

Amended and Restated Upper Colorado River Wild and Scenic Stakeholder Group Management Plan

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In consultation with:

Colorado Water Conservation Board

Colorado Parks and Wildlife

U.S. Bureau of Reclamation

For submittal to:

U.S. Bureau of Land Management

U.S. Forest Service

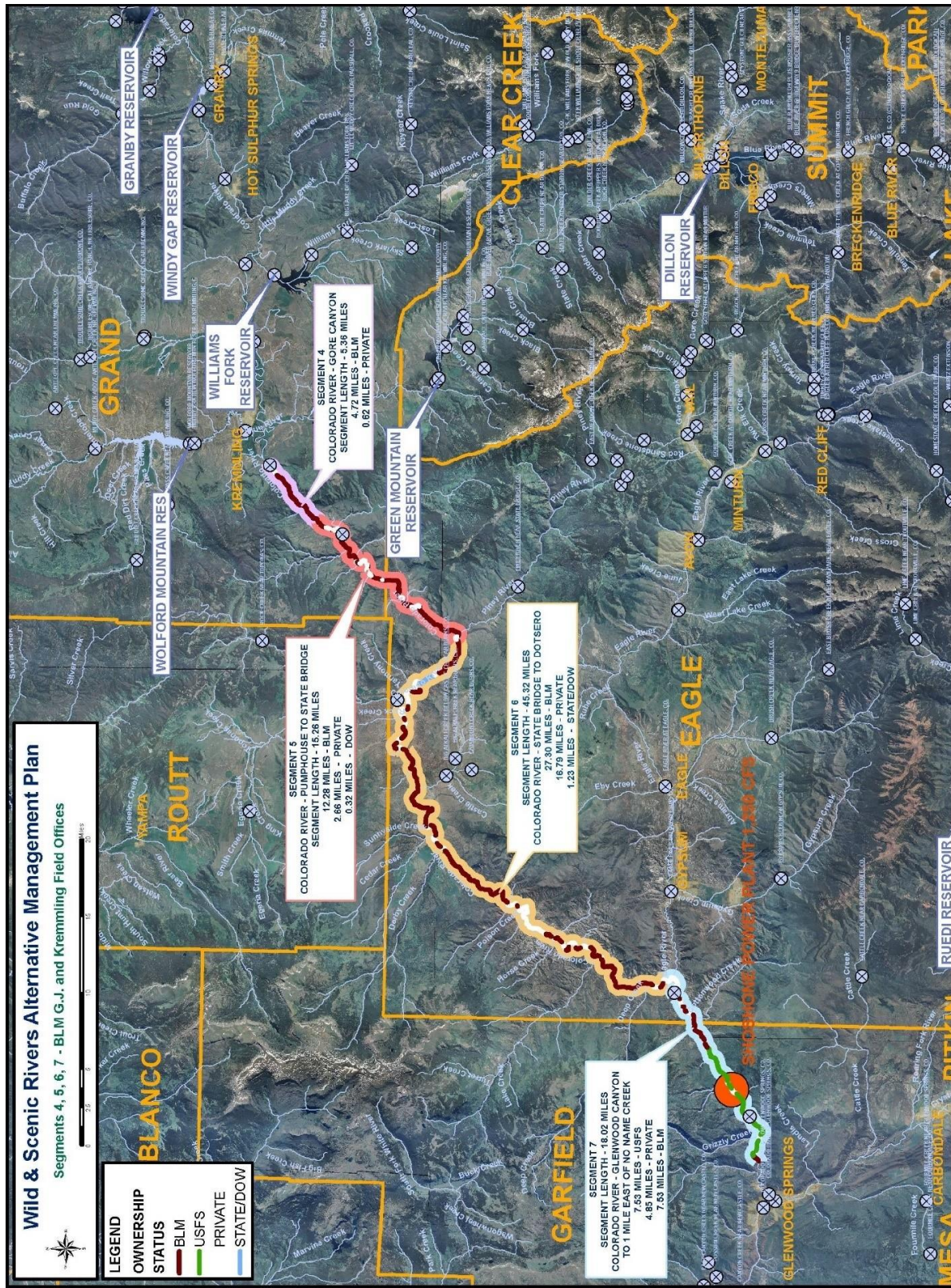
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¹ The Wilderness Society and Trout Unlimited participated in the drafting and submittal of the 2012 SG Plan but withdrew from participation as stakeholders in 2014 and 2018, respectively.

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EXECUTIVE SUMMARY

The Upper Colorado River Wild and Scenic Stakeholder Group (Stakeholder Group or SG) represents a diverse range of interests who have worked together since 2008 to develop an Upper Colorado River Wild and Scenic Stakeholder Group Management Plan (SG Plan or Plan) to protect the outstandingly remarkable values (ORVs) identified in the U.S. Bureau of Land Management (BLM) and ~~the~~ U.S. Forest Service (USFS) Eligibility Reports for Segments 4 through 7 of the Upper Colorado River. All references hereinafter to Segment 7 of the Colorado River are intended to include BLM Segment 7 and USFS Segments 1 and 2 of the Colorado River. The SG Plan ~~was approved by is being proposed to~~ BLM and ~~the~~ USFS as a ~~potential~~ Wild and Scenic Rivers management alternative ~~for the under the agencies' respective~~ resource management plans ~~s dated 2015 revision process~~. The Stakeholder Group's intention for this collaborative ~~SG~~ Plan is to balance permanent protection of the ORVs, certainty for the stakeholders, water project yield, and flexibility for water users. A significant benefit of the SG Plan is that through the cooperative and voluntary efforts of interested water users, local governments, and other entities, the ORVs can be protected (and perhaps enhanced) in ways that coordinate with federal agency management.

The SG Plan will use identified Long-Term Protection Measures and voluntary Cooperative Measures of the Stakeholder Group to protect the ORVs. Examples of the protective measures include the appropriation of Colorado Water Conservation Board (CWCB) Instream Flow (ISF) water rights, delivery of water to senior water demands downstream of Segments 4 through 7, and water deliveries to the 15-Mile Reach ~~(15 miles upstream of the Gunnison River Confluence with the Colorado River)~~ in the Grand Valley pursuant to the Upper Colorado River Endangered Fish Recovery Program.

The SG Plan aims to protect all ORVs while focusing on recreational fishing (in Segments 4 through 6) and recreational floatboating (in Segments 4 through 7). The SG Plan uses two distinct tools – “ORV Indicators” (characterizing the range and quality of the ORVs) which will be used to gage whether the ORVs are being protected; and “Resource Guides” (reflecting ranges for factors such as flow, temperature and water quality) that will be used as a source of information among others to inform SG discussions under the ~~SG~~ Plan. Resource Guides are not intended to be used as a test for ~~SG~~ Plan success nor for use by permitting agencies or entities as the criterion for evaluating a project's effects on the ORVs.² ~~However, nothing in the Plan shall preclude or limit the use of any data regardless of whether such data has been used in the negotiation of the Resource Guides.~~ The Resource Guides will not create binding requirements that water providers satisfy specific flow levels. The SG Plan's implementation procedures will provide a feedback loop to periodically confirm that the management measures under the SG Plan, in coordination with BLM's and USFS's other land management actions, are protective of all ORVs. The SG Plan contains

² For further information regarding Resource Guides and their use, see Section III.A.2 of this SG Plan.

mechanisms to address concerns related to impairment of or a ~~significant~~ Significant risk-Risk of ~~impairment~~ Impairment to the ORVs.

This SG Plan has been formally endorsed by the SG members identified on page one. The effective date of the SG Plan ~~will commence~~ d June 12, 2015, upon issuance of records of decision by BLM and ~~the~~ USFS approving the Plan without material change as the Wild and Scenic Rivers management alternative for Segments 4 through 7 of the Upper Colorado River. ~~Prior to the effective date of the Plan, the stakeholders will carry out the tasks described in Attachment B. The January 2012 version of the SG Plan dated January 2012 had a provisional period, as defined herein.~~

For the first ~~3 to 5~~ years of implementation of the SG Plan, provisional ORV Indicators and Resource Guides ~~will be were~~ used. During this period (~~P~~provisional ~~P~~period), the Stakeholder Group ~~will work to gather~~ ed additional data, learned and refined what is needed for the protection of the ORVs, and developed final ORV Indicators and Resource Guides. This Amended and Restated SG Plan adopts final ORV Indicators and Resource Guides and administrative changes. The SG Plan includes ~~a Monitoring Plan~~ monitoring as well as requirements for periodic reporting to BLM and ~~the~~ USFS. The SG Plan also includes provisions addressing governance, representation, decision-making, funding, and agency coordination. ~~It is anticipated that~~ BLM and ~~the~~ USFS ~~will be are~~ non-voting members of the Stakeholder Group. The Plan is contingent upon the agencies deferring but not precluding a suitability determination, and on resolution of the issues under Section III.C.2. ~~ed-~~ of this Plan (Poison Pill).

Proponents of new projects that seek federal authorization, funding or assistance could choose to participate in the SG Plan. In such event, a new project proponent would: inform the SG of the proposed project in a timely manner to facilitate SG consideration and comment on the project; formally endorse the SG Plan and commit to participate in the Cooperative Measures procedures and funding provisions of the SG Plan; and demonstrate to the appropriate permitting/authorizing agency(ies) that project operations will not unreasonably diminish the ORVs or that operations will be subject to mitigation to avoid unreasonably diminishing the ORVs. The SG intends that permitting or authorizing agency(ies) will conduct their own independent assessment of a project's impacts to the ORVs, if any. Membership as a stakeholder is not intended to serve as project mitigation nor as a means to demonstrate that a project does not unreasonably diminish the ORVs (except as may be agreed between the project proponent and the SG).

DEFINITIONS

MA. “Consensus”, “agreement”, “unanimous vote”, and “unanimous consent” of the SG or Governance Committee (GC) all refer to and require the affirmative vote of all Interest Groups. These terms are used interchangeably throughout this document.

GB. “Cooperative Measures” are voluntary actions that will be explored and may be implemented to assist in protection of the ORVs pursuant to the process described in Section IV.B. of the Plan.

AC. “Effective date” of the SG Plan ~~will commenced June 12, 2015 upon issuance of when~~ records of decision by BLM and ~~the USFS approving approved~~ this Plan without material change as the management alternative for Segments 4 through 7 of the Upper Colorado River. ~~Prior to the effective date of the Plan, the stakeholders will carry out the tasks described in Attachment B.~~

HD. “Long-Term Protection Measures” refer to specific measures described in Part IV.A. of the SG Plan that are expected to result in ongoing protection of the ORVs, absent a Material Change in Circumstances. These are supported by the SG and will be pursued pursuant to the Milestones in Attachment A, Tier 1 Long-Term Protection Measures, and Mechanisms for Addressing Changed Circumstances in Long-Term Protection Measures Attachment A.

JE. “Material Change in Circumstance” means a change in circumstance that undermines the value of one of the Long-Term Protection Measures under Section IV.A. of the SG Plan, including but not limited to the examples described in Part II of Attachment A.

~~I. “Milestones” contain the requirements for implementation of the Long-Term Protection Measures for protection of the ORVs. These are described in Part I of Attachment A to this Plan.~~

EF. “ORV Indicators” mean the conditions as defined in this SG Plan that characterize the primary streamflow-influenced ORVs. These indicators capture the conditions as they existed when they were identified in BLM’s March 2007 “Wild and Scenic River Eligibility Report for Kremmling and Glenwood Springs Field Offices, Colorado” and in USFS’s “2002 Land and Resource Management Plan.” as they exist today. ~~Provisional ORV Indicators are to be used by the Plan until such time as the final ORV Indicators are developed and approved pursuant to the criteria in the Plan.~~

NG. “Poison Pill” means the potential withdrawal of the SG Plan under the conditions set forth in Section III.C.2. ~~ed.~~ of the SG Plan.

LH. “Provisional period” refers to the first ~~3 to 5~~ years of SG Plan implementation, which commencing commenced on June 12, 2015, upon the effective date of the SG

Plan. During this period, the SG ~~will-utilized~~d provisional ORV Indicators and provisional Resource Guides, while working cooperatively to implement defined data collection and monitoring efforts and performed~~ed~~ additional technical review. Final ORV Indicators and Resource Guides ~~will bewere~~ adopted prior to conclusion of the provisional period.

~~FJ.~~ “Resource Guides” ~~are-include~~ flow, temperature and water quality ranges specified in Part III of this SG Plan to inform SG discussions under the SG Plan~~;~~ ~~“Provisional Resource Guides” are identified in Part III of this Plan,~~³ subject to the identified qualifications on their use ~~and the procedures for their finalization~~ described in the SG Plan.

~~KJ.~~ “Significant ~~risk~~Risk of ~~impairment~~Impairment” to” an ORV is a determination made by an affirmative vote of at least five Interest Groups that one or more of the ORVs is faced with an imminent risk of material diminishment due to circumstances under the control of the SG Plan. This may be cause for invoking the dispute resolution and potential SG Plan termination procedures in Section VI.J.~~43~~.

~~PK.~~ “Simulated Future Flows” – means stream flows that may occur in the future, which are modeled by imposing projected water demands of Front Range and West Slope Colorado River Basin water users, plus anticipated water-system operations, on historical stream flow records.³ Simulated Future Flows were evaluated by the SG in the context of negotiation of ~~the Provisional~~ Resource Guides but they are not specifically identified or otherwise incorporated into the SG Plan.

~~BL.~~ “Stakeholder” refers to an individual person or entity having membership status under the SG Plan pursuant to section VIII.B~~;~~, whether or not such person or entity is a member of the ~~Governance Committee~~GC.

~~CM.~~ “Stakeholder Group” is comprised of all stakeholders. The Stakeholder Group conducts its business and makes decisions in accordance with Section VI of the SG Plan, below, through the SG Governance Committee. ~~The terms “Stakeholder Group”, “SG”, “Governance Committee”, and “GC” are used interchangeably throughout this document.~~

~~DN.~~ “Streamflow-influenced ORVs” refer to Outstandingly Remarkable Values which are influenced by streamflow and water quality, as defined in Part II of the SG Plan.

~~OO.~~ A “water right” is a right to utilize a certain quantity of water based on the priority of a party’s appropriation of water for beneficial use. An “absolute water right” is a water right that has been put to actual use. A “conditional water right” is a right to perfect a

³ While not a part of the SG Plan, additional background information can be found in “20170123 Development Timeline of Upper Colorado Wild & Scenic Hydrology and Resource Guides” on the Wild & Scenic website: www.upcowildandscenic.com.

water right with a certain priority upon the completion with reasonable diligence of the appropriation upon which such water right is based.

I. INTRODUCTION

This SG Plan has been developed to monitor and protect the ORVs identified in ~~the~~ BLM and USFS Eligibility Reports for Segments 4 through 7 of the Upper Colorado River.⁴ It is intended to serve as a Wild and Scenic Rivers management alternative for the resource management plan revision process. A significant benefit of the SG Plan is that through the cooperative and voluntary efforts of interested water users, local governments, and other entities, the ORVs can be protected (and perhaps enhanced) in ways that coordinate with federal agency management.

Stakeholders have participated in the development of the SG Plan based on the premise that Cooperative Measures under the SG Plan are voluntary and cooperative. This SG Plan will be implemented in accordance with the following Guiding Principles:

Purpose of the SG Plan: The ~~Stakeholder Group's~~SG's intention for this collaborative SG Plan is to balance permanent protection of the ORVs, certainty for the stakeholders, water project yield, and flexibility for water users.

Cooperative Measures: The SG acknowledges that under the SG Plan, cooperative actions that would impair water providers' ability to meet their water supply commitments will not be undertaken.

Provisional Resource Guides: ~~During the provisional period, the SG will work cooperatively to gather additional data, learn and refine what is needed for the protection of the ORVs, and develop a long-term Monitoring Plan to guide the protection of the ORVs. During the provisional period, the~~ The Resource Guides will be used as a source of information among others to inform SG discussions under the SG Plan. The Resource Guides are not intended to be used as a test for SG Plan success nor for use by permitting agencies or entities as the criterion for evaluating a project's effects on the ORVs. Accordingly, Resource Guides shall not be used by stakeholders as part of a case to elevate the Plan due to (1) an unresolved concern material to implementation of the Plan, (2) a Material Change in Circumstances, or (3) a Significant Risk of Impairment. Nor shall Resource Guides be used by stakeholders as evidence that such unresolved concerns, Material Changes, or a Significant Risk of Impairment do not exist. However, nothing in the Plan shall preclude or limit the use for any purpose of any data, criteria, or standards regardless of whether such data, criteria, or standards has

⁴ The USFS ~~is involved with BLM in the assessment of Wild and Scenic management along the Colorado River, and~~ is the federal managing agency with respect to USFS Segments 1 and 2 (within BLM Segment 7) covering portions of the Upper Colorado River through Glenwood Canyon.

have been used in the negotiation of the Resource Guides.⁵ ~~However, nothing in the Plan shall preclude or limit the use of any data regardless of whether such data has been used in the negotiation of the Resource Guides. The Resource Guides do not create any binding requirements that water providers satisfy specific flow levels. The SG will use the data and knowledge gained during the Pprovisional Pperiod to develop final ORV Indicators, and Resource Guides that recognize long-term hydrologic variability, which may or may not resemble the provisional Resource Guides.~~

Resource Priorities: ~~Under both the provisional period and subsequent to adoption of final Resource Guides and ORV Indicators, the~~The SG acknowledges that the Cooperative Measures can have a limited ability to significantly influence the higher flow levels contemplated by the Resource Guides, particularly during low-flow periods. The SG is committed to work together to prioritize the use of Cooperative Measures among the various ORVs in a manner consistent with the intent of the SG Plan.

Project Permits and Poison Pill: The SG acknowledges that the Municipal Subdistrict, Northern Colorado Water Conservancy District's (Municipal Subdistrict) and Denver Water's continued participation in the SG Plan is contingent upon completion of all National Environmental Policy Act (NEPA) compliance and related environmental permitting for the Municipal Subdistrict's Windy Gap Firing Project and Denver Water's Moffat Collection System Project (Projects), and upon Denver Water's and the Subdistrict's election to proceed with the permitted Projects. The SG also acknowledges that the SG Plan is contingent upon the non-exercise of Paragraph III.C.2.ed. of the SG Plan (Poison Pill). Prior to expiration of the period for exercise of the Poison Pill, ~~members of the SG would~~each Interest Group will continue to contribute annual funding to the SG Plan, but shall not be required to contribute endowment funding as anticipated pursuant to Section VIII.A. of the SG Plan.

Suitability Determination and Agency Coordination: The SG Plan is contingent upon the neutral deferral of a suitability determination under the Wild and Scenic Rivers Act by BLM/USFS. The SG Plan ~~will not become effective or~~ will terminate if either agency enters formal findings that one or more of Segments 4, 5, 6 ~~or and~~ 7 of the Upper Colorado River are suitable or not suitable. The SG supports the position that BLM/USFS defer a determination of suitability until and unless there is a determination by the SG that the SG Plan should be terminated by BLM/USFS, and/or that it should no longer be used as a Wild and Scenic Rivers management alternative. ~~The SG agrees to revisit this position on deferral at the end of the provisional period.~~ If the SG Plan is determined to have failed, ~~the~~ BLM/USFS will be charged with considering a suitability determination. The SG encourages adoption by ~~the~~ BLM/USFS of a

⁵ "Data" refers to information that is collected using methods like surveys, collection, monitoring, and observation. "Criteria" as referred to herein refers to research-based scientific criteria or evidence independent of any use of such Criteria as Resource Guides. "Standards" refers to governmental, legislative or regulatory standards, such as water quality or water temperature standards, independent of any use of such Standards as Resource Guides.

streamlined NEPA process that would, under such circumstances, allow the opportunity to provide comment and feedback to the agencies on the merits of suitability including comments expressing opposition to or support of a finding of suitability. The SG ~~believes thinks~~ that interagency agreements/MOUs are important to the success of the SG Plan if suitability is deferred. ~~The SG will work with BLM, USFS, and other federal agencies to encourage the adoption of appropriate MOUs that describe how the federal agencies' actions will relate to the SG Plan. The SG entered into an MOU with BLM and USFS and intends to work with other federal agencies as needed. The SG is not a formal advisory group to the BLM and USFS, as defined by the Federal Advisory Committee Act. However, BLM and USFS have made a decision to rely upon the SG Plan to assist with managing Segments 4 through 7. In addition, BLM and USFS are land managers whose information, processes, and perspective should be considered as a part of stakeholder group decisions. Therefore, this plan will allow BLM and USFS to coordinate with the SG as non-voting members.~~

Elevation/Deliberation/Referral Process: ~~BLM and USFS will be included when the formal deliberation process triggers discussion among the SG (see Tier 3 process, Paragraph IV.C. of the Plan.) The SG recommends including the BLM and USFS as non-voting members of the SG. As property managers, BLM and USFS are actually stakeholders in resource management issues and should be included when the elevation process triggers discussion among the SG (see Tier 3 process, Paragraph IV.C. of the Plan).~~ Tier 3 includes the assessment of data gathered, evaluation of the status of the resources, and exploration of voluntary cooperative efforts as described in the SG Plan; ~~the~~ BLM and USFS would participate in the SG discussions to provide resources and potential guidance on the issues and the data. As recognized in these Principles, the SG Plan will be successful as long as the SG is working together to protect the ORVs. After attempts at resolution have been explored by the SG, the SG will consider mediation or referral to a policy-level group within the SG in efforts to address unresolved material concerns. If, after all cooperative efforts have been explored and concerns remain that the ORVs are being impaired, the SG may by a 5/6 vote of the SG Interest Groups determine that the local process is no longer working and that the SG Plan should be terminated.

II. DESCRIPTION OF ORVs

A. Identification of ORVs.

The BLM and USFS Eligibility Reports identify the following ORVs that are the subject of this SG Plan (see map on page 3):

Segment	Reach	ORVs	Preliminary Classification
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Segment 4	Colorado River from top of Gore Canyon to the Pumphouse recreational site (5.36 miles)	<p>Scenic (canyon, cliffs)</p> <p>Recreational (fishing - DOW Wild Trout waters; floatboating - Class V whitewater boating; scenic driving)</p> <p>Geological</p> <p>Wildlife (bald eagle nesting and winter habitat; river otter habitat)</p> <p>Historic (Moffat Rd.; early hydroelectric projects; WWII German POW camp)</p>	Recreational
Segment 5	Colorado River from the Pumphouse Recreational Site down to State Bridge (15.26 miles)	<p>Scenic (Little Gore Canyon & Red Gorge)</p> <p>Recreational (fishing - same as Segment 4; floatboating - Class II/III run; scenic driving)</p> <p>Geological</p> <p>Wildlife (same as above)</p> <p>Historic (early hydroelectric projects; early copper mining; Brass Balls Mine/Cable Rapids Cabin; State Bridge; historic Moffat Road)</p> <p>Paleontological (fossils).</p>	Recreational
Segment 6	Colorado River from State Bridge to Dotsero (18.02 miles)	<p>Scenic</p> <p>Recreational (fishing; floatboating; scenic driving)</p> <p>Wildlife (river otter habitat)</p> <p>Botanical (riparian plant communities)</p>	Recreational

Segment 7	Colorado River from Dotsero to ½ mile east of No Name Creek/ Glenwood Canyon (15.78 miles)	Scenic Recreational (floatboating) Geological	Recreational
USFS Segment 1	Colorado River from National Forest boundary on the east end of Glenwood Canyon to the upstream end of the Shoshone Dam (4 miles)	(same as Segment 7 above)	Recreational
USFS Segment 2	Colorado River from the Shoshone power plant to the National Forest boundary on the west end of Glenwood Canyon (5 miles)	(same as Segment 7 above)	Recreational

B. Nature of and Factors Influencing ORVs.

This SG Plan aims to monitor and protect all ORVs while focusing on the primary streamflow-influenced ORVs identified in subsection (1) below. The SG Plan's implementation procedures provide a feedback loop to periodically assess and confirm that the management measures under the SG Plan, in coordination with ~~the~~ BLM and USFS other land management actions, are protective of all ORVs.

1. The primary streamflow-influenced ORVs are:
 - Recreational Fishing
 - Recreational Floatboating
2. Other streamflow-influenced ORVs are:
 - Wildlife
 - Botanical
 - Scenic
3. Additional ORVs are:
 - Geological
 - Historical
 - Paleontological

C. Context of ORVs - Existing Conditions.

1. Existing ~~Flow~~ Conditions

Figure 1 (see Attachment [CB](#)) shows the range of historical streamflows at the Colorado River near [the](#) Kremmling stream gage (USGS #9058000) for the period 1983 – 2006. This period of record generally represents the level of flows in existence at the time that BLM and USFS identified the ORVs. The streamflows shown in Figure 1 will be used to inform discussions of the SG under Sections III and IV.

