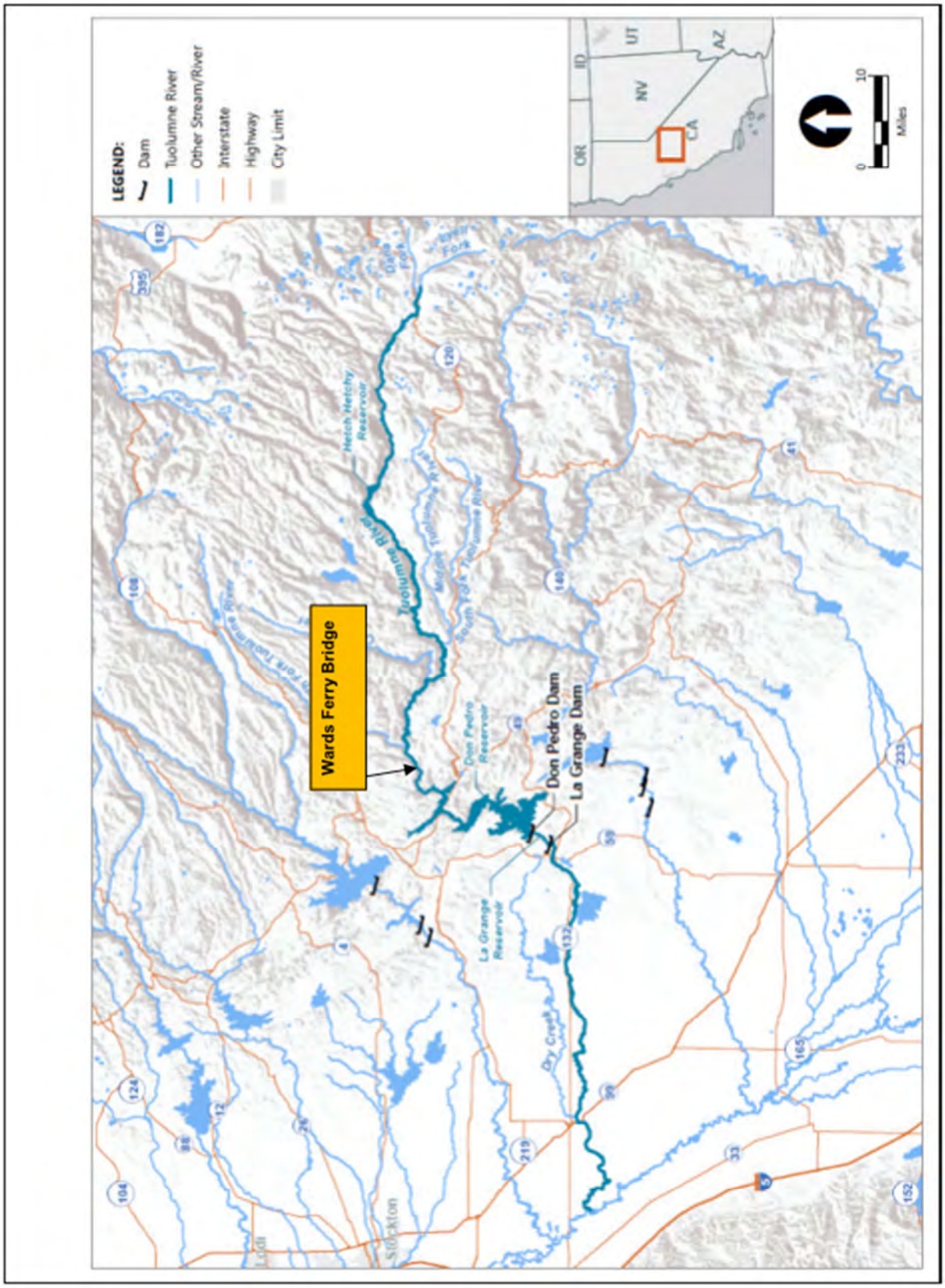


Figure 1: Location of Wards Ferry Bridge and Don Pedro Dam and Reservoir.

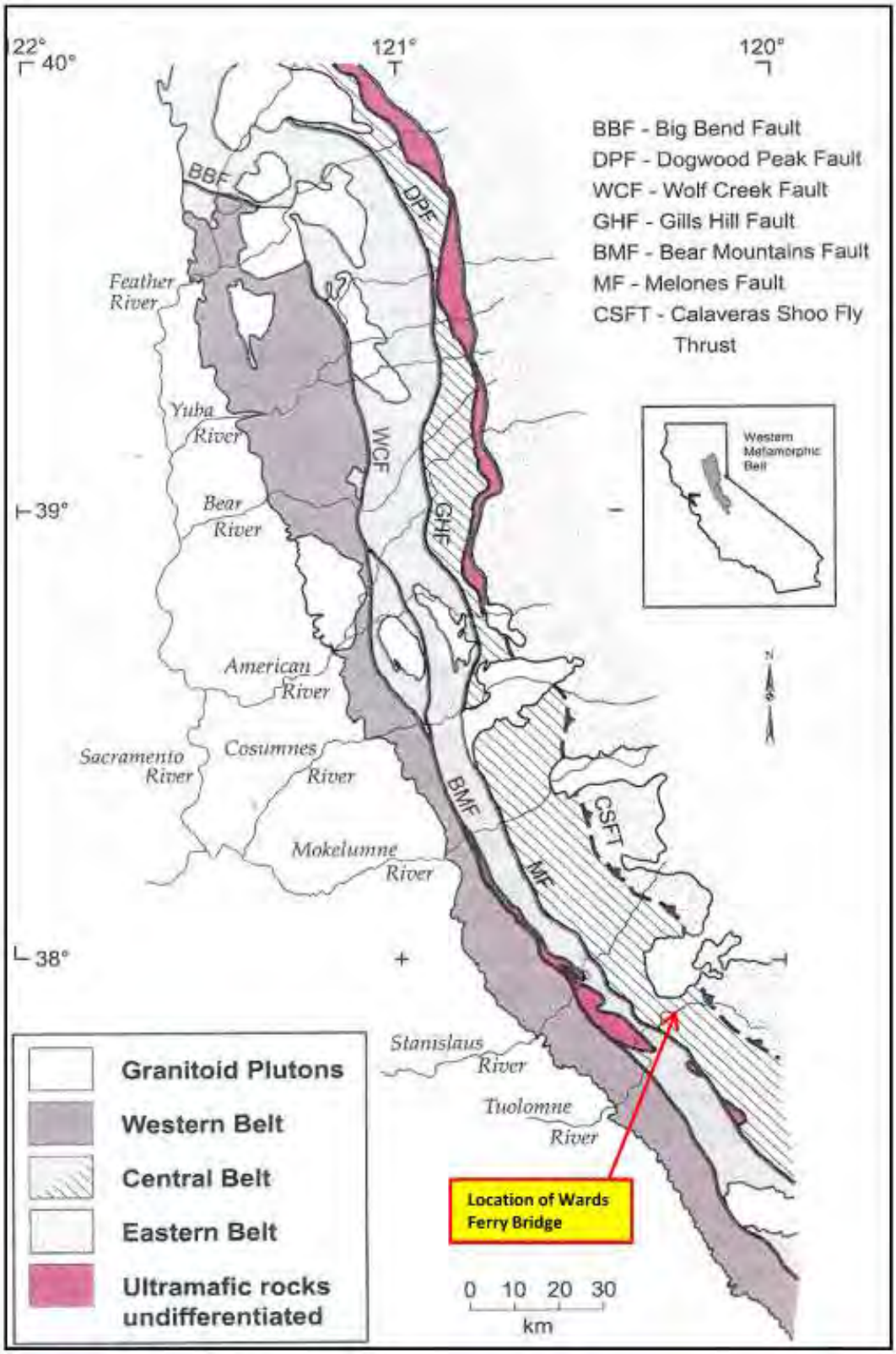


Figure 2: Lithotectonic belts of the Western Sierra Nevada Metamorphic Belt and the location of Proposed Don Pedro Upstream Fish Collection Facility (Mayfield and Day 2000).

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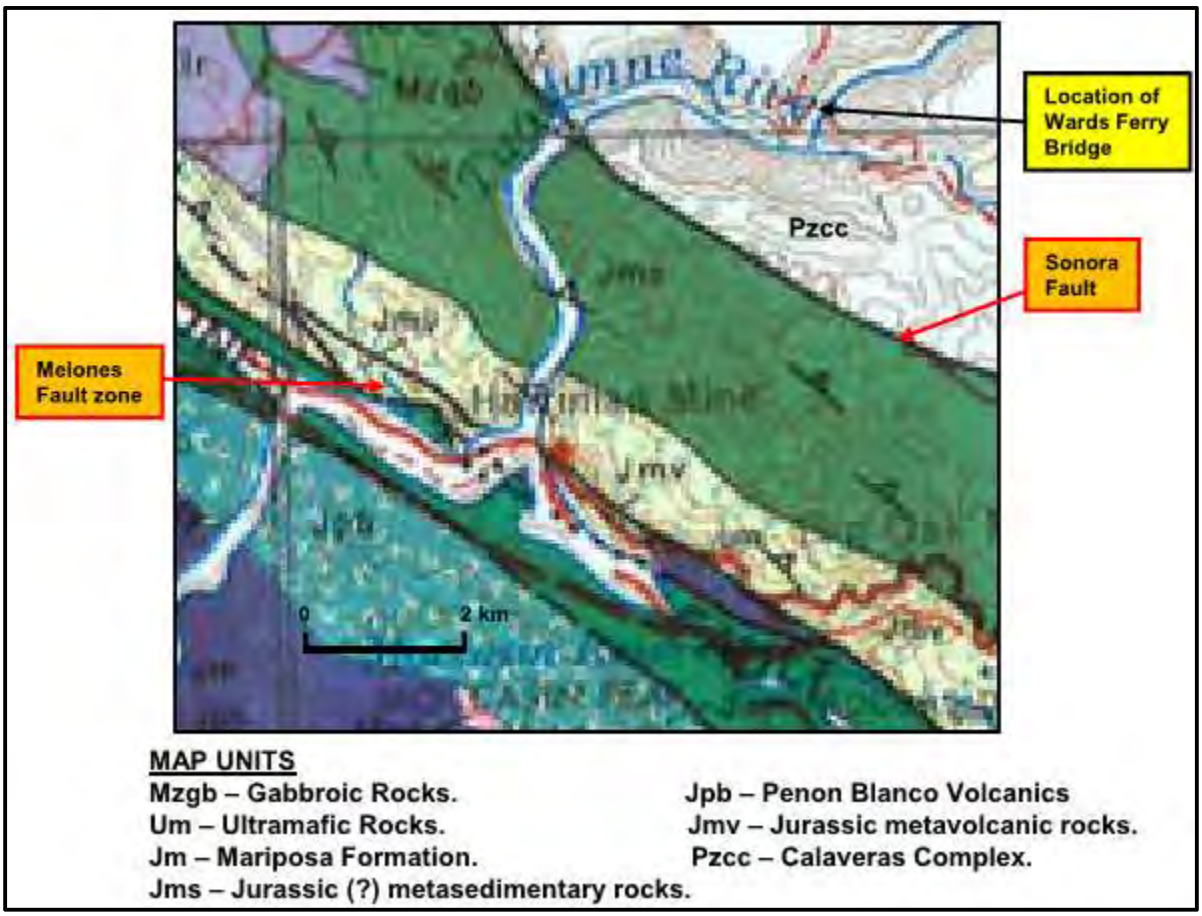


Figure 3: Geologic Map of the Site Vicinity (Wagner et al. 1991).

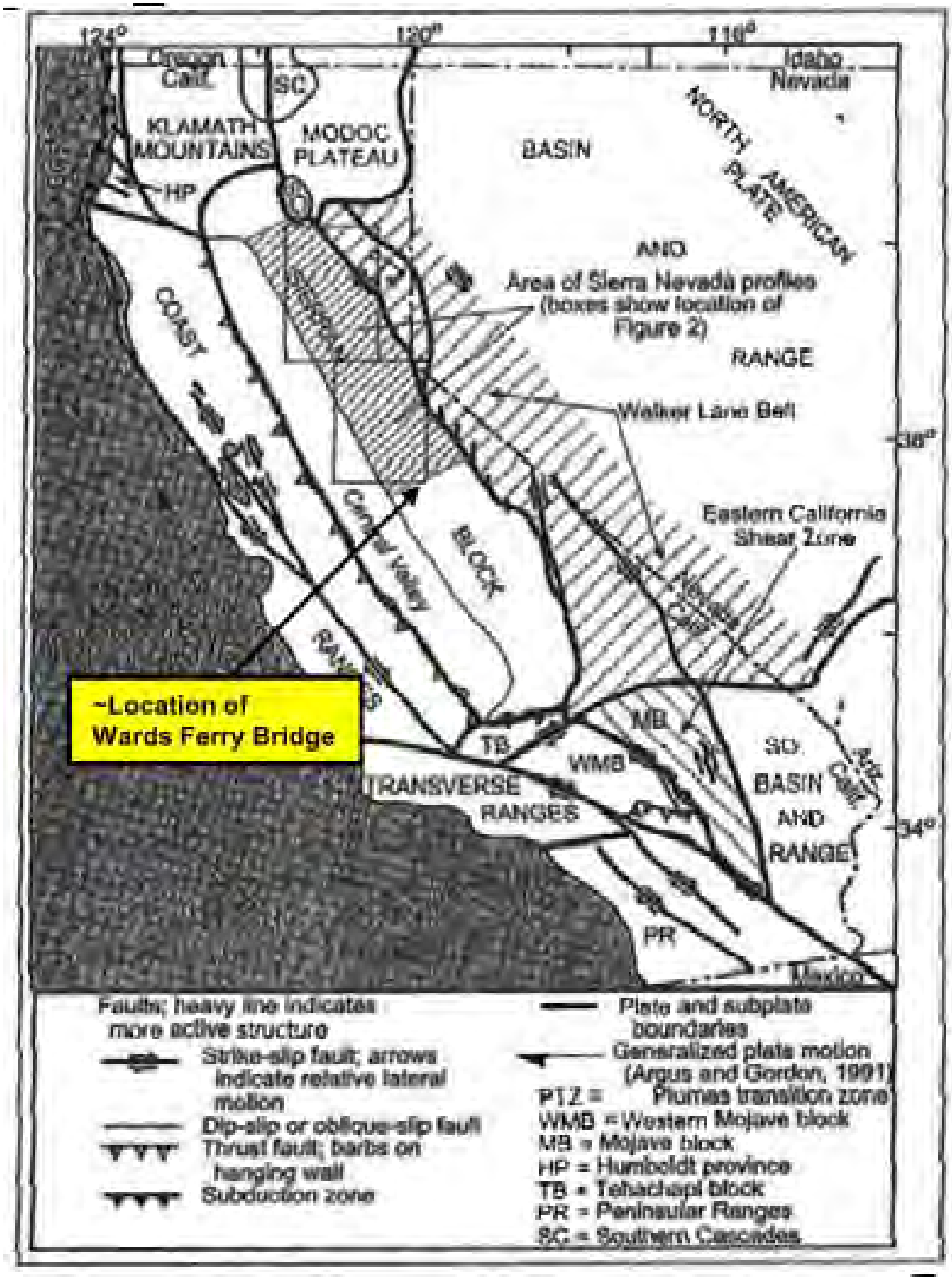


Figure 4: The Sierra Nevada in the current plate tectonic framework and location of Don Pedro Upstream Fish Collection System (Page and Sawyer 2001).

