

Upper Colorado River Wild & Scenic Stakeholders Alternative Management Plan Intercept Survey Protocol

OVERVIEW

Introduction

Intercept survey data is used to evaluate the Recreational Floatboating “Not Likely to Return” Outstandingly Remarkable Value (ORV) indicator as well as the Recreational Fishing Catch-Per-Unit-Effort (CPUE) ORV indicator as described in the 2020 Amended and Restated Stakeholder Group Plan (SG Plan). Additionally, intercept surveys are used to gather experiential data. In support of the adopted ORV Indicators for Recreational Fishing and Floatboating, the Upper Colorado River Wild & Scenic Stakeholder Group (SG) adopted this set of angler and boater intercept surveys protocols to guide and inform future survey-based data collection and interpretation efforts on the Upper Colorado River.

The User Survey Program

Intercept surveys are a type of research method used to gather onsite feedback from a target audience.¹ It involves an interviewer approaching a user to ask about their experience. Intercept survey efforts will be guided by the tools and techniques outlined in this document. The “Not Likely to Return” Floatboating ORV indicator percentage values and the CPUE fishing ORV indicator values described in this report were developed using intercept survey data. The decision to use survey data does not preclude the use of other survey methods to collect comparable data in the future, provided that due consideration is given to how differing methods may produce different survey results and that the use of other survey methods is approved by the SG.

Survey Research Providers

It is understood that the SG will periodically evaluate research companies to provide survey research-related services. The selected firm is referred to in this document as the Survey Research Contractor (SRC). It is anticipated that, in any given year, the SRC will be responsible for overseeing the fieldwork associated with intercept surveying at selected river locations, as well as subsequent analyses to provide data and specific metrics in a form that will support continuing evaluation of selected ORV Indicators. RRC Associates is the current SRC and has provided services since 2013. RRC also assisted in developing this document. If/when other SRC's are considered for research services, it is anticipated that the agreed-upon scope of services will be guided by, and will adhere to, the operating procedures and standardized approaches set forth in this document. It is anticipated that these protocols will be used as a basis for RFPs and contracting with a selected SRC.

¹ <https://rmsresults.com/2021/04/15/what-is-an-intercept-survey/>

RECREATIONAL FLOATBOATING INTERCEPT SURVEY

Survey Method

The recreational floatboating intercept survey involves interviewers asking boaters a series of questions. Please refer to Appendix 2 – Boater and Angler Surveys for the complete surveys.

The “Not Likely To Return” Floatboating ORV Indicator protects the existing range and quality of the outstanding floatboating opportunities as measured by the following question:

- Based on your experience today, how likely would you be to return to this section of river?
 - 0%-will not return
 - 25%-unlikely
 - 50%-maybe
 - 75%-probably
 - 100%-definitely will return

The percentage value for each year type equals the sum of respondents in categories “25%-unlikely” and “0% - will not return” divided by the total number of respondents (i.e., 10 responses in “25%-unlikely” category, 5 responses in “0%-will not return” category equals 15. Dividing 15 by 380 total responses equals 3.9%). Taken together, the respondents in the two categories are termed “not likely to return” and this value is used to compare to the threshold value (ORV Indicator percentage values for a particular river segment and year type - Table 1). The locations where surveys are conducted for each segment are outlined in the Survey Dates and locations section of this document.

The SRC will calculate the percentage of “Not Likely to Return” responses for each segment annually and compare it to the values in Table 1 for the corresponding segment and year type. Additionally, the SRC will present data as outlined in the Data Tabulation and Analysis section of this document. To compare to locked ORV Indicator percentage values, the minimum recommended number of annual surveys for boating is 175 per segment. However, a lower number of surveys can be used if approved by the SG. For example, a lower number of surveys may be accepted if it does not result in a divergence in the ORV value.

ORV Indicator Percentage Values

The percentage values for “Not Likely to Return” are indicated in Table 1. This table is included in Section III.B.2 of the SG Plan.