Figure 2 (see Attachment [CB](#)) shows the range of historical streamflows at the Colorado River near Dotsero stream gage (USGS #9070500) for the period 1983 – 2006. This period of record generally represents the level of flows in existence at the time that BLM and USFS identified the ORVs. The streamflows shown in Figure 2 will be used to inform discussions of the SG under Sections III and IV.

Figure 3 (see Attachment [CB](#)) compares the median annual flow at Kremmling for the periods 1904 – 1918 (pre-Moffat and C-BT systems) and 1962 – 1984 (pre-1984 Operating Rules for Green Mountain Reservoir and pre-Windy Gap) and 1985 – 2006 (post-Windy Gap).

2. Existing Temperature Conditions

At the 2010 Rulemaking on 5 CCR 1002-93, the State of Colorado determined that existing conditions for stream temperature in the reach of the Colorado River that ~~comprises~~ [includes](#) Segments 4 through 7 [did not](#) meet ~~current~~ Daily Maximum (DM) and Maximum Weekly Average Temperature (MWAT) stream temperature standards [in some locations](#). [In 2010, the Water Quality Control Commission placed the Colorado River mainstem \(Water Quality Control Division segment COUCUC03 D and E\) on the 303\(d\) List for temperature exceedances \(§ 93.13.B.13.d Water Quality Control Commission Statement of Basis, Specific Statutory Authority and Purpose; February 2010 Rulemaking, Effective Date of April 30, 2010\). See Provisional Period Monitoring Plan Exhibit 1 Existing Conditions \(Attachment \[DB\]\(#\)\).](#)

3. Existing Water Quality Conditions

[Segments 4 through 7 are encompassed within the Water Quality Control Division segment COUCUC03 segment.](#)

In 2008, the State of Colorado determined that existing water quality conditions for the reach of the Colorado River that

~~comprises-encompasses~~ Segments 4 through 7 ~~meet-met~~ current water quality standards for the protection of recreation and aquatic life. See ~~Provisional Period Monitoring Plan~~ Existing Water Quality Conditions Exhibit 1 (Attachment ~~DB~~).⁶

III. ORV INDICATORS AND RESOURCE GUIDES

A. Definition and Use of ORV Indicators and Resource Guides.

This SG Plan aims at monitoring and protecting the ORVs using two distinct tools – “ORV Indicators” and “Resource Guides” – as follows:

1. ORV Indicators

~~In the first 3-to-5 years of implementation of this Plan, the~~ The Stakeholder Group ~~SG will gather~~ ed necessary data and developed specific indicators which will be used to gage whether the ORVs are being protected. These indicators are referred to in the SG Plan as “ORV Indicators.” Failure to meet the criteria related to the ~~provisional or final~~ ORV Indicators would be cause for elevation and potential mediation and SG Plan termination ~~of this Plan~~ pursuant to Sections ~~IV.C.D. and VI.J.~~ respectively. Nothing in this paragraph prohibits stakeholders from raising concerns relevant to the ORV Indicators through the Tier 3 deliberation process.

2. Resource Guides

Streamflow-influenced ORVs may be affected by factors such as flows, temperature and water quality. This SG Plan establishes ranges for these factors, referred to as “Resource Guides,” which are described in Part III of the SG Plan. Not all stakeholders endorse these Resource Guides or believe that the ranges they represent are necessary to support the ORVs. Nevertheless, the SG has negotiated the ~~provisional~~ Resource Guides as one source of information among others for informing SG discussions under the SG Plan. The Resource Guides are not intended to be used as a test for SG Plan success, nor for use by permitting agencies or entities as the criterion for evaluating a project’s effects on the

⁶ 40 C.F.R. 131.20 provides that each State must specify appropriate water uses to be achieved and protected. The classification of the waters must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.

ORVs. Accordingly, Resource Guides shall not be used by stakeholders as part of a case to elevate the SG Plan due to (1) an unresolved concern material to implementation of the SG Plan, (2) a ~~Material Change~~ in Circumstances, or (3) a Significant Risk of Impairment. Nor shall Resource Guides be used by stakeholders as evidence that such unresolved concerns, ~~Material Changes~~, or a Significant Risk of Impairment do not exist. However, nothing in the SG Plan shall preclude or limit the use for any purpose of any data, criteria, or standards regardless of whether such data, criteria, or standards ~~has have~~ been used in the negotiation of the Resource Guides.⁷

B. Establishment of Provisional ORV Indicators.

~~Until such time as final ORV Indicators are developed, the Plan will use the following provisional ORV Indicators:~~

1. *RECREATIONAL FISHING* (Segments ~~4 through 5~~ and 6):⁸

a. Quality Trout and Biomass: Both Quality Trout and Biomass should be equal to or greater than the threshold values identified in the following table. If a single biosurvey indicates that either value falls below said threshold at a given location, these ORV Indicators will be deemed to not have been met at that location.⁹

Quality Trout and Biomass ORV Indicators

<u>Thresholds</u>	<u>Quality Trout (#>14" per acre)</u>	<u>Biomass (pounds/acre)</u>
<u>Radium (Segment 5)</u>	<u>43</u>	<u>125</u>
<u>State Bridge (Segment 6)</u>	<u>-</u>	<u>-</u>
<u>Catamount (Segment 6)</u>	<u>-</u>	<u>-</u>

⁷ "Data" refers to information that is collected using methods like surveys, collection, monitoring, and observation. "Criteria" as referred to herein refers to research-based scientific criteria or evidence independent of any use of such Criteria as Resource Guides. "Standards" refers to governmental, legislative or regulatory standards, such as water quality or water temperature standards, independent of any use of such Standards as Resource Guides.

⁸ While not a part of the SG Plan, additional background information on the development of these ORV Indicators, including the process for populating this table, can be found in two memos: "20190327 Final Fishing ORV Indicator recommendations Memo to SG" and "20190621 Final Fishing ORV Indicator Recommendations Memo to SG" on the W&S website: www.upcowildandscenic.com.

⁹ Recreational Fishing is not identified as an ORV in Segment 7. Although Recreational Fishing is an identified ORV in Segment 4, because CPW is not able to conduct biosurveys in Gore Canyon, ORV Indicators for Quality Trout and Biomass have not been established for W&S Segment 4.

The blank values in the Quality Trout and Biomass ORV Indicators table for State Bridge and Catamount will remain blank (-) until six qualifying biosurveys are completed. Six 'qualifying' biosurveys are necessary to establish final thresholds. 'Qualifying biosurveys' are determined by CPW prior to submitting annual results to the SG; considering recapture rate and the possible impacts of stochastic events that are beyond the control of the SG Plan. Once six qualifying surveys are complete and final threshold numbers are established, these will be inserted into the table through reporting in the Annual Monitoring Report, subsequent to approval by the SG. Failure to complete final threshold numbers after six qualifying biosurveys are conducted could be subject to SG deliberation (Section IV.C). The most current version of the Amended & Restated SG Plan can be found on the W&S website: www.upcowildandscenic.com.

Failure Criteria: Falling short of the Quality Trout and/or Biomass threshold(s) in any survey reach based on a single biosurvey.

Annual Data Evaluation: A committee will be tasked with coordinating with CPW on an annual basis to review the previous year's biosurvey data and other factors (both within and outside the SG's control) related to Quality Trout and Biomass ORV Indicators.

Accounting for Drought: Annual CPW biosurveys performed at Radium, State Bridge, and Catamount will constitute the baseline conditions on which the final Recreational Fishing ORV Indicator thresholds are based. However, the baseline period of record does not include an extended drought, particularly the "driest" W&S year type, which may affect both Quality Trout and Biomass results.

Because biosurveys are conducted in the spring, before the lower summer and fall flows occur, a one-year lag would be anticipated between the first year of a drought and the fish population data that is represented in the biosurveys.

It is acknowledged that drought constitutes a relevant factor that is outside of the SG's control. [The committee conducting the annual data evaluation will make a recommendation as to whether drought conditions existed in their summary of the previous year\(s\) intercept survey data.](#) In the event that Quality Trout and Biomass thresholds for Radium, State Bridge and/or Catamount are not met in a given year, the SG will make the final determination as to whether drought conditions were a relevant contributing factor.

b. Catch-Per-Unit-Effort: The Fishing ORV will be deemed to be protected at a specific location if angler surveys indicate that CPUE values are equal to or greater than the threshold values identified in the following table. If surveys indicate that the value falls below said threshold at a given location in any three out of five years, this ORV Indicator will be deemed to not have been met at that location. ¹⁰

Catch per Unit Effort ORV Indicator

<u>Thresholds</u>	<u>Catch per Unit Effort (CPUE)</u>
<u>Radium (Segment 5)</u>	-
<u>State Bridge (Segment 5)¹¹</u>	-
<u>Catamount (Segment 6)</u>	-
<u>Confidence Interval</u>	95%

The blank values in the Catch per Unit Effort ORV Indicator table will remain blank (-) until a sufficient total number of valid intercept surveys (e.g., “n” value) have been conducted. N values are as follows: State Bridge (525), Radium (531), and Catamount (494). Once a sufficient number of valid intercept surveys are complete and final threshold numbers are established, these will be inserted into the table through reporting in the Annual Monitoring Report, subsequent to approval by the SG. Failure to fund intercept surveys and complete final threshold numbers after a requisite number of valid intercept surveys are conducted could be subject to SG deliberation (Section IV.C). The most current version of the Amended & Restated SG Plan can be found on the W&S website: www.upcowildandscenic.com.

Failure Criteria: Falling short of the CPUE threshold in any survey reach based on results of angler intercept surveys in any three of the past five years.

Annual Data Evaluation: A committee will be tasked with reviewing the previous year’s angler intercept results and other factors (both within and outside the SG’s control) related to Catch per Unit Effort.

Accounting for Drought: Intercept surveys used to establish baseline conditions and Indicator thresholds do not include an extended drought period, particularly the “driest” W&S year type. It is acknowledged that drought constitutes a relevant factor that is

¹⁰ Catch-Per-Unit-Effort is calculated as the number of fish caught per hour, based on individual angler responses to W&S user surveys.

¹¹ CPUE data collected at State Bridge is representative of anglers who have just floated Segment 5.

outside of the SG's control. The committee conducting the annual data evaluation will make a recommendation as to whether drought conditions existed in their summary of the previous year(s) intercept survey data. In the event that CPUE thresholds for Radium, State Bridge and/or Catamount are not met in a given year, the SG will make the final determination as to whether drought conditions were a relevant contributing factor.

~~Recreational Fishing ORV Indicators for the Upper Colorado River from Gore Canyon to Red Dirt Creek.¹²~~

Type	Name	Current level (if available)
Fishery ¹³	Quality Trout	24 fish over 14" per acre
Fishery ³	Biomass	90 pounds/acre
Fishery ³	Species Diversity (SD)	14 species of fish
Recreational Fishing ¹⁴	Total Fishing Effort (TFE)	TBD
Recreational Fishing ⁴	Catch/Unit Effort (CPUE)	TBD

~~The Stakeholder Group currently has insufficient information to describe the range and variability of the provisional recreational fishing ORV Indicators over time. The SG will monitor available information during the provisional period to evaluate, and revise if necessary, the provisional ORV Indicators above as described in the Monitoring Plan, Part V. During the provisional period, the SG will evaluate any~~

¹²~~Existing Colorado Parks and Wildlife (CPW) fishery data suggests that the quality of the recreational coldwater fishery in the reach of the Colorado River downstream of its confluence with Red Dirt Creek may not be as high as in the reach above. The provisional ORV Indicators will apply to that portion of Segment 6 upstream of the Colorado River's confluence with Red Dirt Creek. During the provisional period, the SG will gather data, as appropriate, and evaluate whether there is a need to develop specific ORV Indicators for the lower portion of Segment 6.~~

¹³~~Note: These Provisional ORV Indicators were developed using levels of Quality Trout, Biomass, and SD collected by CPW personnel in 2008. Data collected by CPW personnel in 2010 yielded 46 trout per acre 14" or larger, with a total biomass of 121 pounds per acre. The CPW plans to collect additional fishery data within BLM Segment 5 every other year.~~

¹⁴~~Note: A creel census will be required to quantify TFE and CPUE. The current estimated annual cost of the creel census will be approximately \$25,000. CPW has no current plans to conduct a creel census within BLM Segments 4, 5, or 6 of the Colorado River; therefore, this cost, and supervision of the creel census, will likely be the responsibility of the Stakeholder Group.~~

~~instance where the individual ORV Indicator values for recreational fishing shown in Table III.B.1 are not met in a given year. In the event that subsequent data for such instances does not exhibit an improving trend toward meeting the provisional Indicator values in each subsequent year, the SG may invoke the SG elevation procedures in Section VI.J.4 of the Plan. It is recognized that the ORV Indicators for total fishing effort and catch/unit effort are not yet determined and that this is needed for a better understanding of the status of the recreational fishing ORV.~~

2. RECREATIONAL FLOATBOATING (Segments 4 through 7):

~~Narrative standard: Protect the existing range and quality of the outstanding floatboating opportunities.¹⁵ This narrative standard does not imply mirroring any specific hydrology.~~

~~a. “Not Likely To Return” ORV Indicator: Protect the existing range and quality of the outstanding floatboating opportunities (without implying the mirroring of any specific hydrology), as measured by the *not likely to return* percentage values and frequency described below. Divergences occur when percentage values are greater than the values shown in the table below. Failure to meet the ORV Indicator occurs when divergences exist in any three of the last five consecutive years. Divergences in one ~~of~~ for more segments during a given year will be treated as a single year toward the three-out-of-five-year frequency criteria.~~

Percentage Values* for Not Likely to Return for each year type

	<u>Driest</u>	<u>Dry Typical</u>	<u>Wet Typical</u>	<u>Wettest</u>
<u>Segment 5</u>	-	6.1%	-	3.1%
<u>Segment 6</u>	-	2.4%	-	-
<u>Segment 7</u>	4.0%	2.7%	-	3.2%

~~*Percentage values are based on the upper 95% confidence interval for floatboating survey responses that indicate “will not” or “unlikely” to return.~~

~~**There have not been “wet typical” conditions in the years in which surveys have been collected or in “driest” years for Segments 5 and 6.~~

~~***All percentages will be augmented and updated as more data is collected.~~

¹⁵~~The intent of the SG is to develop and incorporate objective criteria into the final recreational floatboating ORV Indicator.~~

****No data was collected on Segment 6 in 2013. In 2014/2015 (wettest), no single respondent intercepted on Segment 6 indicated “unlikely to return.”

The requisite survey data to fill in missing percentage values for each year type will require a minimum survey effort per segment as described in the Intercept Survey Protocol, which may be amended and adopted by the SG independent of the SG Plan, or other survey methods as approved by the SG.¹⁶ The percentage values for a segment will “lock” as the final percentage values upon receipt of the requisite number of survey responses for each year-type in that segment, and final percentage values must be greater than zero. In the event of an anomaly year, the SG may determine by consensus that percentage values that year will not be included in the data used toward locking in the final percentages. As the requisite data are collected pursuant to the protocol, new percentage values will replace the missing percentage values in the percentage values table above upon approval by the SG and will be added to the table and included in the Annual Monitoring Report. During the Provisional Period, there was an absence of Driest and Wet Typical conditions on some or all segments and there were no responses indicating “not likely to return” on Segment 6 during Wettest conditions. Failure to fund intercept surveys and complete final percentage values after a requisite number of valid intercept surveys are conducted could be subject to SG deliberation (Section IV.C). The most current version of the Amended & Restated SG Plan can be found on the W&S website: www.upcowildandscenic.com.

Rationale: Visitor surveys to date revealed that a visitor’s willingness to return is influenced by several factors, including weather, water levels, crowding, scenery, or facilities – not all of which can be controlled or influenced by the SG Plan. The ORV Indicator is measured by criteria based on survey responses indicating that floatboaters are “not likely to return.” To date, this has been based on visitor intercept survey responses to the question, “Based on your experience today, how likely would you be to return to this section of the river?” Responses of “0% – will not return” and “25% – unlikely” are combined to determine the percent of people that are *not likely to return*.

The ORV Indicator recognizes that visitors have a huge range of expectations and experiences. Survey response data can provide a scientifically valid evaluation of human responses to recreational experiences, provided that surveys, intercept techniques, and statistical analyses ~~meetare structured in a scientifically acceptable manner. standards.~~ Survey response data on *not likely to return* incorporates all of the elements of the floatboating experience that

¹⁶ This protocol may be changed by SG consensus separate from, and without requiring amendment to, the Plan. The SG has formally voted to adopt and rely upon the protocol as part of the SG operations but may determine to adopt other means with similar level of effectiveness to accomplish the purposes of this protocol. The protocol can be found on the W&S website: www.upcowildandscenic.com.

may be subject to influence by the SG and/or federal agencies, including scenery, facilities, crowding, and water levels.

Percentage Values: The upper 95% confidence level may be interpreted to mean that the likelihood of surpassing the percentage values, when the true number actually falls outside the percentage values, is 5%, or only expected to occur in 5 out of 100 surveys.

Segment 4: Percentage values are not currently recommended for Segment 4, in view of the absence of current data for this segment. This would not foreclose a decision by the SG to develop percentage values for this segment in the future.

Monitoring: Visitor surveys shall be conducted on an annual basis, within allowable budgetary constraints. The annual collection will be guided by the Intercept Survey Protocol, which may be amended and adopted by the SG independent of the SG Plan, however other survey methods could be used as approved by the SG.

It is possible that other methods may be more cost-effective and expedient in the future. The SG will consider working with other groups, and the use of different techniques to collect data if needed in response to budget limitations. Depending on available funds, the SG could consider data collection at different locations, with different timing, and with different technologies, that would provide comparable statistical reliability. Monitoring would be sensitive to “over surveying.”

The SG intends to continue to support annual data collection on four key factors that may affect likelihood to return (facilities, crowding, water levels, and scenery). In addition, it is recommended that the SG will continue to collect data that will allow for differentiation between responses from commercial and private visitors, and between responses from boaters and those who are float-fishing. Even though this data will not be broken out for purposes of the ORV Indicator, it will allow the SG to better understand why likelihood of return responses are changing and to formulate recommendations to address emerging issues that are affecting likelihood to return.

Collection of visitor data on the *not likely to return* indicator can be structured in a manner that avoids potential survey methodology problems with “visitor displacement.” Visitor displacement occurs when some visitors do not return because they are dissatisfied with the quality and range of the recreation experience, and then those

users are replaced by newcomers who have different expectations and are satisfied with the lower quality experience. To avoid “displacement” bias, the SG, at its discretion and subject to budgetary limitations, may recommends gathering displacement information to further explain intercept survey findings. Such displacement monitoring should follow procedures similar to those set forth in a Displacement Survey Protocol, which may be amended and adopted by the SG independent of the SG Plan.⁻¹⁷

Floatboating Evaluation Tasks: The SG intendswill task It is recommended that a committee be tasked with conducting a periodic evaluation of the ORV Indicator percentage values and *not likely to return* survey data, paired with consideration of data on key factors (discussed below), pursuant to a formal scheduled process that includes:

- ~~— Subject to budgetary constraints, the committee will annually consider available user data for both commercial and private use. The committee will gain an understanding of floatboating use on each segment and changes in use between segments. This supplemental data may help the SG understand survey responses and is to be looked at in connection with how the federal agencies are managing each segment. This user day data may help the SG better understand whether there are changes in use of the segments and what may be outside the SG’s control.~~
- The committee will calendar an annual meeting for each January to review available survey results and data inputs on other key factors collected during the previous monitoring season.
- The committee will formulate recommendations for consideration by the SG at its annual meeting in March. These recommendations may address follow-up actions (e.g., no action needed; re-prioritization of existing survey efforts recommended; additional data collection warranted on new factors; input needed for Cooperative Measures; additional coordination desired with BLM/USFS; other management recommendations to SG).
- The committee will provide a summary memo on whether there was a percentage value divergence in the previous monitoring season, in time for due consideration at the SG’s annual

¹⁷ This protocol may be changed by SG consensus separate from, and without requiring amendment to, the Plan. The SG has formally voted to adopt and rely upon the protocol as part of the SG operations but may determine to adopt other means with similar level of effectiveness to accomplish the purposes of this protocol. The protocol can be found on the W&S website: www.upcowildandscenic.com.

meeting.¹⁸ If a percentage value divergence occurred in the previous monitoring season, the committee will make a recommendation to the GC as to whether the divergence was due to circumstances that were not under control of, or influenced by, the SG Plan. The GC can determine by a 5/6 Interest Group vote ~~at its June meeting~~ that a divergence was due to circumstances that were not under control of, or influenced by, the SG Plan. A determination by the GC that any divergence in the previous monitoring season was due to such circumstances would serve to inform, but would not necessarily be dispositive of, any future determination by the GC that a previous monitoring season (in which a divergence occurred) should not count toward the three-out-of-five consecutive years ORV Indicator standard.

- Subject to budgetary constraints, the committee will annually consider available user-day data for both commercial and private use. The committee will gain an understanding of floatboating use on each segment and changes in use between segments. This supplemental data may help the SG understand survey responses and is to be looked at in connection with how the federal agencies are managing each segment. This user-day data may help the SG better understand whether there are changes in use of the segments and what may be outside the SG's control.

Frequency criteria are an integral part of this ORV Indicator. Accordingly, any first- or second-year divergence in any three-out-of-five consecutive years would not be information used to require new standards, restrictions, or action by the SG. First and second year divergences may be used by the SG to inform Cooperative Measures and monitoring plans.

The SG has developed these criteria solely for use under the SG Plan. Notwithstanding the above, nothing in the SG Plan shall preclude or limit the use of any data regardless of whether such data have been used in the negotiation of criteria under the SG Plan. See SG Plan Section III.A.2; these Floatboating ORV Indicators, like all actions of the SG, are subject to the 2015 Memorandum of Agreement among the ~~S~~stakeholders.

¹⁸ It is anticipated that the year-type determinations for the annual review at the annual meeting will be based on best available USGS data at the time, which may include provisional or estimated data. The committee will use provisional year-type classifications to make a preliminary recommendation on whether a divergence within the prior year is due to circumstances under control of the SG Plan. Final evaluation of the ORV Indicator shall be based only on year-types derived from approved USGS data.

C. ~~Establishment of Provisional~~ Resource Guides.

Factors which may influence or affect the condition of the primary streamflow-influenced ORVs include flow ~~levels~~, temperature, and water quality. ~~Provisional~~ Resource Guides are established for each of these factors as part of this SG Plan. These guides are subject to the qualifications on their use described in Section III.A.2. and Section VII.B.3. of this SG Plan.¹⁹

1. *RECREATIONAL FISHING* (Segments 4 through 6):

a. Seasonal flows:

<u>Season</u>	<u>Number of Days in Season</u>	<u>Month</u>	<u>Seasonal Fish Flow Range and Midpoint (cfs)</u>
<u>1</u>	<u>91</u>	<u>April, May, June</u>	<u>800-1000</u> <u>900 midpoint</u>
<u>2</u>	<u>92</u>	<u>July, August, September</u>	<u>600-1000</u> <u>800 midpoint</u>
<u>3</u>	<u>61</u>	<u>October, November</u>	<u>400-800</u> <u>600 midpoint</u>
<u>4</u>	<u>122</u>	<u>December, January, February, March</u>	<u>400-600</u> <u>500 midpoint</u>

The ~~provisional~~ Resource Guides contained in the ~~Table~~ table above represent the seasonal ranges of flow for the recreational fishing ORV. The SG will use the mid-point value as a reference flow and compare it to the 5-year rolling average under each season for purposes of discussion under the SG Plan.²⁰ Analysis of both historical and simulated future flow data shows that flow conditions in Segments 4, 5, and 6 can be expected to continue to be highly variable and that flow levels will sometimes lie above or below the ranges of the seasonal flow guides. While this could be

¹⁹ These ~~provisional~~ Resource Guides have been negotiated and are the result of compromise among the SG participants to inform SG discussions. ~~during the first 3 to 5 years of Plan implementation and may be replaced by final Guides that will be developed as a result of monitoring and data collection under the Plan.~~

²⁰ ~~For the provisional period, the~~ The 5-year rolling average will include the data from the previous 4 years.

addressed through the use of criteria addressing a specified frequency of meeting these guides, such implementation criteria has not been established for purposes of the SG Plan. The SG may develop such criteria in the future, but the SG Plan is designed to operate in the absence of such criteria. Note that cooperative opportunities may be limited or less available in Season 4 versus other seasons.

b. Flushing flows~~Flows~~: ~~The SG has not achieved consensus on a definition or amount of a flushing flow in Segments 4, 5 and 6 but will continue to work toward consensus during the provisional period. For purposes of the provisional period, the SG has negotiated the following provisional Resource Guide for a periodic high flow²⁴:~~

~~A daily average flow of at least 2,000 cfs maintained for three consecutive days with a frequency of occurrence of once in two years on average.~~

~~During the provisional period, the SG will monitor substrate, stream flows and other conditions in Segments 4, 5 and 6 to evaluate the adequacy of this provisional Resource Guide. The SG acknowledges there are achievability issues regarding the frequency of occurrence of periodic high flows during the historical period and under simulated future stream flow conditions. Under these circumstances the SG will explore voluntary cooperative efforts to protect the fishing ORV.~~

The SG has established the following Resource Guide for Flushing Flows:

A daily average flow at or above 2,500 cfs at the Kremmling gage maintained for a minimum of three consecutive days in 50% of the years over a 10-year rolling period, beginning with the period April 1, 2011 through March 31, 2021.