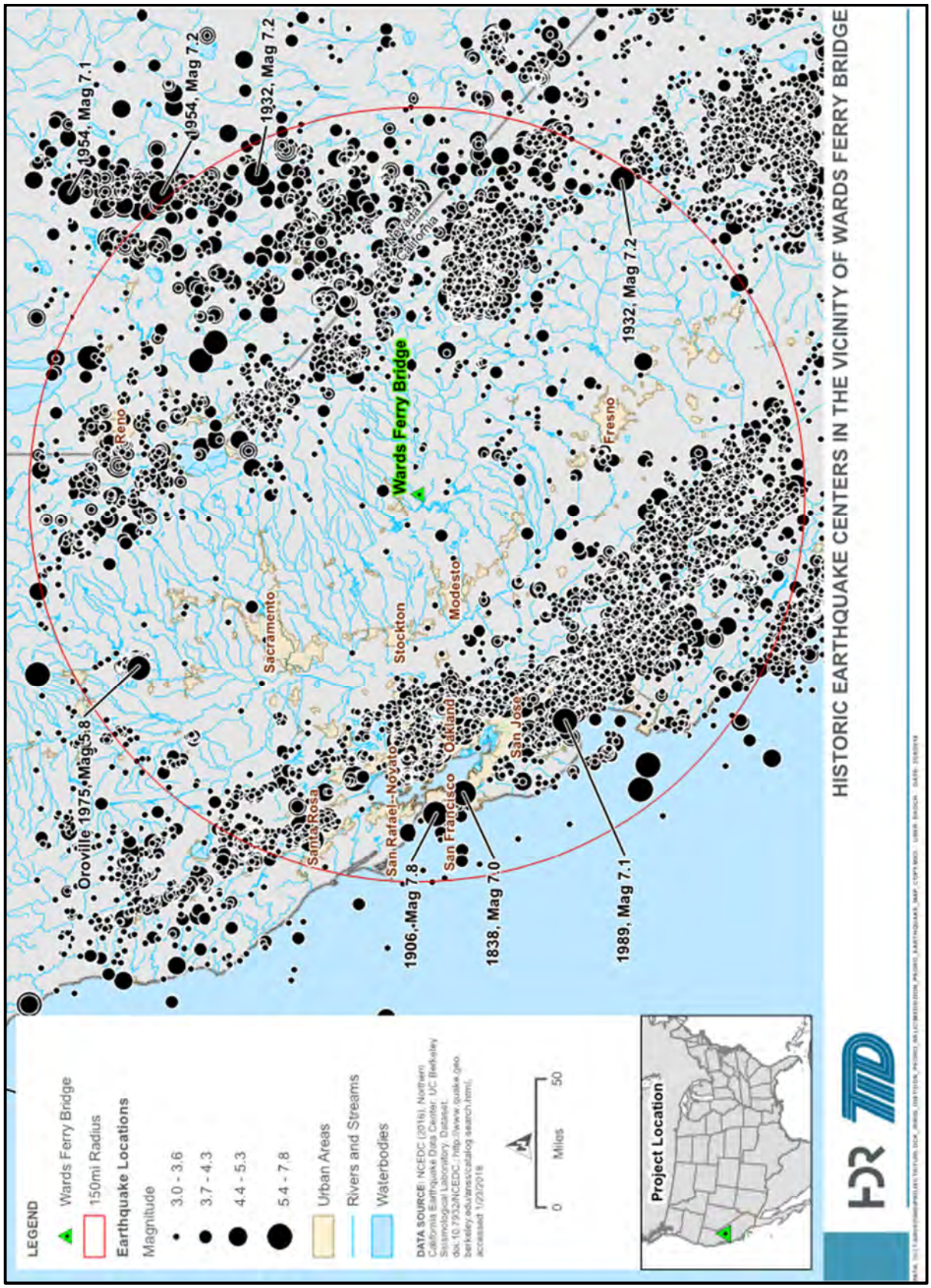


Figure 5: Historic Earthquakes, M≥3, in the vicinity of the Wards Ferry Bridge.

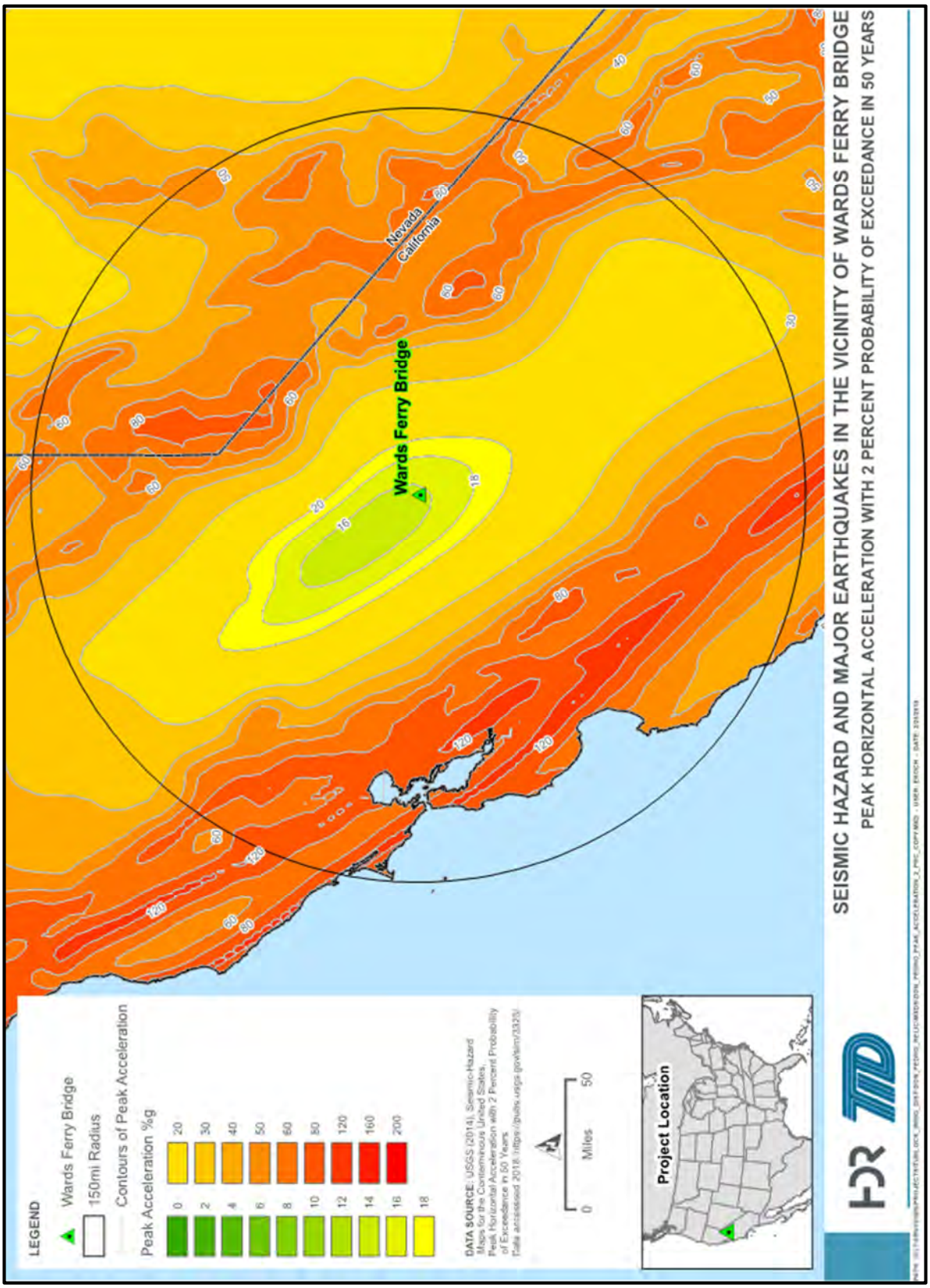


Figure 6: Seismic hazard in the vicinity of the Wards Ferry Bridge, Peak Horizontal Acceleration (PGA) with percent probability of exceedance in 50 years.

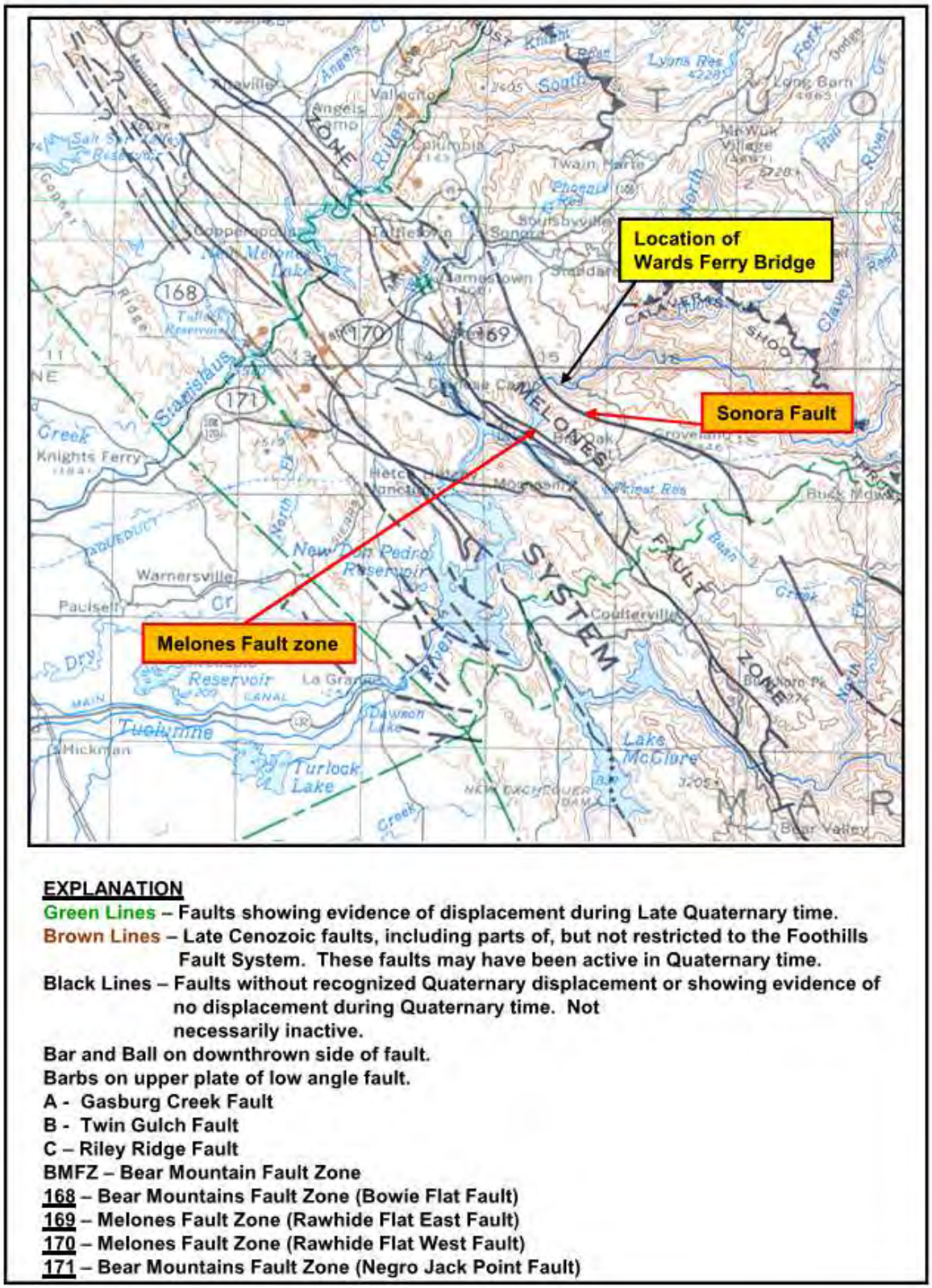


Figure 7: Foothills Fault zone near the proposed Don Pedro Upstream Fish Collection Facility showing fault segments with Quaternary and younger displacement (from Jennings and Bryant 2010).

