# El Dorado County River Management Plan Annual Report 2022



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# **El Dorado County River Management Plan**

# **2022 Annual Report**

#### **INTRODUCTION**

The El Dorado County River Management Plan (RMP) 2022 Annual Report provides information on the 2022 river season and ongoing RMP implementation. The RMP has been written to be an adaptive management plan. The Annual River Report in 2021 was written with adaptive management goals. This report will identify what worked and what did not. It will also identify suggested goals for 2023.

#### ADAPTIVE MANAGEMENT

# Report on Goals from 2021

In the 2021 Annual Report a goal was set to quantify tuber use in the Coloma to Greenwood (C2G). In 2022, El Dorado Parks and Trails Division was able to conduct tuber counts on the South Fork of the American River on this section of the river. The tuber counts were taken from the shore underneath the highway 49 bridge in Coloma. The data gathered showed improved PFD (Personal Flotation Device) use by tubers and demonstrates that the education provided by El Dorado County is working.

The tuber count was a huge help to the Parks Division as it highlighted the value of our educational messaging. It appears most are compliant with the Life Jacket Ordinance but there is still more we can do. While the majority of tubers are compliant, there remains a small percentage of people unaware or resistant to the PFD policy.

In 2021 Boat Ramp signs were installed at the beach area designated for launching and loading boats. In speaking with many boaters, they were unaware there was a designated area. The designated boat ramp helps to reduce conflicts between boaters and people lounging on the beach and helps to prevent people getting injured on the beach due to boaters carrying gear through the area.

Education continues to remain our primary objective. We continue to push the no-glass trash and life jacket campaigns and monitored private property for trespassers. We continued to maintain a strong presence in the Coloma to Greenwood (C2G) segment of the river. Working again with the Sheriff's Office this year we were able to educate heavily in this segment. Staff really appreciates the Sheriff's Office, Jon Densmore along with several other deputies, for the support on the river this season.

The kiosk at North Beach was updated with the new map and basic educational information as per the objective of the 2021 Annual Report. The El Dorado County Parks and Trails division collaborated with State Parks to create five high-top tables for outfitter use at North Beach. High-top tables were requested by several outfitters to help with lunch prep and alleviating the use of

other picnic tables designated for park guests. Parks and Trails is working with Marshal Gold State Park to designate a time for installation.

# Goals for 2023

In 2023 we hope to:

- 1) Once again get a tuber count as this is a great way to measure the use and success of having staff in this section for compliance.
- 2) Increase county presence at the Marshall Gold put-in, addressing the users prior to putting on the water.
- 3) Maintain a presence on the water.
- 4) Continue Life Jacket education campaign as well and increase awareness about trash and glass on the river.
- 5) Rebuild the boat ramp area at Henningsen Lotus Park, damaged by the flooding in December/January. Install new signs and bollards.
- 6) Conduct boater counts at Barking Dog.
- 7) We are exploring options to assist with getting people of all abilities access to the river.
- 8) Work with BLM to install new educational information on the kiosk at Greenwood Creek.
- 9) Resume River clean up days.
- 10) The River Management Plan, Chapter IV -RMP Review and Revision Process identifies the process for a Five-Year Periodic Review.

## **RIVER VALLEY**

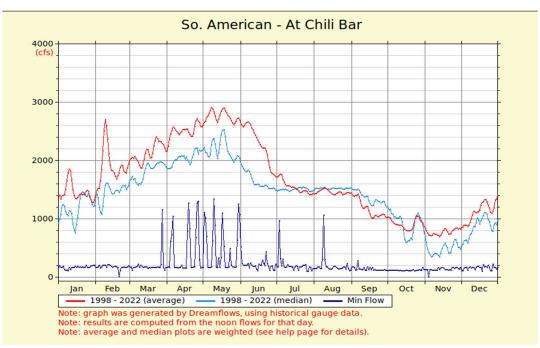
The 21-mile section of the South Fork of the American River from Chili Bar Dam to Folsom Reservoir continues to be one of the most rafted and kayaked rivers in the State of California, with annual use averaging well over 100,000 people.

Seven miles of this river flows through the Coloma Lotus Valley, a well-known historic and national recreational destination. There are four large public campgrounds Camp Lotus, Coloma Resort, American River Resort and Ponderosa Campground in addition to numerous outfitter campgrounds on the river. Marshall Gold Discovery State Historic Park, Henningsen Lotus County Park, and several BLM (Bureau of Land Management) parcels situated along the river are used by thousands of visitors annually, including Dave Moore Park. Public trails provide access to the river and, in some areas, run adjacent to the river at either end of the valley. Public access to the river is also available at the State Highway 49 Bridge. The number and diversity of recreational facilities and privately owned properties along the river, combined with the annually scheduled recreational water release flows, make the South Fork of the American River a globally recognized destination for class II-III boating and other forms of river recreation.

#### WATER FLOWS

The precipitation for 2022 was a below normal water year.

The complete California Department of Water Resources Bulletin 120 (May 1, 2022) report is available at http://cdec.water.ca.gov/snow/bulletin120/.