Daily average flows at the Colorado River near the Kremmling gage (USGS 09058000) will be monitored to determine if flows reach a level at or above the flow rate described above and to assess the duration and frequency of such flows. It is acknowledged that the duration and relative volume of flows is variable from year to year due to multiple factors and that there is limited data available to fully understand the complex interactions of the fluvial processes associated with maintaining spawning habitat for fish and

²⁴ ~~The SG believes that this periodic high flow should mobilize substrate in riffle areas in Segments 4 and 5, and also in Segment 6 with consideration of tributary inflow.~~

maintaining substrate and interstitial spaces for benthic macroinvertebrates. Having acknowledged this, the SG will consider the flow to be a “flushing flow” at the flow rate, duration and frequency described above.

In addition, the SG acknowledges that flushing flows have not historically occurred in all years, and will not occur in all years in the foreseeable future; at times, flushing flows may not occur for multiple consecutive years. Historically, and under Simulated Future Flows, a flow of 2,500 cfs occurs on average about half of the years when viewed over a longer period. Historically, flows at the Kremmling gage of 2,500 cfs were not observed for as long as four consecutive years and under Simulated Future Flows, flows of 2,500 cfs may not occur for as long as seven consecutive years.

In recognition of the hydrologic variability of peak flows, the SG will annually evaluate whether a flushing flow, as defined above, occurred in a given year and will continuously explore voluntary Cooperative Measures to achieve such a flushing flow. In a series of years in which a flushing flow has not occurred in the previous three years, the SG will endeavor to prioritize Cooperative Measures to achieve a flushing flow, when opportunities are available.

c. Channel ~~maintenance~~ Maintenance flowsFlows (CMF):
During the provisional period, the SG agrees to study the extent to which channel maintenance flow guides will be incorporated in the Plan. Discussions during the provisional period may result in the decision that no channel maintenance flow guides will be included in the Plan. CMF are important for maintaining a healthy aquatic and riparian ecosystem that, in turn, supports a healthy recreational fishery and fishing experience.

As per the Purpose of the Plan, “the SG’s intention for this collaborative Plan is to balance permanent protection of the ORVs, certainty for the stakeholders, water project yield, and flexibility for water users.” General channel maintenance functions and processes in W&S Segments 4 through 6 may directly benefit from “Coordinated Reservoir Operations (CROs), also identified as a Long-Term Protective Measure which is a voluntary management action of the Upper Colorado River Endangered Fish Recovery Program.

The SG is committed to developing a better understanding of the effects that peak flows have on channel maintenance functions and processes throughout the life of this Plan. In order to accomplish this, the SG makes the following two commitments:

Commitment #1: Within one year of the SG's adoption of the Amended and Restated SG Plan, the SG will develop an observational monitoring plan to better understand the effects that peak flows have on channel maintenance processes in W&S Segments 4 through 6. This CMF monitoring plan, when completed, will be included in the Long-Term Monitoring Plan, and will be implemented as soon as practical. Failure to develop an observational monitoring plan within one year of the SG's adoption of the Amended and Restated SG Plan could be subject to SG deliberation (Section IV.C).

The SG has agreed that the purpose of the CMF monitoring plan is not to identify a target flow, or range of flows for CMF, but will monitor the effects that a given year's peak flows have on accomplishing general channel maintenance functions of mobilizing and transporting bedload substrate and channel maintenance processes of:

1. Maintaining amount and diversity of aquatic habitat,
2. Maintaining active channel geometry,
3. The creation and maintenance of non-vegetated sand and gravel features
4. Preventing growth of new rooted vegetation and/or scouring rooted plants from active channel

Development and implementation of the CMF monitoring plan will be subject to the availability of funds on an annual basis.

Commitment #2: The SG recognizes the limited abilities of influencing flows to a magnitude necessary to accomplish the fluvial processes associated with channel maintenance functions, but the SG will continue to explore opportunities and evaluate those opportunities in the future. The SG will explore voluntary Cooperative Measures, to the extent available, to help enhance the channel maintenance functions and processes described above.

d. Desired Species (Segments 5 and 6): The following list of species will be tracked at Radium, State Bridge, and Catamount through CPW biosurveys. Note: CPW acknowledges that bluehead

suckers, flannelmouth suckers, and Colorado River cutthroat trout are rare and are not anticipated to be captured in every survey.

- Brown trout
- Rainbow trout
- Mountain whitefish
- Speckled dace
- Flannelmouth sucker
- Bluehead sucker
- Mottled sculpin
- Colorado River cutthroat trout

2. RECREATIONAL FLOATBOATING:

~~The Stakeholder Group will develop final flow guides protective of the recreational floatboating ORV as soon as possible but in no event later than 3 years after approval of this Plan by BLM and USFS, absent extension of such time period by action of the Stakeholder Group. In the interim, this~~ This SG Plan adopts the following numeric and narrative criteria as provisional recreational floatboating flow Resource Guides. The numeric criteria describe the number of boatable days (“Usable Boatable Days”) within the recreational floatboating season of April 1 to September 30, expressed as a range from minimum to median and maximum under each floatboating opportunityexperience category and year type. A Boatable Day, for purpose of the SG Plan, is a quantitative measure describing how often defined recreational floatboating opportunities occur within streamflow ranges in a particular stream reach. The SG recognizes that floatboating opportunities may exist outside of these defined flow ranges and season.

In addition to developing and tracking Resource Guides as described in this subsection, the SG will utilize forecasts of undepleted flows during the beginning of each Wild & Scenic water year (April 1 – March 31) to anticipate flow conditions for the year. These anticipated flow conditions will be used to inform the SG's decisions regarding ~~cooperative~~ Cooperative measures Measures that might assist in achieving the Resource Guides. Refer to Section IV.B.2 (Cooperative Measures) for details.

- a. Segments 4 through 6
For purposes of this ~~provisional flow~~ Resource Guide for Segments 4, 5, and 6, flows between 700 cfs and 1300 cfs

are presumed to provide an low-opportunity water experience (“Green”); flows between 1300 cfs and 4000 cfs are presumed to provide an standard-opportunity experience (“Blue”); and flows above-between 4000 cfs and 7400 cfs are presumed to provide an high-opportunity water experience (“Black”). Flows through Segments 4, 5, and 6 less than 700 cfs or more than 7400 cfs are not considered by some stakeholders in the Stakeholder Group to provide Usable Boatable Days under these provisional flow Resource Guides, and therefore are not counted.

The following chart reflects the water year type, total median Usable Boatable Days, and the range of Usable Boatable Days within each floatboating experience-opportunity category that will serve as the provisional flow Resource Guides.

Number of Usable Boatable Days: Segments 4 through 6 [*minimum (median) maximum*]

	<u>Total Boatable Days</u>	<u>Opportunities 700 – 1300 cfs</u>	<u>Opportunities 1300- 1400 cfs</u>	<u>Opportunities 4000 – 7400 cfs</u>
<u>Wettest 25% Years</u>	<u>115 (161) 180</u>	<u>38 (74) 121</u>	<u>39 (72) 79</u>	<u>4 (22) 28</u>
<u>Wet Typical 25% Years</u>	<u>120 (153) 169</u>	<u>68 (108) 119</u>	<u>19 (57) 79</u>	<u>0 (0) 5</u>
<u>Dry Typical 25% Years</u>	<u>74 (115) 141</u>	<u>69 (106) 127</u>	<u>0 (14) 33</u>	<u>0 (0) 0</u>
<u>Driest 25% Years</u>	<u>62 (80) 96</u>	<u>53 (73) 87</u>	<u>0 (1) 25</u>	<u>0 (0) 0</u>

It is anticipated that the SG will review the number of floatboating Usable Boatable Days for each boating season/floatboating opportunity. The year-type for this review will be based on the annual measured flows (aka the depleted flows) at the Kremmling gage (USGS gage number 09058000) as of March 31. Any preliminary reviews done prior to March 31 will be based upon estimated annual measured flows at the Kremmling gage, and where necessary preliminary stream flow data will be used. The year types for Segments 4, 5 and 6 are defined as follows:

Year Type	Annual Kremmling Gage Flows
Wettest 25% Year	More than 769,500 AF
Wet Typical Year	525,500 – 769,500 AF
Dry Typical Year	454,500 – 525,500 AF

Driest 25% Year

Less than 454,500 AF

The numeric criteria shown in the above chart are based on ~~simulated~~ Simulated future-Future streamflow-Flows conditions modeled by imposing future demands and system operations on past undepleted stream flow (~~S~~simulated Ffuture Fflows) instead of existing streamflow conditions. It is recognized, based on an analysis of both historical and ~~s~~Simulated fFuture fFlow data, that flow conditions can be expected to continue to be highly variable and that flow levels will at times lie outside the ranges of these Resource gGuides. While this could be addressed through the use of criteria addressing a specified frequency of meeting these Resource gGuides, such implementation criteria ~~has~~have not been established for purposes of the SG Plan. The SG may develop such criteria in the future, but the SG Plan is designed to operate in the absence of such criteria.

Some stakeholders (including those representing the floatboating recreation community) maintain that the use of ~~simulated~~ Simulated future-Future flows-Flows for the provisional flow guides is not protective of the ORVs. The entire ~~Stakeholder Group~~SG agrees to implement the Cooperative Measures process (considering available resources and protection of the other ORVs) in efforts to increase the number of Usable-Boatable Days for each floatboating opportunityexperience category, within each year type.

It is anticipated that stakeholders will bring their specific preferences and goals to the Cooperative Measures planning process while working together to identify potential opportunities-find ways to increase the number of Boatable Days as described above, and to the negotiation of final recreational floatboating flow guides. ~~The use of simulated future flows as part of these provisional flow guides does not reflect agreement among the stakeholders whether simulated future flows or historical stream flows should be used to develop the final flow guides (even if Section III.C.2.c. of this Plan is not exercised). Nothing in these provisional flow guides implies agreement by the stakeholders on use of the Usable Day concept, floatboating experience categories, nor year types for purposes of development of final flow guides.~~

b. Segments 4-6 Early-Season Boatable Days

Early Season (May 15- June 30) Boatable Days are identified by the Recreational Floatboating Interest Group as important for commercial boating opportunities, with a desired flow at or above 860 cfs at the Kremmling gage (USGS gage number 09058000).

<u>Early-Season Periods</u>	<u>Boatable Day above 860 cfs</u>
<u>May 15-31</u>	<u>0 (4) 10</u>
<u>June 1-30</u>	<u>0 (9) 17</u>

These ranges reflect the Early Season Boatable Days Resource Guides using Simulated Future Flows in the Dry Typical year type [minimum, (median), maximum]. Information from the Simulated Future Flows, as well as historic flows, shows that in the Driest and Dry Typical year types, there are times when flows will (and historically did) result in 0 Boatable Days. It is recognized that during this early season period, there may be limiting or no opportunities for Cooperative Measures to enhance flows. However, the SG is establishing these Early Season Resource Guides based on the Dry Typical year information to inform potential Cooperative Measures in all year types to support the median number of Early Season Boatable Days.

It is recognized that there may be different, and at times conflicting, desires for the use and priority of potential Cooperative Measures in response to information provided on the various Resource Guides.

b.c. Segment 7

The following chart presents the year type, total Usable Boatable Days (i.e., the total number of days between April 1 and September 30 when the flow at the Dotsero gage is between 4,200~~1,250~~ to 8,600 cfs), and the range of Usable Boatable Days within each floatboating experience opportunity category that will serve as the provisional Resource Guides for Segment 7.

Number of Usable-Boatable Days: Segment 7 [*minimum (median) maximum*]

<u>Year Type</u>	<u>Total Boatable Days</u>	<u>Opportunities (1250²² – 1800 cfs)</u>	<u>Opportunities (1800 – 5500 cfs)</u>	<u>Opportunities (5500- 8600 cfs)</u>
<u>Wettest 25% Years</u>	<u>114 (154) 167</u>	<u>27 (57) 81</u>	<u>49 (68) 77</u>	<u>21 (29) 42</u>
<u>Wet Typical 25% Years</u>	<u>111 (160) 170</u>	<u>43 (62) 99</u>	<u>39 (75) 110</u>	<u>1 (13) 33</u>
<u>Dry Typical 25% Years</u>	<u>127 (151) 171</u>	<u>64 (78) 111</u>	<u>40 (64) 91</u>	<u>0 (2) 11</u>
<u>Driest 25% Years</u>	<u>128 (150) 170</u>	<u>80 (118) 130</u>	<u>10 (32) 63</u>	<u>0 (0) 6</u>

It is anticipated that the SG will review the number of ~~floatboating Usable~~Boatable Days for each ~~boating season~~floatboating opportunity. The year-type for this review will be based on the annual measured flows (aka the depleted flows) at the Dotsero gage (USGS gage number 09070500) as of March 31. Any preliminary reviews done prior to March 31 will be based upon estimated annual measured flows at the Dotsero gage, and where necessary preliminary stream flow data will be used. The year types for Segment 7 are defined as follows:

Year Type	Annual Dotsero Gage Flows
Wettest 25% Year	More than 1,519,500 AF
Wet Typical Year	1,234,000 – 1,519,500 AF
Dry Typical Year	1,029,500 – 1,234,000 AF
Driest 25% Year	Less than 1,029,500 AF

It is recognized, based on an analysis of both historical and ~~simulated~~Simulated future-Future flow-Flow data, that flow conditions can be expected to continue to be highly variable and that flow levels will at times lie outside the ranges of these Resource gGuides. While this could be addressed

²² ~~The stakeholders do not agree on the specific flow rate for the Green floatboating category; however, during the provisional period, the number of usable days in the Green floatboating category will be based on a flow rate of 1200—1800 cfs.~~ The ~~Stakeholder Group~~SG agrees that nothing in these ~~provisional~~ Resource Guides has any effect on the operation of the Shoshone Hydro Power Plant or the water rights for the Shoshone Hydro Power Plant. Moreover, nothing in this SG Plan shall be interpreted as a waiver of any party's position with respect to the appropriate flow rate for the ~~Green-1250-1800 cfs opportunity floatboating~~ category, or on any existing or future agreements regarding the operation of the Shoshone Hydro Power Plant and its associated water rights.

through the use of criteria addressing a specified frequency of meeting these Resource gGuides, such implementation criteria has not been established for purposes of the SG Plan. The SG may develop such criteria in the future, but the SG Plan is designed to operate in the absence of such criteria.

ed. Poison Pill. ~~It is recognized that the SG does not currently have the information it needs to set final floatboating flow guides at this time and that the setting of those guides will be informed by information about the resource and water uses.~~ The ~~provisional floatboating flow~~Resource Gguides, as set forth in Paragraph III.C.2- of the SG Plan, were negotiated using historical ~~data~~ and an assumed future hydrology. Some stakeholders have expressed serious concern with such an approach because they maintain that it will result in a reduction of ~~usable floatboating~~Boatable days Days from what occurs under existing hydrology. However, these stakeholders have agreed to include the ~~provisional floatboating flow~~Resource guides Guides in the SG Plan, subject to the negotiation of protective measures within the context of the permitting for the Windy Gap Firing Project and the Moffat Collection System Project (“Projects”) that will address consistency of the Projects with the streamflow-influenced ORVs. If the outcome of those negotiations or final permitting precludes continued support of the SG Plan by any stakeholder (including a Project proponent), that stakeholder shall provide written notification of such position to the SG and the SG will withdraw the Plan ~~from consideration by BLM and USFS~~ as a locally supported Wild and Scenic management plan alternative. To clarify, the net effect of such withdrawal will be that ~~the~~ BLM and USFS will be left to determine the appropriate Wild and Scenic determinations and protective measures for Segments 4, 5, 6 and 7, if any, without taking into account the SG Plan alternative. Written notification to the SG by the objecting stakeholder must occur no later than six (6) months after the last of the final (post litigation) the issuance of required permits for the Windy Gap Firing Project and the Moffat Collection System ~~Improvement~~ Project,²³ at which time the

²³ The anticipated permits for the Moffat Collection System ~~Improvement~~ Project are: a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers; license amendment by FERC; ~~Section (4) conditions and special use permit from the U.S. Forest Service~~; 401 certification from the Colorado Water Quality Control Division; and Boulder County 1041 permit, if one is required.

SG will convene a special meeting. Notification of SG Plan withdrawal to BLM and USFS must occur within 60 days after notification to the SG, unless a longer time period is agreed to by the SG.²⁴

The SG agrees that if, upon the deadlines set forth above, the Plan is not withdrawn: (1) protection measures established through negotiations or permitting provide the means for the ~~Windy Gap Firing Project and the Moffat System Improvement Project~~ Projects to be operated in a manner consistent with protection of the ORVs; (2) the Projects will not be subject to the requirements of Part VII (New Projects); (3) the Projects will fall under IV.D.2. of the SG Plan; and (4) the SG Plan may not be withdrawn pursuant to the withdrawal provisions of this section III.C.2.~~ed~~.

3. WATER QUALITY (Segments 4 through 7):

The Resource Guides for water quality are the Colorado ~~Department of Public Health and Environment (CDPHE)~~ Water Quality Control Commission water quality standards. These standards are defined in 5 CCR 1002-33 and are subject to change pursuant to the Water Quality Control Commission's rulemaking process for "Cold Water Aquatic Life 1" and recreation uses for cold water aquatic life and recreation uses for the portion of the stream segment that CDPHE has designated COUCUC03 (Mainstem of the Colorado River from the outlet of Granby Reservoir to the confluence with the Roaring Fork River). ~~that is within Wild and Scenic Segments 4 through 7~~²⁵

4. MACROINVERTEBRATES (Segments 4 through ~~7~~6):

²⁴ The anticipated permits and approvals for the Windy Gap Firing Project are: a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers; special use permit or license, and revised amendatory carriage contract, from U.S. Bureau of Reclamation; 401 certification from the Colorado Water Quality Control Division; state fish and wildlife mitigation plan; and, without waiving any party's rights, Grand County 1041 and special use permit amendments, if such are required. The requirements of NEPA, FWCA and ESA would be addressed as part of the above federal permits.

²⁵ 40 C.F.R. 131.20 provides that each State must specify appropriate water uses to be achieved and protected. The classification of the waters must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.

The Resource Guides for macroinvertebrates are the Colorado Water Quality Control Commission aquatic life standards for water quality. The Colorado Water Quality Control Commission's Policy 10-1 provides the methodology for determining aquatic life use attainment using macroinvertebrates. These standards are defined in 5 CCR 1002-33 and are subject to change pursuant to the Water Quality Control Commission's rulemaking process for "Cold Water Aquatic Life 1" for the portion of the stream segment that CDPHE has designated COUCUC03 (Mainstem of the Colorado River from the outlet of Granby Reservoir to the confluence with the Roaring Fork River), which encompasses ~~the~~ Segments 4 through 76.

45. *TEMPERATURE* (Segments 4 through ~~76~~):

The Resource Guides for temperature are the ~~CDPHE~~ Colorado Water Quality Control Commission stream temperature water quality standards. These standards are defined in 5 CCR 1002-33 and are subject to change pursuant to the Water Quality Control Commission's rulemaking process for Daily Maximum (DM) and Maximum Weekly Average Temperature (MWAT) for the portion of the stream segment that CDPHE has designated COUCUC03 (Mainstem of the Colorado River from the outlet of Granby Reservoir to the confluence with the Roaring Fork River) ~~that is within which encompasses Wild and Scenic~~ Segments 4 through ~~76~~.²⁶

~~D. — Refinement of Provisional Resource Guides.~~

~~The provisional Resource Guides will be evaluated and may be adjusted as a result of defined data collection, monitoring efforts, and technical review as part of the 3-to-5 year study effort described in the Monitoring Plan in Part V. It is anticipated that information such as that developed in Phase 3 of the Grand County Stream Management Plan, Colorado Parks and Wildlife (CPW) studies to develop a proposed ISF, and estimations of future water availability by stakeholders, etc. will be used to help finalize these Resource Guides during this period.~~

~~At the end of the provisional period: (1) final Resource Guides will be adopted by unanimous consent; or (2) absent unanimous consent, the~~

²⁶ 40 C.F.R. 131.20 provides that each State must specify appropriate water uses to be achieved and protected. The classification of the waters must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.

~~provisional guides would persist until such time as they are changed/finalized in the future by unanimous consent; or (3) if an Interest Group withdraws, the then existing guides would become permanently fixed for purposes of continuation of the Plan (pursuant to Section VI.K.).~~

~~ED.~~ Existing Water Rights.

The SG members recognize that existing water rights, including absolute and decreed conditional water rights in existence as of the date of adoption of the SG Plan (existing water rights), have been exercised or may be exercised in the Colorado River basin in the future at times when the river flows in Segments 4 through 7 are both inside and outside the ~~flow guide ranges.~~Resource Guide ranges. The SG members agree that the ~~flow guides~~Resource Guides herein have been negotiated as one source of information among others for informing SG discussions under the SG Plan, but the implementation of the SG Plan shall not affect the legal operation of water rights pursuant to state law. Nothing in the SG Plan shall be deemed or construed to create any obligation on any SG member to operate facilities or exercise water rights in any particular manner. However, nothing herein shall be interpreted to override the provisions of Section VII regarding the opt-in of new projects. Likewise, nothing in the Plan shall be deemed or construed to preclude any SG member from participating in any water rights litigation.

~~FE.~~ Eagle River MOU Project.

The ~~1997-1998~~ Eagle River MOU between the Cities of Aurora and Colorado Springs, the Colorado River Water Conservation District, the Vail Consortium consisting of the Eagle River Water and Sanitation District, Upper Eagle Regional Water Authority, and Vail Associates, Inc. ("Vail Consortium"), and ~~Cyprus Climax~~ Molybdenum Company~~Metals Co.~~, provides for the development of the Eagle River MOU Joint Use Water Project (ERMOU Project) as a phased joint-use project to provide water supply for East Slope and West Slope water users. The ERMOU Project has been cooperatively configured to avoid or minimize environmental concerns and will be constructed as an alternative to the federally permitted Homestake II Project. Successful implementation of the ERMOU Project is important to meet the current and future water needs of both East Slope and West Slope ERMOU parties.

The SG has discussed how to address the ERMOU Project in the SG Plan. Consistent with the intent of the SG to develop a SG Plan to balance the permanent protection of the ORVs, certainty for the stakeholders, water project yield, and flexibility for water users, the ERMOU Project is recognized in the SG Plan.