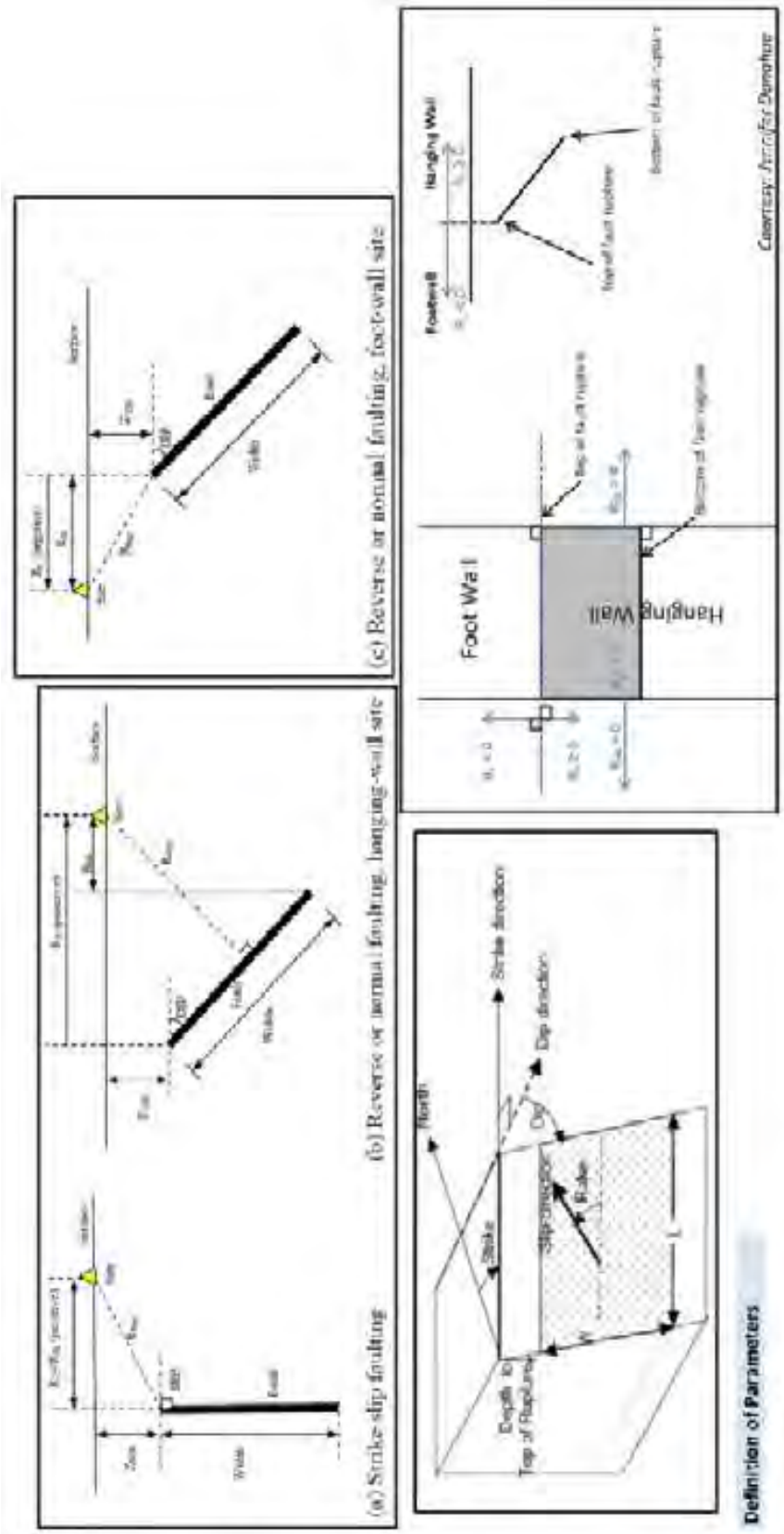


Figure 8: Definition of NGA West2 function parameters (PEER 2014).

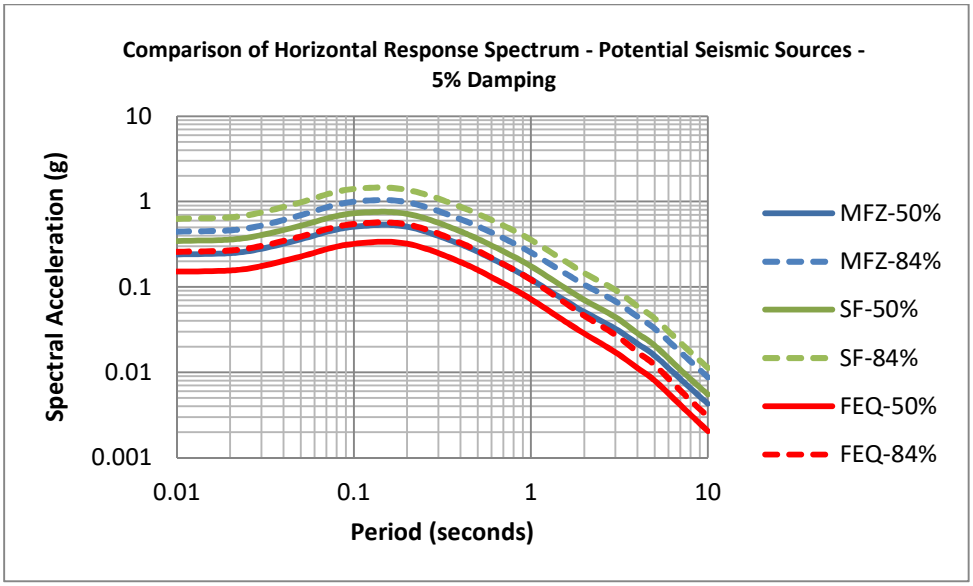


Figure 9a: Comparison of the potential seismic sources at the 50% and 84% levels for V_{s30} = 1000 m/sec: MFZ – Melones Fault zone, SF - Sonora fault, and FEQ – CA DSOD Floating Earthquake.

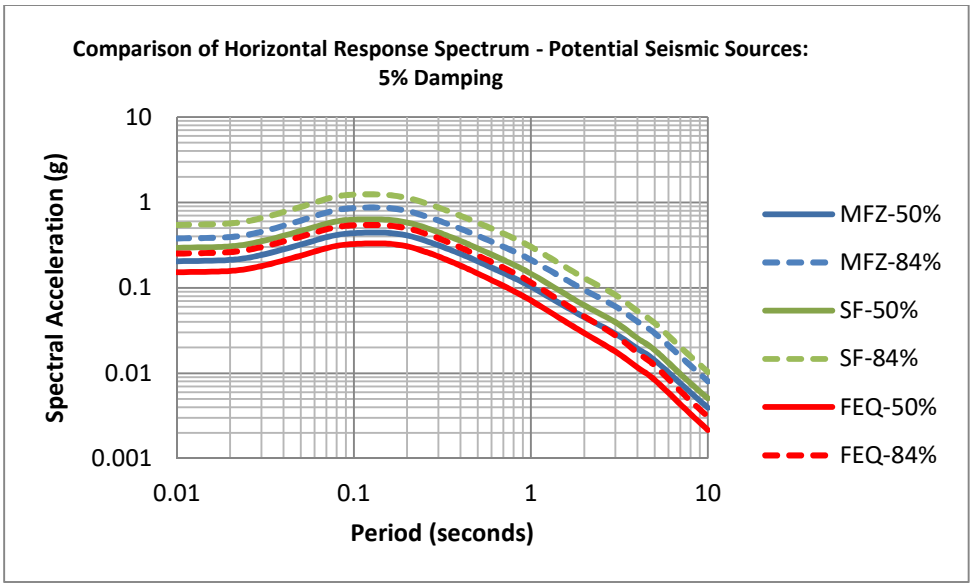


Figure 9b: Comparison of the potential seismic sources at the 50% and 84% levels for V_{s30} = 1500 m/sec: MFZ – Melones Fault zone,SF - Sonora fault, and FEQ – CA DSOD Floating Earthquake.

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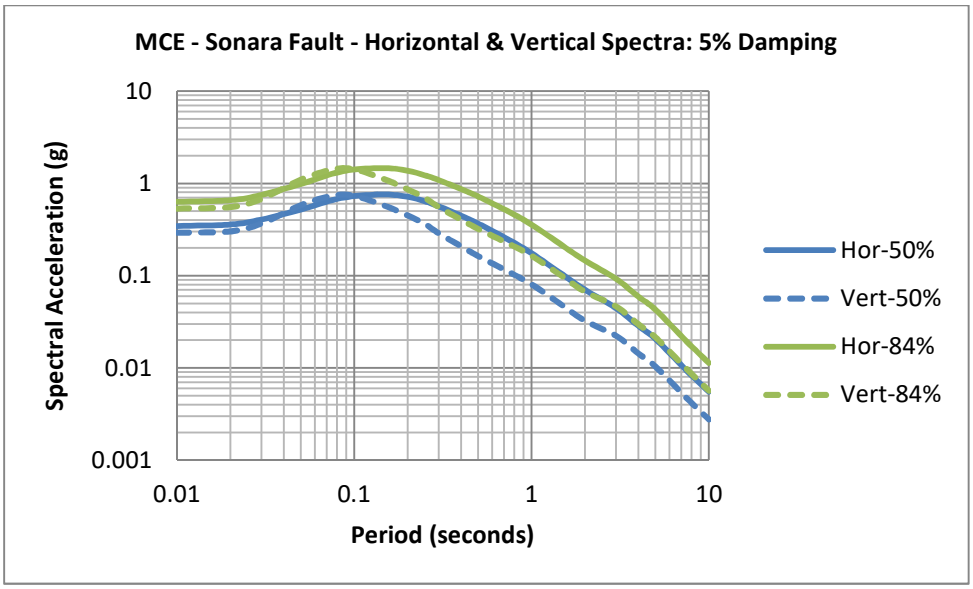


Figure 10a: Horizontal and vertical response spectrums at the 50% and 84% levels for the MCE for V_{s30} = 1000 m/sec.

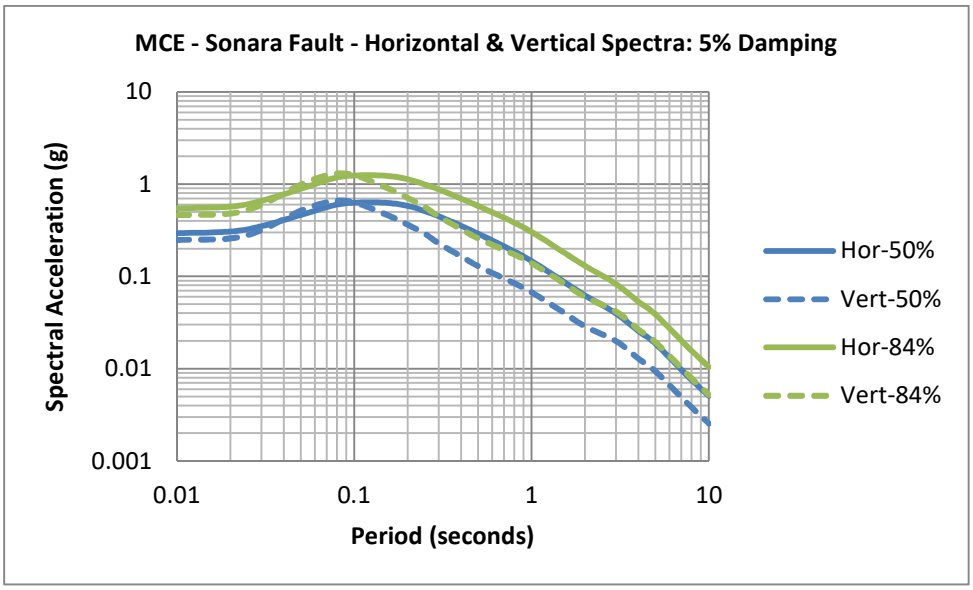


Figure 10b: Horizontal and vertical response spectrums at the 50% and 84% levels for the MCE for V_{s30} = 1500 m/sec.

Definition of Parameters

Damping ratio = Viscous damping ratio (%) See Sanaz et al. (2012) PEER Report
PSA = Pseudo-absolute acceleration response spectrum (g)
PGA = Peak ground acceleration (g)
PGV = Peak ground velocity (cm/s)
S_d = Relative displacement response spectrum (cm)
M_w = Moment magnitude
R_{RUP} = Closest distance to coseismic rupture (km), used in ASK13, CB13 and CY13. See Figures
R_{JB} = Closest distance to surface projection of coseismic rupture (km). See Figures a, b and c
R_X = Horizontal distance from top of rupture measured perpendicular to fault strike (km). Se
R_{y0} = The horizontal distance off the end of the rupture measured parallel to strike (km)
V_{S30} = The average shear-wave velocity (m/s) over a subsurface depth of 30 m
U = Unspecified-mechanism factor: 1 for unspecified; 0 otherwise
F_{RV} = Reverse-faulting factor: 0 for strike slip, normal, normal-oblique; 1 for reverse, reverse
F_{NM} = Normal-faulting factor: 0 for strike slip, reverse, reverse-oblique, thrust and normal-ob
F_{HW} = Hanging-wall factor: 1 for site on down-dip side of top of rupture; 0 otherwise
Dip = Average dip of rupture plane (degrees)
Z_{TOR} = Depth to top of coseismic rupture (km)
Z_{HYP} = Hypocentral depth from the earthquake
$Z_{1.0}$ = Depth to Vs=1 km/sec
$Z_{2.5}$ = Depth to Vs=2.5 km/sec
W = Fault rupture width (km)
$V_{s30flag}$ = 1 for measured, 0 for inferred Vs30
F_{AS} = 0 for mainshock; 1 for aftershock
Region = Specific regions considered in the models, Click on Region to see codes
ΔDPP = Directivity term, direct point parameter; uses 0 for median predictions
PGA_r ***(g)*** = Peak ground acceleration on rock (g), this specific cell is updated in the cell for BSSA14 a
Z_{BOT} ***(km)*** = The depth to the bottom of the seismogenic crust
Z_{BOR} ***(km)*** = The depth to the bottom of the rupture plane
SS = 1 for strike slip, automatically updated in the cell

Table 1: Parameters for the NGA West2 functions (PEER 2014).

Seismic Source	Distance from Site (km)	Magnitude (M_w)	PGA (g) 50%	PGA (g) 84%
Sonora Fault	**2.10**	**6.5**	**0.35**	**0.64**
MFZ[1]	**5.63**	**6.5**	**0.24**	**0.44**
Floating EQ[2]	**9.40**	**6.25**	**0.15**	**-**
Floating EQ[3]	**4.15**	**6.25**	**-**	**0.25**

[1]Melones Fault Zone.
[2]For 0.15g PGA for 50% CA DSOD minimum ground motion.
[3]For 0.25g PGA for 84% CA DSOD minimum ground motion.

Table 2a: Seismic Sources, Distance from Site, Magnitude, and 50% and 84% Horizontal PGAs for V_{s30} = 1000 m/sec.

Seismic Source	Distance from Site (km)	Magnitude (M_w)	PGA (g) 50%	PGA (g) 84%
Sonora Fault	2.10	6.5	0.29	0.55
MFZ[1]	5.63	6.5	0.20	0.38
Floating EQ[2]	7.50	6.25	0.15	-
Floating EQ[3]	2.80	6.25	-	0.25

[1]Melones Fault Zone.
[2]For 0.15g PGA for 50% CA DSOD minimum ground motion.
[3]For 0.25g PGA for 84% CA DSOD minimum ground motion.

Table 2b: Seismic Sources, Distance from Site, Magnitude, and 50% and 84% Horizontal PGAs for V_{s30} = 1500 m/sec.

	Very High Slip Rate 9 or greater mm/yr	High Slip Rate 8.9 to1.1 mm/yr	Moderate Slip Rate 1.0 to 0.1 mm/yr	Low Slip Rate less than 0.1 mm/yr
Extreme Consequence Total Class Weight 31-36	84th	84th	84th	50th to 84th
High Consequence Total Class Weight 19-30	84th	84th	50th to 84th	50th to 84th
Moderate Consequence Total Class Weight 7-18	84th	50th to 84th	50th to 84th	50th
Low Consequence Total Class Weight 0-6	50th	50th	50th	50th

DSOD Consequence-Hazard Matrix
October 4, 2002

Used to Determine the Appropriate Statistical Level of Acceleration for Deterministic Seismic Hazard Analyses

Table 3: CA DSOD Consequence-Hazard Matrix (Fraser and Howard 2002).