Daily average and median South Fork of the American River flow as recorded at Chili Bar 1998-2022

The water year type in 2022 was designated as a "Below Normal" year. The water year type designation prescribes the minimum release schedule out of Chili Bar Reservoir for river recreation. The Federal Energy Regulatory Commission (FERC) licenses for Sacramento Municipal Utility District's and Pacific Gas and Electric's dams on the South Fork of the American River require regular recreational releases. In late summer of 2021, Sacramento Municipal Utility District acquired Chili Bar Dam from Pacific Gas and Electric.

March 1st began scheduled releases Thursday – Tuesday. Those flows continued through Memorial Day (May 30<sup>th</sup>) until Labor Day (Sept. 5). After Labor Day, scheduled releases decreased to Thursday – Sunday. October saw scheduled releases Friday – Monday. SMUD increased and added releases periodically for rain fall and equipment calibration. The release volume minimums are 1,300 cubic feet per second (cfs) on weekdays and 1,500 cfs weekends throughout the season.

The change in water year type from 2021 to 2022 resulted in higher and more frequent releases.

The chart below explains the Water Year Type designations with corresponding minimum flow schedules out of Chili Bar Dam, per the FERC licenses.

			1	1		T	1	
Water Year Type	Period	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	April 1 - Friday before Memorial Day	3 Hrs @ 1300					3 Hrs @ 1300	3 Hrs @ 130
	Memorial Day - Labor Day <sup>1</sup>	3 Hrs @ 1300			3 Hrs @ 1300	3 Hrs @ 1300	5 Hrs @ 1300	5 Hrs @ 13
Super Dry	Tuesday after Labor Day - September 30						3 Hrs @ 1300	3 Hrs @ 13
	October 1 - March 31						3 Hrs @ 1300	
	March 1 - Friday before Memorial Day	3 Hrs @ 1300					3 Hrs @ 1300	3 Hrs @ 13
	Memorial Day - Labor Day <sup>1</sup>	3 Hrs @ 1300			3 Hrs @ 1300	3 Hrs @ 1300	5 Hrs @ 1500	5 Hrs @ 15
Critically Dry	Tuesday after Labor Day - September 30					3 Hrs @ 1300	3 Hrs @ 1300	3 Hrs @ 13
	October 1 - February 28/29						3 Hrs @ 1300	
	March 1 - Friday before Memorial Day	3 Hrs @ 1300	3 Hrs @ 1300			3 Hrs @ 1300	3 Hrs @ 1500	3 Hrs @ 15
D	Memorial Day - Labor Day <sup>1</sup>	3 Hrs @ 1300	3 Hrs @ 1300		3 Hrs @ 1300	3 Hrs @ 1300	5 Hrs @ 1500	5 Hrs @ 15
Dry	Tuesday after Labor Day - September 30					3 Hrs @ 1300	3 Hrs @ 1300	3 Hrs @ 13
	October 1 - February 28/29						3 Hrs @ 1300	3 Hrs @ 13
	March 1 - Friday before Memorial Day	3 Hrs @ 1300	3 Hrs @ 1300		3 Hrs @ 1300	3 Hrs @ 1300	3 Hrs @ 1500	3 Hrs @ 15
	Memorial Day - Labor Day <sup>1</sup>	3 Hrs @ 1300	3 Hrs @ 1300		3 Hrs @ 1300	3 Hrs @ 1300	6 Hrs @ 1500	6 Hrs @ 15
Below Normal	Tuesday after Labor Day - September 30	31113 @ 1300	31113@ 1300		3 Hrs @ 1300	3 Hrs @ 1300	3 Hrs @ 1500	3 Hrs @ 15
Below Normal	October 1 - 31	3 Hrs @ 1300			3 Fils @ 1300	3 Hrs @ 1300	3 Hrs @ 1500	3 Hrs @ 15
	November 1 - February 28/29	3 HIS @ 1300				3 HIS @ 1300	3 Hrs @ 1300	3 Hrs @ 13
	March 1 - Friday before Memorial Day	3 Hrs @ 1300	3 Hrs @ 1300	4 Hrs @ 1750	4 Hrs @ 17			
	Memorial Day - Labor Day <sup>1</sup>	3 Hrs @ 1500	3 Hrs @ 1500	6 Hrs @ 1750	6 Hrs @ 17			
Above Normal	Tuesday after Labor Day - September 30				3 Hrs @ 1500	3 Hrs @ 1500	3 Hrs @ 1500	3 Hrs @ 15
	October 1 - 31	3 Hrs @ 1300				3 Hrs @ 1300	3 Hrs @ 1500	3 Hrs @ 15
	November 1 - February 28/29						3 Hrs @ 1500	3 Hrs @ 15
	March 1 - Friday before Memorial Day	3 Hrs @ 1500	3 Hrs @ 1500	6 Hrs @ 1750	6 Hrs @ 1			
	Memorial Day - Labor Day <sup>1</sup>	4 Hrs @ 1500	4 Hrs @ 1500	6 Hrs @ 1750	6 Hrs @ 1			
Wet	Tuesday after Labor Day - September 30				3 Hrs @ 1500	3 Hrs @ 1500	3 Hrs @ 1500	3 Hrs @ 1
	October 1 - 31	3 Hrs @ 1300				3 Hrs @ 1300	3 Hrs @ 1500	3 Hrs @ 1
	November 1 - February 28/29						3 Hrs @ 1500	3 Hrs @ 1

**Table 1:** Chili Bar Dam Release Schedule by Water year Type (Note: 2022 was a "Below Normal" water year)

#### RIVER USE

In 2022, commercial river use remained normal with 73,097 commercial users. The water type year changed to a Below Normal year, due to heavy precipitation early in the water year, verses a Super Dry year in 2021. Water flows were available Thursday through Tuesday, with no water releases on Wednesday.