Aurora, Colorado Springs, the Eagle Park Reservoir Company, and the Vail Consortium support the SG Plan as the preferred management plan alternative and will continue to participate in good faith in the SG subject to the following:

1. The Guiding Principles shall continue to guide the development and implementation of the SG Plan;
2. The SG supports the neutral deferral of a suitability determination by ~~the~~ BLM and USFS in accordance with the Guiding Principles;
3. The modeling or other assumptions underlying the Segment 7 Resource guides or other implementing documents for the SG Plan will incorporate the depletions from the ERMOU Project, which will not exceed an annual average of 30,000 acre feet;
4. ~~During the provisional period, the~~The SG has and will continue to evaluate voluntary ~~“cooperative~~Cooperative measures~~Measures”~~ that could be implemented for Segment 7, ~~and will consider in good faith how such cooperative measures are consistent with the ORV protection goals of the SG Plan~~Cooperative Measures that have been identified and may be implemented for Segment 7 include but may not be limited to the Shoshone Outage Protocol, purchase of storage or water rights, lease of storage or water rights, non-diversion agreements, the Glenwood Springs RICD decreed in Case No. 13CW3109, facility improvements, stream improvements, outreach, supplemental data collection, and county, state, BLM or USFS projects; and
5. ~~During the provisional period, the~~The ERMOU partners have not yet proposed a project for federal, state, or local permitting. When the ERMOU Project progresses to the permitting stage, the ERMOU Partners may bring the ERMOU Project to the SG as a New Project according to paragraph VII. This will include informing the SG of the proposed project and providing pertinent information in a timely manner. ~~SG will continue to evaluate the effects of completion of the MOU Project within Segment 7, and will consider in good faith whether such effects advance the ORV protection goals of the SG Plan.~~

IV. MEASURES TO ENSURE PROTECTION OF ORVs

This Plan adopts the following tiered system for implementation of management measures for the protection of the ORVs.

Tier 1 Implementation of Long-Term Protection Measures. These measures, described in Section IV.A. below, are supported by the ~~Stakeholder Group~~ SG and will be pursued pursuant to ~~identified Milestones in~~ Attachment A to this Plan.

Tier 2 Implementation of additional Cooperative Measures. These will complement the Tier 1 measures. These may serve to maintain or enhance the ORVs, assist in achieving ~~provisional or final~~ Resource Guides, and/or address a Material Change in Circumstances. Section IV.B. of this SG Plan mandates a specific process to ensure timely and periodic consideration of data pertaining to the ORV Indicators and Resource Guides and to assess the need and available opportunities for implementing additional measures.

Tier 3 SG ~~Elevation-Deliberation~~ Process. This Plan incorporates an ~~elevation and~~ evaluation ~~and deliberation~~ process by the ~~Stakeholder Group~~ SG for purposes of addressing unresolved concerns of SG members material to implementation of the SG Plan or the status of the ORVs. That ~~elevation-deliberation~~ process is summarized in Section IV.C. below.

Tier 4 Termination of Plan. The SG Plan provides that the SG may terminate this Plan in accordance with Section VI.J. ~~43.~~ subsequent to completion of the dispute resolution procedures specified in that section.

A. **Tier 1 Long-Term Protection Measures.**

These are measures that are expected to provide significant protection of the ORVs, unless a Material Change in Circumstances occurs.

The Long-Term Protection Measures are summarized below. The Long-Term Protection Measures will be pursued in accordance with ~~the~~ ~~Milestones in~~ Attachment A.

1. *Appropriation of CWCB instream flow right:* The ~~Stakeholder Group~~ SG recommended and CWCB appropriated ~~has expressed support for a CWCB ISF water right or~~ water rights ~~decreed on March 26, 2013~~ for base flows in ~~the subject stream segments~~ W&S Segments 4, 5, and 6. An ISF water right can protect stream flows between two points on a stream from future water rights appropriations in accordance with the State's prior appropriation system. ISF water rights are held exclusively by the CWCB for minimum stream flows to preserve the natural environment to a reasonable degree, and are adjudicated and administered within the State's water right priority system.

2. *Delivery of water to a downstream demand:* Water released from storage or otherwise made available from upstream sources can be delivered to downstream demands. Such deliveries can be “shepherded” (i.e., protected) through the subject stream segments. A primary example is the release of water from Green Mountain Reservoir pursuant to the 1984 Green Mountain Reservoir Operating Policy for delivery to irrigation demands in the Grand Valley near Grand Junction.
3. *Existing senior water rights:* The Shoshone and Cameo groups of senior water rights generally control the administrative call within the Colorado River Basin. These water rights are located downstream of the subject stream reaches; therefore, an administrative call during dry or average conditions by these water rights can curtail diversions from upstream junior water rights or require the release of water from storage to replace those junior diversions. This administrative call generally results in stream flow through the subject stream segments in amounts greater than would exist in the absence of the administrative call.
4. *Upper Colorado River Endangered ~~Species~~ Fish Recovery Program:* This is an existing program that implements mechanisms by which water is released or bypassed from upstream reservoirs for the benefit of the endangered fish species in the Grand Valley on a temporary basis. The water deliveries are protected through the subject stream segments downstream through the 15-Mile Reach of the Colorado River. During peak runoff, bypasses from upstream reservoirs can provide peak flushing flows through the subject stream segments. During dry periods in late summer or early fall, releases from upstream storage to supplement low flows in the 15-Mile Reach can significantly supplement flows in the subject stream segments.

Material Change in Circumstances: The SG Plan includes mechanisms to address a Material Change in Circumstances that could impact the effectiveness of these Long-Term Protection Measures (Attachment A) in protecting the ORVs. ~~These are included as part of the detailed Milestones in Part II of Attachment A to this Plan.~~

B. Tier 2 Cooperative Measures.

As a complement to the Long-Term Protection Measures, the following voluntary Cooperative Measures strategies will be implemented under the terms of this SG Plan.

1. The ~~Stakeholder Group~~SG commits to rigorously explore potential Cooperative Measures that would achieve ~~provisional or final~~ ORV Indicators and/or Resource Guides pursuant to the procedures specified in this Section.
2. Cooperative Measures will take into account the predicted nature of the hydrologic year (i.e., wettest, wet typical, dry typical or driest) as defined below.

It is anticipated that the SG will use forecasts issued by the Colorado Basin River Forecast Center (or successor agency) of the most probable (50% chance of exceedance) ~~of~~ April through July undepleted (aka natural or unregulated) flows at the existing Kremmling and Dotsero gages to guide cooperative efforts for Segments 4-6 and Segment 7, ~~respectively~~. The SG may adopt a different forecast methodology which uses the best scientifically accepted techniques to predict forecast undepleted inflows. ~~forecasts are provided by the Colorado Basin River Forecast Center (CBRFC) early in the months of January, February, March, April, May and June.~~ The forecasted year type may be different than the actual year type. In conjunction with the Colorado Basin River Forecast Center (CBRFC) forecasts, the SG will use the following table to predict the year type:

For Segments 4, 5, and 6

<u>Year Type</u>	<u>April – July Kremmling Undepleted Flow</u>
Wettest 25% Year	More than 1,007,000 AF
Wet Typical Year	812,500 – 1,007,000 AF
Dry Typical Year	607,000 – 812,500 AF
Driest 25% Year	Less than 607,000 AF

For Segment 7

<u>Year Type</u>	<u>April – July Dotsero Undepleted Flow</u>
Wettest 25% Year	More than 1,757,500 AF
Wet Typical Year	1,362,500 – 1,757,500 AF
Dry Typical Year	1,007,000 – 1,362,500 AF
Driest 25% Year	Less than 1,007,000 AF

SG discussions shall also be informed by and take into consideration other factors, including external conditions such as those related to any extended drought, fire, climate change, or other conditions outside the control of the SG Plan.

3. The ~~Stakeholder Group~~SG or a subcommittee appointed by the SG will meet quarterly, or more frequently as determined necessary, to assure a timely and periodic assessment of the need for, focus of, and available opportunities for implementation of these Cooperative Measures. A record will be kept of the concepts discussed at these meetings. Progress in implementing Cooperative Measures shall be an agenda item on the meetings of the ~~Stakeholder Group~~SG.
4. It is recognized that the availability of certain Cooperative Measures will be opportunistic in nature, and that certain measures may be implemented without full coordination of the Stakeholder Group. In that event, they shall be reported on at the next ensuing meeting of the ~~Stakeholder Group~~SG or its subcommittee.
5. Cooperative Measures will respect the priority system and the operations of water right holders, and will take into account impacts of implementation of the Cooperative Measures on other segments of the Colorado River and its tributaries. It is understood that under the SG Plan, Cooperative Measures that would impair water providers' ability to meet their water supply commitments will not be undertaken, in accordance with the Guiding Principles.
6. It is recognized that it may not be possible to implement Cooperative Measures in every year.
7. Possible Cooperative Measures may include but are not necessarily limited to:

- a. *Acquisition of water rights for ISF purposes.*

The CWCB could enter into an agreement with a water user under which it would acquire water, water rights or an interest in water to use to preserve or improve the natural environment to a reasonable degree through the reaches of the river subject to this SG Plan. The CWCB could explore the potential for securing instream flows for large seasonal or flushing flows under its acquisition authority. Depending on the conditions of the agreement, such acquisition could result in long-term protection of flows in higher amounts than the new ISF appropriation made under Section IV.A.1. The SG and the CWCB are continuing to explore options for protection of flows pursuant to such voluntary arrangements. Because attempting to decree an ISF water right for higher flows could slow down the new ISF water right appropriation process pursuant to Section IV.A.1.,

the protection of higher flows could be achieved via a water acquisition implemented through a separate water right decree.

b. *Strategic timing of reservoir releases to meet winter storage elevations.*

Several major reservoirs upstream of the stream segments have winter season storage target levels that require the release of previously stored water in anticipation of spring runoff. The coordinated timing/scheduling of late summer and early fall reservoir releases to meet annual reservoir target elevations can help to satisfy late season flow demands. Such measures would ~~take into account~~consider needs and effects during other seasons.

c. *Storage and subsequent release of historical consumptive use and return flows.*

The ~~Stakeholder Group~~SG will not encourage the dry-up of agricultural land. However, as development occurs in the area, some agricultural land and associated water rights will be taken out of production. On an “if and when/excess capacity” basis, the historical consumptive use and, in some cases, the historical return flow of the water rights can be placed into storage in upstream reservoirs for later release for a variety of purposes (both consumptive and non-consumptive). The timing of such releases may benefit the ORVs. Potential examples of such arrangements include the Red Top Valley Ditch, the Vail Ditch, and the Moser/Water Trust transaction.

d. *Use of Windy Gap system.*

Depending on the hydrology, operations, agreements, and other circumstances, the Municipal Subdistrict may be able to allow the use of excess capacity in the Windy Gap system for the diversion and storage of water for the benefit of the ORVs. For example, favorable circumstances existed in 2008 through 2010 which allowed Grand County to reimburse the Municipal Subdistrict for the pumping costs to pump as much as 5,000 acre feet of Windy Gap water into Granby Reservoir. Pursuant to contract, the Windy Gap water was then released downstream between August and October for consumptive uses in the Grand Valley, benefitting in-channel resources enroute.

e. *Spring peak enhancement.*

Spring flushing flows could be enhanced through the coordinated bypass of reservoir inflow during the spring runoff. Close coordination and cooperation with the State Engineer's Office to protect the annual fill of reservoirs would help to implement this strategy.

f. *Cooperative flow management.*

Voluntary flow management programs provide a water management tool that can be used for maintaining and enhancing flow-related values within a given stream reach, while meeting downstream demands such as those for the endangered fish species, through the collaborative operation of water facilities and other cooperative efforts.

g. *Water Rights Acquisition.*

The SG could explore opportunities to acquire water rights for the purpose of maintaining and enhancing flow-related values in Segments 4 through 7, provided any acquisition is on a willing seller/willing buyer basis and the SG agrees to not encourage dry-up of agricultural lands.

C. **Tier 3 Stakeholder Group ~~Deliberation Elevation~~ Process.**

Any stakeholder may ~~elevate~~raise an issue to the ~~Stakeholder Group~~SG for purposes of addressing unresolved concerns material to implementation of the Plan or to the status of the ORVs. Prior to ~~elevation~~SG deliberation, that concern shall be summarized in writing, together with an explanation of any "competing views" on the issue and the efforts to date to resolve the matter. Data pertinent to the ~~Stakeholder Group's~~SG's deliberations shall be summarized or compiled. ~~Elevation~~The deliberation process shall be triggered by submitting a written request, accompanied by the above materials, for the ~~Stakeholder Group~~SG to convene a meeting (or add an agenda item to a previously set meeting). The ~~Stakeholder Group~~SG shall address such issue in accordance with its Governance protocols in Part VI.I.

D. **Tier 4 Plan Termination.**

1. The SG may terminate this SG Plan pursuant to Section VI.~~J~~ following completion of the non-binding dispute resolution procedures specified in that section. Formal notification of such termination will be provided to BLM and USFS which details the issues, relevant data, and steps undertaken in efforts to address the concerns which led to termination of the Plan.

2. It is the intent of this SG Plan that termination of the SG Plan or any modification of the SG Plan by BLM and/or USFS would not by itself constitute grounds for reopening of federal authorizations or funding for new projects predating BLM and USFS approval of this SG Plan, or for reopening of federal authorizations or funding for other projects that include and are in compliance with terms, conditions or mitigation measures protective of the ORVs independent from the operation of the SG Plan.

V. MONITORING PLAN

A. Monitoring Plan.

The purpose of this Monitoring Plan is to establish a protocol to monitor ORV Indicators and Resource Guides to assist in implementation of the SG Plan. ~~The Provisional Period Monitoring Plan is provided in Attachment D. Data and information generated from this Provisional Period Monitoring Plan will be used in the following manner:~~

- ~~1. Provisional Period Monitoring Plan: During the 3-to-5 year provisional period, participants will collect and analyze data specified in the Monitoring Plan to monitor, evaluate, and revise if necessary the provisional ORV Indicators and Resource Guides to assist in implementation of the SG Plan. Data gathered during the provisional period will also help characterize existing conditions for many parameters.~~
- ~~21.~~ Long-Term Monitoring Plan: The Long-Term Monitoring Plan describes SG will use the results from the Provisional Period Monitoring Plan to develop final ORV Indicators and Resource Guides. The Provisional Period Monitoring Plan will be revised, if necessary, to the prescribe monitoring measures for the ORV Indicators and Resource Guides under the Long-Term Monitoring Plan to assist in implementation ofthat will be used to implement the SG Plan. The Long-Term Monitoring Plan is attached to the SG Plan but may be amended independent of the SG Plan, subject to approval by the SG independent of the SG Plan.
- ~~2.~~ Annual Monitoring Plans will be developed to address scheduled monitoring efforts and additional monitoring efforts if needed as approved by the SG.

3. *Reporting:* The ~~Stakeholder Group~~SG will gather the data prescribed in the Annual Monitoring Plan and prepare an ~~annual~~ Annual Monitoring Report for the ~~Stakeholder Group~~SG (including the BLM and the USFS).
4. *Funding:* Funding needed for the Annual Monitoring Plan, including data gathering and analysis, will be provided through the ~~Stakeholder Group's~~SG's funding mechanisms provided in Part VIII.

B. Provisional Monitoring Parameters.

ORV INDICATORS	ORV RESOURCE GUIDES
Recreational Fishing:	Recreational Fishing:
- Quality Trout & Biomass	- Flow guides Seasonal Flows
- Biomass	- Flushing Flows
- Species Diversity	- Channel Maintenance Flows
- Total Fishing Effort	- Desired Species
- Catch/Unit Effort (CPUE)	
	Recreational Floatboating:
	- Usable Boatable Days
Recreational Floatboating:	- Early Season Boatable Days
- Not Likely To Return	
	Water Quality:
	- CDPHE existing water quality standards for cold water aquatic life and recreation uses Water Quality Control Commission water quality standards
	Temperature:
	- CDPHE existing water quality standards for temperature Water Quality Control Commission stream temperature water quality standards
	Macroinvertebrates:
	- Water Quality Control Commission aquatic life water quality standards

VI. GOVERNANCE

~~During the provisional period, the stakeholders will develop either (a) a comprehensive Memorandum of Understanding among the participating stakeholders (or other form of agreement); (b) a formal legal entity (e.g., corporation, joint venture, partnership, etc.); or (c) both, that will govern the overall administration of the Plan.~~

- A. SG and Governance Committee. The SG and the SG Governance Committee (GG) will conduct ~~its~~ business and make decisions in

accordance with the voting procedures set forth in this Section VI of the SG Plan, through the SG Governance Committee (GC).

B. Non-Delegable Responsibilities. It is recognized that the signatories to this Plan may have statutory or other organizationally established responsibilities that cannot be delegated. This cooperative Plan is not intended to abrogate any signatory's non-delegable responsibilities.

C. Purposes of the GCSG. The purposes of the GC-SG include, but are not necessarily limited to, the following:

1. Implement the SG Plan.
2. Make management decisions under the SG Plan.
3. Conduct annual reporting to ~~the~~ BLM and USFS.
- ~~4.~~ Finalize ORV Indicators and Resource Guides.
- ~~5.~~4. Make financial decisions.
- ~~6.~~5. Establish rules and bylaws.
- ~~7.~~6. Hold meetings open to the public.
- ~~8.~~7. Seek funding.
- ~~9.~~8. Coordinate with other entities gathering data, studies, information, or conducting cooperative efforts.
- ~~10.~~9. Elect officers.
- ~~11.~~10. Establish and define the scope and roles of any committees determined necessary.
- ~~12.~~11. Approve budgets and expenses.
- ~~13.~~12. Conduct monitoring and research efforts.
- ~~14.~~13. Review ORV Indicators and Resource Guides.
- ~~15.~~14. Evaluate protection of ORVs in accordance with the SG Plan.
- ~~16.~~15. Coordinate with water users to recommend and learn about cooperative efforts to include in annual report.
- ~~17.~~16. Recommend and fund efforts to protect and enhance ORVs.
- ~~18.~~17. Evaluate, through its GC, whether Material Changes in Circumstances exist as defined under the SG Plan and recommend strategies to address Material Changes in Circumstances.
- ~~19.~~18. Discuss new projects and new members.
- ~~20.~~19. Amend the SG Plan, as necessary, pursuant to procedures under the Plan.
- ~~21.~~20. Pursue agreements with state and federal entities to further goals of the SG Plan.

D. Advisory Standing Committees. The SG intends that the Monitoring Committee, Finance Committee, and the Cooperative Measures Committee will be advisory standing committees for the duration of the Plan. These committees shall each have a charter that includes, at a minimum, membership and protocols for formulating recommendations to

the SG. Charters may be amended and are subject to approval by the GC.

DE. GC Representation. The GC should reflect a fair representation of different interests and expertise of the SG.

1. Voting Committee Members. There shall be a total of six Interest Groups consisting of three GC members from each Interest Group. The Interest Groups²⁷ shall consist of the following:
 - a. West Slope Water ~~Conservancy/Conservation Districts and Landowners/Water Users.~~Users and Landowners.
 - b. Local Government.
 - c. ~~Trans-Mountain Diverters.~~East Slope Water Users.
 - d. Conservation/Environmental/Fishing.
 - e. Recreational Floatboating.
 - f. State Interests (e.g., CWCB, CPW, and State or Division Engineer).
2. Ex Officio members. The SG requests that BLM and USFS personnel serve as *ex officio* non-voting members of the GC.
3. Charter/Protocol. Each Interest Group will establish a “charter/protocol” that sets forth the process and procedure for inclusion in the Interest Group and for the selection of its representatives. The protocols for Interest Groups 1.d and 1.e above shall include a procedure for designating the representative to the Review Committee for those two Interest Groups pursuant to Section VI.J.~~43~~.b.
4. Alternates. For each primary representative chosen, an alternate will also be designated to cover the contingency that the primary representative may not be available. In the absence of the primary representative, the alternate will have full GC Voting Committee member status.
5. Terms. For initial appointments, each Interest Group will appoint one GC member to a one-year term, the second to a two-year term, and the third to a three-year term. Subsequent terms for each appointment will be for full three-year terms.

²⁷ ~~It is anticipated that the Eagle River entities (Vail Associates, Inc., Upper Eagle Regional Water Authority, Eagle River Water and Sanitation District, and Eagle Park Reservoir Company) will be included within Interest Group category 1.a or 1.b above.~~

6. Replacement. A GC member or alternate may be replaced by the respective Interest Group in accordance with its charter/protocol.

~~7. Indemnity—TBD prior to effective date of Plan.~~

87. Officers. The ~~GC-SG~~ will appoint a Chair and Vice-Chair, who shall serve in the Chair's absence, for the purpose of organizing and supervising meetings. The ~~GC-SG~~ shall appoint a Secretary, who need not be a member of the ~~GC-SG~~, to prepare minutes and to maintain the official records for the GC. Officers shall serve one-year terms. Officers that are members of the SG or GC shall have full voting rights.

E. Meetings of the ~~GC-SG~~.

1. *Annual Meeting.* The ~~GC-SG~~ shall have an annual meeting that shall occur in March each year, or as otherwise determined by the ~~GC-SG~~. The agenda for the annual meeting shall include election of officers, a review of the bylaws, and reports on the status of the SG's annual activities and finances. Written notice of the annual meeting stating the place, day and time of the meeting, along with the meeting agenda, shall be delivered to ~~GC-SG~~ members not less than 14 nor more than 60 days before the date of the annual meeting.
2. *Regular Meetings.* Regular meetings of the ~~GC-SG~~ shall occur at least quarterly, unless otherwise determined by the members. The day, time, and location of the next regular meeting shall be scheduled before the end of the current regular meeting, whenever possible. Written notice of the next regular meeting stating the place, day, and time of the meeting, along with the meeting agenda, shall be delivered to ~~GC-SG~~ members not less than 14 nor more than 30 days before the date of any meeting.
3. *Special Meetings.* Special meetings shall be called as soon as practicable by the Chair upon the request of at least five ~~or more~~ GC members; provided, however, that if the purpose for calling the special meeting is to determine whether impairment or a ~~significant~~ Significant risk-Risk of ~~impairment-Impairment~~ exists to the ORVs then (a) the special meeting may be called upon the request of any one GC member, and (b) shall be held no later than 15 days from the initial GC member request. The special meeting request will provide a suggested date, time, and place of meeting, along with a proposed agenda of items to be discussed. Members shall be notified at least four days prior to a special meeting.

4. *Meeting Notice.*

- a. Written notice stating the place, day and time of the meeting along with the meeting agenda shall be delivered either personally, by mail, or by e-mail, at the direction of the Chair, to each GC member (and alternates). Written notice shall be delivered personally or by e-mail for any special meetings that are called.
- b. Notice must be delivered on or before established deadlines contained herein for annual, regular, or special meetings. If mailed, such notice shall be deemed to be delivered as to any GC member (or alternate) after being deposited in the United States mail, addressed to the GC member at its address as it appears on in the records for the GC, with postage thereon prepaid. If e-mailed, such notice shall be deemed delivered as to any GC member (or alternate) on the day of such e-mail transmission. Such electronic transmission may be corroborated by a printout showing the electronic address from which transmitted, the electronic address to which transmitted, the date, and the time of such transmission.

5. *Open Meetings and Public Participation.*

- a. All annual, regular, and special meetings of the ~~GC-SG~~ shall be open to the public. The ~~GC-SG~~ shall maintain an agenda item during each regular or special meeting devoted to written and oral public comment.
- b. Reasonable public notice of the time and place designated for all annual, regular, and special meetings shall be posted in public locations approved by the ~~GC-SG~~. At a minimum, public notice for regular and special meetings will be posted at approved locations in Grand, Summit, Eagle, and Garfield Counties and via an e-mail distribution list to interested stakeholders. The ~~GC-SG~~ may also provide public notice for meetings using an approved internet website and/or postings in widely distributed newspapers (e.g., Denver Post, Summit Daily News, etc.). Such notices shall remain posted through the date of the meeting, and shall be changed in the event that the time or place of such regular meetings is changed.

6. *Meeting Location.*

- a. Regular and special meetings shall be held at a time and in a place to be designated by the ~~GC~~SG. Meetings will generally be held in Grand, Summit, Eagle, or Garfield Counties. Meeting rooms shall have reasonable teleconferencing capability to meet the participation needs of any ~~GC~~SG member.
- b. The ~~GC~~SG may approve meetings to be held in other locations, as circumstances warrant, provided that adequate notice is provided to ~~GC~~SG members and the public.

7. *Meeting Agenda.*

- a. Agenda Formulation. Agenda items for annual or regular meetings should be submitted to the Chair within a reasonable time prior to the next scheduled meeting.
- b. Amendment of Agenda. The agenda for any meeting may be amended the day of the meeting by the ~~GC~~SG through the voting procedures set forth below.

- 8. *Telephonic/Electronic Participation.* ~~GC~~SG members may participate in and hold a meeting by means of conference telephone, video teleconference, webinar, or similar communications equipment. Participation in such a meeting by the methods described above shall constitute attendance and presence in person at such meeting.