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Period (seconds)	Horizontal Spectral Acceleration (g) 50%	Vertical Spectral Acceleration (g) 50%	Horizontal Spectral Acceleration (g) 84%	Vertical Spectral Acceleration (g) 84%
0.01	0.3453	0.2931	0.6314	0.5358
0.02	0.3585	0.3034	0.6566	0.5557
0.03	0.4055	0.3693	0.7500	0.6830
0.05	0.5212	0.5838	0.9841	1.1023
0.075	0.6580	0.7370	1.2679	1.4202
0.1	0.7277	0.7347	1.4131	1.4267
0.15	0.7587	0.5699	1.4647	1.1003
0.2	0.7174	0.4507	1.3750	0.8638
0.25	0.6401	0.3649	1.2243	0.6980
0.3	0.5644	0.2878	1.0861	0.5539
0.4	0.4474	0.2092	0.8694	0.4066
0.5	0.3666	0.1634	0.7216	0.3217
0.75	0.2426	0.1093	0.4897	0.2207
1	0.1751	0.0807	0.3574	0.1647
1.5	0.1024	0.0475	0.2109	0.0978
2	0.0705	0.0325	0.1458	0.0672
3	0.0443	0.0223	0.0923	0.0465
4	0.0286	0.0144	0.0593	0.0298
5	0.0206	0.0104	0.0428	0.0215
7.5	0.0094	0.0047	0.0194	0.0097
10	0.0055	0.0028	0.0113	0.0057

Table 4a: Horizontal and Vertical Spectral Acceleration for the Maximum Credible Earthquake (MCE) at the 50th and 84th percentile level at 5% damping for V_{s30} = 1000 m/sec.

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Period (seconds)	Horizontal Spectral Acceleration (g) 50%	Vertical Spectral Acceleration (g) 50%	Horizontal Spectral Acceleration (g) 84%	Vertical Spectral Acceleration (g) 84%
0.01	0.2939	0.2494	0.5462	0.4635
0.02	0.3065	0.2594	0.5705	0.4828
0.03	0.3509	0.3196	0.6595	0.6006
0.05	0.4630	0.5186	0.8896	0.9964
0.075	0.5848	0.6551	1.1476	1.2854
0.1	0.6289	0.6349	1.2423	1.2542
0.15	0.6292	0.4727	1.2348	0.9276
0.2	0.5812	0.3651	1.1322	0.7112
0.25	0.5107	0.2912	0.9927	0.5660
0.3	0.4482	0.2285	0.8765	0.4470
0.4	0.3543	0.1657	0.6992	0.3270
0.5	0.2904	0.1295	0.5802	0.2587
0.75	0.1985	0.0895	0.4064	0.1832
1	0.1466	0.0676	0.3033	0.1398
1.5	0.0891	0.0413	0.1855	0.0861
2	0.0626	0.0288	0.1306	0.0601
3	0.0396	0.0199	0.0828	0.0417
4	0.0257	0.0129	0.0533	0.0268
5	0.0187	0.0094	0.0388	0.0195
7.5	0.0085	0.0043	0.0177	0.0089
10	0.0051	0.0026	0.0104	0.0052

Table 4b: Horizontal and Vertical Spectral Acceleration for the Maximum Credible Earthquake (MCE) at 5% damping for V_{s30} = 1500 m/sec.

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Photograph 1: Interlayered chart, metasiltstone, and carbonaceous slate/schist on the right bank of the Tuolumne River.



Photograph 2: Thinly laminated chert and metasiltstone.

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Photograph 3: Mélange within the undisrupted metasedimentary sequene on the right bank of the Tuolumne River.

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Exhibit 67



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Exhibit 68



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Exhibit 69



20180228-5265 FERC PDF (Unofficial) 2/28/2018 4:44:46 PM

Exhibit 70



20180228-5265 FERC PDF (Unofficial) 2/28/2018 4:44:46 PM

Exhibit 71



20180228-5265 FERC PDF (Unofficial) 2/28/2018 4:44:46 PM

Exhibit 72



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Exhibit 73

20180228-5265 FERC PDF (Unofficial) 2/28/2018 4:44:46 PM

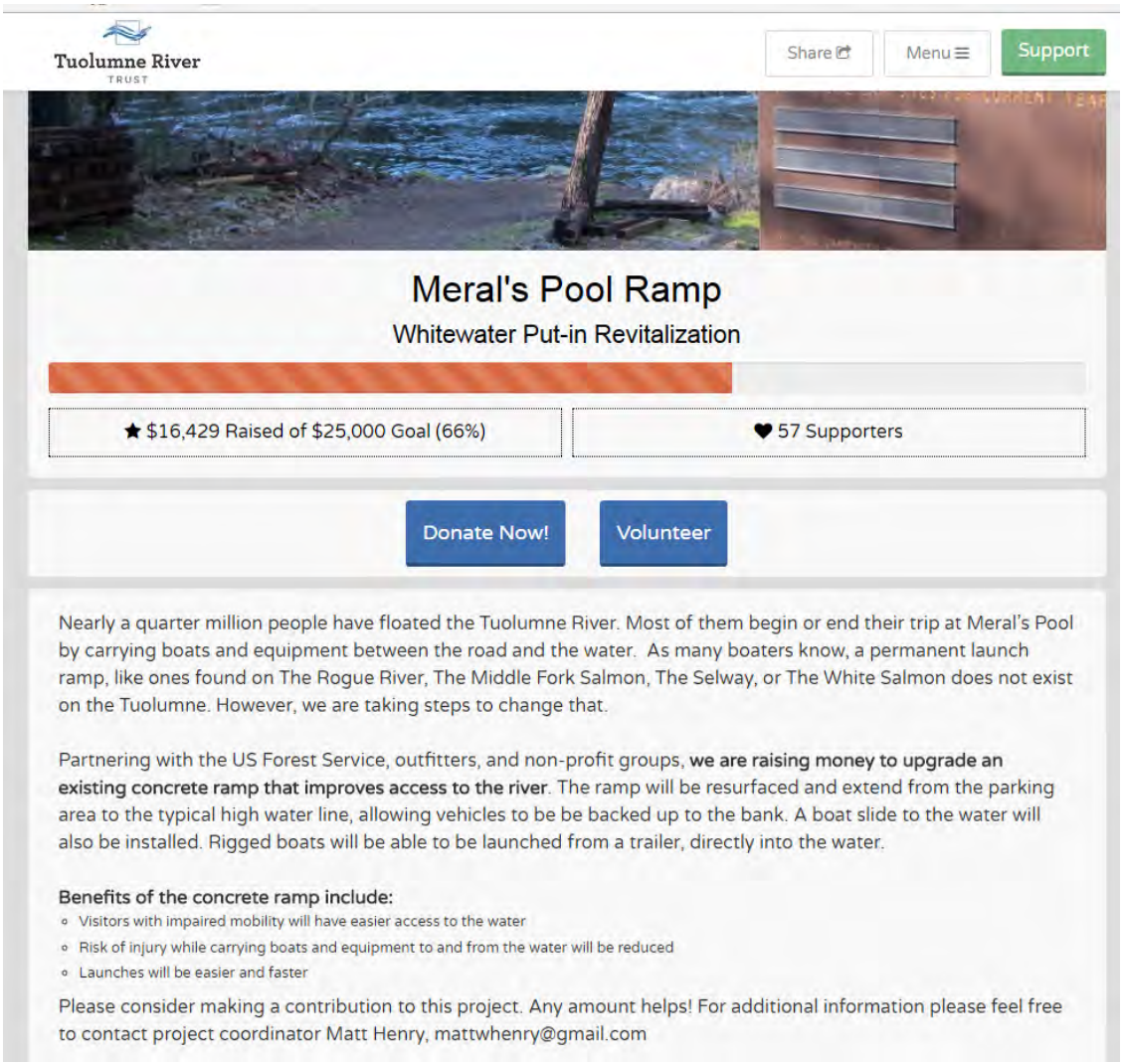
Exhibit 74



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Exhibit 75

Screen Captures of:
https://www.flipcause.com/secure/cause_pdetails/MTY0MTQ=#lightbox[group]/7/
(Accessed Feb. 27, 2018)



Tuolumne River Trust (TRT) is the fiscal sponsor of this project.

Support Now:

$25 | $50 | $100 | $250 | $ Custom | Give!

Photo Gallery



View More Media

Updates

Ramp Surface Poured! July 25, 2017

Thank you everyone for your help this past Friday and Saturday, the ramp surface concrete pour is completed! A slide and some safety apparatus still needs to be installed, but we are well on our way to completing our project.

Thank you again to all our volunteers, we couldn't do it without you.

0 Comments Sort by Newest

Add a comment...

Facebook Comments Plugin

View All Updates

Links

Project Facebook Page | Tuolumne River Trust

Selection of Photos and Captions from "Photo Gallery"



Before: Loose, steep, and dangerous ramp used to enter Meral's Pool

1/8



Before: Loose, steep, and dangerous ramp used to enter Meral's Pool

2/8



Ramp In Progress: Curbing and finishing the base gravel layer

5/8



Ramp In Progress: Formed, Steel tied, and ready to pour

8/8

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Exhibit 76

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Photos of Restroom Facility at
Lumsden Campground
(Taken 2/24/2018)






PLEASE
KNOCK
Before entering



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Exhibit 77

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TURLOCK IRRIGATION DISTRICT
P.O. BOX 949
333 EAST CANAL DRIVE
TURLOCK, CALIFORNIA 95381

TREASURER'S ACCOUNT
P.O. BOX 949
TURLOCK, CALIFORNIA 95381

74 66826 403 P2 19012

DATE 05/03/2016

WARRANT NUMBER **352221**

INVOICE DATE	INVOICE NUMBER	P.O. NUMBER	INVOICE AMOUNT
04/22/16	L16175-00		176,564.39

WARRANT NUMBER **352221**

TOTAL: ********$176,564.39

DETACH BEFORE CASHING – KEEP FOR YOUR RECORDS

TURLOCK IRRIGATION DISTRICT
P.O. BOX 949
333 EAST CANAL DRIVE
TURLOCK, CALIFORNIA 95381

TREASURER'S ACCOUNT

TURLOCK BRANCH
BANK OF AMERICA
NATIONAL TRUST AND SAVINGS ASSOCIATION

11-35
1210

WARRANT NUMBER **352221**

DATE
05/03/2016

AMOUNT
$*176,564.39**

PAY EXACTLY ONE HUNDRED SEVENTY SIX THOUSAND FIVE HUNDRED SIXTY FOUR DOLLARS AND 39 CENTS

NOT NEGOTIABLE

PAY TO THE ORDER OF B OF A WIRE–FERC
FEDERAL ENERGY REGULATORY COMM

NOT NEGOTIABLE

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TID WATER & POWER
Serving Central California since 1887

REQUEST FOR PAYMENT FOR CHECKS ENCLOSED & INVOICES

DISTRICT REGULATION #RG 4000.003

REQUESTOR: Amy Petersen		DATE: 04/21/16
AMOUNT: $176,564.39	☐ CHECK ENCLOSED ☒ INVOICE #L16175-00	dated 04/22/16
ACCOUNT NUMBER: 55173	COST CENTER: 749	OBJECT CODE: 064
VENDOR NAME: B of A Wire - FERC – Federal Reserve Bank of NYC Wire Transfer 27369 1		
REASON: F.E.R.C. Hydropower Annual Charges (FY2016) Annual Charges for U.S. Lands		
COMMENTS: ABA Number 021030004		
BENEFICIARY: FERC 89000004		
Bill Number: ~~L15173-00~~ L16175-00		
PAYMENT MUST BE RECEIVED BY 06/06/16		

PAID
MAY - 3 2016
TURLOCK IRRIGATION DISTRICT

NOTE: IF AMOUNT IS $2500 OR MORE (AND NOT LISTED AS AN EXCEPTION UNDER DISTRICT REGULATION #RG 4000.003), FORWARD TO PURCHASING. _____

ALL OTHERS SHOULD BE FORWARDED DIRECTLY TO ACCOUNTING. X

~~AP~~ 4/21/16

AGM, DEPARTMENT MANAGER, DIVISION MANAGER, OR SUPERVISOR APPROVAL & DATE:

4/21/16

STAPLE INVOICE TO BACK OF FORM

(ACCOUNTING USE ONLY)

4/16

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TID WATER & POWER
Serving Central California since 1887

REQUEST FOR PAYMENT FOR CHECKS ENCLOSED & INVOICES

DISTRICT REGULATION #RG 4000.003

REQUESTOR: Amy Petersen		DATE: 04/21/16
AMOUNT: $176,564.39	☐ CHECK ENCLOSED ☒ INVOICE #L16175-00 dated 04/22/16	
ACCOUNT NUMBER: 55173	COST CENTER: 749	OBJECT CODE: 064
VENDOR NAME: B of A Wire - FERC – Federal Reserve Bank of NYC Wire Transfer		
REASON: F.E.R.C. Hydropower Annual Charges (FY2016) Annual Charges for U.S. Lands		
COMMENTS: ABA Number 021030004		
BENEFICIARY: FERC 89000004		
Bill Number: L15173-00		
PAYMENT MUST BE RECEIVED BY 06/06/16		

PAID
MAY - 3 2016

NOTE: IF AMOUNT IS $2500 OR MORE (AND NOT LISTED AS AN EXCEPTION UNDER DISTRICT REGULATION #RG 4000.003), FORWARD TO PURCHASING. 4/22/16

ALL OTHERS SHOULD BE FORWARDED DIRECTLY TO ACCOUNTING. X

AGM, DEPARTMENT MANAGER, DIVISION MANAGER, OR SUPERVISOR APPROVAL & DATE:
4/21/16

TID
MATERIALS MANAGEMENT
APR 22 2016

STAPLE INVOICE TO BACK OF FORM

(ACCOUNTING USE ONLY)

OA4000 103 05/14/2001

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FEDERAL ENERGY REGULATORY COMMISSION

HYDROPOWER ANNUAL CHARGES
SUMMARY OF BILLS FOR U.S. LANDS
FOR BILL YEAR 2016

Payment must be received by:	06/06/2016	**Company ID:**	019282

TURLOCK IRRIGATION DISTRICT &
MODESTO IRRIGATION DISTRICT
P.O. BOX 949

TURLOCK, CA 95381

Bill Number	Project-id	Amount Due	PLEASE INDICATE AMOUNT PAID
L16175-00	02299	176,564.39	
TOTAL AMOUNT DUE		$ 176,564.39	

Please indicate amount paid by project/bill by completing the last column entitled AMOUNT PAID. The total AMOUNT PAID should equal the total of the check(s) being submitted.