Table 1: Percentage Values for Not Likely to Return for each year type. ²

	Driest	Dry Typical	Wet Typical	Wettest
Segment 5	4.9%	6.1%	4.2%	3.1%
Segment 6	2.2%	2.4%	-	1.6%
Segment 7	4.0%	2.7%	-	3.2%

Percentage values in Table 1 will contain blanks (-) until a sufficient total number of valid intercept surveys (e.g., “n” value) have been collected for a given year type in each segment. The minimum recommended intercept survey sample size to ensure a statistically representative sample for analysis purposes is 380 for each segment. This assumes that the intercept survey results are based on a random sample of river floaters. A confidence level of 95% was selected for determining the percentage values. All data collected up to and including the year in which there are at least 380 samples will be used to calculate the upper 95% confidence interval for the percentage value for “Not Likely to Return” that is entered in Table 1 for a given river segment and year type. As specified in the SG plan, locked percentage values must be greater than zero. If necessary, surveys will continue to be collected until the locked percentage value is greater than zero.

² Not all values in this table were set using the 380 sample size or the 95% confidence interval. Please refer to “Process to Deliberate and Address Failure to Reach Consensus – Floatboating ORV Indicator” memo from March 23, 2023.

As stated in Section III.B.2 of the SG plan: “The percentage values for a segment will “lock” as the final percentage values upon receipt of the minimum recommended intercept survey sample size 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.”³

As Wet Typical year type fields in Table 1 remain blank, Interim Thresholds for Not Likely to Return were developed (Table 2). The interim thresholds will be used to evaluate annual survey data for Wet Typical year type for segments that do not have a “locked” percentage value. The interim thresholds will not be used to evaluate if the “Not Likely To Return” ORV Indicator is met or not met, and will be used only for informational purposes. When Table 1 has locked values for all year types and segments, the interim values will no longer be used.

Table 2: Interim Thresholds* for Not Likely to Return by Segment for Wet Typical year type.

Segment 5	3.8% (n = 3,617)
Segment 6	1.6% (n=1,079)
Segment 7	2.5% (n=1,301)

* Interim thresholds are based on the upper 95% confidence interval for floatboating survey responses (2013 – 2021) that indicate “will not” or “unlikely” to return.

³ Per the SG plan: “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.”

RECREATIONAL FISHING INTERCEPT SURVEY

Survey Method

The recreational fishing intercept survey asks anglers what their Catch Per Unit Effort (CPUE) was. Per the SG Plan Attachment C: Long-Term Monitoring Plan, CPUE is calculated based on the sum of all of the reported angler hours fished at a given location divided by the total number of fish caught at that same location. The survey data for each given year will be compared to the CPUE ORV threshold values by segment.

The SRC will compute CPUE, annually, for each location and compare it to the values in Table 3. The minimum recommended number of anglers represented by annual surveys is 40 per location (i.e.: 20 surveys of boats with 2 anglers each would suffice). However, a lower number of surveys can be used if approved by the SG. For example, a lower number of surveys may be accepted if it does not result in a divergence in the ORV value.

ORV Indicator Percentage Values

The CPUE threshold values are indicated in Table 3 below, which is in Section III.B.1.b of the SG Plan.

Table 3: CPUE Threshold Values

Thresholds	Catch Per Unit Effort (CPUE)
Radium (Segment 5)	0.70
State Bridge (Segment 5)	-
Catamount (Segment 6)	-

The blank values in Table 3 will remain blank (-) until a sufficient total number of valid intercept surveys (e.g., “n” value) have been collected. The requisite number of surveys (n) are:

- 525 for State Bridge
- 531 for Radium, and
- 380 for Catamount.

In this instance, the intercept surveys (n) refers to the total number of individual anglers represented by the survey sheet. For angling, only one survey sheet is filled out per boat and that survey represents 1 or more anglers. A confidence level of 95% was selected to determine the CPUE threshold per location. This assumes that the intercept survey results are based on a random sample of anglers. All data collected up to and including the year in which there is at least the requisite number of samples will be used to calculate the lower 95% confidence interval CPUE for a given river segment.

As stated in Section III.B.1.b of the SG plan: “Once a sufficient number of valid intercept surveys are conducted 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.” “Intercept surveys used to establish 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 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.”