F. Quorum Required.

- 1. All business of the SG shall be conducted at meetings of the ~~GC~~SG at which a quorum is present.
- 2. A quorum consists of at least 12 of the 18 GC members reflecting at least 5 of the 6 Interest Groups.
- 3. No proxies are allowed.
- 4. If a quorum is not present at any meeting, the ~~GC~~SG members shall continue the meeting to a date and time certain not later than 15 days from the original meeting.

G. SG Decisions Made by Consensus.

1. The preference and goal of the SG is that the ~~GC-SG~~ make consensus decisions based on give and take among members, with each participant:
 - a. listening carefully to the views of others;
 - b. attempting to verbalize the needs of an Interest Group with which they might disagree; and
 - c. proposing solutions and decisions that accommodate all or most of the Interest Groups.

H. Voting.

1. Except for such matters reserved for action solely by the ~~SG-GC~~, the SG will conduct its business and make decisions by unanimous consensus of the SG at meetings at which a quorum of the GC is present. If a vote of the SG does not achieve unanimous consensus, then the issue put to a vote will be determined by the GC as follows: The unanimous consent of all Interest Groups present at a meeting is required for the approval of any measure considered by the GC, except as provided in Paragraph VI.J.43., below. Unanimous consent is the general rule and the affirmative vote of 6 Interest Groups will be required for, among other things, any amendment to the SG Plan and any changes to the ORV Indicators and Resource Guides.
2. Each Interest Group receives one vote on each measure.
3. Within the respective Interest Groups, the affirmative vote of those representatives attending the meeting, as set forth in the Table below, is required to approve/disapprove any measure.

VOTING WITHIN INTEREST GROUPS	
Number of Interest Group GC Members Present at Meeting	Affirmative Votes required to pass Measure within Interest Group
3	2 of 3
2	2 of 2
1	1

4. No SG or GC vote can commit the rights, authorities, resources, finances, or operations of any SG member without that member's approval.
5. Votes of the SG and GC shall be recorded by the Secretary in the minutes of the SG, regardless of whether the measure is approved.

Dissenting votes within individual Interest Groups shall be noted in the minutes.

6. The SG may conduct business pursuant to e-vote pursuant to the following e-vote protocol, which may be amended by the SG from time to time but must be consistent with the SG's voting procedures. The SG's currently-adopted e-vote protocol provides that (a) actions may be submitted to e-vote if the SG has previously voted at a noticed meeting to refer a specific matter to subsequent e-vote by the ~~GCSG~~ or designated committee; and (b) emergency actions that have not been expressly delegated by the ~~GCSG~~ at a previous SG meeting may be submitted for e-vote if such actions involve the expenditure of no more than \$5,000, provided such funds are within the current approved budget. In general, ~~E~~emergency actions would be those which are, for example, not a subject of past significant known controversy, could not reasonably have been addressed at the last SG meeting, or cannot reasonably wait for approval at the next SG meeting.

I. Failure to Reach Consensus.

1. Any Interest Group may request that a dissenting Interest Group provide a written summary regarding the disputed issue within 10 days. The written summary shall set forth the issue, explain the competing views, and identify options that may be available to resolve the disagreement.
2. At the request of any Interest Group following provision of a written summary, the ~~GC-SG~~ shall revisit the issue and the specific proposal at the next ~~GC-SG~~ meeting.
3. After the actions in paragraphs VI.I.1. and VI.I.2. are undertaken, and upon the request of any Interest Group, the ~~GC-SG~~ may by unanimous vote determine that the unresolved concern should be addressed in accordance with the provisions of paragraph VI.J.43. below. In evaluating the matter, the ~~GC-SG~~ shall seek and take into consideration the views of the appropriate federal agency(ies) (BLM and/or USFS) through their participation as non-voting members of the SG. The SG deliberations shall also be informed by and take into consideration other relevant factors, including external conditions such as those related to any extended drought, fire, climate change, or other conditions outside the control of the Plan.

4. A written summary on measures that fail to achieve consensus after the actions in paragraphs VI.I.1. and VI.I.2. are undertaken shall be included in the SG's annual report to BLM and USFS. The written summary may include majority and minority reports.

J. GC-Dispute Resolution Consideration of Long-Term Protection Measures, ORV Impairment, Significant Risk of Impairment, and Matters Referred by Consensus.

1. ~~Failure to meet a Milestone.~~

~~If final decrees for CWGB instream flow applications in Cases No. 11CW159, 11CW160, and 11CW161 are not entered by the date anticipated in Attachment A, and assuming the Plan is effective, the GC will discuss the cause of the delay²⁸. The GC will determine whether the delay causes any material adverse impact to the purpose of the Long-Term Protection Measures. If, by unanimous consent, the GC determines that a material adverse impact is found, the GC will determine the appropriate management activities to reasonably mitigate the material adverse impact. If the GC is unable to reach consensus on how to mitigate the material adverse impact, the GC will follow the Governance procedures in Paragraph VI.J.4(4) below.~~

21. Material Change in Circumstance.

Any member of the GC may assert a Material Change in Circumstance, as defined in the Definitions Section, in the implementation of one of the Long-Term Protection Measures by submitting a written request for the ~~GC-SG~~ to convene a meeting (or add an agenda item to a previously set meeting) pursuant to the procedures in Section IV.C. of the ~~SG~~ Plan. The ~~GC-SG~~ will determine whether a Material Change in Circumstances exists. If the ~~GC-SG~~ determines by unanimous consent that a Material Change in Circumstance exists, it will then decide how to address the ~~Mmaterial C~~change. If the ~~SG or~~ GC is unable to reach consensus on how to address the ~~Mmaterial C~~change, the GC will follow the procedures in Paragraph VI.J.4(~~43~~) below.

32. Significant Risk of Impairment.

If, during any meeting called in part for the purpose of determining whether a ~~significant-Significant risk-Risk of impairment-Impairment~~ exists (as contemplated in the Definitions Section and Section IV.C. of the Plan), the GC cannot reach unanimous consensus on a

²⁸ ~~The Task List in Attachment B describes the stakeholder response in the event of failure to meet this Milestone prior to the effective date of the Plan.~~

determination of that matter, the GC shall immediately follow the procedures set forth in paragraph VI.J.43, below.

43. Procedures for Mediation.

The following actions shall be taken by the GC upon (1) the vote of at least five Interest Groups that there is a ~~S~~significant ~~R~~risk of ~~I~~impairment to an ORV; (2) the data affirmatively demonstrating that an ORV has been impaired by virtue of an ORV Indicator not being met pursuant to the criteria established in the SG Plan, absent a vote of at least five Interest Groups that further action is not warranted at that time; (3) a unanimous consensus decision of the GC made following the procedures contemplated by paragraph VI.I.3, above; or (4) the failure of the GC to reach consensus on how to address ~~a missed Milestone or~~ a Material Change in Circumstance:

- a. Absent a unanimous vote to skip mediation, the issue will be referred to a mediator to facilitate consideration of non-binding options toward resolution for a period of 45 days to further efforts to reach consensus on the disputed issue.
- b. Within 30 days of the termination of the mediation process (or a unanimous vote to skip the mediation process), the disputed issue will be referred to a Review Committee. The Review Committee will consist of: a member of the Board of Directors of the Colorado River Water Conservation District, a member of the Board of Directors of either NCWCD or DWB, the Director of the Colorado Department of Natural Resources, and a member of the Board of Directors of a conservation or recreation Interest Group member. The Review Committee shall meet to consider the disputed issue and shall provide non-binding guidance to the GC within 15 days of the date of referral.
- c. Subsequent to the Review Committee's guidance to the GC, and upon the request of any Interest Group, the GC may terminate the SG's Plan upon the affirmative vote of at least five Interest Groups. Any such GC vote regarding termination of the SG Plan shall occur no later than 90 days following the meeting referred to in paragraph VI.J.43.b., above. Should the ~~SG~~ Plan not terminate, the underlying causes for the vote shall be made an agenda item for the next regular or special called meeting, at which time appropriate follow-up actions shall be determined.

- d. The GC may agree to shorten or lengthen the timeframes provided above by consensus, upon the good faith request of any GC member. An example of a good faith request may be to allow additional time for the internal study or technical/scientific review of an alleged significant risk or to shorten the applicable timeframes when reasonable evidence exists of an existing or imminent substantial risk to an ORV.

K. Withdrawal from the Plan.

Each stakeholder reserves its right to withdraw from participation in the SG Plan at any time.

- 1. Withdrawal Procedure: Before withdrawing from the Plan, a stakeholder or Interest Group shall provide written notice to the Governance Committee, at which time the Committee shall call a special meeting of the SG for the purposes of discussing the reasons for withdrawal and potential alternatives.
- 2. Effect:
 - a. Withdrawal from the SG Plan by one Interest Group or individual stakeholder(s) does not terminate the SG Plan. However, subsequent to any withdrawal, the remaining SG may choose to take action to terminate the SG Plan.
 - b. Withdrawal of an Interest Group from the SG Plan will result in the automatic adoption of the ORV Indicators and Resource Guides in effect at the time of the Interest Group's withdrawal as permanent for purposes of the SG Plan, unless otherwise agreed to by the withdrawing Interest Group.
 - c. Following the withdrawal of one Interest Group, Section VI.F.2~~7~~ of the Plan shall automatically be revised to read as follows: "A quorum consists of at least 10 of the 15 GC members, reflecting all 5 of the Interest Groups." The voting requirements under the Plan shall stay the same.
 - d. Withdrawal of more than one Interest Group will terminate the Plan.

L. Reimbursement of Funds.

In the event of withdrawal by a single Interest Group or individual stakeholder (the Withdrawer), the Withdrawer shall not be entitled to a refund of any annual dues that support the Plan activities and shall make any contributions required to be paid to the Plan for costs which have been obligated prior to the effective date of the withdrawal. The Withdrawer will be reimbursed for monies then remaining out of the original monies contributed to an Endowment Fund (except as otherwise provided by the terms of any contract or permit), but with no consideration for accrued interest associated with such contribution to the Endowment Fund. The remaining Interest Groups shall amend the Plan as necessary to reflect changes in the cost and revenue allocations.

In the event the SG Plan is terminated in accordance with Sections VI. K.2.a. and VI. K.2.d., any unexpended and uncommitted funds shall be distributed proportionately to those Interest Groups remaining in the SG Plan at the time of termination based on each party's percentage share of the original contribution.

VII. NEW PROJECTS

- A. This section applies to new projects or facilities that require federal authorization, funding, or assistance (regardless of whether any water rights to be exercised by the new project pre-date the Plan), including changes to existing projects undergoing federal permitting or requesting federal funding or other federal assistance.
- B. Proponents of new projects may choose to include ("opt-in") the project in the Plan as provided below.

To opt-in a new project, the proponent shall:

1. Inform the SG of the proposed project and provide pertinent information in a timely manner sufficient to allow the SG to provide written comments on the proposed project within any applicable public comment period. The SG will review the proposed project and will consider the impact of the proposed project on the ORVs in Segments 4 through 7 with consideration of the provisions of VII.B.2. and VII.B.3., below. The SG will provide timely SG comments and recommendations thereon to the permitting agencies upon unanimous consent of the SG. Individual stakeholders may submit separate comments on an opt-in project's impacts to ORVs in Segments 4 through 7 provided they have first attempted to develop consensus comments and recommendations

inclusive of their views as a member of the SG. However, this requirement shall not apply to the State.

2. Formally endorse the SG Plan and commit to participate in the Cooperative Measures procedures in Section IV.B. and the Funding provisions in Part VIII; and
3. Formally commit to meet either subparagraph a. or b. below:
 - a. Demonstrate that project operations will not unreasonably diminish the ORVs; or
 - b. Demonstrate that project operations will be subject to mitigation to avoid unreasonably diminishing the ORVs.

Satisfaction of the criteria set forth in paragraph VII.B.3., above, shall be determined by the permitting or authorizing agency(ies) through the agencies' standard approval procedures. The Resource Guides are not intended to be used by agencies or entities as the criterion for evaluating a project's effects on the ORVs, regardless of whether the project has or has not opted-in to the Plan. If a SG member uses or promotes the guides for evaluating project effects or as permitting criterion during current or future project permitting, any Interest Group may terminate the Plan following consultation with the full SG. This requirement does not preclude individual stakeholders from submitting comments regarding compliance with State regulatory standards applicable to aspects of a project separate from the ORVs. Moreover, nothing herein shall be interpreted to preclude or limit the use of any data regardless of whether such data has been used in the negotiation of the Resource Guides.²⁹

The SG intends that permitting agencies will conduct their own independent assessment of a project's impacts to the ORVs, if any. Membership as a stakeholder is not intended to be used as criterion for determining whether a project proponent has addressed potential ORV impacts, if any, of a proposed project; nor shall it be used as a component of any demonstration that project operations will not unreasonably diminish the ORVs (except as may otherwise be agreed between the project proponent and the SG).

After permit issuance, the SG will not oppose or administratively or judicially challenge an opted-in new project on the basis of project impacts to ORVs in Segments 4 through 7, and any individual stakeholder seeking to do so shall be required to withdraw from participation in the SG Plan prior to taking such action. An opt-in project proponent seeking to

²⁹ For further information regarding Resource Guides and their use, see Section III.A.2 of this SG Plan.

challenge a permit decision or permit conditions related to project impacts to ORVs in Segments 4 through 7 shall likewise be required to withdraw from participation in the SG Plan prior to taking such action. Subsequent participation in the SG Plan by the withdrawing stakeholder shall require unanimous approval of the SG. It is the SG's intent that withdrawal of a stakeholder from the Plan pursuant to this paragraph shall not trigger reconsideration of any prior agency determinations with regard to that stakeholder's own project effects on ORVs unless participation in the Plan is a condition of that project's permit. The exercise of State or local government statutorily mandated review or approval authorities with respect to a proposed opt-in project shall not constitute an opposition or challenge warranting that entity's withdrawal from participation in the SG Plan pursuant to this paragraph. Nothing in the Plan shall be deemed or construed to preclude any SG member from participating in any water rights litigation.

C. Additional Incentives for Opt-in

The SG will consider further incentives for a project proponent to opt-in to the SG Plan on a case-by-case basis.

VIII. FUNDING

A. Endowment Fund.

1. *Creation of an Endowment Fund.* ~~Within three years after the effective date of the Plan~~Subsequent to expiration of the Poison Pill (Section III.C.2.d), the SG will seek to create an endowment fund of at least \$1.5 million, which will also be called the corpus. It is the goal of the SG that each member shall make a financial contribution to the endowment fund, in an amount that takes into consideration each member's financial ability to contribute. Awards or grants from governmental and private entities can be accepted as part of a member's contribution to the endowment fund. The endowment fund shall be created and expended consistent with the requirements to qualify and maintain status as a 501(c)(3) entity. The SG's intent is to preserve the corpus to be used for protecting and enhancing ORVs, rather than for administrative and routine operation costs, which will be funded by other mechanisms described below.
2. *Trustee Appointment.* ~~Within three years after the effective date of the Plan~~Subsequent to expiration of the Poison Pill (Section

III.C.2.d), the GG-SG will appoint a trustee for the endowment fund. The trustee shall have all the necessary powers within the law to invest, maintain and manage the endowment fund. These powers shall include accepting donations, applying for grants, bequests, loans, or undertaking other financial transactions to maintain or enhance the endowment fund. Powers also include contracting with banks or other depositories for the funds and lawfully depositing and withdrawing money from the fund. In addition, the trustee shall be responsible for ensuring that all distributions are in accordance with the restrictions placed on endowment contributions.

- a. The GG-SG shall adopt a Statement of Investment Policy and Objectives (Statement) in order to establish a clear understanding on the part of the GG-SG and the trustee of the investment objectives and guidelines for the endowment fund. The Statement will also provide the GG-SG a basis for evaluation of the trustee's performance.
- b. The Statement might provide that the primary investment goal is the preservation of the principal after taking into account inflation. A secondary objective could be to earn the highest possible rate of return consistent with prudent standards for preservation of capital.

3. *Endowment Fund Spending.* The GG-SG may allocate funds to projects or other associated efforts which, in its view, will further the preservation, protection, or enhancement of the ORVs. If a primary goal of the investment is to preserve the principal, the GG-SG may decide to have a goal to limit the spending, to the extent it can, to just the interest earned. The GG-SG may instruct the trustee to contract with any receiving entity for the completion of projects or other associated efforts, including requirements for escrows, inspection, bonding, collateral, or other guarantees of project or associated effort completion. Such efforts may require the Trust to hire staff, purchase or rent facilities, equipment, or other property, and contract for goods and services necessary to further its purposes.

Purpose of Endowment Fund. The purpose of the endowment fund is to provide supplemental resources to protect and enhance the ORVs in the Colorado River between Kremmling and the confluence of No Name Creek, also known as BLM Segments 4 through 7. Funding is limited to the ORVs identified in those respective segments described in Part II of this SG Plan.

4. *Specific Limitations on Use of Endowment Funds.* In addition to the general restrictions on the use of funds described below, the following specific limitations will apply to the use of the endowment funds.

- a. *Protection of Corpus.* The ~~GG-SG~~ shall at all times endeavor to maintain the corpus of the endowment. However, it is recognized that opportunities may arise where the benefits of using some portion of the corpus significantly outweigh its diminishment. Specifically, where the opportunity exists to match in-kind or financial contributions on a one-to-one or greater basis for a project or program meeting the allocation guidelines, the ~~GG-SG~~ shall be empowered to authorize expenditure of no more than 15% of the corpus during any fiscal year. Such expenditure shall require the unanimous consent of all Interest Groups. Any funds expended under this provision shall be credited towards the endowment contribution requirements.
- b. *Administrative Costs.* No more than 15% of expenditures within any calendar year shall be used for administrative costs. This limitation does not apply to non-discretionary expenses such as responding to IRS audits or litigation, financing, repairs or reimbursements caused by accident, unanticipated damage and acts of God.
- c. *Not for Operations and Maintenance.* The ~~GG-SG~~ shall generally restrict its expenditures to projects and associated efforts that further the protection and enhancement of the ORVs within BLM Segments 4 through 7. Generally, expenditures should not be made for ongoing operations and maintenance of such projects.

B. Funding Assessment. In addition to other funding sources, the ~~SG~~ Plan will establish and rely on memberships to help fund administrative and operating costs and associated efforts under the ~~SG~~ Plan. The ~~GG-SG~~ shall maintain a list, updated at least annually, of such members. The ~~GG-SG~~ shall issue to every participating member of the Plan a letter of membership that will evidence that member's participation in the Plan. Membership participation shall be open to any person, natural or corporate, upon contribution to the endowment fund and payment of appropriate assessments so long as the participant "opts in" in accordance with Part VII of this Plan.

1. ~~Classes of Membership.~~ Members of the SG Plan will be issued a letter of membership upon contribution to the endowment fund based on the member's ~~classification~~ Interest Group as determined by the ~~GCSG~~. Each member shall be included in only one of the following ~~classes~~ Interest Groups, which ~~conform to the Interest Groups and~~ have equal voting rights:
 - a. West Slope Water ~~Conservancy/Conservation Districts and Landowners/Water Users.~~ Users and Landowners.
 - b. Local Government.
 - c. ~~Trans-Mountain Diverters.~~ East Slope Water Users.
 - d. Conservation/Environmental/Fishing.
 - e. Recreational Floatboating.
 - f. State Interests (e.g., CWCB, CPW, and State or Division Engineer).
2. *Assessments.* Annual assessments will be approved by unanimous consent of the SG and be levied to each Interest Group in equal amounts sufficient in total to meet the administrative and operating costs and any debt service requirements as identified by the ~~GCSG~~. The first year after the effective date of the Plan, the SG anticipates an assessment ~~of \$10,000~~ levied to each Interest Group. ~~Assessments are expected to vary in accordance with actual costs, and will be established by the GCSG on an annual basis.~~³⁰

Nonpayment of annual assessments shall be cause (with ameliorating circumstances being taken into account) for an Interest Group to lose its voting privileges during the period of non-payment.
3. *In-kind contributions.* In-kind contributions from stakeholders may be accepted as part of a member's contribution to the annual assessment.
4. *Unspent funds.* At the end of each fiscal year, unspent operating funds in excess of \$50,000 may be re-allocated to the Endowment Fund, as determined by the ~~GCSG~~.

- C. Other Funding Sources. These funding sources are meant to supplement the Endowment Fund (Section VIII.A) and Funding Assessments (Section VIII.B), which are intended to be the primary sources of funding for the SG.

³⁰ Assessments to governmental entities would be subject to annual appropriation.

1. Funding from Grants. The SG will actively seek grants from federal, state, local and private entities to fund projects and efforts that enhance and protect the ORVs. The use of funds from these grants will comply with underlying specifications and requirements of those grants.

2. State of Colorado Wild and Scenic Rivers Fund. In addition to the funding described above in Sections VIII.A and B, the SG will request funds from the Wild and Scenic Rivers Fund created as part of Senate Bill 09-125, codified in C.R.S. § 37-60-122.3. The request for funds will be made in accordance with the underlying legislation and the criteria/guidelines for these funds called the *Terms and Conditions Developed by the Colorado Water Conservation Board for the Allocation of Funds from the Wild and Scenic Alternatives Fund*, adopted by the CWCB on January 27, 2010 and revised on March 21, 2018.

~~D.~~ 3. Leverage of Funding with BLM. In addition to the funding described above in Sections VIII.A.-C., the SG will cooperate and coordinate with ~~the~~ BLM to leverage funds through ~~the~~ BLM's Challenge Cost Share program, ~~the~~ BLM's Recreation Resource Management program, and other similar types of BLM programs to be used on specific projects that protect and enhance the ORVs.

~~E.~~ State of Colorado Wild and Scenic Rivers Fund. In addition to the funding described above in Sections VIII.A.-D., the SG will request funds from the Wild and Scenic Rivers Fund created as part of Senate Bill 09-125, codified in C.R.S. § 37-60-122.3. The request for funds will be made in accordance with the underlying legislation and the criteria/guidelines for these funds called the *Terms and Conditions Developed by the Colorado Water Conservation Board for the Allocation of Funds from the Wild and Scenic Alternatives Fund*, approved at the CWCB meeting January 26-27, 2010.

~~F.D.~~ General Limitations on Use of Funds.

1. ~~GC-SG~~ Control. The ~~GC-SG~~ shall control all use of the funds, and all restrictions herein apply to the ~~GC-SG~~.
2. *Effect on ORVs.* Grants, loans or other disbursements shall be made only for protection, preservation, or enhancement of the ORVs within BLM Segments 4 through 7.
3. *No Political Spending.* No funds shall be used for any political purpose, including but not limited to contribution to political parties or causes, contributions to or promotion of candidates for public

office, publication or contribution to flyers, brochures or other printed materials supporting issues or candidates, lobbying, or contributing to materials to be used for lobbying.

4. *No Opposition to Water Development.* No funds shall be used to directly challenge or oppose water development or water operations.
5. *Consideration of All ORVs.* When considering funding a project, the GC shall weigh the harms and benefits to all ORVs. Funds shall not be used for a project that would unduly harm one ORV to benefit another.
6. *Public Meetings.* The ~~GC-SG~~ shall grant funding only in meetings open to the public. Notice of public meetings will be provided in accordance with Section VI.E- of this ~~SG~~ Plan.
7. *Public Benefit.* The ~~GC-SG~~ shall grant funding only for projects and associated efforts that are accessible to and/or benefit the public. No funds shall create improvements on private property that would significantly enhance the value of the property unless the property is leased to a public entity and the improvement serves the public purpose of that entity.

~~GE~~. Distribution of Assets Upon Dissolution. Upon dissolution or final liquidation of the SG or any successor entity created by the SG, all of its assets remaining after payment or provision for all its liabilities shall be paid over or transferred to a corporation or governmental entity established to fulfill the same purposes (in whole or in part) for which [the SG entity] was established. If no such entity is created for that purpose, the assets may be distributed or conveyed to one or more governmental units within the meaning of Section 170 (b)(1)(A)(v) of the Internal Revenue Code or to Colorado Parks and Wildlife for the benefit of wildlife habitat within or without the State of Colorado, or if such a transfer is not possible or practical, the assets may be distributed to and among one or more exempt organizations described in Section 501(c)(3) of the Internal Revenue Code for exclusively public purposes. The organizations or governmental units to receive such property, and their respective shares and interests, shall be determined by the ~~GC-SG~~. Any such assets not disposed of shall be disposed of by the appropriate court of the county in which the principal office of the SG or any successor entity created by the SG is then located exclusively for such purposes or to such organization or organizations as said court shall determine are organized and operated exclusively for exempt purposes.