RETURN THIS COMPLETED FORM AND CHANGE OF ADDRESS FORM WITH REMITTANCE(S) TO:
Federal Energy Regulatory Commission
P.O. Box 979010
St. Louis, MO 63197-9000

PAID
MAY - 3 2016
TURLOCK IRRIGATION DIST.

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FEDERAL ENERGY REGULATORY COMMISSION

STATEMENT OF ANNUAL CHARGES FOR U.S. LANDS

FOR PERIOD BEGINNING: 10/01/2015 ENDING: 09/30/2016

PAYMENT MUST BE RECEIVED BY: 06/06/2016	**DATE OF STATEMENT:** 04/22/2016
BILL NUMBER: L16175-00	**PROJECT ID:** 02299

TURLOCK IRRIGATION DISTRICT &
MODESTO IRRIGATION DISTRICT
P.O. BOX 949

TURLOCK, CA 95381

LOCATION:
CA TUOLUMNE

LIC. EFFECTIVE: 05/01/1966	**LIC. ISSUED:** 03/10/1964	**LIC. TYPE:** Conventional

CHARGES FOR USE OF GOVERNMENT LANDS
(INCLUDING LANDS SUBJECT TO THE PROVISIONS OF SECTION 24 FPA. EXCLUDING INDIAN LANDS)

	ACRES	RATE	CHARGE	AMOUNT DUE	FERC USE
A. EXCLUSIVE OF TRANSMISSION LINES				$ 176,564.39	
ZONE or STATE/COUNTY					
CA TUOLUMNE	4,801.860	36.77	$ 176,564.39		
FIXED CHARGE			$ 0.00		
B. TRANSMISSION LINES				$ 0.00	
ZONE or STATE/COUNTY	**ACRES**	**RATE**			
FIXED CHARGE			$ 0.00		
SUBTOTAL:				**$ 176,564.39**	
CREDIT:				**$ 0.00**	
TOTAL CHARGE DUE:				**$ 176,564.39**	

PAID
MAY - 3 2016

REMARKS:

LICENSEE COPY **Company-ID: 019282**

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CHANGE OF ADDRESS

If the address on your statement needs correction, please complete this form and return it with your remittance.

COMPANY ID 019282

LICENSEE NAME TURLOCK IRRIGATION DISTRICT &

PROJECT NUMBER(S) 02299

NEW MAILING ADDRESS

_____
c/o or Attention

_____
Street Address

_____
Street Address

_____
City State Zip

CONTACT PERSON _____

PHONE _____

EMAIL _____

FERC USE ONLY	
DISCAS	HACS

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GENERAL PAYMENT INSTRUCTIONS

Make your check or money order payable to **FERC**. Please write **BILL NUMBER(S)** on your check or money order. Return the summary sheet with your check or money order. Include **BILL NUMBER(S)** on instructions for ACH transfer.

* Payment must be received at the Lock Box by the due date to avoid penalty and administrative charges. Correspondence sent to the lock box will NOT be received by FERC staff. *

ACH Credit:	Federal Reserve Bank of Richmond ABA Number 051036706 FERC's Account Number 540032 Bill Number	Wire:	Federal Reserve Bank of NYC ABA Number 021030004 BENEFICIARY: FERC 89000004 Bill Number
Courier:	US Bank Attn: Government Lockbox 1005 Convention Plaza SL-MOC1GL St. Louis, MO 63101	Mail:	Federal Energy Regulatory Commission P.O. Box 979010 St. Louis, MO 63197-9000

REQUIREMENTS

The basis for the submission of this statement of annual charges is Section 10(e) (annual charges) or 10(f) (headwater benefits assessments) of Part I of the Federal Power Act for licensees, and Section 3401 of the Omnibus Budget Reconciliation Act of 1986 for exemptees.

Payment is due 45 days from the statement issue date. Penalty and administrative charges accrue on an unpaid balance after the due date and may be assessed monthly. Payments made "under protest" will be placed in a suspense account until a determination is made on the appeal (and subsequent rehearing, if one is filed). Making a payment "under protest" alone is not sufficient to appeal the bill.

This statement of annual charges is subject to subsequent correction in case of error, even though payment will have been made. In such event, if the correction shows a decrease in the total charges, credit will be given on the statement for the following year. If the correction shows an increase, additional remittance will be required, upon notification.

APPEALS

If you believe this statement is incorrect, you must file an appeal with the Chief Financial Officer, no later than 45 days after rendition of the statement. Written appeals may be sent to: Federal Energy Regulatory Commission, Chief Financial Officer, 888 First Street, NE, Washington, DC, 20426. You may call Mr. Norman Richardson at (202) 502-6219 or Ms. Raven Rodriguez at (202) 502-6276, with any questions. You must still make timely payment of the charges assessed to avoid penalty and administrative charges.

REQUESTS FOR REHEARING

For the Commission to consider an argument of law or policy, you must file a Request for Rehearing, no later than 30 days from the Chief Financial Officer's decision on the appeal (18 CFR, 385.713). The request for rehearing is not a stay of the Commission's statement, and if you have not yet paid or, as a result of the disposition of your appeal, now owe additional sums, you must still pay the charges to avoid any penalty and administrative charges. Send requests for rehearing to: Federal Energy Regulatory Commission, Secretary Kimberly Bose, 888 First Street, NE, Washington, DC, 20426.

Public

FERC's Federal ID: 52-1383541

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154 FERC ¶ 62,119
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

18 CFR Part 11

(Docket No. RM11-6-000)

Annual Update to Fee Schedule for the Use of Government Lands by Hydropower Licensees

(February 18, 2016)

AGENCY: Federal Energy Regulatory Commission.

ACTION: Final Rule; annual update to fee schedule.

SUMMARY: In accordance with section 11.2 of the Commission's regulations, the Commission, by its designee, the Executive Director, issues this notice of the annual update to the fee schedule in Appendix A to Part 11, which lists per-acre rental fees by county (or other geographic area) for use of government lands by hydropower licensees.

DATES: This rule is effective **[Insert_Date of publication in the FEDERAL REGISTER]** and updates Appendix A to Part 11 with the fee schedule of per-acre rental fees by county (or other geographic area) from October 1, 2015, through September 30, 2016 (Fiscal Year 2016).

FOR FURTHER INFORMATION CONTACT:

Norman Richardson
Financial Management Division
Office of the Executive Director
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426
(202) 502-6219
Norman.Richardson@ferc.gov

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STATE	COUNTY	FEE/ACRE/YR
California (Cont'd)	Kern	$35.21
	Kings	$47.89
	Lake	$48.34
	Lassen	$15.30
	Los Angeles	$98.92
	Madera	$60.45
	Marin	$49.45
	Mariposa	$16.70
	Mendocino	$31.86
	Merced	$61.43
	Modoc	$13.67
	Mono	$22.37
	Monterey	$38.84
	Napa	$173.09
	Nevada	$86.01
	Orange	$173.51
	Placer	$84.67
	Plumas	$14.10
	Riverside	$81.08
	Sacramento	$56.65
	San Benito	$22.58
	San Bernardino	$106.83
	San Diego	$142.62
	San Francisco	$1,001.26
	San Joaquin	$80.11
	San Luis Obispo	$33.45
	San Mateo	$89.71
	Santa Barbara	$58.47
	Santa Clara	$53.29
	Santa Cruz	$98.37
	Shasta	$22.24
	Sierra	$11.94
	Siskiyou	$16.19
	Solano	$44.12
	Sonoma	$116.08
	Stanislaus	$76.51
	Sutter	$52.55
	Tehama	$23.64
	Trinity	$9.05
	Tulare	$59.82
	Tuolumne	$36.77
	Ventura	$124.03
	Yolo	$44.80
	Yuba	$45.99
Colorado	Adams	$25.14
	Alamosa	$25.51
	Arapahoe	$29.49
	Archuleta	$37.59

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Exhibit 78

Published Dec. 2, 2008 at 03:35PM / Updated August 23, 2015 at 08:33PM

Low reservoir reveals Jacksonville



(Rusty remnants of mining equipment at Don Pedro are exposed by the lake's low water levels. Amy Alonzo Rozak/Union Democrat)
Buy photo

Don Pedro Reservoir's water lapped over the Gold Rush-era town of Jacksonville in June of 1970.

Most of what was left of the Gold Rush-era town now rests more than 100 feet underwater.

A few relics, however, have become visible on the reservoir's muddy shoreline as the water has retreated from the drought - including a rusted winch and concrete pillars from a mining operation below the Jacksonville Road bridge.

These relics are a snapshot of what some say was the most bustling

mining town on the Tuolumne River during the early Gold Rush days -

with rich deposits of placer gold drawing gold-fever stricken men from

across the country.

"There were some rich mines - a terrific amount of gold," Tuolumne County historian Carlo De Ferrari said.

In 1850, the river was dammed and temporary canals were formed so that the channels could be worked, De Ferrari said.

Still, few men became rich. Those working the Jacksonville Damming

Company canal only averaged about $1.09 a day. Other companies had a

bit more luck, like Grizzly Company workers, who averaged about $20 a

day.

Underwater has been the fate of many Gold Rush-era towns that were

situated next to rivers. In total, about 30 towns across the state have

been inundated to make way for reservoirs.

For instance, Melones rests at the bottom of New Melones Reservoir and Comanche was sunk by Comanche Reservoir.

Before Jacksonville was inundated, it was located on the shores where the Tuolumne River and Woods Creek converged.

The town served as the gateway for miners passing back and forth

from mining camps in the Tuolumne and Mariposa districts. Trails from

Sonora, Stockton and downstream camps intersected there. From

Jacksonville, trails traveled to the Big Oak Flat area.

The filling of Don Pedro Reservoir in 1970, in a way, signaled a

different California - no longer a new frontier filled with hidden treasures, but a state with a bustling population, commerce and hefty natural resource needs.

Yet, some enjoyed the serenity and history of riverside towns like Jacksonville and were broken hearted as their livelihoods were flooded.

"It was very sad," said Tommy Thomason, who grew up at his family's riverside resort in Jacksonville - the Mountain River Resort. "It tore a piece of our life out."

Thomason attended the tiny Jacksonville School.

"I have very fond memories of it," he said.

A few of the resort's units were salvaged and now sit on Thomason's property in the area. The other structures of the resort were burned before the reservoir was filled.

"People came from all over to spend their vacations there," Thomason said. "It was a well-known place. Kids would jump off the rocks into the river. It had a big bar. As many as 100 to 150 people would be there at once. It was a place everybody loved."

Thomason said he still misses the town and resort - almost 40 years since it was inundated.

"It was the most beautiful river," he said.

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Exhibit 79

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BLM Condition
Cost Estimate

Cost to construct facilities (*see* Wards Ferry Whitewater Boating Takeout Analysis)	$52,659,453
Purchase at least 2 vehicles for maintenance and security	$100,000
Total Capital:	$52,759,453
1 full-time, year-round security (night)	$146,000
Contract for security services (day)	$50,000
2 maintenance staff	$36,082
Paint and other repair items	$15,000
Cleaning supplies	$15,000
Vehicle maintenance and fuel	$20,000
Total Annual O&M:	$282,082

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Exhibit AB

20180228-5265 FERC PDF (Unofficial) 2/28/2018 4:44:46 PM

TURLOCK IRRIGATION DISTRICT
333 EAST CANAL DRIVE
POST OFFICE BOX 949
TURLOCK, CALIFORNIA 95381
(209) 883-8300

Don Pedro Dam and Powerhouse

July 9, 1990

FILED
OFFICE OF THE SECRETARY
90 JUL 16 PM 4:11

Ms. Lois Cashell, Secretary
Federal Energy Regulatory Commission
825 North Capital Street, N.E.
Washington, D. C. 20426

Subject: Don Pedro Project - Unit No. 4
FERC Project No. 2299 - CA
License Article 53
Rest Room Facility at Wards Ferry Bridge

Dear Ms. Cashell:

Under Article 53 of the license, a rest room facility was installed at the Wards Ferry Bridge on February 1, 1988.

By letter dated April 13, 1988, we informed your S. F. regional office of gunshot damages to the rest room facility. (Letter and attachments enclosed.)

By letter dated January 27, 1989, we informed your S. F. regional office that the top half of the toilet facility was cut off with a chain saw and thrown in the ravine below. Subsequently the bottom half was burned out and destroyed. By the same letter we requested that Article 53 requirements for a rest room facility be removed. (letter and attachments enclosed)

Your S. F. regional office instructed us to write to FERC, Washington, D. C., directly to request removal of Article 53 requirements.

Instead of making a request for removal of Article 53 requirements to FERC, Washington, D. C., we decided to reinstall the toilet facility (2nd time) with the hope that no further incident will take place.

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In May of 1990 our portable toilet vendor informed us that the 2nd toilet had been destroyed and thrown down the ravine. This occurred approximately in January 1990 (pictures enclosed).

We have decided to try one more time (3rd time). The third toilet was installed sometime during the week of June 18, 1990.

We are guardedly optimistic that no more incidences will occur. However, we will closely monitor the rest room facility and its use over this coming summer season and will report our experiences to you in the fall.

Yours very truly,

TURLOCK IRRIGATION DISTRICT

Ernest Geddes
General Manager

EG:AKH:im
Enclosures
pc: A. Hagiwara
L. Kennedy
N. Boberg
J. Marcotte, MID
C.L. Emmerling, FERC

20180228-5265 FERC PDF (Unofficial) 2/28/2018 4:44:46 PM

April 13, 1988

C. L. Emmerling, Regional Director
Federal Energy Regulatory Commission
901 Market Street, 3rd Floor
San Francisco, California 94103

Attention: Mr. Yong Chen

Subject: Don Pedro Project - Unit No. 4
FERC Project No. 2299-CA
License Article 53
Rest Room Facility at Wards Ferry Bridge

Gentlemen:

Under Article 53 of the license, a rest room facility was installed at the Wards Ferry Bridge on February 1, 1988.

On March 23, 1988, we received a letter from Mother Lode Portable Toilets (letter enclosed), our contractor, who installed and is servicing the unit. The letter informs us of the damages that were found as early as two weeks after the installation of the unit.

We have instructed our contractor to make the necessary repairs to the unit and to continue servicing.

Enclosed are some pictures depicting the damages perpetrated on the portable toilet.

As we go into the heavy use season, we will keep you informed as to the condition of the toilet, its usage and the practicality of having a toilet at this location.

Yours very truly,

TURLOCK IRRIGATION DISTRICT

Alvin K. Hagiwara
Electric Utility Deputy Administrator

AKH:im
Enclosures
cc: Leroy Kennedy, w/encl.