Spring runoff (snowmelt) behind dams that control the river level on the South Fork usually begins in May. Whitewater flows on the river have only been available consistently from year to year because of the FERC licenses' minimum recreational water flow requirements.

Coloma to Greenwood creek (C2G) is about 5 miles of class II. The C2G reach in the Coloma Lotus Valley continues to be a popular section of the river. Many types of boaters utilize this section of river, including rafters, kayakers, Stand up Paddle boards (SUP's). Along with downriver floats, many skills classes and trainings are given by permitted outfitters. Usage includes multiple runs, use during minimal flow and non-scheduled release days. Many people also access alternative put-ins and take-outs.

With the diversity of different types of craft, it is difficult to capture accurate usage numbers.

There are approximately 30 weekend days annually between Memorial Day weekend and Labor Day weekend. Based on prior year counts, a conservative estimate of use for the C2G run could easily be 9,000 people, based on an estimated average of 300 people per weekend day.

#### RIVER USE PREFERENCES

The longstanding trend of both private and commercial river use is increased use of the lower segment of the river. The County can track total use patterns with regards to financial reports and observations; however, as previously mentioned, the private user data does not represent a full accounting of use patterns. Total river use in 2022 with 73,097 commercial users which was 1612 users higher than 2021 which had 71,461 commercial users.

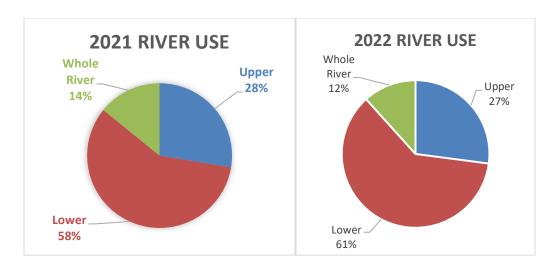
Whole-river trips accounted for an average of 12% (8536) of the total use in 2022. Trips solely on the upper section remain the same at 27% (19788) and trips on the lower section were 61% (44749) of total 2022 use. The lower section is better equipped with put-in and take-out facilities, likely reflecting an efficient business decision with a more extended day trip for commercial passengers. Total activity peaked in June, July, and August with almost 10,000 more users in July.

SMUD consistently released 100-300 CFS above the guaranteed minimum of 1300 CFS for weekdays and 1500 CFS on weekends. Whole river trips most likely reflect release levels, as higher flow rates increase speed, thus allowing for more trips to cover the entire length of the South Fork in a day. Lower, slower flows likely deter whole-river trips. The middle, C2G section of the river is the most accessible section for floating of inner tubes, paddleboards, and other small inflatable crafts. Totals reflect commercial use, while private counts appear in the specified months; private use is not monitored at a sufficient level to extrapolate meaningful conclusions.

There was a total of 1,760 tubers counted between June 24 and August 28; 196 of these individuals were not wearing PFDs at the time of observation; 52 individuals were observed jumping off the highway 49 bridge in Coloma. It can be noted that there is currently no sign posted on the bridge that says, "no jumping."

#### **OUTFITTER USE**

Commercial outfitters are the primary source for public rafting excursions down the South Fork. There were 27 permitted outfitters in 2022. The count for commercial use was 73097.

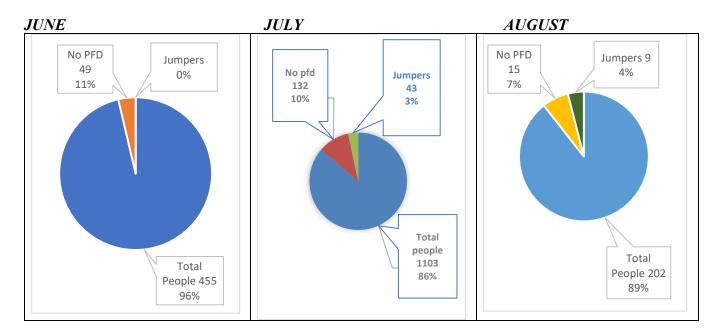


## INSTITUTIONAL GROUP USE

Only organizations teaching accredited educational courses will be able to continue to register as Institutional Groups per the updated RMP. Staff worked with the nonprofit groups (previously identified as institutional groups) to meet the requirement for commercial use. Four of the six non-profit groups obtained their commercial permit in 2022.

#### 2022 TUBER COUNTS

El Dorado County was fortunate to have the assistance of intern Carly Zaragoza for the 2022 river season. Carly was able to conduct several counts of tubers on the South Fork of the American River. The tuber counts were taken under the highway 49 bridge in Coloma on busy weekends during high usage hours.