IX. AGENCY COORDINATION

A. Coordination with BLM and ~~the~~ USFS.

1. Coordination between BLM, USFS, and the SG is important to the successful implementation of the SG Plan. The ~~SG proposes that~~ BLM and ~~the~~ USFS ~~become~~ are non-voting members of the ~~SG's Governance Committee~~ GC and fully participate in the Committee's activities.
2. The ~~Governance Committee~~ GC will provide an annual report to BLM and USFS summarizing efforts and activities related to implementation of the SG Plan including, but not limited to, status and results of monitoring efforts, status of ORV Indicators, Cooperative Measures, funding, and other pertinent information.
3. The ~~Governance Committee~~ SG recommends that ~~the~~ BLM and USFS provide notification to the GC of any federal activity that may affect Segments 4 through 7 of the Colorado River.
4. The ~~Governance Committee~~ SG will notify BLM and ~~the~~ USFS within 30 days if monitoring indicates that an ORV Indicator has not been met.

B. Interagency Coordination.

1. Coordination with and the cooperation of other federal agencies whose decisions may affect the ORVs is important. The SG ~~proposes the development of~~ entered into an MOU ~~between with~~ BLM and ~~the~~ USFS, ~~and will work with and~~ other federal agencies, including but not limited to the U.S. Army Corps of Engineers, the Bureau of Reclamation, the U.S. Fish and Wildlife Service, and the Federal Energy Regulatory Commission, ~~which describes how their actions will relate to the SG Plan as needed.~~
2. Elements of the MOUs with such federal agencies should include, but not be limited to, acknowledgment of the SG Plan as the management alternative adopted by BLM and ~~the~~ USFS for Segments 4 through 7 of the Colorado River; data sharing; notification of federal agency activity that may affect these segments; recognition that the Resource Guides are to be used solely for purposes internal to operation of the SG Plan; and appropriate coordination and consultation procedures.

LIST OF ATTACHMENTS

Attachment A: ~~Milestones for Implementation of~~ Tier 1 Long-Term Protection Measures and Mechanisms for addressing Changed Circumstances

~~Attachment B: Time Line and Task List~~

Attachment ~~GB~~: Existing ~~Flow~~ Conditions

Attachment ~~DC~~: ~~Provisional Period~~Long-Term Monitoring Plan

Attachment A: Tier 1 Long-Term Protection Measures, and Mechanisms for Addressing Changed Circumstances in Long-Term Protection Measures

Milestones for Implementation of Tier 1 Long-Term Protection Measures, and Mechanisms for Addressing Changed Circumstances in Long-Term Protection Measures

- I. ~~Milestones for Implementation of~~ Tier 1 Long-Term Protection Measures.
 - A. *Measure 1:* ~~The SG recommended and CWCB appropriated~~Appropriation of a CWCB ~~three~~ Instream Flow ~~water rights in Segments 4, 5, and 6,(s)~~ which were decreed on March 26, 2013. Refer to ~~section~~Section IV.A.1. of the Plan.
 1. ~~The SG will make a written recommendation for appropriation of instream flow(s) (ISF) to the CWCB on or prior to April 15, 2011. The SG's recommendation will include results of the most recent data collection available³¹.~~
 2. ~~CWCB will declare its intent to appropriate ISF(s) prior to May 31, 2011, which initiates the notice and comment procedure under Rule 5 of the Rules Concerning the Colorado Instream Flow and Natural Lake Level Program. The SG will participate in the process to support an ISF appropriation(s) that is(are) consistent with the SG's recommendation to the CWCB³².~~
 3. ~~CWCB will file a water court application to adjudicate an instream flow(s), on or prior to December 31, 2011. This date will set the administrative priority of the instream flow with respect to junior water rights³³.~~
 4. ~~Entry of final decrees for CWCB's instream flow applications should occur prior to December 31, 2015. Individual participants in the SG will consider participating in the CWCB ISF adjudication process in support of the CWCB's instream flow applications.~~

³¹~~The SG made a written recommendation for appropriation of instream flows to the CWCB on June 30, 2011, which recommendation included results of the most recent data collection available.~~

³²~~CWCB declared its intent to appropriate ISFs on July 12, 2011, which initiated the notice and comment procedure under Rule 5 of the Rules Concerning the Colorado Instream Flow and Natural Lake Level Program.~~

³³~~CWCB filed water court applications in Cases No. 11CW159, 11CW160, and 11CW161 ("CWCB's instream flow applications") to adjudicate instream flows, on November 30, 2011.~~

B. *Measure 2:* Delivery of water to downstream demands. Refer to section IV.A.2- of the Plan.

1. This is an existing feature of Colorado's stream administration and operations on the Colorado River that delivers previously stored water through the subject stream segments to downstream demands. No ~~milestones-SG actions~~ are necessary to implement this existing Long-Term Protection Measure.

C. *Measure 3:* Existing water rights administration. Refer to ~~section~~ Section IV.A.3- of the Plan.

1. This is an existing feature of Colorado's stream administration and operations on the Colorado River that operates to curtail diversions (or require the replacement of such diversions) from upstream junior water users to provide water through the subject stream segments for delivery to downstream senior water rights. No ~~milestones-SG actions~~ are necessary to implement this existing Long-Term Protection Measure.

D. *Measure 4:* Delivery of water to the 15-Mile Reach in the Grand Valley pursuant to the Upper Colorado River Endangered Fish Recovery Program. Refer to ~~section~~ Section IV.A.4- of the Plan.

1. This is an existing program that implements mechanisms by which water is delivered from upstream reservoirs for the benefit of the endangered fish species in the Grand Valley on a temporary basis. The water deliveries are protected through the subject stream segments downstream through the 15-Mile Reach of the Colorado River. The SG recognizes that following submittal of the January 2012 version of the SG Plan, federal, state, and local water entities negotiated and implemented negotiations are currently proceeding in a separate forum to develop alternative sources of supply for the water users' portion (10,825 acre feet) of water delivered to the endangered fish. The water users' portion ~~has had~~ historically averaged (1998 – 2008) approximately 9.1% of the total amount of water delivered to the fish, and 12.8% of the water delivered to the fish from sources above Kremmling (Table A.1.). The SG recognizes that, consistent with federal approval, approximately one-half a portion of the water users' obligation ~~no longer will be likely will cease to be~~ delivered from points above Kremmling, and instead will be made from

sources of water downstream of Segments 4 through 7.³⁴ Significant releases of water to the endangered fish can be expected to continue to be made from Green Mountain Reservoir pursuant to the Recovery Program and the operation of the Green Mountain Reservoir Rule Curve established in the Orchard Mesa Check Decree, Case No. 91CW247, Water Division 5. ~~No milestones are necessary to implement this existing Long-Term Protection Measure.~~

II. Mechanisms for Addressing Changed Circumstances in Long-Term Protection Measures

A. Examples of Changed Circumstances that Trigger Action of the SG.

1. *Measure 1:* Examples of a Material Change in Circumstances include, but are not limited to: ~~the CWCB's appropriation of an ISF that is not consistent with the SG's recommendation to the CWCB;~~ a significant new water right appropriation upstream of or within the subject stream reaches that is senior to the CWCB's ~~anticipated~~ ISF(s); the CWCB's determination to abandon its instream flow water right(s) or to allow the inundation of part of the instream flow right(s); or an administrative or judicial reduction of the instream flow right(s).

2. *Measure 2:* Examples of a Material Change in Circumstances include, but are not limited to, a materially significant change in the operating procedures by which previously stored water is released from Green Mountain Reservoir under the 1984 Operating Policy and the terms of the Orchard Mesa Check Decree, Case No. 91CW247, Water Division 5.

3. *Measure 3:* Examples of a Material Change in Circumstances include, but are not limited to, a reduction, elimination, or other significant change from historical practice in the operation of the administrative call of the Shoshone Power Right, except for (1) the changes from historical practice expressly set forth in the Agreement Concerning Reduction of Shoshone Call between Xcel Energy and the Denver Water Board, which has a term from January 1, 2007 to February 28, 2032 (2007 Shoshone Agreement); and (2) any longer period of relaxation pursuant to paragraph 5 of the 2007 Shoshone Agreement agreed to between

³⁴ March 2012 Environmental Assessment and Finding of No Significant Impact, United States Bureau of Reclamation regarding Colorado Water Users' Commitment to Provide 10,825 acre-feet to the 15-Mile Reach of the Upper Colorado River, Great Plains Region, Eastern Colorado Area Office (the "March 2012 10825 FONSI").

the Denver Water Board and the Colorado River Water Conservation District. Other examples of a Material Change in Circumstance would be an abandonment, material reduction, or material change in the manner of operation of the Cameo group of water rights.

4. *Measure 4:* As discussed in paragraph I.D.I above, ~~the SG expects a non-material change in the methods by which Colorado water users' obligation to provide 10,825 acre feet of water will be delivered~~ to the endangered fish in the 15-Mile Reach ~~will be provided in accordance with the March 2012 "10825" Findings of No Significant Impact (FONSI) or any subsequent water user obligation(s).~~ Examples of a Material Change in Circumstances related to implementation of Measure 4 include, but are not limited to: (A) ~~the currently proposed~~ 5,412.5 acre-feet of Granby Reservoir releases are no longer provided; (B) the first enlargement of Wolford Mountain Reservoir (decreed in Case No. 95CW281, Water Division No. 5, is no longer available for release for delivery to the 15-Mile Reach for endangered fish species purposes; or (C) the mechanism for the release of Historic Users Pool "Surplus" water as provided in the Orchard Mesa Check Decree, Case No. 91CW247, Water Division 5 is no longer available.

TABLE A.1.
ANNUAL SUMMARY OF HISTORICAL RECOVERY PROGRAM RELEASES (Acre Feet)

Year	RESERVOIR RELEASES TO 15 MILE REACH (Acre Feet)												TOTAL
	FISH POOL RELEASES					DISCRETIONARY RELEASES							
	Green Mtn HUP Surplus	Ruedi Fish Pools	Wolford Water Users	Wolford USFWS Pool	Williams Fk Reservoir Water Users	Green Mtn Reservoir	Wolford Mtn Reservoir	Dillon Reservoir	Williams Fk Reservoir	Granby Reservoir	Willow Ck Reservoir		
1998	31,736	20,803	0	6,000	0	0	5,516	0	0	0	0	64,055	
1999	35,564	20,418	0	4,939	0	0	0	11,479	1,825	26,914	3,382	104,521	
2000	47,187	19,064	5,409	6,000	3,858	0	0	0	0	0	0	81,518	
2001	34,657	21,345	5,413	3,078	5,369	0	0	0	0	0	0	69,862	
2002	0	10,975	0	300	3,757	0	0	0	0	0	0	15,032	
2003	47,526	20,434	0	286	3,757	0	0	0	0	0	0	72,003	
2004	119	15,981	0	0	2,678	0	0	0	0	0	0	18,778	
2005	31,200	17,163	1,000	0	3,814	0	0	0	0	0	0	53,177	
2006	25,358	19,680	5,413	5,233	5,412	0	0	0	0	0	0	61,096	
2007	32,745	14,273	4,339	0	2,394	0	2,500	0	0	0	0	56,251	
2008	61,433	20,423	5,413	3,189	5,367	0	1,829	0	0	0	0	97,654	
Mean (98 - 08) Water Users (98 - 08)	31,593	18,233	2,453	2,639	3,310	0	895	1,044	166	2,447	307	63,086 5,763	9.1%

IF HISTORICAL DISCRETIONARY RELEASES ARE CONSIDERED AND ASSUMED TO CONTINUE

Historical Releases above Kremmling														
Total Releases	31,593	N/A	2,453	2,639	3,310	0	895	1,044	166	2,447	307	44,853	12.8%	
Water Users Portion			2,453		3,310							5,763		
Estimated Future Releases above Kremmling														
Total Releases	31,593	N/A	0	2,639	0	0	895	1,044	166	7,859	307	44,502	12.2%	
Water Users Portion										5,412		5,412		
REDUCTION IN TOTAL DELIVERIES ABOVE KREMMLING =													351	0.8%

IF HISTORICAL DISCRETIONARY RELEASES ARE ASSUMED TO NOT CONTINUE

<u>Historical Releases above Kremmling</u>														
Total Releases	31,593	N/A	2,453	2,639	3,310	0	0	0	0	0	0	39,995	14.4%	
Water Users Portion			2,453		3,310							5,763		
<u>Estimated Future Releases above Kremmling</u>														
Total Releases	31,593	N/A	0	2,639	0	0	0	0	0	5,412	0	39,644	13.7%	
Water Users Portion										5,412		5,412		
REDUCTION IN TOTAL DELIVERIES ABOVE KREMMLING =													351	0.9%

~~Attachment B
Timeline and Task List~~

~~1. Period Prior to Submittal of an Endorsed Plan.~~

~~A. SG to come to resolution on amount of recommended ISF by April 15, 2011 or come to alternative resolution on how the CWCB process will proceed prior to endorsement of Plan.~~

~~B. SG to finalize language for definition of year types for inclusion in Plan based on conceptual agreement to use Colorado Basin River Forecast Center forecasts of undepleted flow to predict the year type prior to the recreation season for informing the upcoming year's discussion about Cooperative Measures, and to use measured/depleted flows at the end of the wild and scenic year for evaluation of post-recreation season comparison to the boating Resource Guides.~~

~~C. SG to consider whether to include more detailed description of simulated future flows.~~

~~D. Prior to endorsement on April 30, 2011, the SG intends that any contact with press about this Plan should be handled through Rob Buirgy, Project Manager; or the BLM/USFS.~~

~~2. Period Following Submittal of an Endorsed Plan until Effective Date (i.e., before BLM/USFS approve the Plan as the alternative in the ROD).~~

~~A. Decisions made in this period are all by unanimous consensus of all stakeholders, continuing the current process of negotiation and compromise.~~

~~B. Provide formal SG Endorsement of Plan to BLM/USFS no later than April 30, 2011.~~

~~C. Begin monitoring:~~

~~————— (1) Gather data collected by others (e.g., CPW fish biomass).~~

~~(2) SG fund and gather data (e.g., conduct creel surveys, recreation surveys) if SG unanimously agrees to funding of such efforts.~~

~~(3) Evaluate monitoring data compared to provisional Resource Guides and provisional ORV Indicators.~~

~~————— (4) Prepare Annual Monitoring Report.~~

~~D. No SG Plan funding assessments (Section VIII.B.2.) to be levied during this period.³⁵~~

³⁵ Prior to expiration of the period for exercise of the Poison Pill, members of the SG would continue to contribute annual funding to the SG Plan, but shall not be required to contribute endowment funding under the Plan. The Homestake Partners will also only contribute annual (not endowment) funding to the SG Plan unless or until the ERMOU Project is "opted in" as a new project.

~~E.—— Stakeholders will engage in a good faith effort toward reaching agreement on final Resource Guides and ORV Indicators; outline studies and data collection to be done in the provisional period. By unanimous consensus among all stakeholders, ORV Indicators and Resource Guides could be finalized during this period and would become effective upon the effective date of the Plan.~~

~~F.—— Explore Cooperative Measures in accordance with the process set forth in the Plan.~~

~~G.—— Conduct discussions and make written recommendation to CWCB for the base flow in-stream flow pursuant to C.R.S. §37-92-102 in accordance with Section IV.A.1. of the Plan.~~

~~If final decrees for the CWCB instream flow applications are not entered by the date anticipated in Attachment A, and the Plan has not become effective, the stakeholders will discuss the cause of the delay. The stakeholders will determine whether the delay causes any material adverse impact to the purpose of the Long Term Protection Measures. If it is determined by unanimous consent of all stakeholders that a material adverse impact exists, the stakeholders may decide to implement management activities to reasonably mitigate the material adverse impact.~~

~~H.—— Continue discussions on commitments to the Plan on behalf of the Windy Gap Firing Enterprise, Northern Water and Denver Water pursuant to Section III.C.2.c. of the Plan (Poison Pill).~~

~~I.—— Hold full SG meetings (quarterly or semiannually) and prepare annual report/update; make any changes/refinements to the Plan agreed upon by all stakeholders.~~

~~J.—— Develop MOU among SG members for provisional period of Plan. A long term MOU or legal entity would be entered into subsequent to sunset of the Poison Pill.~~

~~K.—— Begin discussions and review relevant data to determine the extent to which channel maintenance flows may be incorporated into the Plan.~~

~~L.—— By unanimous consensus of all stakeholders, other tasks can be performed as needed.~~

~~3.—— BLM/USFS Adoption of Plan without Material Changes — Plan becomes Effective~~

~~A.—— Provisional Period: First 3 to 5 years of Plan Implementation~~

~~(1)—— Within 3 years or sooner, develop final Resource Guides and ORV Indicators by unanimous consent (6/6) of Interest Groups.~~

~~(2)—— Execute MOU among SG members for provisional period of Plan. A long-term MOU or legal entity would be entered into subsequent to sunset of the Poison Pill. Develop long-term MOU.~~

~~(3) — Interest Groups develop protocol for selection of representatives and procedure for inclusion, and designate alternates and appoint members.~~

~~—— (4) — GC appoints Chair, Vice Chair and Secretary.~~

~~(5) — Within 3 years after Plan is effective, create an endowment fund and appoint trustee (per Section VIII.A. of the Plan).~~

~~(6) — Begin Provisional Period Monitoring Plan (per Section V and Attachment D of Plan):~~

~~—— a. — Gather data collected by others (e.g., CPW fish biomass).~~

~~b. — SG fund and gather data (e.g., conduct creel surveys, recreation surveys).~~

~~c. — Evaluate monitoring data compared to provisional Resource Guides and provisional ORV Indicators.~~

~~—— d. — Prepare Annual Monitoring Report.~~

~~(7) — Study the extent to which channel maintenance flows may be incorporated into the Plan.~~

~~(8) — Resolve Project permit issues; notify BLM/USFS if Plan is withdrawn or has continued support, and modify Plan to confirm that Projects fall under Reopener Clause of Plan (Section IV.D.2.).~~

~~(9) — Implement Tier 1 Long-Term Protection Measures (per Section IV.A. and Attachment A of the Plan).~~

~~(10) — Implement voluntary Tier 2 Cooperative Measures process (per Section IV.B. of the Plan) and hold quarterly meetings (or more frequently, as determined necessary) to assess need for, focus of, and availability of Cooperative Measures (per Section IV.B.3.).~~

~~(11) — Hold SG meetings (annual, regular, and special) (per Section VI.E.).~~

~~(12) — Perform other tasks determined by unanimous consensus of the SG.~~

~~B. — At End of Provisional Period~~

~~—— Implement SG Plan, including, but not limited to:~~

~~(1) — Revise Plan for final Resource Guides (potentially including implementation criteria) and ORV Indicators.~~

~~(2) — Go through Mediation protocol if final Resource Guides, Indicators and potential implementation criteria are not unanimously agreed upon.~~

~~(3) Revisit recommendation to defer a determination of suitability per the Guiding Principle.~~

~~(4) Using results from the provisional period monitoring, develop and implement Long-Term Monitoring Plan (per Section V.A.2.).~~

~~——(5) Execute long-term MOU among stakeholders or legal entity.~~

~~——(6) Continue Tier 1 Long-Term Protection Measures.~~

~~——(7) Continue with voluntary Tier 2 Cooperative Measures process.~~

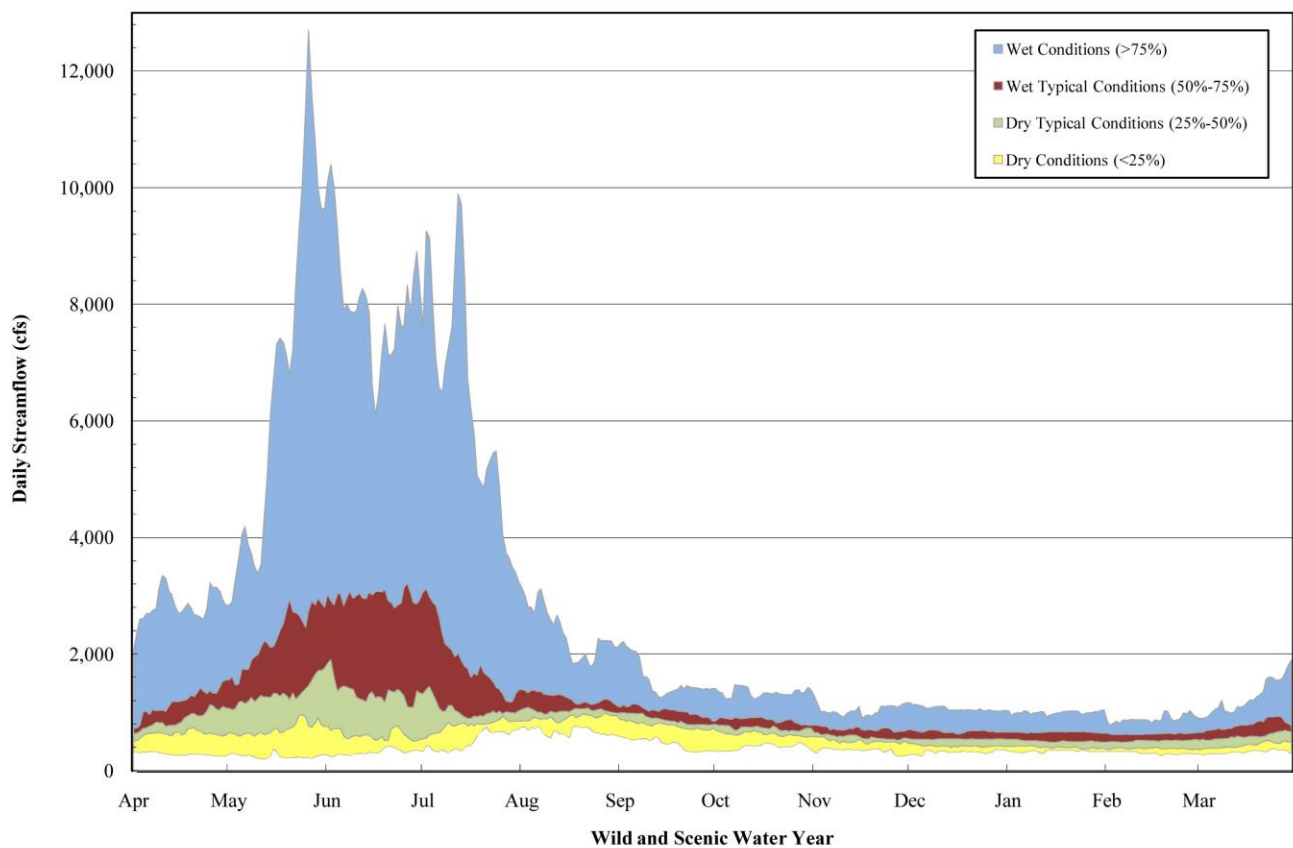
~~——(8) Continue holding SG meetings (annual, regular, and special).~~