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MOTHER LODE PORTABLE TOILETS
P.O. BOX 1395 • GROVELAND, CALIFORNIA 95321

RECEIVED
MAR 24 1988
TURLOCK IRRIGATION DISTRICT

March 23, 1988

Mr. Leroy Kennedy
Turlock Irrigation District
P.O. Box 949
Turlock, CA 95381

Re: Damage to portable toilet unit located on Wards Ferry Road

Dear Mr. Kennedy,

This letter is to follow up on your request that I advise you of the dates we inspected the portable toilet and the damage we found.

2/15/88 - unit was shot with a small caliber gun

3/01/88 - the door panel was shot with a shot gun

3/22/88 - the door latch and toilet seat were missing

After you have made your inspection and taken pictures, please call and advise what you would like us to do.

Thank you for your cooperation.

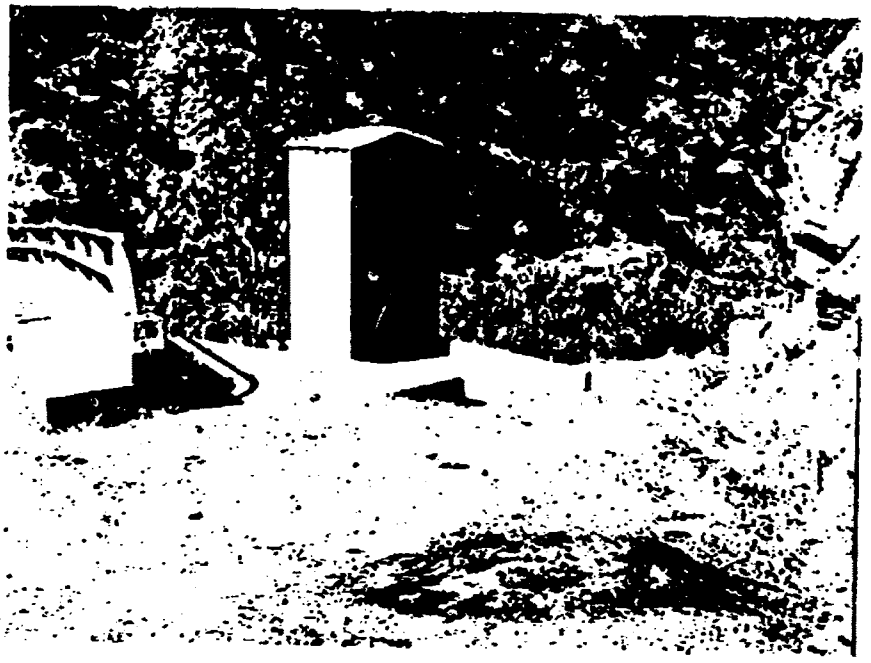
Sincerely,

Greg Ksiazek

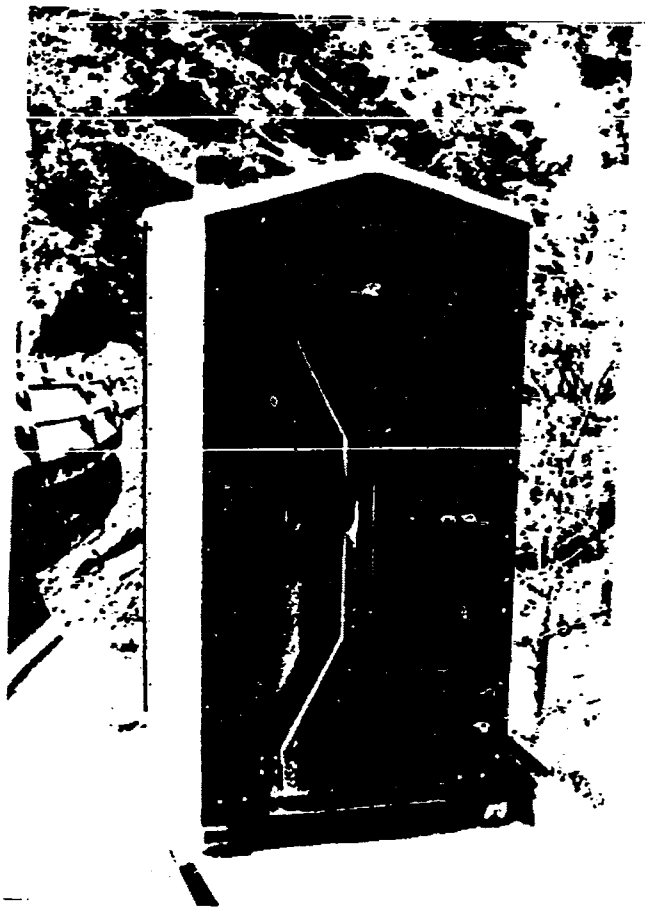
Greg Ksiazek, Manager
Mother Lode Portable Toilets

GK/vlw

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View of portable toilet next to bridge abutment. 3/23/88

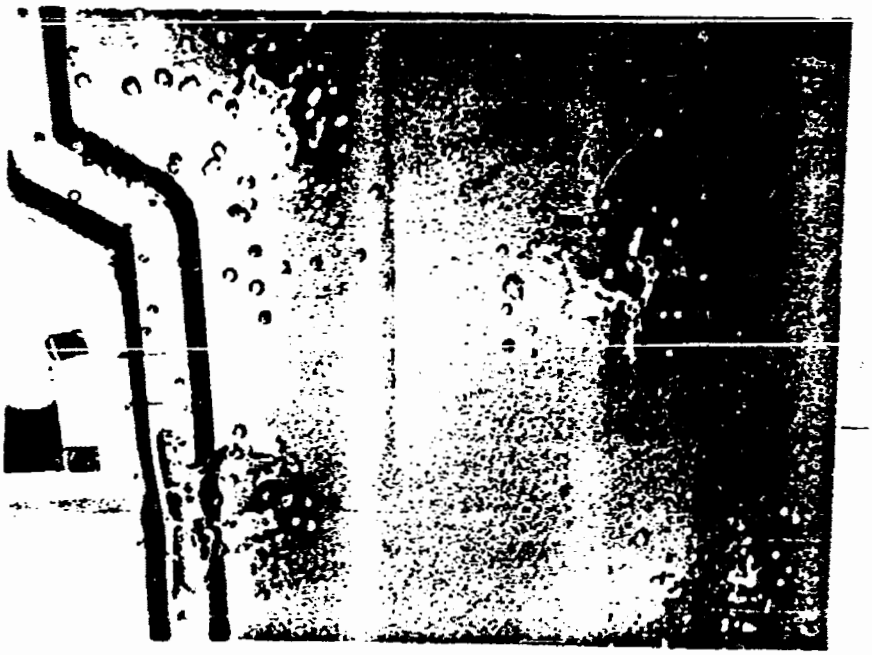


Close up view of portable toilet showing missing latch and bullet holes. 3/23/88

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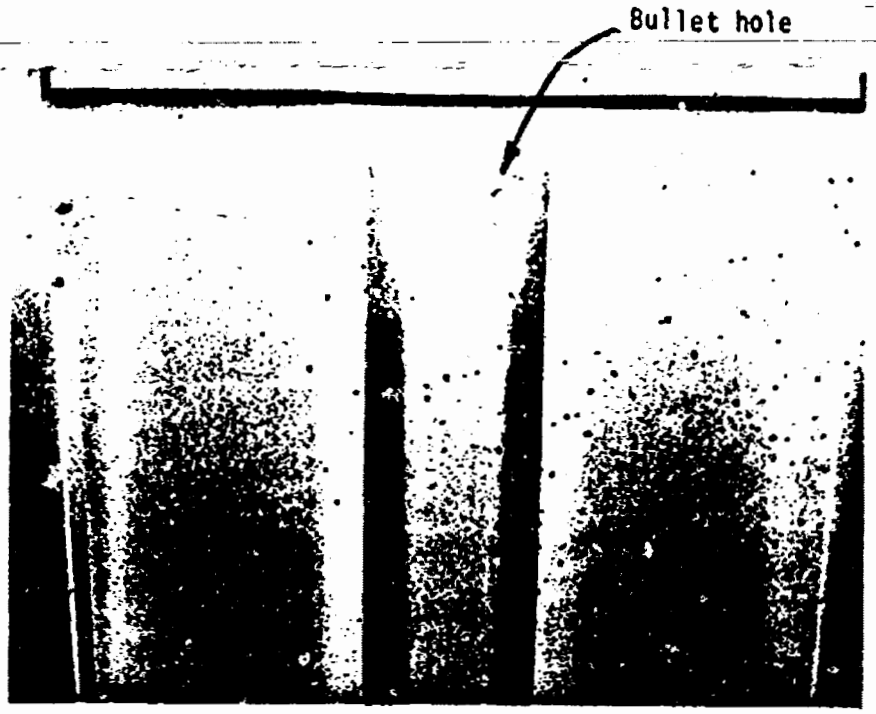


Front view of door. 3/23/88
Shotgun blast; latch missing and
a few rifle holes.

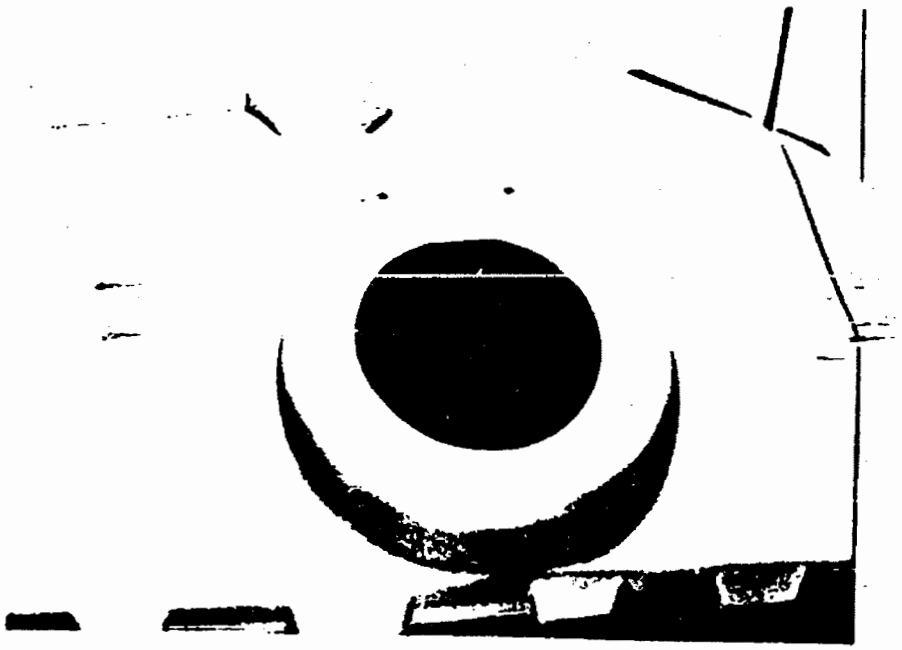


Interior view of door. 3/23/88
Shotgun blast and rifle holes.

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Interior backwall of toilet. 3/23/88
Shotgun blast thru door.
Bullet hole from rear.



Toilet seat cover missing. 3/23/88

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January 27, 1989

Mr. C. L. Emmerling, Regional Director
Federal Energy Regulatory Commission
901 Market Street, 3rd Floor
San Francisco, California 94103

Attention: Mr. Yong Chen

Subject: Don Pedro Project - Unit No. 4
FERC Project No. 2299-CA
License Article 53
Rest Room Facility at Wards Ferry Bridge

Dear Mr. Emmerling:

Under Article 53 of the license, a rest room facility was installed at the Wards Ferry Bridge on February 1, 1988.

By letter dated April 13, 1988 you received information from us relative to gun shot damages to the rest room facility.

Enclosed is a letter dated January 12, 1989 from Mr. Greg Ksiazek of Mother Lode Portable Toilets.

Mr. Ksiazek informed us about a month ago that, on his periodic visit to the rest room site, he found the top half of the rest room cut off. He located the top half in the ravine below the bridge and retrieved it. The enclosed photographs show the top half in Mr. Ksiazek's yard.

In subsequent weeks he was unable to return to the site because of snow conditions.

About a week ago Mr. Ksiazek returned to the site to take pictures and to remove the bottom half. He found that someone had burned the bottom half out. Nothing is left of the toilet facility except for the concrete base, as can be seen by the photographs enclosed.

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Because of the adverse experience obtained over a relatively short time (less than one year), we respectfully request that Article 53 requirements for a rest room facility in the vicinity of Wards Ferry Bridge be amended to exclude this facility.

Yours very truly,

TURLOCK IRRIGATION DISTRICT

Alvin K. Hagiwara
Electric Utility Deputy
Administrator

AKH:fm
Enclosures
cc: Leroy Kennedy, w/encl.
Ernie Geddes, w/encl.

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MOTHER LODE PORTABLE TOILETS
P.O. BOX 1395 • GROVELAND, CALIFORNIA 95321

RECEIVED
JAN 1 2 1989
TURLOCK IRRIGATION DISTRICT

Mr. Leroy Kennedy
Turlock Irrigation District
P.O. Box 949
Turlock, CA 95381

Re: Damage to portable toilet unit located on Wards Ferry Road

Dear Mr. Kennedy,

I'm enclosing pictures of the portable toilet unit located at the Wards Ferry Bridge. Whoever cut it in half with a chainsaw, preceded to burn the bottom half before I could remove it. I have the top half in my yard.

Replacement cost is $495.00 plus tax, with shipping costs of $70.00, and labor to assemble the unit is $35.00,amounting to $629.70 for total replacement charge.

I will wait for your call as we previously discussed, before I replace the unit on the bridge site. I look forward to hearing from you.