2022 Annual Report on the River Management Plan

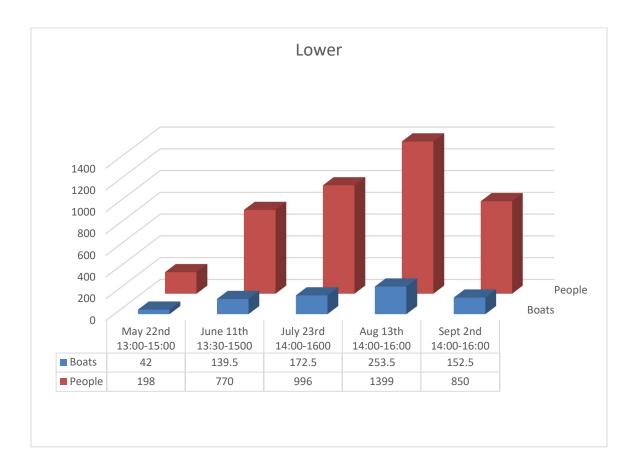
#### **BOAT DENSITY**

The boat density safety measures aim to prevent boating safety hazards from occurring due to boat congestion on weekends. In the event boat accounts exceed a "density threshold", the County will implement management actions to address density and associated safety issues on the South Fork as specified in Element 7 of the RMP.

Boat density measurements come from taking an aggregate total of all rafts, kayaks, inflatable kayaks, and inner tubes, paddleboards, or similar flotation devices. The sources of data utilized for estimating river use were boat counts completed as identified in Appendix C of the RMP, page 94. Density Threshold: 300 boats in 2 hours (based on ¼ hour increments and a rolling 2-hour period) at Meatgrinder, Troublemaker, Barking Dog, Fowlers Rock or Satan's Cesspool rapids on two days during any one season. Two kayaks are equal to one boat for the purposes of determining boat density.

The following graphs reflect the boat densities of Fowlers or Satan's Cesspool on the lower section, and Meatgrinder or Troublemaker on the upper section of the South Fork of the American River in 2022. The graph counts kayaks ½ a boat as prescribed in the RMP. Carry capacity was not exceeded; therefore, no mitigation measures to restrict boating use are necessary for 2023. Each month's counts are the highest counted day for that month.





## 2022 COUNTY STAFF ACTIVITIES

The beginning of the 2022 river season saw the hiring of new staff member James (Shay) Flanagan as the Parks Program Coordinator. Returning as a seasonal river aide was Timothy Canavarro. Tristan Otto and Anna Sierra-Nowell also joined El Dorado County as river aides. Carly Zaragoza was an intern for the division in 2022 and did an excellent job with boat and tuber counts as well as assisting with water samples. Carly was also able to accompany the river aides on river trips on both the upper and lower sections of the South Fork.

The oar boat used by staff previously was purchased in 1998 and was developing small leaks. This was replaced with a new cataraft pictured below. The staff also refurbished the existing boat trailer. The boat trailer now has new boat rollers as well as a supportive frame for the new larger cataraft. The trailer decking was removed and replaced with new primed decking as well as all rust ground off the frame and painted. The electrical components were replaced as well. Tim Canavarro took the lead on the trailer maintenance and did a great job.

# **New Cataraft and Refurbished Trailer:**



The division focused a lot of attention on monitoring the Coloma to Greenwood (C2G) section of the river this season. This area contains a high number of homes and private property as well as being a popular tubing section. Along with Sheriff Jon Densmore, the river aides participated in numerous discussions and educational briefings with private boaters regarding the PFD ordinance that exists within the county and respecting the rights of private property owners along the river.

River staff working closely with the Sheriff's Department were able to provide coverage on the river whether it was the upper, lower or C2G. The Parks Division believes that this working relationship with the Sheriff's Department is vital to ensuring safety and education. The Sheriff's Office was able to educate heavily in the C2G segment. Staff really appreciated the Sheriff's Office and Deputy Jon Densmore, along with several other deputies, for all the work and support and efforts on the South Fork. They are a pleasure to work with and they make such a difference.

The kiosk at North Beach, Marshall Gold State Park received a face lift. Staff rebuilt the kiosk adding a new roof, wood and paint. It was updated with new maps and educational information. We hope to update more kiosks with the same information in 2023.



**Updated North Beach Kiosk** 

While working on the kiosk at North Beach staff met with State Park staff Tom Pagan. Tom was working on improvements at North Beach which led to the discussion of adding high-top tables. This was a suggestion of a couple of outfitters at an onsite meeting. Park staff completed those tables and delivered them to Tom. They will be installed before next season.

River clean-ups: El Dorado County was scheduled to collaborate with American River Conservancy on a scheduled river clean-up for September 17<sup>th</sup>, 2022. However, due to the Mosquito Fire erupting on September 6<sup>th</sup>, the available river aides were pulled to assist with the fire support. A lack of staff and general smoke in the Coloma valley prevented this event from occurring for El Dorado County river aides. Staff did clean up any trash as they came upon it throughout the season.

Due to fire concerns staff started clearing out brush at the entrance to the Wilkinson Trail at the upper end of Henningsen Lotus Park. Growlersburg has continued with more clearing on the river side of the trail. Staff will continue this winter to work on the section and remove the brush to provide a better view of the river and reduce the fire hazard in the area.

Day to day activities for staff included:

- Provided boating safety, boater responsibilities, private property education, river etiquette, leave no trace education, and river flow information at river accesses and on the river.
- Stocked kiosks with waterproof river maps that provide boaters with the locations of restrooms, put-ins and take-outs, quiet zone locations, names of rapids with public and

private land designations, agency and campground phone numbers, and a boating safety checklist.