~~(9) Perform other tasks determined by unanimous consensus of the SG.~~

Attachment **C-B: Existing Conditions**

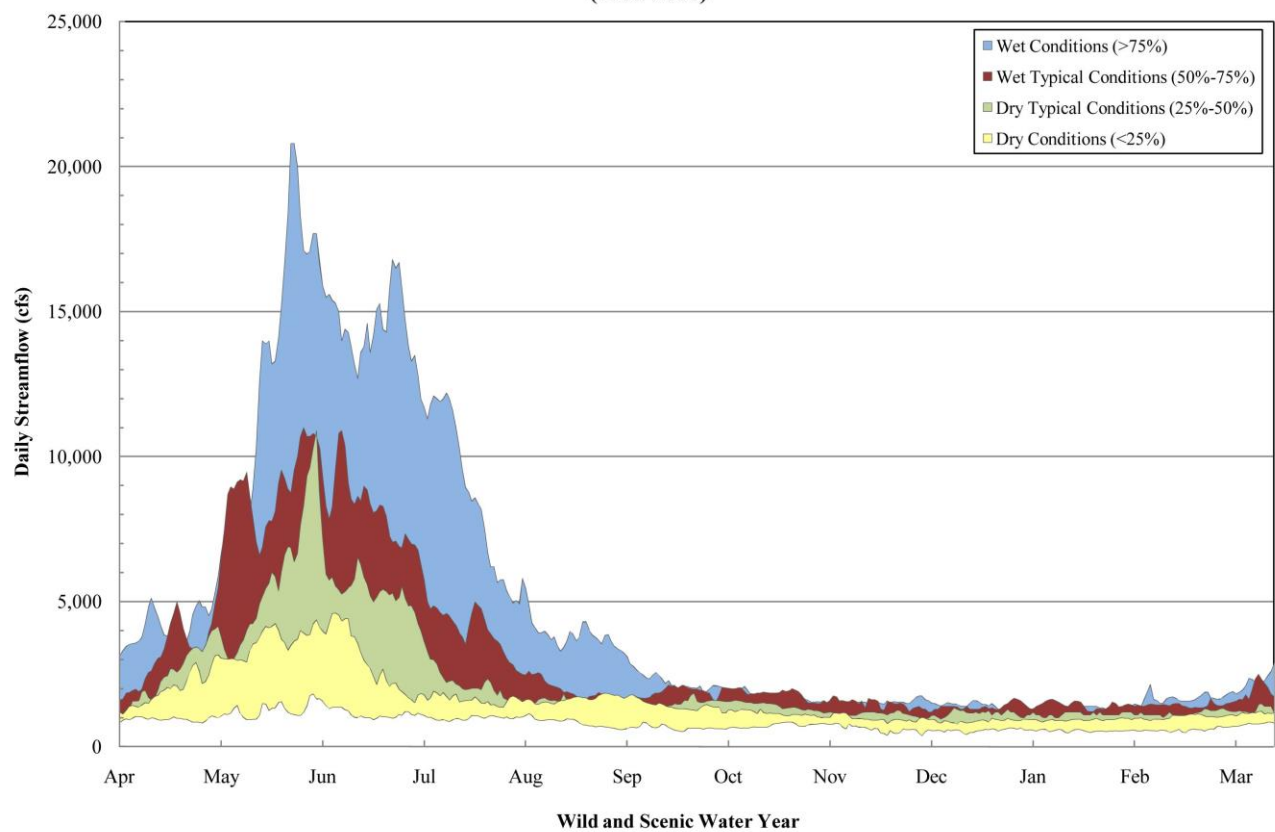
Existing **Flow** Conditions: Colorado River near Kremmling

Figure 1
Colorado River near Kremmling (USGS #9058000)
Daily Streamflow Conditions
(1983-2006)

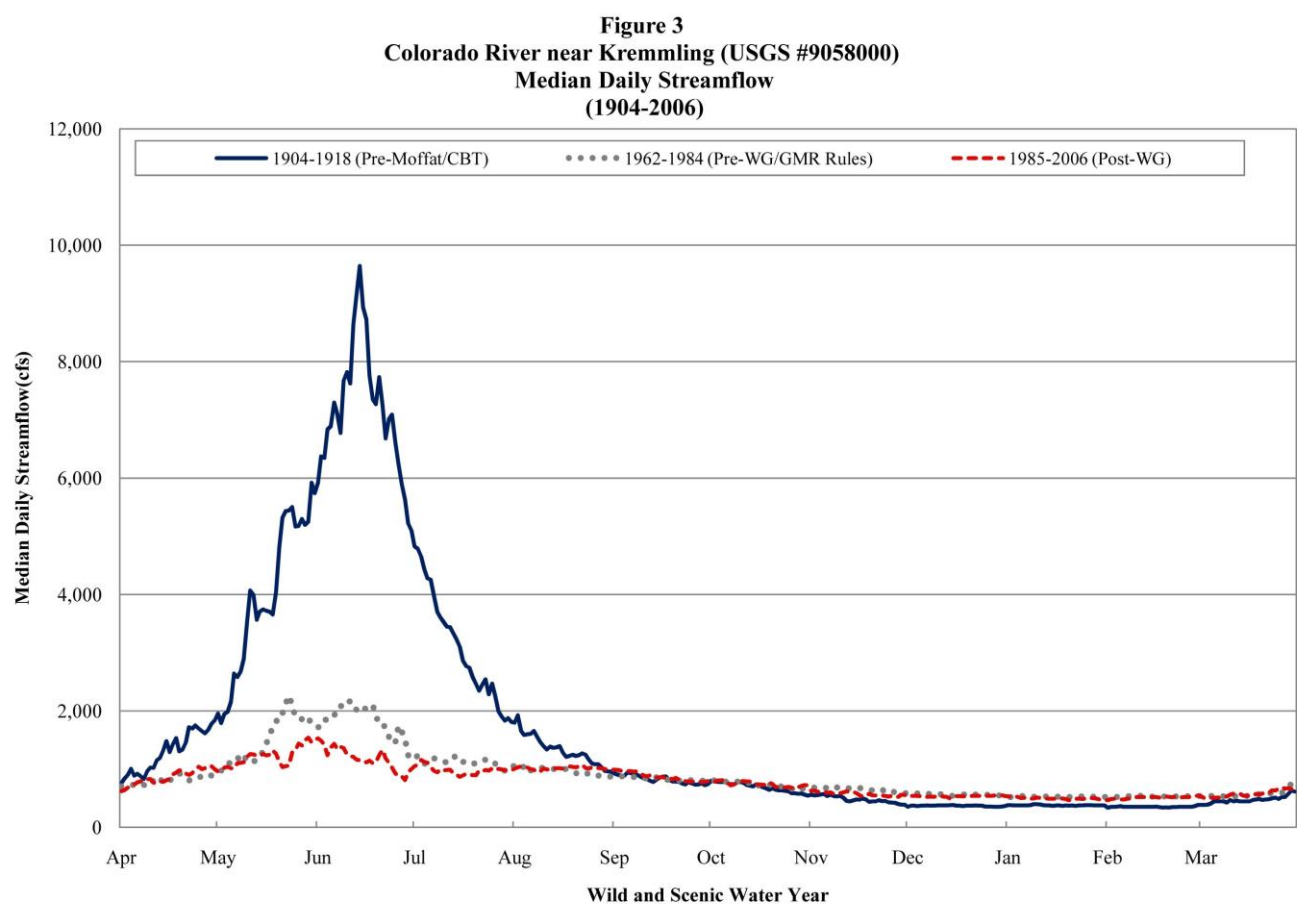


Existing ~~Flow~~ Conditions: Colorado River near Dotsero

Figure 2
Colorado River near Dotsero (USGS #9070500)
Daily Streamflow Conditions
(1983-2006)



Existing ~~Flow~~ Conditions: Colorado River near Kremmling



Note: Colorado River near Kremmling streamflow data is not available from 1919 to 1961 and 1971.

Existing Water Quality Conditions

Upper Colorado River Basin Regulation No. 33 Triennial Rulemaking Rationale 4-10-08

Segment WBID: COUCUC03

Segment Description: 3. Mainstem of the Colorado River from the outlet of Lake Granby to the confluence of the Roaring Fork River.

Designation: Reviewable

Classifications: Aquatic Life Cold
1
Recreation 4a E
Water Supply
Agriculture

Stream Length: 134.4 miles

Proposed Changes 2008: Basin-wide changes: Delete f. coli standards, change As(ac)=50(Trec) to As(ac)=340, add As(ch)=0.02(Trec), and add a temperature standard of cold stream tier II. Add a sculpin-based zinc standard.

Rationale for Changes 2008: The deletion of f. coli, and changes to recreation nomenclature, arsenic standards, TVS cadmium standards, and TVS zinc standards are basin-wide changes that correspond with decisions made by the Commission in the June 2005 Basic Standards Rulemaking

Hearing (31.44). The Commission changed the recreation use nomenclature so that Recreation 1a waters are now Recreation E (31.44 G.). A sculpin-based zinc standard was added because CPW records indicate that mottled sculpin are present in this segment and hardness drops below 113 mg/l (31.44 J.).

Temperature standards were added to correspond with decisions made by the Commission in the January 2007 Rulemaking Hearing (31.45). Colorado Parks and Wildlife (CPW) records indicate that cold stream tier II fish are present in this segment.

Water Quality Data – COUCUC03

Parameter	Colorado River blw Lake Granby		
	TVS	NCWCD/RW/ USGS/WQCD All Sites 2001-2007	n
pH, s.u.	6.5-9.0	7.86-8.53	349
D.O., mg/L	6	7.95	317
Hardness*, mg/L	NA	109.6	339
E. coli, #/100 mL	126	3	120
As-D**, µg/L	0.02	0.36	106
Cd-D, µg/L	0.45	0.00	221
Cu-D, µg/L	9.68	1.30	247
Fe-D, µg/L	300	171	215
Fe-Trec, µg/L	1000	215	189
Pb-D, µg/L	2.78	0.00	156
Mn-D, µg/L	50.0	60.1	209
Se-D, µg/L	4.60	0.13	167
Ag-D, µg/L	0.09	0.00	80
Zn-D, µg/L	128.4	6.7	192
U-D**, µg/L	30	1.00	44
NH ₃ , mg/L	TVS	0.030	199
NO ₃ , mg/L	10	0.023	139
SO ₄ , mg/L	250	54.6	187

* Hardness measured as CaCO₃, mg/L

** Standard is Trec

Temperature data from the most recent 7 years from all available stations in the segment were compared to the fish-based temperature standards to assess the attainability of those standards (see tables below). Sufficient temperature data (minimum 3 evenly spaced samples per day) were not available to assess attainment of the MWAT, so only the attainability of the DM standard was assessed. This assessment indicates that the cold stream tier II DM standards are attainable.

Aquatic Life: CPW records indicate brown and rainbow trout; northern pike; roundtail chub; mountain whitefish; speckled and longnose dace; mottled sculpin; and bluehead, flannelmouth, longnose, mountain, and white suckers are present in the mainstem Colorado.

Recreation: This segment is intensively used for rafting and kayaking.

Water Supply: The Town of Hot Sulphur Springs diverts water from the Colorado River for its municipal water supply. Hot Sulphur Springs Resort draws from an alluvial well.

Agriculture: Livestock operations have been and continue to be active in the Upper Colorado River basin, although fewer such operations remain as ranchland is converted to urban land use. Crops in the upper basin are limited to irrigated and non-irrigated hay. Farther downriver alfalfa, and spring and winter wheat are cultivated.

Point Sources: Domestic wastewater treatment facilities operated by the Town of Hot Sulphur Springs, Ouray Ranch, Colorado Parks and Wildlife (Windy Gap Reservoir Visitor's Center), and the Colorado Department of Transportation (Grizzly Creek and Hanging Lake Rest Areas and Bair Ranch) discharge to this segment. The Town of Hot Sulphur Springs also operates a water treatment plant that discharges filter backwash. Rayners Trailer Court discharges to alluvial groundwater. Glenwood Hot Springs, Rock Gardens Campground, Pitkin Iron Corporation (Redstone well), and Shorefox Subdivision also discharge to this segment.

Water Quality: Water quality data were collected in this segment by WQCD, USGS, Northern Colorado Water Conservancy District, and River Watch (RW). WQCD collected samples at Colorado River near Dotsero (WQCD #46), Colorado River upstream of Roaring Fork River (WQCD #12100), Colorado River upstream of State Bridge at Highway 131 (WQCD #12103), Colorado River below Granby Reservoir at Highway 34 (WQCD #12105), and North Fork Colorado River at Highway 34 (WQCD #12106). USGS collected samples at Colorado River below Lake Granby, CO (USGS # 9019000), Colorado River near Granby, CO (USGS # 9019500), Colorado River at Windy Gap, near Granby, CO (USGS # 9034250), Colorado River near Kremmling, CO (USGS # 9058000).

Colorado River near Dotsero, CO (USGS # 9070500), Colorado River above Glenwood Springs, CO (USGS # 9071750), Colorado River at Bond, CO (USGS # 395306106415601). Northern Colorado Water Conservancy District collected samples at the Colorado River above Fraser River Confluence (CR-WGU). River Watch collected samples at Colorado River at Hot Sulphur Springs (RW #203), Colorado River at Windy Gap (RW #543), and Colorado River at Pedestrian Bridge (RW #46).

Exceedances: In Colorado River below Granby Reservoir at Highway 34 (WQCD #12105) there was an exceedance of the acute dissolved cadmium, dissolved copper and dissolved zinc standards, North Fork Colorado River at Highway 34 (WQCD #12106) there was an exceedance of the acute dissolved copper standard, Colorado River below Lake Granby, CO (USGS # 9019000) there was an exceedance of the chronic dissolved zinc sculpin standard and chronic total recoverable arsenic standard, Colorado River at Windy Gap, near Granby, CO (USGS # 9034250) there was an exceedance of the maximum pH standard, chronic dissolved manganese standard, and chronic total recoverable arsenic standard, at the Colorado River near Kremmling, CO (USGS # 9058000) there was an exceedance of the chronic dissolved manganese standard and chronic total recoverable arsenic standard, and in Colorado River above Fraser River Confluence (CR-WGU) there was an exceedance of the chronic dissolved manganese standard.

2010 Standards Attainment Assessment Summary

Segment WBID: COUCUC03

Segment Number & Description: Mainstem of the Colorado River from the outlet of Lake Granby to the confluence with Roaring Fork River.

Designation: Reviewable

Use Classifications: Aquatic Life Cold 1

Recreation E

Water Supply

Agriculture

Assessed Portion: All **HUC Code:** 14010001

Water Quality Information: Grand County submitted temperature data at six stations along the Colorado mainstem. These include: (COR-blwWG), (COR-abvHSS), (COR-abvKidPond), (COR-blwByerCanyon), (COR-CR3), (COR-Lonebuck); Northern: Colorado River upstream of Windy Gap (CR-WGU), Colorado River below Windy Gap at Hitching Post (abv USGS 09034250) near Chimney Rock Gage (CR-WGD2), Colorado River 1 mi downstream of Windy Gap at USGS flow gage (CR-WGD), Colorado River at confluence of Windy Gap Spillway and Bypass (CR-WGC), Colorado River at Windy Gap Bypass (CR-WGB), Colorado River at South Side of CR3 Bridge near Bar Lazy J Ranch immediately upstream of Williams Fork (CR-WFU), Colorado River below Gore Canyon above Pumphouse 9 miles downstream of Kremmling (CR-PMP), Colorado River above Kid's Pond below Parshall CO (CR-PAD), Colorado River at Lone Buck below

CDOW Office 3 mi downstream of Hot Sulphur (CR-LB), Colorado River at CR39 Bridge - 0.3 mi downstream of KB Ditch (CR-KBD), Colorado River above Hot Sulphur Springs Water Treatment Plant (CR-HSU), Colorado River above Hot Sulphur Springs Resort (CR-HRU), Colorado River below Byers Canyon two miles downstream of hot springs facility (CR-HRD), Colorado River downstream of Lake Granby at Flume (CR-GRD), Colorado River at Public Access East of Con Ritschard Ranch 3 mi downstream of Parshall (CR-CON), Colorado River above Hwy 9 Bridge at Kremmling CO 2.3 mi upstream of the Blue River (CR-BLU), Colorado River downstream of the Blue River near Kremmling (CR-BLD), Colorado River downstream of Lake Granby at YMCA flow Gage (CR-YGAGE)

Biological Information: No assessment of biological information was performed.

Other Information: No assessment of other attainment information was performed.

Exceedances: This segment has 35 exceedances of the chronic temperature standard and 27 exceedances of the acute temperature standard.

<u>TEMPERATURE TIER</u>	<u>TIER CODE</u>	<u>SPECIES EXPECTED TO BE PRESENT</u>	<u>APPLICABLE MONTHS</u>	<u>TEMPERATURE STANDARD (°C)</u>	
				<u>(MWAT)</u>	<u>(DM)</u>
<u>Cold Stream Tier II</u>	<u>CS-II</u>	<u>brown trout, rainbow trout, mottled sculpin, mountain whitefish, longnose sucker, Arctic grayling</u>	<u>April – Oct.</u>	<u>18.2</u>	<u>23.8</u>
			<u>Nov. – March</u>	<u>9.0</u>	<u>13.0</u>

Table 1. Temperature Exceedance Table

<u>Station</u>	<u>MWAT exceedances (chronic)</u>	<u>DM exceedances (acute)</u>
<u>COR-blwWG</u>	<u>1 (Aug/06)</u>	<u>2(Nov/05)</u>
<u>COR-abvHSS</u>	<u>3(Aug /06), 3(Aug /07)</u>	<u>2(Aug /06), 4(Aug /07)</u>
<u>COR-abvKidPond</u>	<u>1(Aug /08)</u>	<u>1(July/08), 11(Aug /08)</u>
<u>COR-blwByerCanyon</u>	<u>2(July /08), 1(Aug /08)</u>	<u>3(Aug /08)</u>
<u>COR-CR3</u>	<u>1(July /07), 4(Aug /07)</u>	<u>None</u>
<u>COR-Lonebuck</u>	<u>1(July /07), 3(Aug /07)</u>	<u>None</u>
<u>CR-WFU</u>	<u>1(July /07),4(Aug /07)</u>	<u>None</u>
<u>CR-LB</u>	<u>1(July /07), 3(Aug /07)</u>	<u>None</u>
<u>CR-HSU</u>	<u>3(Aug /07)</u>	<u>4(Aug /07)</u>
<u>CR-HRD</u>	<u>2(July /08)</u>	<u>None</u>

<u>CR-BLU</u>	<u>1 (July /07)</u>	<u>None</u>
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Attainment Conclusions: This segment is not in attainment of the Aquatic Life temperature standard.

Table 3. Integrated Reporting (IR) Information								
Use	Assessed		Attainment			IR Category	Causes	Sources
	Yes	No	Yes	No				
				303d	M&E			
Water Supply	X		X			1		
Recreation	X		X			1		
Aquatic Life	X			X		5	Temperature	Unknown
Agriculture	X		X			1		

Additional Information Regarding Pollutant Source (if known): All sources of non-attainment are unknown.

Attachment **DC: Long-Term Monitoring Plan** **Provisional Period Monitoring Plan**

ORV INDICATORS

~~Recreational Fishing – Quality Trout = 24 fish over 14” per acre.~~ Note: Current levels of Quality Trout, Biomass, and Species Diversity were collected by CPW personnel in 2008.³⁶ ~~The CPW plans to collect additional fishery data within BLM Segment 5 every other year.~~

~~Sample site selection:~~

~~Sample collection:~~

~~Where~~

~~Who~~

~~Frequency~~

~~Sample analysis:~~

~~Data management outliers, housing:~~

~~Data analysis:~~

~~Funding:~~

~~Recreational Fishing – Biomass = 2008 data collected by CPW showed 90 lbs. per acre.~~³⁷

~~Sample site selection:~~

~~Sample collection:~~

~~Where~~

~~Who~~

~~Frequency~~

~~Sample analysis:~~

~~Data management outliers, housing:~~

~~Data analysis:~~

~~Funding:~~

~~Recreational Fishing – Species Diversity = 14 species of fish.~~

~~Sample site selection:~~

~~Sample collection:~~

~~Where~~

~~Who~~

~~Frequency~~

³⁶ ~~CPW data collected in 2010 showed 46 fish over 14” per acre.~~

³⁷ ~~CPW data collected in 2010 showed 121 lbs. per acre.~~

Sample analysis:

Data management outliers, housing:

Data analysis:

Funding:

Recreational Fishing – Trout Fishing Effort = N/A. Note: A creel census will be required to quantify Total Fishing Effort and Catch/Unit Effort. The current estimated annual cost of the creel census will be approximately \$25,000. CPW has no current plans to conduct a creel census within BLM Segments 4, 5, or 6 of the Colorado River; therefore, this cost, and supervision of the creel census, will likely be the responsibility of the Stakeholder Group.

Sample site selection:

Sample collection:

Where

Who

Frequency

Sample analysis:

Data management outliers, housing:

Data analysis:

Funding:

Recreational Fishing – Catch/Unit Effort = N/A.

Sample site selection:

Sample collection:

Where

Who

Frequency

Sample analysis:

Data management outliers, housing:

Data analysis:

Funding:

Recreational Floatboating

Sample site selection: During the Provisional Period the Stakeholder Group has defined a narrative Recreational Floatboating ORV indicator.

Sample collection:

Where

Who

Frequency

Sample analysis:

Data management outliers, housing:

Data analysis:

Funding:

ORV RESOURCE GUIDES

Recreational Fishing – *Flow Guides* = (Insert Provisional Flow Guide Table when final).

Sample site selection: The Stakeholder Group has identified the USGS stream flow gage at Kremmling as the appropriate flow measuring device to monitor the Fishing Resource Guides for Segments 4, 5 and 6.

Sample collection:

Where: USGS gage 09058000 Colorado River near Kremmling.

Who: USGS.

Frequency: per USGS.

Sample analysis: USGS or Not Applicable.

Data management outliers, housing: USGS.

Data analysis: The Stakeholder Group will use USGS flow data to compare with the Resource Guide 5-year running average review described in Section III.C.1.

Funding:

Water Quality

Sample site selection: Utilize the Colorado Water Quality Control Division (WQCD) Triennial Review Process for compliance with water quality standards protective of aquatic life and recreational uses.³⁸

Sample collection: No new water quality sampling is proposed for this effort. The WQCD utilizes most sources of data made available to them to make their assessment of water quality. Typically this assessment is based on the most recent 5 to 8 years of data.

Where

Who

Frequency

Sample analysis: Not applicable.

Data management: The WQCD's template for summarizing water quality conditions is descriptive and adequate for the Stakeholder Group's purposes. This document is available to the general public. The 2013 WQCD assessment should be compared with the previous assessment done in 2008.

³⁸ 40 C.F.R. 131.20 provides that each State must specify appropriate water uses to be achieved and protected. The classification of the waters must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.

~~Data analysis: If degradation of water quality is reported by the WQCD the reported exceedances of water quality standards may be evaluated by the Stakeholder Group. For purposes of the Monitoring Report, the Stakeholder Group should report:~~

- ~~• Was the exceedance for a standard protective of aquatic life or recreation use?~~
- ~~• Were the data indicating exceedance of standards collected from the reach of interest to the SG?~~

~~Existing Conditions: Existing Conditions for water quality are characterized by the WQCD 4-10-08 summary of Upper Colorado River Segment 03 developed for the Triennial Review of WQCC Regulation #33 (See Exhibit 1).~~

~~Funding:~~

Temperature

~~Sample site selection: During the Provisional Period, temperature monitoring³⁹ will be conducted on the mainstem of the Colorado River through the use of temperature loggers located at:~~

- ~~• Colorado River at Dotsero (SG site).~~
- ~~• Colorado River at State Bridge (SG site); a logger is also placed at this location about 5 meters above the river for ambient air temperature.~~
- ~~• Colorado River at Pumphouse (BLM site WS-CO-002).~~
- ~~• Colorado River at Hwy 9 Bridge (DWB site WS-CO-004).~~

~~Sample collection: Tidbit or HOBO loggers, deployed in the stream current and protected in PVC pipe with holes.~~

~~Where: Detailed descriptions of locations including photos are recorded. (see TU example, would be included as attachment to these monitoring protocols.)~~

~~Who: Deployment and collection of data loggers has been done by staff from the River District, NWCCOG and TU.~~

~~Frequency: Deploy temperature loggers after peak runoff, approximately late July, and maintain through early fall. Temperature loggers are set to record at 15-minute intervals.~~

~~Sample analysis: Down load data from logger directly to Excel spreadsheets.~~

~~Data management: Currently the River District is holding this data.~~

~~Data analysis: Spreadsheet is developed that allows for computation of MWAT and DM statistic. Daily air temperature and streamflows should be plotted with MWAT and DM for data records that approach or exceed these standards for assessment of the role of these two parameters on stream temperature.~~

³⁹ 40 C.F.R. 131.20 provides that each State must specify appropriate water uses to be achieved and protected. The classification of the waters must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.

~~Existing Conditions:~~ Existing temperature conditions for the Colorado River from Kremmling to Glenwood Springs were evaluated as part of the WQCC Rulemaking for Regulation #93 (303d list) in 2009. Based on available representative data, no exceedances of stream temperature standards were found for this portion of the river.

~~Funding:~~

~~Recreational Floatboating – Usable Days~~ = (Insert Provisional Usable Days Table when final)

~~Sample site selection:~~ The Stakeholder Group has identified the USGS stream flow gage at Kremmling as the appropriate flow measuring device to monitor Recreational Floatboating Resource Guides for Segments 4, 5 and 6, and the USGS gage at Dotsero for Segment 7.

~~Sample collection:~~ USGS

~~Where:~~ USGS gage 09058000 Colorado River near Kremmling

~~———— (Segments 4, 5 and 6); USGS gage 09070500 Colorado River near~~

~~———— Dotsero (Segment 7).~~

~~Who:~~ USGS

~~Frequency:~~ per USGS

~~Sample analysis:~~ NA.

~~Data management outliers, housing:~~ USGS.