Sincerely,

Greg Ksiazek
Manager, Mother Lode Portable Toilets

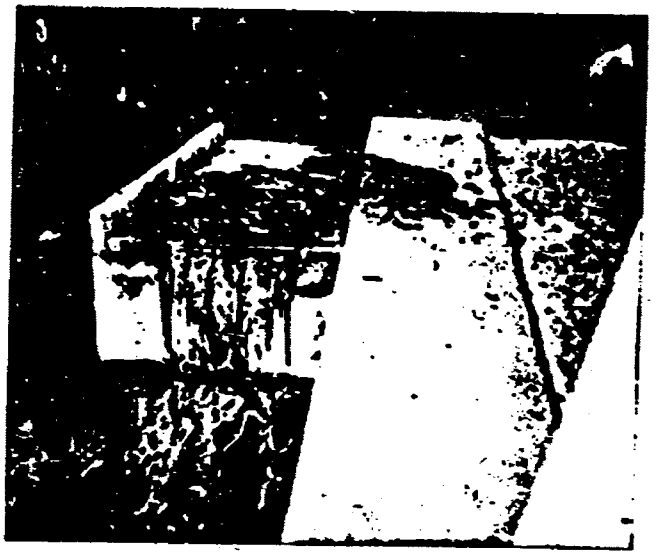
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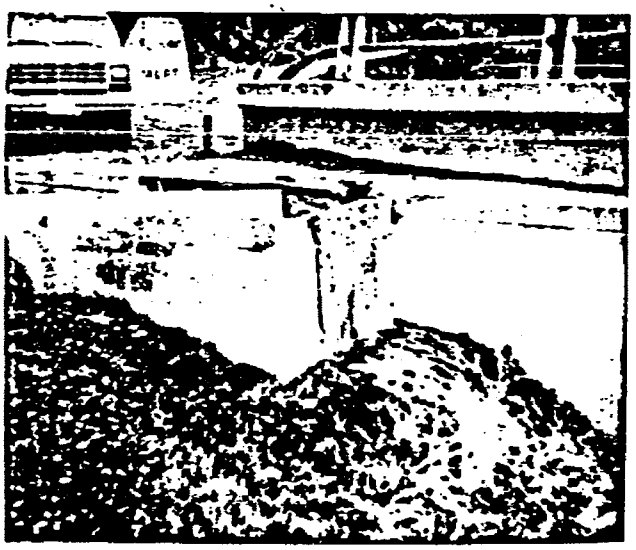


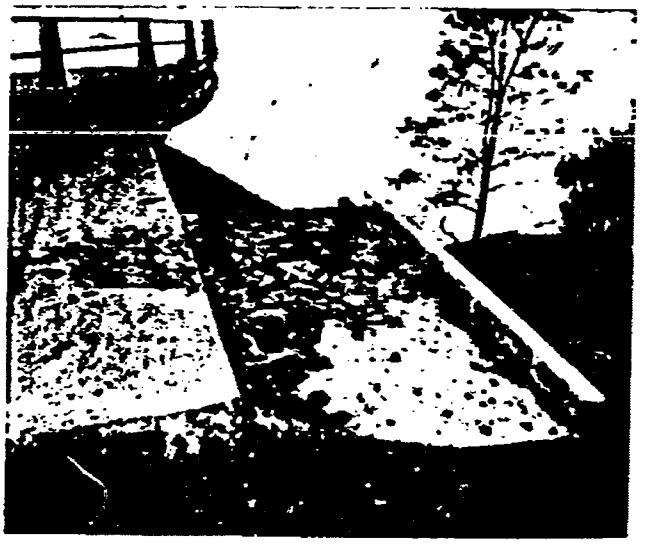










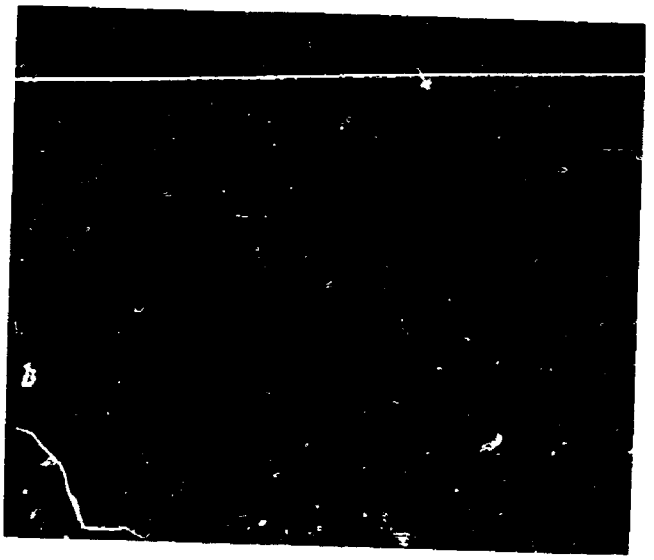


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MOTHER LODE PORTABLE TOILETS
P.O. BOX 1395 • GROVELAND, CALIFORNIA 95321



JAN 1990



JAN 1990

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Exhibit W

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TURLOCK IRRIGATION DISTRICT
P.O. BOX 949
333 EAST CANAL DRIVE
TURLOCK, CALIFORNIA 95381
(209) 632-3981 or 883-4071

Don Pedro Power Powerhouse

February 4, 1988

C. L. Emmerling, Regional Director
Federal Energy Regulatory Commission
901 Market Street, 3rd Floor
San Francisco, California 94103

Attention: Mr. Yong Chen

Subject: Don Pedro Project - Unit No. 4
FERC Project No. ~~2299-CA~~ 011
License Article 52
Log and Debris Removal Plan

Dear Mr. Emmerling:

FERC order amending license issued February 2, 1987 for the referenced project required, under Article 52, the establishment of a plan for removing logs and debris from the Don Pedro Reservoir.

After consultation with parties stipulated in the license, a plan was developed for removing logs and debris. The plan generally follows the practice that is in place at the present time so the plan is currently being implemented.

The following documents are enclosed:

Exhibit B November 13, 1987 Public Meeting Minutes
Exhibit D List of Invitees to November 13, 1987 Meeting
Exhibit X Log and Debris Removal Plan
Exhibit R Mileage Chart Don Pedro Area
Exhibit S Map Wards Ferry Area - General
Exhibit T Map Wards Ferry Area at Elevation 830
Exhibit U Map Wards Ferry Area at Elevation 730

DOCKETED
FEB 8 1988

8804270319

In accordance with Article 52, the above documents are submitted herewith for filing and approval by the commission's Regional Engineer in San Francisco, California.

Yours very truly,

TURLOCK IRRIGATION DISTRICT

Alvin K. Hagiwara
Assistant Electrical Department Manager

AKH:im
Enclosures
cc: Ron Corso, FERC, Washington, DC, w/encl.
R. Hamilton, MID, w/encl.
L. Kennedy, w/encl.
C. Rust, w/encl.

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EXHIBIT B

Meeting
November 13, 1987

NEW DON PEDRO PROJECT

	NAME	AGENCY
1.	Ernie Geddes	Turlock Irrigation District
2.	Leroy Kennedy	Turlock Irrigation District
3.	Lee DeLano	Modesto Irrigation District
4.	Carol Russell	DPRA
5.	Carl Rust	DPRA
6.	John Maschi	USFS
7.	Ed Booker	USFS
8.	Bob Ferguson	Tuolumne River Expedition
9.	Dean W. Coffey	City-County San Francisco
10.	Marty McDonnell	Sierra Mae River Trips
11.	David M. Harris	BLM - Folsom Resource Area
12.	Brian Ferrell	Stanislaus County LLV
13.	Cy Hoblitt	County of Tuolumne
14.	Bob Hackamack	Sierra Club

Question: Does any of the debris sink? (John Maschi)

Answer: Perhaps some of the small stuff, but not much. (Rust)

Question: Are you sure some of the debris isn't coming up from the reservoir? (Marty McDonnell)

Answer: There may be a small amount, but most of the debris in the reservoir is localized in the areas of origination. (Rust)

Question: Have you been able to identify some of the debris as coming from logging operations? (John Maschi)

Answer: Yes, it's definitely from logging based on cat marks, etc. (Rust)

Question: Have you looked at taking the material out to a bio-mass burner? (Bob Hackamack)

Answer: We've even tried to give it away. A couple of people tried it, but gave up. (Rust)

Question: Do you burn every year? (Bob Ferguson)

Answer: Yes. (Rust)

Question: Do you have figures on what this debris removal costs? (Bob Hackamack)

Answer: The costs have been diminished because of using inmates, getting napalm from governmental agencies, etc. O & M costs are about $25,000 per year not including inmates labor which is donated to the Districts. (Rust)

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Article 53 - Restroom in Vicinity of Wards Ferry Bridge

Question: How many people do you expect to use the restroom? (Brian Ferrell)

Answer: Probably peak use per week of 100 rafters and perhaps 100 from autos. (Rust)

Question: I would prefer a permanent type toilet from an esthetic point. (Marty McDonnell)

Question: We were thinking of something more bullet proof. (Marty McDonnell)

Answer: Cy Hoblitt said the County would not want a permanent type toilet on the bridge abutment.

Question: Would the bridge abutment be revamped to accommodate the toilet? (Marty McDonnell)

Answer: Perhaps some anchor bolts and curbing. (Kennedy)

Question: We wouldn't want the toilet to encroach on the trail to the river. (Brian Farrell)

Answer: We don't believe it would need to extend into the trail (Kennedy, Rust).

Question: What would be the cost to improve the road in 11? (Marty McDonnell)

Answer: It would be very large. (Rust)

Question: Does the County have any plans for improving the Wards Ferry road? (Bob Hackamack)

Answer: No. (Cy Hoblitt)

Question: Who's going to be responsible if someone is shot inside the toilet? I don't think it's a good location for a toilet. (Cy Hoblitt)

Answer: Any lawsuit would probably name T.I.D., M.I.D., Tuolumne County and anyone else they could think of. (Geddes) Cy Hoblitt then said the County would want an agreement with the Districts to hold Tuolumne County harmless.

xc: Ernie Geddes
Al Hagiwara

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EXHIBIT I

FERC PROJECT NO. 2299-007
NEW DON PEDRO PROJECT
ARTICLES 52 & 53

COORDINATION/CONSULTATION LISTING OF INTERESTED ENTITIE
(INVITEES TO MEETING HELD IN SONORA ON NOVEMBER 13, 1987)

1) Blaine L. Cornell
Forest Supervisor
Stanislaus National Forest
19777 Greenley Road
Sonora, CA 95370

2) David N. Harris
Staff Chief, Folsom Resource Area
Bureau of Land Management
63 Natoma Street
Folsom, CA 95630

3) Al White
Waterways Administrator
California Boating & Waterways
1629 S Street
Sacramento, CA 95814-7291

4) Shirley Campbell
Supervisor, Fourth District
Tuolumne County Board of Supervisors
2 South Green Street
Sonora, CA 95370

5) Jerry Bellah
Supervisor, Third District
Tuolumne County Board of Supervisors
2 South Green Street
Sonora, CA 95370

6) Robert Coane
Sheriff
Tuolumne County Sheriff's Office
28 North Lower Sunset Dr.
Sonora, CA 95370

7) David Baker
County Administrator
Tuolumne County Administration Ofc.
2 South Green Street
Sonora, CA 95370

8) Rick Jarrett
Constable
Fourth Justice Court
P.O. Box 496
Groveland, CA 95321

9) Cy Hoblitt
Tuolumne County Transportation &
Engineering Services
2 South Green Street
Sonora, CA 95370

10) Glenn Olson
Regional Vice-President
National Audubon Society
555 Audubon Place
Sacramento, CA 95825

11) Henry Agonia, Director
California Dept. of Parks &
Recreation
P.O. Box 2390
Sacramento, CA 95811

12) Mark DuBois, President
Friends of the River Foundation
Building C - Fort Mason Center
San Francisco, CA 94123

13) Brian Ferrell, President
Stanislaus Co. League of
Conservation Voters
405 North Santa Ana St.
Modesto, CA 95354

14) Robert Canning
Tuolumne River Preservation Trust
870 Market St. #859
San Francisco, CA 94102

15) Robert W. Hackamack, Chairman
Tuolumne River Conference
Sierra Club, River Touring Section
5100 Parker Road, Route 1
Modesto, CA 95355

16) Mr. Loren Smith
Action Adventures Wet 'n' Wild
P.O. Box 1500
Woodland, CA 95695

17) Mr. George Armstrong
All Outdoors Aventure Trips
2151 San Miguel Drive
Walnut Creek, CA 94596

18) Mr. John Vail
Outdoors Unlimited River Trips
P.O. Box 22513
Sacramento, CA 95822

19) Mr. Stephen Welch
American River Touring Assoc.
445 High Street
Oakland, CA 94601

20) Mr. Joe Daley
ECHO: The Wilderness Company
6529 Telegraph Avenue
Oakland, CA 94609

21) Mr. George Wendt
OARS, Inc.
P.O. Box 67
Angels Camp, CA 95222

22) Mr. Bob Volpertt
Outdoor Adventures, Inc.
3109 Fillmore Street
San Francisco, CA 94123

23) Mr. Richard Bangs
Sobek Expeditions, Inc.
P.O. Box 7007
Angels Camp, CA 95222

24) Mr. Bob Ferguson
Zephyr River Expeditions
P.O. Box 3607
Sonora, CA 95370

25) Marty McDonnell
Sierra Nac River Trips, Inc.
P.O. Box 366
Sonora, CA 95370

26) Mr. Dean Coffey, General Manager
Hetch Hetchy Water & Power
1155 Market St.
San Francisco, CA 94103

27) Mr. Al Walter
Hetch Hetchy Water & Power
Moccasin, CA 95347

28) Mr. H. Richard Clauss
21672 Bloss Avenue
Hilmar, CA 95324

29) Mr. Ernest Geddes, General Mgr.
Turlock Irrigation District
P.O. Box 949
Turlock, CA 95381

30) Mr. Joseph Marcotte, General Mgr.
Modesto Irrigation District
P.O. Box 4060
Modesto, CA 95352

31) Dr. Robert Beck
4524 Gomes Road
Modesto, CA 95351

32) Mr. John Kidd
1313 Stone Avenue
Modesto, CA 95351

33) Mr. Phil Short
1260 Swanson Road
Hughson, CA 95326

CWP

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LOG AND DEBRIS REMOVAL PLAN

With closure of the gates in 1971, the New Don Pedro Project began water collection towards an ultimate storage of 2,030,000 acre feet, with a shoreline at maximum 830' elevation totalling 159 miles. Creation of the reservoir has required water surface monitoring for logs and floating debris. There are three primary sources of this floating material, including:

1. Reservoir land clearing residual
2. Breakdown of mandated fish habitat retention vegetation
3. Tuolumne River up-canyon watershed debris and logging slash

For purposes of this plan, each of these material sources and their treatment by reservoir owners (City and County of San Francisco, Turlock Irrigation District and Modesto Irrigation District), will be discussed separately.

I. Reservoir Land Clearing Residual

Initial reservoir construction authorization called for removal of 75% of the vegetation remaining below maximum water elevation 830'. Dozers, utilizing brush rakes, uprooted this vegetation and placed it in extended windrows for burning. Dirt collection in the windrows was discouraged so that windrows would burn clean with only an ash residual. As one might expect with such an extensive landclearing effort, numerous small vegetative materials are scattered on the reservoir floor and in many cases, burn piles left vegetation residuals. During water filling of the reservoir, this remaining scattered material floated as water encroached. Wind patterns, prevailing over the reservoir during the winter months, allowed for the accumulation of the floating material in tributary coves adjacent to the main reservoir body. Once confined to the coves, boom lines were utilized to keep the material in place and it's ultimate burning on the shoreline occurred. Having reached maximum pool during it's first 10 years of operation, all land clearing residual vegetation has been collected and removed. While initially the most visible of the floating material sources on the reservoir, this source is no longer a problem in reservoir management.