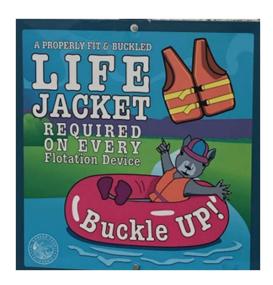
- Assisted law enforcement, upon request.
- Educated tubers on river safety and life jackets in the C2G section.
- Emphasized controlling quiet zone noise, use of public lands, litter education, and use of life jackets by all boaters and inner-tubers; dealt with ongoing concerns of the public.
- Regulate commercial use in the quiet zone for compliance.
- Provided safety information to people floating/boating on the class II section.
- Boat counts as identified in the RMP for carrying capacity.
- Water samples as identified in the RMP.
- Reported permitted outfitter violations to administration for processing as identified in the RMP.

#### **Education and Outreach**

Staff had planned a collaborative river clean-up day with American River Conservancy for September 17th. Unfortunately, the Mosquito Fire hit and smoke in the valley along with personnel being moved to assist with fire efforts made a clean-up infeasible. Staff did daily river cleanup on the upper and lower sections to manage garbage in the river. Onshore and shoreline cleanup was continuously done in and around Henningsen Lotus Park. Organized River cleanups are a goal for 2023.

River aides as well as seasonal park staff were regularly on the beach and trails of Henningsen Lotus Park. Staff conducted numerous educational discussions with individuals about the glass bottle ordinance along the river. This was especially critical along the Wilkinson Trail.

In 2020 educational signage was developed. Temporary signs for Life Jackets were placed throughout the river corridor. This signage was successful so more permanent metal signs were developed in 2022. Additional signage for parking, loading and unloading zones were also placed at Henningsen Lotus Park. Signage is used to inform users of the life jacket ordinance as well as the parking and unloading zones. El Dorado County also shared existing signs with BLM. BLM had requested any additional signs to post at their trailheads. This came as a result of the drowning incident at Satan's Cesspool in early July by a hiker, not a boating accident.



### EL DORADO COUNTY LAW ENFORCEMENT

During the 2022 rafting season, EDSO Deputy Sheriff Jon Densmore patrolled the South Fork of the American River from Chili Bar to Folsom Lake on a river raft. He spent in excess of 395 hours on the river. This total does not include the time spent on equipment maintenance, reporting, training, etc.

The below is a summary of quantifiable activity on River Patrol:

Contact with approximately 5,800 boats (kayaks, rafts, SUPS, etc.) and over 10,000 people.

Approximately 400+ contacts with the public, which were educational or enforcement in nature. These included advisements on PFDs, navigation, safety, ordinance (glass bottles, bridge jumping, trespassing), reckless behavior, intoxication, and inappropriate behavior.

Over twenty-five active water rescues

One body recovery. A hiker fell into the water at Satan's Cesspool Class 3+ rapid and subsequently drown. The recover was made by river patrol in a cataraft with assistance from the El Dorado County Parks & Recreation River Aides.

Zero citations

9 Multiple responses to Henningsen Lotus Park for land-based issues including drinking, abandoned vehicles, lost children, dogs off leash and reckless vehicle operations. Countless mutual aids; EDC Parks & Rec, CA. State Parks, American River Conservancy, and with commercial rafting companies.

# **OUTFITTER VIOLATIONS**

County Parks issued 2 violations in 2022.

- 1 issued for Pod size violation
- 1 issued for unmarked boats

Private boater violations are issued by the Sheriff's Office and are identified above in their report.

# WATER QUALITY

The water quality monitoring bacterial test results in 2022 showed acceptable readings throughout the season. Water testing is done the first week of the month May – September. The test locations are The Nugget, North Shore (Marshall Gold), HLP, Greenwood Creek and Salmon Falls. Two samples are taken, shore and transect (combination of right and left shores and river center), except at Salmon Falls which is just a shore sample.

Water test results are reported to the County Environmental Management Department in accordance with RMP section 4.4. Environmental Management monitors the water sample results and informs the Parks Division if action is needed.

Test results are attached in Appendix A.

The County also has a comprehensive Stormwater Program that implements stormwater mitigation measures and best management practices (BMPs) as prescribed by the County Storm Water Management Plan and the Phase II Municipal National Pollutant Discharge Elimination System (NPDES) Permit.

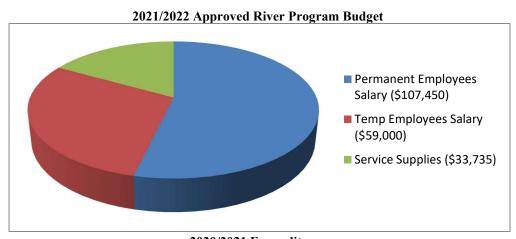
#### **BUDGET**

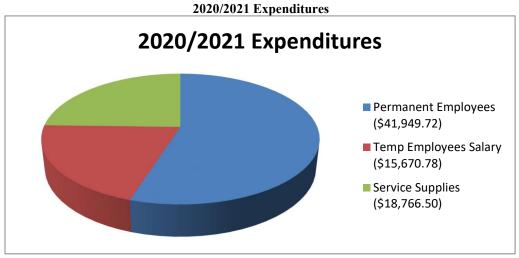
The budget for the Parks River Program is a non-general fund program. The primary source of funding since 1997 is a \$2.00 per guest user fee paid by permitted outfitters. Any fee change is subject to additional action by the Board of Supervisors. Any funding needs will take into consideration any changes which could increase or decrease the level of funding needed to implement the updated RMP. The table and charts below provide a snapshot of the River Trust Fund balances, the 2021/2022 approved budget, and the 2021/2022 Parks River Program budgeted and actual expenditures.

