

Upper Colorado River Wild & Scenic Alternative Management Plan

2020 Monitoring Plan Proposal

The Wild & Scenic Monitoring Committee (the Committee) has developed this proposal in conjunction with the Floatboating and Fishing Ad Hoc Committees. The Committee’s proposal covers boating and fishing user surveys, stream temperature monitoring and analysis, biennial macroinvertebrate monitoring and analysis, hydrology and flow-related monitoring.

RRC Research Program

For 2020, RRC Associates has proposed a \$56,900 work plan that builds on previous efforts, continues support for the SG and Committees, and refines methods for warehousing and accessing data. Based on anticipated data needs for both Ad Hoc Committees, this plan includes Angling and Floatboating field surveys in 2020. The Committee will work with RRC, the SG’s committees and agency representatives to develop RRC’s final scope of work for 2020. Details of the RRC program are shown in Table 1, below.

Table 1 Summary of Estimated 2020 RRC Work Program

	2019 <i>(Approved)</i>	2020 <i>(Proposed)</i>
Program Essentials	\$25,000	\$28,000
1) <i>Intercept Surveys / Observational Data Collection</i>		
2) <i>Data Processing, Consolidation and Management</i>	\$7,800	\$7,800
3) <i>Stakeholder and Staff Support by RRC</i>	\$15,600	\$12,600
Foundational Data Collection		
1) <i>Commercial Data Logs</i>	\$2,500	\$3,000
2) <i>Vehicle Counters*</i>	\$3,000	\$2,500
Selective Data Collection		
1) <i>Self-Reporting Kiosk Data Collection</i>	\$5,500	\$3,000
3) <i>User Group Survey(s)</i>	\$2,000	
TOTAL	\$67,400	\$56,900

*Assumes BLM Field Offices take primary responsibility for data collection.

Temperature Monitoring

The Committee is proposing to continue the W&S-sponsored time-series temperature monitoring program through 2020, which includes three temperature loggers deployed at established study sites. The Monitoring Committee is recommending that W&S join the Grand County Water Information Network (GCWIN) as a paid member, and that W&S contract with GCWIN to administer the three W&S temperature sites. GCWIN has been maintaining W&S temperature data in its database for several years.

In addition to the W&S temperature sites, time-series temperature data will be collected at the two previous BLM temperature sites (COR-abvPump, COR-Rad), as well as one new BLM site on the Blue River just upstream from the Colorado River confluence (Blue-AbvCOR). Time-series temperature data will continue to be collected at three USGS sites located within W&S segments, as shown in Table 2, below.

The Committee anticipates continued contracting with Lotic Hydrological to generate thermographs and temperature standards analyses for all 9 Wild and Scenic sites of interest shown in Table 2.

Table 2 Stream temperature stations for 2020

Site ID	Station Description	Collecting / Data Storage Agencies	Latitude	Longitude
UPCO_DOT	Upper Colorado River above Dotsero	W&S/GCWIN	39.648	-107.063
UPCO_RD	Upper Colorado River below Red Dirt Creek	W&S/GCWIN	39.8	-106.974
UPCO_SB	Upper Colorado River above State Bridge	W&S/GCWIN	39.855	-106.644
9058000	Colorado River near Kremmling, CO	USGS/USGS	40.037	-106.439
9060799	Colorado River at Catamount Bridge, CO	USGS/USGS	39.891	-106.832
9071750	Colorado River above Glenwood Springs, CO	USGS/USGS	39.559	-107.29
COR-AbvPump	Colorado River above Pumphouse	BLM/GCWIN	39.99	-106.508
COR-Rad	Colorado River at Radium	BLM/GCWIN	39.954	-106.55
Blue-AbvCOR	Blue River above Colorado River Confluence	BLM/GCWIN	tbd	tbd

Macroinvertebrate Monitoring

The SG has approved a long term plan to conduct macroinvertebrate monitoring on a biennial basis. Monitoring will be conducted at the five sites shown in Table 3, below, during odd years. The committee anticipates macroinvertebrate sampling to occur again in 2021.

Table 3 W&S macroinvertebrate monitoring sites.

Site Location	County	Latitude	Longitude
Pumphouse	Grand	39.98471	-106.514
Radium	Grand	39.94985	-106.558
State Bridge	Eagle	39.85783	-106.647
Above Catamount	Eagle	39.91239	-106.785
Below Red Dirt	Eagle	39.70996	-107.047

Channel Maintenance Flow Request for Proposal and Monitoring Plan Development

At the October 23, 2019 SG meeting the Fishing Ad Hoc Committee recommended and the SG approved that the W&S SG commit to developing a long-term CMF monitoring plan within one year of formal adoption of the Amended and Restated SG Plan (June 2021). At the March 18, 2020 Channel Maintenance Flows small working group meeting, the following recommendation was made: “\$20,000 in the FY2020/2021 W&S Budget, for technical assistance in developing a Channel Maintenance Flow monitoring plan that aligns with the needs of the W&S SG.” The Fishing AHC co-chairs approved this recommendation.

Streamflow Monitoring

The River District and the U.S. Geological Survey (USGS) cover the costs for real-time temperature data from the USGS stream gage 09058000 Colorado River near Kremmling. The Kremmling gage operates year-round. The Bureau of Land Management (BLM), U.S. Forest Service (USFS), and USGS cover operations and maintenance costs for the USGS stream gage 09060799 Colorado River at Catamount Bridge. The Catamount gage operates for eight months annually (March 15th – November 15th).

Other Monitoring Efforts

As per the SG Plan, the Committee is charged with gathering data collected by others. Starting during the Pre-Provisional Period, the Committee has maintained collaborative relationships with a host of entities who are actively monitoring parameters of interest to the SG. Some of these agencies (and the data they collect), include: USGS (Hydrology, Temperature, Water Quality (above Glenwood)), CPW (Biosurveys, Research Projects), BLM (User Data, Commercial logs, Traffic counters, Temperature), and USFS (User Data). Because these data serve an important role in the Committee’s ability to help inform SG decisions, the Committee intends to maintain and expand relationships with other organizations collecting data in the Wild & Scenic segments.

2020 Monitoring Plan – Cost Summary

The proposed monitoring plan for 2020 will cost \$59,752. The breakdown for each program is shown in Table 4, below.

Table 4 Monitoring Budget for 2020.

Category	Description	2020
Boating & Fishing User Surveys		
	User intercept surveys, etc. (RRC)	\$ 56,900
Stream Temperature		
	Data analysis at 9 sites (Lotic)	\$ 400
	Management of & field work at W&S's 3 temperature sites (GCWIN). Includes 3 new sensors and 1 mid-season download.	\$ 1,952
	USGS stream temperature gauge at Kremmling (River District, in-kind)	\$ -
	BLM stream temperature gauges (3 sites; in-kind)	\$ -
	GCWIN membership	\$ 500
Macroinvertebrate Monitoring		
	Macroinvertebrate monitoring (5 sites) not scheduled for 2020	\$ -
Hydrology & Flow-Related Monitoring		
	USGS stream gauges at Kremmling and Catamount (River District & BLM in-kind)	\$ -
	Channel Maintenance Flow monitoring plan development	\$ 20,000*
Total:		\$ 79,752

* Placeholder pending future discussion