II. Breakdown of Mandated Fish Habitat Retention Vegetation

During the licensing phase of the New Don Pedro Reservoir, FPC 2299, the California Department of Fish and Game mandated that 25% of all flooded vegetation below the maximum water level 830' be left undisturbed as fish habitat to encourage fish reproduction and to promote fish frye development within

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a protective vegetation structure and thus preventing depredation by larger predator fish. Areas identified by the California Department of Fish and Game for retention, were protected from landclearing operations during reservoir construction. Since closing of reservoir gates in 1971, this fish habitat retention vegetation has been subjected to fluctuating water levels, including two winters in which the watershed produced sufficient water to reach maximum pool. With the death of this vegetation, caused by oxygen depletion and water flooding, woody fibre breakdown is resulting in flotation of this material. The range of floating material from this source includes small individual limbs up to and including entire old growth oak trees. A full-time reservoir owner employee serves as Lake Ranger, whose duties include monitoring the water surfac for floating debris and it's immediate removal when located. This fish habitat source of floating debris is expected to be an annual occurrance and will require routine monitoring and removal as necessary.

III. Tuolumne River Up-Canyon Watershed Debris and Logging Slash

The Tuolumne River Canyon, upstream of Wards Ferry Bridge (see attached map) includes significant acreage under multiple use land management by the U.S Forest Service, with emphasis on timber management. Ongoing timber access road construction, timber harvesting activities, and silvicultural treatments with followup re-forestation efforts, create a significant source of logging slash which during peak watershed runoff periods reaches Don Pedro Reservoir. In addition, periodic flooding of upstream tributaries to the main Tuolumne, during unseasonably wet snow years with quick snow melt, results in canyon scouring of all riparian vegetation and it's removal to the headwaters of Don Pedro Reservoir. In any given year, this production of log slash watershed debris can produce from 3 acres to 20 acres of floating debris in the upper reaches of the Tuolumne River canyon at Wards Ferry Bridge. Up canyon prevaili winds normally keep this vegetation distributed through the upper Tuolumne River canyon arm of Don Pedro Reservoir and does not present a navigational haz to overall reservoir recreation boating traffic. The debris has presented recreational rafters, floating downstream from Lumsden campground, with a significant penetration challenge at the Wards Ferry takeout. In cooperation with commercial rafting outfitters on the Tuolumne River, reservoir owners attempted to contract for debris removal in the Wards Ferry area while providin tow services for the rafters to reach the Wards Ferry takeout area with minimum delay. Contract bids to remove the debris exceeded $130,000 and burning restrictions prevented contractors from work during the summer months. In June, 1982, the reservoir owners purchased a Nelson Log Bronc boom boat in Coos Bay, Oregon, to develop it's own logging slash debris management program. The log bronc (see attached pictures) is a diesel-powered tug boat, constructed of ½" steel with 360° turning maneuverability designed to operate in log ponds of the Northwest. Utilizing the log bronc, reservoir owners routinely boom all incoming logging slash and debris in the main Tuolumne canyon tributary, west of the Wards Ferry bridge takeout for river rafters and kayakers. The debris is boomed and held over large underwater benches which surface as the

reservoir water level is drawn down. Sweeping booms are also placed in the Tuolumne arm to capture any interim floating debris that may come downstream and yet allow for passage of fishing boat traffic upstream. Debris held in place is allowed to settle out on surfacing sand benches where it is bucked up, piled, and burned, utilizing napalm in cooperation with the Bureau of Land Management, the U. S. Forest Service, the California Division of Forestry, and the California Department of Corrections. The boomed debris and the sweeps are monitored by the reservoir owners lake ranger yearlong. Booms are double and triple cable reinforced to discourage efforts at vandalism or destruction of the booms. The technique has proven extremely successful, although costly, and has allowed clear access for down canyon Tuolumne River floaters and up canyon boating fishermen. The management of logging slash/ watershed debris from the upper Tuolumne River canyon is expected to be a continuing operation throughout the life of the New Don Pedro Reservoir. Fires during the summer of 1987, burned in excess of 100,000 acres of the immediate Tuolumne River canyon, upstream of Wards Ferry bridge, and is expected to add a significant addition to the annual incoming tide of debris to the Don Pedro Reservoir from the Stanislaus National Forest lands. Burned debris, logging slash and vegetative debris from reforestation efforts is expected to additionally impact the incoming debris load at Wards Ferry bridge over the next 10 years. Additional booming and sweeps to catch this debris may extend down canyon as far as Rough and Ready Creek.
Reservoir owner operational expenses to capture this additional debris, is expected to double. Proven techniques developed by the reservoir owners are satisfactory to all and will be continued.

IV. Implementation Schedule

Debris removal at Don Pedro Reservoir is ongoing continually and is expected to be an annually budgeted work effort throughout the life of the reservoir.

V. Monitoring Schedule

The Lake Ranger position at Don Pedro Reservoir is a yearlong funded position whose workload includes daily monitoring and responding to identified surface debris.

VI. Notification Procedures

Boomed debris is monitored until burned. Should abnormal water runoff flows, vandals or mishaps sever debris boom lines, collected material will escape. Depending on prevailing winds and stream current this material could

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1) U.S. Forest Service, Groveland District Ranger
Drawer "I"
Groveland, CA 95321

2) BLM - Folsom Resource Area
63 Natoma Street
Folsom, CA 95630

3) California Dept. of Boating & Waterways - Director
1629 S. Street
Sacramento, CA 95814-7291

4) Tuolumne County Boat Patrol - Chief Boating Officer
2 South Green Street
Sonora, CA 95370

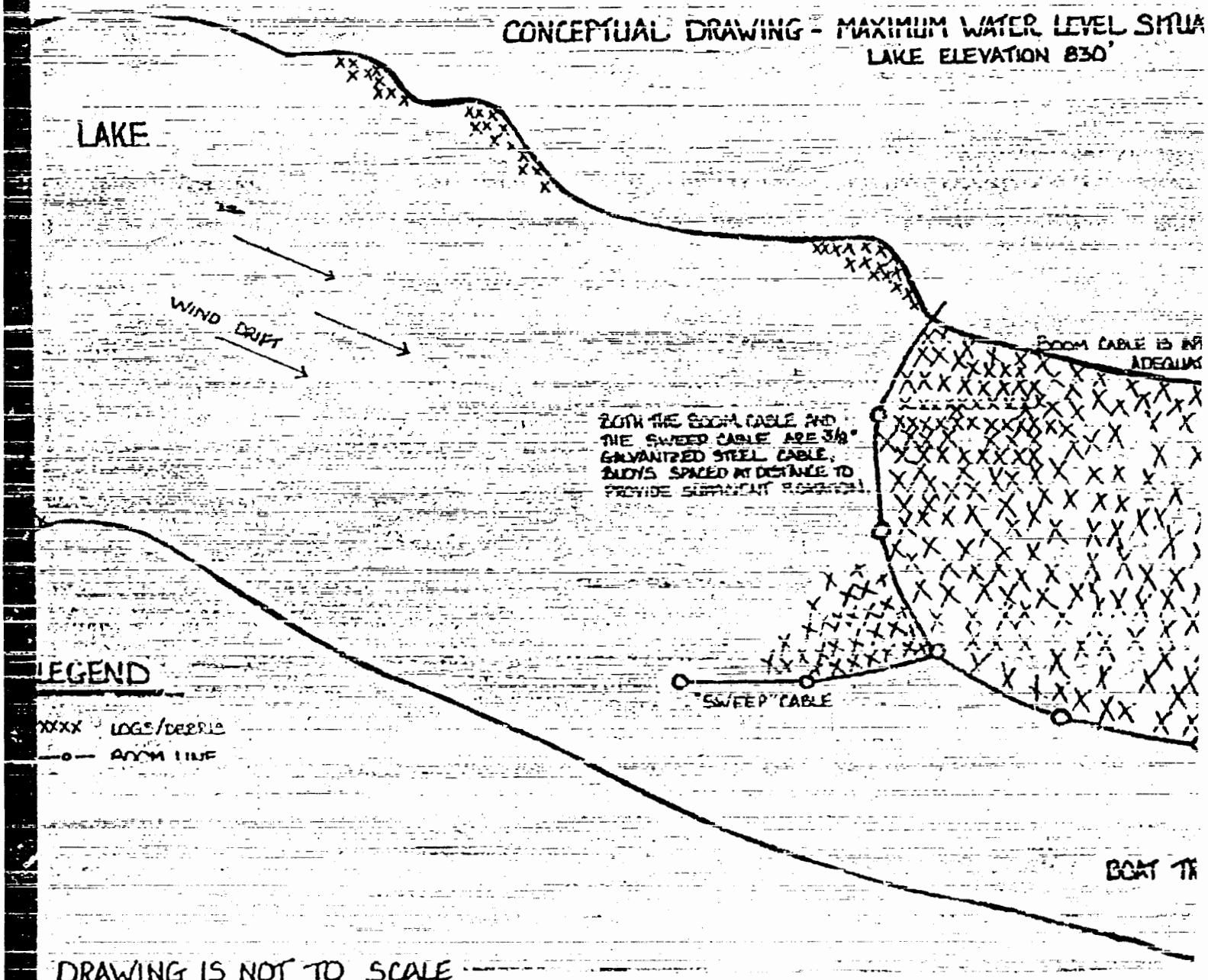
5) Tuolumne River Expeditions - Marty McDonnell
P.O. Box 366
Sonora, CA 95370

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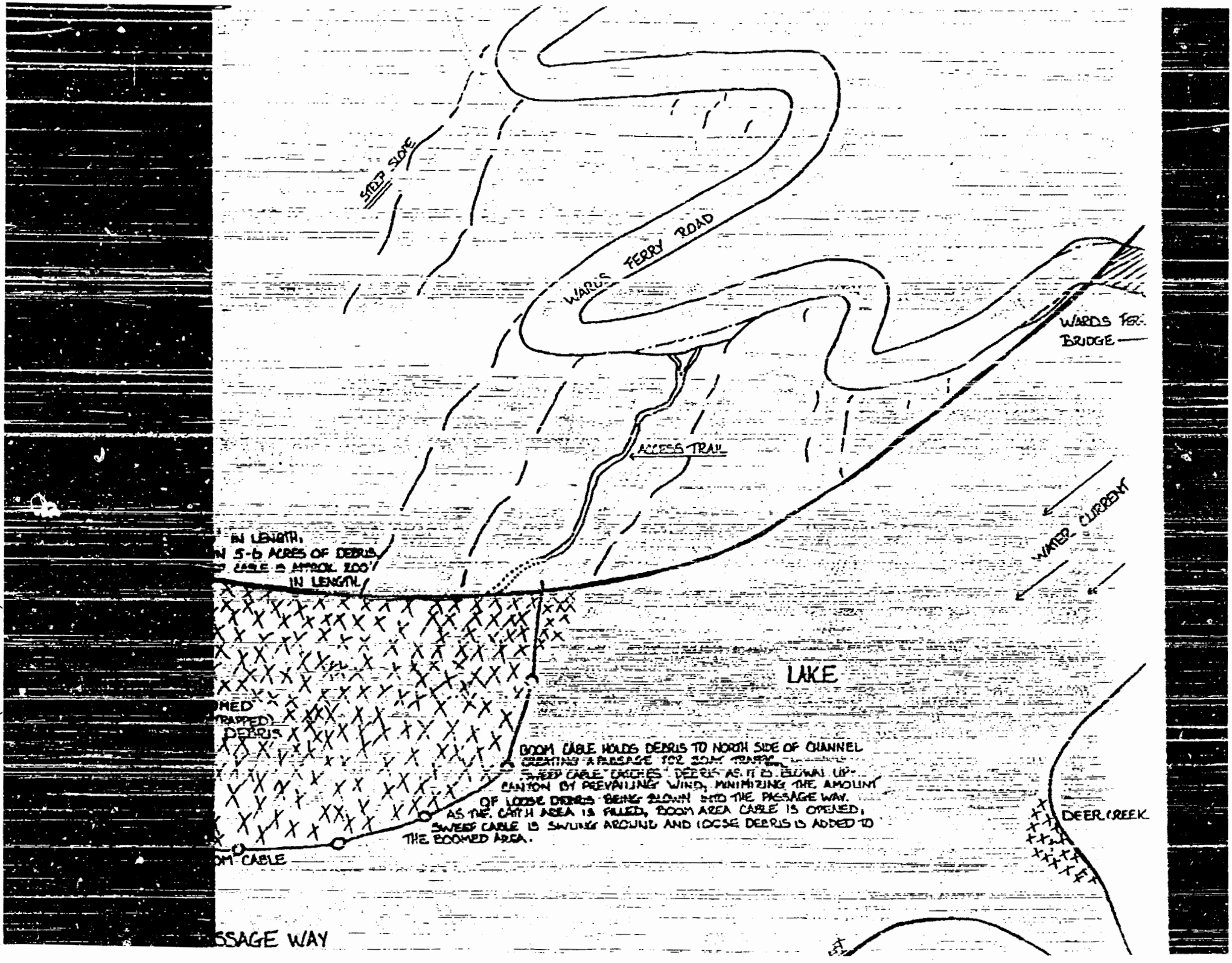
WARDS FERRY ARE

TUOLUMNE RIVER / DON PEDRO LAKE

LOG AND DEBRIS REMOVAL



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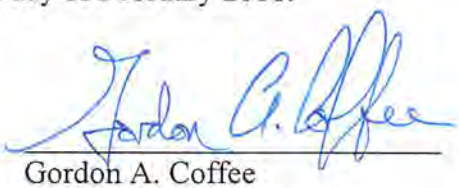
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CERTIFICATE OF SERVICE

Pursuant to the provisions of 43 C.F.R. § 45.13, I hereby certify that I have this day served a complete copy of the foregoing documents on the Federal Energy Regulatory Commission and on each "license party" to the relicensing proceeding for Project No. 2299, as set forth in the attached list by regular mail or electronic service, consistent with 18 C.F.R. § 385.2010(f).

Dated at Washington, DC, this 28th day of February 2018.



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Winston & Strawn LLP
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Washington, DC 20006
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CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding, in accordance with Rule 2010 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.2010.

Dated at Washington, D.C., this 28th day of February, 2018.

/s/ Kimberly Ognisty

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