In 2022, the County's revenue increased \$25,879 for State Parks for fee collection and permitting from commercial outfitter use only.

**River Trust Fund Balance and Budget Summary** 

Fiscal Year 2021/2022	
Fund Balance as of July 1, 2020	\$261,613
Revenue (July 1, 2020 through June 30, 2021)	\$157,417
Expenditures	\$89,432
River Trust Fund balance as of June 30, 2021	\$329,597
2022/2023 Approved Budget	\$240,430





## **PUBLIC COMMENTS:**

Comments provided by Wayne Lowery-Parks Commissioner

- Pg. 3: What is the "North Parking Lot?" I assume it's the parking area upstream from the one near the launch ramp. *The North Lot reference was removed.* 
  - Pg. 3: Not sure where the Wilderson Trail is located. Is that the trail on the south side of the river extending from (what I assume is) the North Parking Lot? Wilkinson Trail is not related to river activities. Removed reference.
  - Pg. 3: I think the term "disabled" is now discouraged. Perhaps replace it with "....to provide river access for people of all abilities"? Changed to "We are exploring options to assist with getting people of all abilities access to the river"
  - Pg. 4: What are the current differences in the roles of the Planning Commission vs.
     BOS? The Planning Commission and BOS roles need to be defined. Planning commission provides advice and recommendations. BOS makes policy
  - Pg. 4: Guide Training: I get your point, but it seems like an important county service to provide this training. Do we charge a fee? Can it be contracted? We do not charge a fee. Added "The County can provide etiquette training upon Outfitters request"
  - Pg. 5: Misspelled "Bureau. Corrected
  - Pg. 7: General public may not know what "FERC" means. Same with "SUP." "FERC" is referenced on page 6 and spelled out. Added "Stand up paddle board (SUP's)
  - Pg. 17: Are there any Public Comments? Public Comments will be in final draft.

Comments provided by Karen Mulvany have been incorporated and corrected. Karen does an extensive review of the document, and I cannot express enough how grateful I am for that review.

Coloma Lotus Advisory Committee meeting on February 2, 2023. The highlights of the report were given by staff. Public comment from Julia McIver were to include, if possible, the purchase of the Thomas Property to expand Henningsen Lotus Park and commercial guide etiquette. There is no section in this report was changed from these comments.

#### **CLOSING**

Overall, the County Park's River Program, in coordination with the BLM, State Parks, and El Dorado County Sheriff's Boating Units, was successful in managing the South Fork American River's whitewater recreation from Chili Bar Dam to Folsom Reservoir. The implementation of the County's 2018 revised River Management Plan has met most of the goals and objectives laid out in the plan.

Appendix

Appendix A



May 9, 2022

El Dorado County Parks & Recreation CAO Parks Placerville, CA 95667

Attn: Vickie Sanders / Brian Michaelson

## Laboratory Reference #22-EDC-01.R

Sampled by: Tim / Shay

Sample Location	Date	<b>Time</b>	Test Parameter	Test Result (MPN)
Salmon Falls Grab Sample	5/2/22	1203	Total Coliform (ONPG) E. coli (MUG)	>2,419.2 28.5
Greenwood Creek - Shore Grab Sample	5/2/22	1120	Total Coliform (ONPG) E. coli (MUG)	298.7 12.0
Greenwood Creek - Transect Composite Sample (5)	5/2/22	1120	Total Coliform (ONPG)  E. coli (MUG)	325.5 12.1
North Beach - Shore Grab Sample	5/2/22	1015	Total Coliform (ONPG) E. coli (MUG)	547.5 3.1
North Beach - Transect Composite Sample (5)	5/2/22	1015	Total Coliform (ONPG)  E. coli (MUG)	387.3 2.0
Nugget - Shore Grab Sample	5/2/22	0931	Total Coliform (ONPG)  E. coli (MUG)	547.5 1.0
Nugget - Transect Composite Sample (5)	5/2/22	0931	Total Coliform (ONPG)  E. coli (MUG)	866.4 5.1
HLP - Shore Grab Sample	5/2/22	1025	Total Coliform (ONPG)  E. coli (MUG)	365.4 3.0
HLP - Transect Composite Sample (5)	5/2/22	1025	Total Coliform (ONPG) E. coli (MUG)	461.1 1.0

All samples were analyzed using the chromogenic substrate coliform test (ONPG-MUG) in accordance with Standard Methods SM 9223 B. Bacterial densities (MPN) were calculated using Colilert Quanti-tray 2000.

# Richard R. Blodgett, PhD

Public Health Epidemiologist Water Quality Microbiologist

RRB/cb

Cc: El Dorado County Environmental Management Department

This report is applicable Only to the sample received by the laboratory. The liability of the laboratory is limited to the amount paid for this report is for the enclusive use of the client to whom it is addressed and upon the condition that the client atturned all liability for the further distribution of the report of its contents.