~~Data analysis:~~ The Stakeholder Group will analyze data for comparison with the provisional Resource Guide.

~~Funding:~~

This Long-term Monitoring Plan describes the monitoring measures for the ORV Indicators and Resource Guides that will be used to implement the Plan.

Individual Annual Monitoring Plans will be developed by the Monitoring Committee and approved by the SG at the Annual Meeting. Annual Monitoring Plans are to be based on the SG Plan and this Long-Term Monitoring Plan, with direction from the SG; however, they may differ from this Long-Term Monitoring Plan based on availability of funds, monitoring needs and priorities in a given year.

Annual Monitoring Reports will be prepared to document W&S monitoring efforts and outcomes for ORV Indicators, Resource Guides, and other monitoring parameters as determined by the SG.

Results from monitoring will be accessible to the public via the W&S website and publicly accessible databases.

ORV INDICATORS

RECREATIONAL FISHING

Quality Trout and Biomass thresholds have been established as ORV Indicators to monitor the Fishing ORV for Segments 5 and 6. Biosurveys are conducted by Colorado Parks and Wildlife (CPW) annually in multiple reaches along the Colorado River as identified in the SG Plan Section III.B.1. For detailed information about sampling and analyses, please see the CPW Fish Biosurvey Protocol, which may be amended and adopted by the SG independent of the SG Plan, and ORV Indicator Memos.

Sampling Entity: Colorado Parks and Wildlife

Sample Locations: CPW surveys three 2-mile reaches in Segments 5 and 6 near Radium, State Bridge, and Catamount boat ramp. Detailed location information for the three biosurvey reaches are as follows:

<u>W&S Segment</u>	<u>Reach Name</u>	<u>Upstream N Latitude</u>	<u>Upstream W Longitude</u>
<u>5</u>	<u>Radium</u>	<u>39.9673</u>	<u>-106.5332</u>
<u>5</u>	<u>State Bridge</u>	<u>39.8576</u>	<u>-106.6493</u>
<u>6</u>	<u>Catamount</u>	<u>39.8907</u>	<u>-106.8350</u>

**Latitude and Longitude coordinates are given for the approximate upstream location of the 2-mile sample reaches.*

Frequency: Generally, reaches are surveyed by CPW in alternating years. Survey feasibility is subject annually to CPW personnel availability and dependent upon conditions that allow for safe travel and efficient fish capture for accurate fish population estimates.

Analysis: CPW collects and analyzes the biosurvey data using established mark-recapture methods. Using mark-recapture statistical analyses, estimates of quality trout abundance (number of trout ≥ 14 " per acre) and trout biomass (pounds of trout per acre) from surveyed reaches are reported annually to the SG in the Annual Monitoring Report. The SG uses the biosurvey estimates to determine if the ORV Indicators for Quality Trout and Biomass are being met; ~~thus, ensuring that the Fishing ORV is protected for each W&S segment according to the SG Plan.~~

Catch per Unit Effort (CPUE) is determined based on user intercept surveys commissioned by the SG. CPUE is calculated based on total fishing effort (hours spent fishing) and total fish caught, per angler. User intercept surveys are conducted at specific locations as described in the SG Plan Section III.B.1. Please see the Intercept Survey Protocol, which may be amended and adopted by the SG independent of the SG Plan and ORV Indicator memo for more information about assessments of the Fishing ORV Indicator.

Sampling Entity: Survey research contractor

Sample Locations: CPUE is based on intercept surveys conducted in Segments 5 and 6 and is measured at Radium, State Bridge, Two Bridges, and Catamount, indicated below.

<u>W&S Segment</u>	<u>Location</u>	<u>North Latitude</u>	<u>West Longitude</u>
<u>5</u>	<u>Radium</u>	<u>39.95121</u>	<u>-106.55722</u>
<u>5</u>	<u>State Bridge</u>	<u>39.85745</u>	<u>-106.64756</u>
<u>6</u>	<u>Two Bridges</u>	<u>39.89527</u>	<u>-106.70861</u>
<u>6</u>	<u>Catamount</u>	<u>39.89086</u>	<u>-106.83310</u>

Frequency: Yearly, subject to funding

Analysis: The contractor conducts the CPUE analysis at each location and provides the results to the SG. These data are reviewed by the SG and compared to the ORV Indicator.

RECREATIONAL FLOATBOATING

Not Likely to Return is a measure of the recreational boater experience assessed through user intercept surveys commissioned by the SG. This metric is defined for specific locations in the SG Plan in Section III.B.2. Please refer to the Intercept Survey Protocol, which may be amended and adopted by the SG independent of the SG Plan, and ORV Indicator memo for more information about assessments of the Boating ORV Indicator.

Sampling Entity: Survey research contractor

Sample Locations: Interviewers conduct user intercept surveys at boat ramp locations listed below. The exact sampling dates and frequency of sampling at each site are determined on an annual basis.

<u>W&S Segment</u>	<u>Location</u>	<u>North Latitude</u>	<u>West Longitude</u>
<u>5</u>	<u>Radium</u>	<u>39.95121</u>	<u>-106.55722</u>
<u>5</u>	<u>State Bridge</u>	<u>39.85745</u>	<u>-106.64756</u>
<u>6</u>	<u>Two Bridges</u>	<u>39.89527</u>	<u>-106.70861</u>
<u>6</u>	<u>Catamount</u>	<u>39.89086</u>	<u>-106.83310</u>
<u>6</u>	<u>Lyons Gulch</u>	<u>39.70026</u>	<u>-107.06629</u>
<u>6</u>	<u>Dotsero</u>	<u>39.65067</u>	<u>-107.06236</u>

<u>7</u>	<u>Grizzly Creek</u>	<u>39.56016</u>	<u>-107.25046</u>
<u>7</u>	<u>Two Rivers</u>	<u>39.55106</u>	<u>-107.33385</u>

Frequency: Yearly, subject to funding

Analysis: The contractor analyzes the data to produce the percent of respondents that are not likely to return by segment. These data are reviewed by the SG and compared to the ORV Indicator values for the given W&S Year-Type.

Supplemental Monitoring/Data Collection Efforts for Not Likely To Return

User Days – Subject to budgetary limitations, the SG may consider evaluating available user data for both commercial and private use. This provision is located within the SG Plan in Section III.B.2.

Sampling Entity: BLM, USFS, or other entities may have user day data.

Location: All segments

Frequency: Annually

Boating Displacement Survey – At its discretion and subject to budgetary limitation, the SG may gather user displacement survey data to evaluate whether recreational float boaters are being displaced due to changing experiences. The Displacement Survey Protocol recommends that this occur every three years. This survey is completed via an email tool. See the Displacement Survey Protocol, which may be amended and adopted by the SG independent of the SG Plan, for more information.

Sampling Entity: Displacement survey contractor

Location: Via email

Frequency: Once every three years

RESOURCE GUIDES

RECREATIONAL FISHING

Desired Species – The list of desired fish species found in the Segments 5 and 6 identified for the Fishing ORV will be tracked as detailed in the SG Plan in Section III.C.1.d. The presence or absence of desired species will be documented during CPW biosurveys. For detailed information about sampling and analysis, please see the CPW

Fish Biosurvey Protocol, which may be amended and adopted by the SG independent of the SG Plan.⁴⁰

Sampling Entity: CPW

Sample Locations: CPW Biosurvey reaches, same as ORV Indicators

Frequency: CPW Biosurveys, same as ORV Indicators

Analysis: CPW will annually report the presence or absence of fish species collected during the recent biosurveys.

Seasonal Flows are defined in the SG Plan Section III.C.1.a. The SG has identified the USGS stream flow gage at Kremmling (gage 09058000) as the appropriate flow-measuring device to monitor the Seasonal Flows Resource Guide for Segments 4, 5 and 6.

Sampling Entity: USGS

Sample Location: USGS gage 09058000 Colorado River near Kremmling.

Frequency: Daily average streamflow is downloaded and 5-year rolling averages are calculated for each year.

Analysis: The SG will use USGS flow data to compare with the Resource Guide 5-year rolling average review described in Section III.C.1.a.

Flushing Flows are defined in the SG Plan Section III.C.1.b. The SG has identified the USGS stream flow gage at Kremmling (USGS 09058000) as the appropriate flow-measuring device to monitor the Flushing Flow Resource Guide for Segments 4, 5 and 6.

Sampling Entity: USGS

Sample Location: USGS gage 09058000 Colorado River near Kremmling.

Frequency: Daily average streamflow is evaluated each year to determine if flows reached or exceeded the flushing flow rates for 3 consecutive days one out of two years. Frequency will also be evaluated as 50% of the time over a ten year period

⁴⁰ This protocol may be changed by SG consensus separate from, and without requiring amendment to, the Plan. The SG has formally voted to adopt and rely upon the protocol as part of the SG operations but may determine to adopt other means with similar level of effectiveness to accomplish the purposes of this protocol. The protocol can be found on the W&S website: www.upcowildandscenic.com.

Analysis: The SG will use USGS flow data to compare with the Resource Guide described in Section III.C.1.b.

Channel Maintenance Flow Monitoring (CMF) – The SG Plan describes CMF monitoring in Section III.C.1.c. The SG has committed to develop a CMF monitoring plan within one year of the SG’s formal adoption of the Amended and Restated SG Plan. Once the CMF monitoring plan has been developed, this section of the Long-term Monitoring Report will be updated accordingly.

As noted in Section II.B, “This Plan aims to monitor and protect all ORVs while focusing on the primary-influenced ORVs [Recreational Fishing and Recreational Floatboating] ...” However, other streamflow-influenced ORVs were identified by the BLM and USFS, including Botanical.

Several botanical species/communities in Segment 6 are ranked by the Colorado Natural Heritage Program as globally vulnerable. These include:

- Narrowleaf cottonwood / Rocky Mountain juniper riparian community
- Silver buffaloberry (can occur in wetlands or non-wetlands)
- Water birch / mesic for~~ms~~^{bs} community
- Rocky Mountain juniper / red osier dogwood community

How these species and communities are directly connected to river flows is not well understood. ~~However, they are likely supported and maintained by a combination of river and tributary flows and localized groundwater hydrology.~~ Because the SG has not established an ORV Indicator for the Botanical ORV, BLM requested the SG to consider the relationship of CMF to the Botanical ORV. Therefore, the SG will coordinate with BLM and other entities to periodically monitor these specific plant species and communities identified within Segment 6 in conjunction with the CMF monitoring plan.

WATER QUALITY

Water Quality – The SG Plan defines the water quality standards in Section III.C.3. These standards are subject to change pursuant to the Water Quality Control Commission’s rulemaking process for “Cold Water Aquatic Life 1” and recreational uses.⁴¹

⁴¹ 40 C.F.R. 131.20 provides that each State must specify appropriate water uses to be achieved and protected. The classification of the waters must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.

Sampling Entity: No new SG chemical water quality sampling is proposed for this effort. The Colorado Water Quality Control Division (WQCD) utilizes most sources of data made available to them to make their assessment of water quality. Typically, this assessment is based on the most recent 5 to 8 years of data.

Frequency: Approximately every 5 years

Analysis: Colorado WQCD conducts water quality assessments. If impairment of water quality is reported by the WQCD, the reported exceedances of water quality standards may be evaluated by the SG. For purposes of the Monitoring Report, the SG will report:

- If the aquatic life or recreational water quality standard was exceeded.
- Were the data indicating exceedance of standards collected from the reach of interest to the SG?

TEMPERATURE

Temperature – The SG Plan defines the temperature standards in Section III.C.5. These standards are subject to change pursuant to the Water Quality Control Commission's rulemaking process for Daily Maximum (DM) and Maximum Weekly Average Temperature (MWAT).

Sampling Entity: Several different entities including BLM and USGS collect temperature data in W&S segments 4 through 6. In addition, the SG collects temperature at sites listed below to supplement the existing temperature data collection. Historically this work has been completed by members of the SG, but may be conducted by contractors pursuant to WQCD standard operating procedures as funds allow.

Sample Locations: The following table lists the temperature site locations of interest to the Segments in 2020. This list may change according to monitoring objectives.

<u>W&S Segment</u>	<u>Site ID</u>	<u>Station Description</u>	<u>Collecting / Data Storage Agencies</u>	<u>North Latitude</u>	<u>West Longitude</u>
<u>6</u>	<u>UPCO_DOT</u>	<u>Upper Colorado River above Dotsero</u>	<u>W&S/GCWIN</u>	<u>39.64792</u>	<u>107.06286</u>
<u>6</u>	<u>UPCO_RD</u>	<u>Upper Colorado River below Red Dirt Creek</u>	<u>W&S/GCWIN</u>	<u>39.80058</u>	<u>106.97403</u>
<u>5</u>	<u>UPCO_SB</u>	<u>Upper Colorado River above State Bridge</u>	<u>W&S/GCWIN</u>	<u>39.85556</u>	<u>106.64453</u>
<u>4</u>	<u>9058000</u>	<u>Colorado River near Kremmling</u>	<u>USGS/USGS</u>	<u>40.03667</u>	<u>106.43944</u>
<u>6</u>	<u>9060799</u>	<u>Colorado River at Catamount Bridge</u>	<u>USGS/USGS</u>	<u>39.8911</u>	<u>106.83169</u>
<u>5</u>	<u>COR-AbvPump</u>	<u>Colorado River above Pumphouse</u>	<u>BLM/GCWIN</u>	<u>39.9899</u>	<u>106.5084</u>

<u>5</u>	<u>COR-Rad</u>	<u>Colorado River at Radium</u>	<u>BLM/GCWIN</u>	<u>39.95468</u>	<u>106.55048</u>
<u>NA</u>	<u>Blue- AbvCOR</u>	<u>Blue River above Colorado River Confluence</u>	<u>BLM/GCWIN</u>	<u>tbd</u>	<u>tbd</u>

**The Colorado River at Catamount gage was initiated by the W&S program. Funding to install and operate this gage has been provided by the CWCB, BLM, and USFS. Grand County Water Information Network (GCWIN) is currently storing stream temperature data collected by W&S and BLM.*

Frequency: W&S/BLM/GCWIN temperature loggers are deployed annually, typically by April 1, and are maintained through early fall. Temperature loggers are set to record at 15-minute intervals. The USGS gages record temperature data at Kremmling from April 1 through September 30 and at Catamount from March 15 to November 15.

Analysis: Quality assessment/quality control is performed on time-series data. Time-series data are plotted into thermographs and compared to state water quality standards by the SG or designated contractor.

MACROINVERTEBRATES

Macroinvertebrates – The SG Plan defines the macroinvertebrate Resource Guide temperature standards in Section III.C.4. The Water Quality Resource Guide includes attainment of Colorado Water Quality Control Commission’s water quality standards for cold water aquatic life and recreational uses. This includes assessments based on the “large decline” provision. In addition, all future W&S SG macroinvertebrate monitoring will be conducted pursuant to Colorado Water Quality Control Division Policy 10-1 and in a quantitative fashion, including a full count analysis. See the Macroinvertebrate Sampling and Analysis Protocol for more information, which may be amended and adopted by the SG independent of the SG Plan. ⁴²

Sampling Entity: Sample collection and analysis is completed by a contractor selected by the SG.

Locations: The following table lists the 5 locations where macroinvertebrates are sampled as of 2020:

<u>W&S Segment</u>	<u>Station ID</u>	<u>Location Name</u>	<u>North Latitude</u>	<u>West Longitude</u>
<u>5</u>	<u>CR-Pump</u>	<u>Colorado River at Pumphouse</u>	<u>39.98471</u>	<u>-106.514</u>
<u>5</u>	<u>CR-Rad</u>	<u>Colorado River at Radium</u>	<u>39.94985</u>	<u>-106.558</u>
<u>5</u>	<u>CR-SB</u>	<u>Colorado River at State Bridge</u>	<u>39.85783</u>	<u>-106.647</u>

⁴² This protocol may be changed by SG consensus separate from, and without requiring amendment to, the Plan. The SG has formally voted to adopt and rely upon the protocol as part of the SG operations but may determine to adopt other means with similar level of effectiveness to accomplish the purposes of this protocol. The protocol can be found on the W&S website: www.upcowildandscenic.com.

<u>6</u>	<u>CR-abvCat</u>	<u>Colorado River above Catamount</u>	<u>39.91239</u>	<u>-106.785</u>
<u>6</u>	<u>CR-blwRD</u>	<u>Colorado River below Red Dirt</u>	<u>39.70996</u>	<u>-107.047</u>

Frequency: Macroinvertebrate data will be collected every other year unless otherwise decided by the SG.

Analysis: MMI scores will be calculated using the applicable methods as specified by the Colorado Department of Public Health and Environment at the time the samples are collected. These scores are compared to the State guidelines in effect on the sample date.

RECREATIONAL FLOATBOATING

Boatable Days – The SG Plan defines boatable days for Segments 4-6 and Segment 7 in SG Plan Section III.C.2. The SG has identified the USGS stream flow gage at Kremmling as the appropriate flow measuring device to monitor Recreational Floatboating Resource Guides for Segments 4, 5 and 6, and the USGS gage at Dotsero for segment 7.

Sampling Entity: USGS

Sample location: USGS gage 09058000 Colorado River near Kremmling (segments 4, 5 and 6); USGS gage 09070500 Colorado River near Dotsero (segment 7).

Frequency: The USGS maintains these gages year--round.

Data analysis: The SG will analyze data for comparison with the Resource Guide each year based on the W&S year type.

Early Season Boatable Days – The SG Plan defines early season boatable days for Segments 4-6 in the SG Plan Section III.C.2.b. The SG has identified the USGS stream flow gage at Kremmling as the appropriate flow measuring device to monitor the number of early season boatable days that occur between (May 15 – June 30) each year.

Sampling Entity: USGS

Sample location: USGS gage 09058000 Colorado River near Kremmling.

Frequency: The USGS maintains these gages year--round.

Data analysis: The SG will analyze data for comparison with the Resource Guide each year.

Exhibit 1 to Provisional Period Monitoring Plan

Upper Colorado River Basin Regulation No. 33 Triennial Rulemaking Rationale 4-10-08

Segment WBID: ~~COUCUC03~~

Segment Description: 3. Mainstem of the Colorado River from the outlet of Lake Granby to the confluence of the Roaring Fork River.

Designation: ~~Reviewable~~

~~Classifications: Aquatic Life Cold 1
Recreation 1a-E
Water Supply
Agriculture~~

Stream Length: 134.4 miles

Proposed Changes 2008: Basin-wide changes: Delete *f. coli* standards, change *As(ac)* = 50(Tree) to *As(ac)* = 340, add *As(eh)* = 0.02(Tree), and add a temperature standard of cold stream tier II. Add a sculpin-based zinc standard.

Rationale for Changes 2008: The deletion of *f. coli*, and changes to recreation nomenclature, arsenic standards, TVS cadmium standards, and TVS zinc standards are basin-wide changes that correspond with decisions made by the Commission in the June 2005 Basic Standards Rulemaking Hearing (31.44). The Commission changed the recreation use nomenclature so that Recreation 1a waters are now Recreation E (31.44 G.). A sculpin-based zinc standard was added because CPW records indicate that mottled sculpin are present in this segment and hardness drops below 113 mg/l (31.44 J.). Temperature standards were added to correspond with decisions made by the Commission in the January 2007 Rulemaking Hearing (31.45). Colorado Parks and Wildlife (CPW) records indicate that cold stream tier II fish are present in this segment. Temperature data from the most recent 7 years from all available stations in the segment were compared to the fish-based temperature standards to assess the attainability of those standards (see tables below). Sufficient temperature data (minimum 3 evenly spaced samples per day) were not available to assess attainment of the MWAT, so only the attainability of the DM standard was assessed. This assessment indicates that the cold stream tier II DM standards are attainable.

Aquatic Life: CPW records indicate brown and rainbow trout; northern pike; roundtail chub; mountain whitefish; speckled and longnose dace; mottled sculpin; and bluehead, flannelmouth, longnose, mountain, and white suckers are present in the mainstem Colorado.

Recreation: This segment is intensively used for rafting and kayaking.

Water Quality Data – COUCUC03

Parameter	Colorado River blw Lake Granby		
	TVS	NCWCD/RW/ USGS/WQCD All Sites 2001-2007	n
pH, s.u.	6.5-9.0	7.86-8.53	349
D.O., mg/L	6	7.95	317
Hardness*, mg/L	NA	109.6	339
<i>E. coli</i> , #/100 mL	126	3	120
<i>As-D**</i> , µg/L	0.02	0.36	106
<i>Cd-D</i> , µg/L	0.45	0.00	221
<i>Cu-D</i> , µg/L	9.68	1.30	247
<i>Fe-D</i> , µg/L	300	171	215
<i>Fe-Trec</i> , µg/L	1000	215	189
<i>Pb-D</i> , µg/L	2.78	0.00	156
<i>Mn-D</i> , µg/L	50.0	60.1	209
<i>Se-D</i> , µg/L	4.60	0.13	167
<i>Ag-D</i> , µg/L	0.09	0.00	80
<i>Zn-D</i> , µg/L	128.4	6.7	192
<i>U-D**</i> , µg/L	30	1.00	44
NH ₃ , mg/L	TVS	0.030	199
NO ₃ , mg/L	10	0.023	139
SO ₄ , mg/L	250	54.6	187

* Hardness measured as CaCO₃ mg/L

** Standard is Trec

Water Supply: ~~The Town of Hot Sulphur Springs diverts water from the Colorado River for its municipal water supply. Hot Sulphur Springs Resort draws from an alluvial well.~~

Agriculture: ~~Livestock operations have been and continue to be active in the Upper Colorado River basin, although fewer such operations remain as ranchland is converted to urban land use. Crops in the upper basin are limited to irrigated and non-irrigated hay. Farther downriver alfalfa, and spring and winter wheat are cultivated.~~

Point Sources: ~~Domestic wastewater treatment facilities operated by the Town of Hot Sulphur Springs, Ouray Ranch, Colorado Parks and Wildlife (Windy Gap Reservoir Visitor's Center), and the Colorado Department of Transportation (Grizzly Creek and Hanging Lake Rest Areas and Bair Ranch) discharge to this segment. The Town of Hot Sulphur Springs also operates a water treatment plant that discharges filter backwash. Rayners Trailer Court discharges to alluvial groundwater. Glenwood Hot Springs, Rock Gardens Campground, Pitkin Iron Corporation (Redstone well), and Shorefox Subdivision also discharge to this segment.~~

Water Quality: ~~Water quality data were collected in this segment by WQCD, USGS, Northern Colorado Water Conservancy District, and River Watch (RW). WQCD collected samples at Colorado River near Dotsero (WQCD #46), Colorado River upstream of Roaring Fork River (WQCD #12100), Colorado River upstream of State Bridge at Highway 131 (WQCD #12103), Colorado River below Granby Reservoir at Highway 34 (WQCD #12105), and North Fork Colorado River at Highway 34 (WQCD #12106). USGS collected samples at Colorado River below Lake Granby, CO (USGS # 9019000), Colorado River near Granby, CO (USGS # 9019500), Colorado River at Windy Gap, near Granby, CO (USGS # 9034250), Colorado River near Kremmling, CO (USGS # 9058000), Colorado River near Dotsero, CO (USGS # 9070500), Colorado River above Glenwood Springs, CO (USGS # 9071750), Colorado River at Bond, CO (USGS # 395306106415601). Northern Colorado Water Conservancy District collected samples at the Colorado River above Fraser River Confluence (CR-WGU). River Watch collected samples at Colorado River at Hot Sulphur Springs (RW #203), Colorado River at Windy Gap (RW #543), and Colorado River at Pedestrian Bridge (RW #46).~~

Exceedances: ~~In Colorado River below Granby Reservoir at Highway 34 (WQCD #12105) there was an exceedance of the acute dissolved cadmium, dissolved copper and dissolved zinc standards, North Fork Colorado River at Highway 34 (WQCD #12106) there was an exceedance of the acute dissolved copper standard, Colorado River below Lake Granby, CO (USGS # 9019000) there was an exceedance of the chronic dissolved zinc sculpin standard and chronic total recoverable arsenic standard, Colorado River at Windy Gap, near Granby, CO (USGS # 9034250) there was an exceedance of the maximum pH standard, chronic dissolved manganese standard, and chronic total recoverable arsenic standard, at the Colorado River near Kremmling, CO (USGS # 9058000) there was an exceedance of the chronic dissolved manganese standard and chronic total recoverable arsenic standard, and in Colorado River above Fraser River Confluence (CR-WGU) there was an exceedance of the chronic dissolved manganese standard.~~