June 9, 2022

El Dorado County Parks & Recreation CAO Parks Placerville, CA 95667

Attn: Vickie Sanders / Brian Michaelson

## Laboratory Reference #22-EDC-02.R

Sampled by: T.B.O.

Sample Location	Date	<b>Time</b>	Test Parameter	Test Result (MPN)
Salmon Falls Grab Sample	6/6/22	1300	Total Coliform (ONPG) E. coli (MUG)	>2,419.2 45.7
Greenwood Creek - Shore Grab Sample	6/6/22	1220	Total Coliform (ONPG) E. coli (MUG)	1,553.1 34.5
Greenwood Creek - Transect Composite Sample (5)	6/6/22	1220	Total Coliform (ONPG) E. coli (MUG)	1,299.7 21.1
North Beach - Shore Grab Sample	6/6/22	1105	Total Coliform (ONPG) E. coli (MUG)	1,553.0 8.5
North Beach - Transect Composite Sample (5)	6/6/22	1105	Total Coliform (ONPG) E. coli (MUG)	2,419.2 11.0
Nugget - Shore Grab Sample	6/6/22	1007	Total Coliform (ONPG) E. coli (MUG)	1,553.1 3.1
Nugget - Transect Composite Sample (5)	6/6/22	1007	Total Coliform (ONPG) E. coli (MUG)	1,986.3 6.3
HLP - Shore Grab Sample	6/6/22	1145	Total Coliform (ONPG) E. coli (MUG)	1,732.9 22.8
HLP - Transect Composite Sample (5)	6/6/22	1145	Total Coliform (ONPG) E. coli (MUG)	2,419.2 27.8

All samples were analyzed using the chromogenic substrate coliform test (ONPG-MUG) in accordance with Standard Methods SM 9223 B. Bacterial densities (MPN) were calculated using Colilert Quanti-tray 2000.

# Richard R. Blodgett, PhD

Public Health Epidemiologist Water Quality Microbiologist

RRB/cb

Cc: El Dorado County Environmental Management Department

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July 11, 2022

El Dorado County Parks & Recreation CAO Parks Placerville, CA 95667

Attn: Vickie Sanders / Brian Michaelson

### Laboratory Reference #22-EDC-03.R

Sampled by: Shay

Sample Location	Date	<b>Time</b>	Test Parameter	Test Result (MPN)
Salmon Falls Grab Sample	7/05/22	1450	Total Coliform (ONPG) E. coli (MUG)	>2419.2 19.5
Greenwood Creek - Shore Grab Sample	7/05/22	1450	Total Coliform (ONPG) E. coli (MUG)	2419.2 135.4
Greenwood Creek - Transect Composite Sample (5)	7/05/22	1450	Total Coliform (ONPG) E. coli (MUG)	2419.2 25.9
North Beach - Shore Grab Sample	7/05/22	1450	Total Coliform (ONPG) E. coli (MUG)	2419.2 55.6
North Beach - Transect Composite Sample (5)	7/05/22	1450	Total Coliform (ONPG) E. coli (MUG)	>2419.2 49.5
Nugget - Shore Grab Sample	7/05/22	1450	Total Coliform (ONPG) E. coli (MUG)	2419.2 6.3
Nugget - Transect Composite Sample (5)	7/05/22	1450	Total Coliform (ONPG) E. coli (MUG)	1413.6 4.1
HLP - Shore Grab Sample	7/05/22	1450	Total Coliform (ONPG) E. coli (MUG)	1986.3 218.7*
HLP - Transect Composite Sample (5)	7/05/22	1450	Total Coliform (ONPG) E. coli (MUG)	1732.9 95.9

All samples were analyzed using the chromogenic substrate coliform test (ONPG-MUG) in accordance with Standard Methods SM 9223 B. Bacterial densities (MPN) were calculated using Colilert Quanti-tray 2000.

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<sup>\*</sup>This sample exceeds recommended health limits for swimming.



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(530) 677-5776 5649 Milton Ranch Road, Shingle Springs, CA 95682

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July 19, 2022

El Dorado County Parks & Recreation CAO Parks Placerville, CA 95667 Attn: Vickie Sanders / Brian Michaelson

#### Laboratory Reference #22-EDC-05.R

Sampled by: Marshall Seaborn

Sample Location	Date	Time	Test Parameter	Test Result (MPN)
HLP- Shore	7/12/22	1345	Total Coliform (ONPG)	1986.3
Grab Sample			E. coli (MUG)	57.3

All samples were analyzed using the chromogenic substrate coliform test (OMPG-MUG) in accordance with Standard Methods SM 9223 B. Bacterial densities (MPN) were calculated using Colilert Quantitray 2000.

# Richard R. Blodgett, PhD

Public Health Epidemiologist Water Quality Microbiologist

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Cc: El Dorado County Environmental Management Department

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August 10, 2022

El Dorado County Parks & Recreation CAO Parks Placerville, CA 95667 Attn: Vickie Sanders / Brian Michaelson

# Laboratory Reference #22-EDC-04.R

Sampled by: Not Reported

Sample Location	Date	<b>Time</b>	Test Parameter	Test Result (MPN)
Salmon Falls Grab Sample	8/2/22	N/R	Total Coliform (ONPG) E. coli (MUG)	>2,419 16.9
Greenwood Creek - Shore Grab Sample	8/2/22	1318	Total Coliform (ONPG) E. coli (MUG)	1,413.6 24.3
Greenwood Creek - Transect Composite Sample (5)	8/2/22	1323	Total Coliform (ONPG) E. coli (MUG)	1,986.3 23.1
North Beach - Shore Grab Sample	8/2/22	1227	Total Coliform (ONPG) E. coli (MUG)	>2,419 29.2
North Beach - Transect Composite Sample (5)	8/2/22	1236	Total Coliform (ONPG) E. coli (MUG)	>2,419 28.3
Nugget - Shore Grab Sample	8/2/22	1150	Total Coliform (ONPG) E. coli (MUG)	>2,419 18.5
Nugget - Transect Composite Sample (5)	8/2/22	1156	Total Coliform (ONPG) E. coli (MUG)	1,732.9 13.4
HLP - Shore Grab Sample	8/2/22	1250	Total Coliform (ONPG) E. coli (MUG)	>2,419 46.4
HLP - Transect Composite Sample (5)	8/2/22	1254	Total Coliform (ONPG) E. coli (MUG)	2,419.2 30.1

All samples were analyzed using the chromogenic substrate coliform test (ONPG-MUG) in accordance with Standard Methods SM 9223 B. Bacterial densities (MPN) were calculated using Colilert Quanti-tray 2000.

# Richard R. Blodgett, PhD

Public Health Epidemiologist Water Quality Microbiologist

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August 29, 2022

El Dorado County Parks & Recreation CAO Parks Placerville, CA 95667 Attn: Vickie Sanders / Brian Michaelson

Laboratory Reference #22-EDC-06.R

#### Campled by Tim

Sampled by: Tim

Sample Location	Date	<b>Time</b>	Test Parameter	Test Result (MPN)
Salmon Falls Grab Sample	8/23/22	1320	Total Coliform (ONPG) E. coli (MUG)	920.8 3.1
Greenwood Creek - Shore Grab Sample	8/23/22	1230	Total Coliform (ONPG) E. coli (MUG)	980.4 11.0
Greenwood Creek - Transect Composite Sample (5)	8/23/22	1230	Total Coliform (ONPG) E. coli (MUG)	980.4 13.5
North Beach - Shore Grab Sample	8/23/22	1115	Total Coliform (ONPG) E. coli (MUG)	1553.1 12.2
North Beach - Transect Composite Sample (5)	8/23/22	1115	Total Coliform (ONPG) E. coli (MUG)	1553.1 12.2
Nugget - Shore Grab Sample	8/23/22	1033	Total Coliform (ONPG) E. coli (MUG)	1119.9 7.4
Nugget - Transect Composite Sample (5)	8/23/22	1033	Total Coliform (ONPG) E. coli (MUG)	920.8 9.8
HLP - Shore Grab Sample	8/23/22	1130	Total Coliform (ONPG) E. coli (MUG)	1299.7 21.6
HLP - Transect Composite Sample (5)	8/23/22	1130	Total Coliform (ONPG) E. coli (MUG)	980.4 21.6

All samples were analyzed using the chromogenic substrate coliform test (ONPG-MUG) in accordance with Standard Methods SM 9223 B. Bacterial densities (MPN) were calculated using Colilert Quanti-tray 2000.

# Richard R. Blodgett, PhD

Public Health Epidemiologist Water Quality Microbiologist

RRB/sb

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September 9, 2022

El Dorado County Parks & Recreation CAO Parks Placerville, CA 95667 Attn: Vickie Sanders / Brian Michaelson

Attili Vickie Junders / Bridit Michaelson

# Laboratory Reference #22-EDC-07.R

Sampled by: Tim

Sample Location	Date	<b>Time</b>	Test Parameter	Test Result (MPN)
Salmon Falls Grab Sample	9/5/22	1300	Total Coliform (ONPG) E. coli (MUG)	770.1 8.6
Greenwood Creek - Shore Grab Sample	9/5/22	1230	Total Coliform (ONPG) E. coli (MUG)	>2,419.2 60.5
Greenwood Creek - Transect Composite Sample (5)	9/5/22	1230	Total Coliform (ONPG) E. coli (MUG)	866.4 14.8
North Beach - Shore Grab Sample	9/5/22	1135	Total Coliform (ONPG) E. coli (MUG)	80.4 12.0
North Beach - Transect Composite Sample (5)	9/5/22	1135	Total Coliform (ONPG) E. coli (MUG)	12.2 12.2
Nugget - Shore Grab Sample	9/5/22	1030	Total Coliform (ONPG) E. coli (MUG)	686.7 16.0
Nugget - Transect Composite Sample (5)	9/5/22	1030	Total Coliform (ONPG) E. coli (MUG)	770.1 13.4
HLP - Shore Grab Sample	9/5/22	1200	Total Coliform (ONPG) E. coli (MUG)	1299.7 19.1
HLP - Transect Composite Sample (5)	9/5/22	1200	Total Coliform (ONPG) E. coli (MUG)	980.4 27.5

All samples were analyzed using the chromogenic substrate coliform test (ONPG-MUG) in accordance with Standard Methods SM 9223 B. Bacterial densities (MPN) were calculated using Colilert Quanti-tray 2000.

# Richard R. Blodgett, PhD

Public Health Epidemiologist Water Quality Microbiologist

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