SURVEY DATES AND LOCATIONS

In the spring, the SRC will propose an annual research schedule to the Monitoring Committee for review and approval. The research schedule will include survey dates and locations and will be determined based on the expected year type and data needed to finalize the additional values in Tables 1 and 3. It will determine the fieldwork for that year, April 1 – October 15. Depending on field conditions, the research schedule is subject to change.

Preliminary sample site locations will be approved annually by the Monitoring Committee. Any such recommendation by the committee that impacts the approved budget must be approved by the SG.

It is expected that Tables Table 1 and 3 will be modified over a period of years based on new data.

The following considerations apply to determining surveying locations:

- If a Wet Typical Year is anticipated, priority will be given to completing sufficient surveys to meet the minimum number needed to lock undefined values in Table 1.
- In an effort to collect requisite number of fishing surveys, priority will be given to data collection at Catamount.

The annual calendar for surveying will be developed as follows:

- Based on budget considerations, an annual summer season program will consist of 12 to 15 study days based on observed conditions.
 - In general, each study day consists of 4-5 interviewing locations
- A study day covers the daylight hours of the selected day, with surveying generally taking place from approximately 9am to 6pm. Multiple interviewers will be staffed at multiple locations on a study day, in order to compare activity across sites on a given day.
 - At Catamount, surveying times will be approximately 11am to 7pm
- The annual calendar shall be divided into three “seasons” consisting of an Early Season (4/1 to 5/31), Midseason (6/1-8/15) and Late Season (8/16 – 10/15).
- Study days will be selected to include a mix of days of week and weeks of season to ensure that all days of week are given equal probability of selection. However, each season shall include at a minimum, one Saturday and one Sunday. Midseason shall include one Wednesday. Additionally, at least one day between July 3 and July 6 shall be included. An example calendar based on a 15-day schedule is provided below.
- To help ensure the minimum number of floatboating and fishing annual surveys are collected, there may be a mid-season (middle of July) check in between the SRC and the Monitoring Committee to discuss data collected, how we are tracking to meet minimum annual surveys, and if any adjustments to the schedule and/or surveying location are needed for that year .

Example Upper Colorado Fieldwork Schedule based on 15 day effort	
Date	Day of Week
Early Season (4/1-5/31)	
April	Saturday
May	Tuesday
May	Friday
Midseason (6/1-8/15)	
June	Sunday
June	Wednesday
June	Sunday
June	Tuesday
July 5	Saturday
July	Monday
July	Saturday
Late Season (8/16-10/15)	
August	Saturday
August	Thursday
September	Friday
October	Thursday
FLEX DAY- TBD	FLEX DAY- TBD

Cancellation of a study day due to adverse weather conditions

Adverse weather conditions periodically impact scheduled study days, particularly in the early and late season time periods. In the event that snowfall of greater than two inches or more is predicted two days in advance of a scheduled study day, that day shall be cancelled, and a substitute date shall be scheduled in the same season. Similarly, if sustained winds of greater than 20 miles per hour are predicted a study day may be cancelled. Data collection could also be modified for other reasons. It is not anticipated that study days will be cancelled because of predicted rain events.

Fieldwork Sites

Interviewers will be stationed at the following takeout locations based on the scheduling considerations identified above: (See “Additional Background Information” in this document for maps.).

- Radium – Segment 5 (Map 3) – Floatboating and fishing data collected
- State Bridge – Segment 5 (Map 5) – Floatboating and fishing data collected
- Two Bridges – Segment 6 (Map 6) – Floatboating and fishing data collected
- Catamount – Segment 6 (Map 7) – Floatboating and fishing data collected
- Pinball Boat Access Site – Segment 6 (Map 8) – Floatboating data collected
- Horse Creek/Lyons Gulch – Segment 6 (Map 9) – Floatboating data collected
- Cottonwood Island – Segment 6 (Map 10) – Floatboating data collected
- Lyons Gulch – Segment 6 (Map 10) – Floatboating data collected
- Dotsero – Segment 6 (Map 11) – Floatboating data collected
- Grizzly Creek – Segment 7 (Map 12) – Floatboating data collected
- Two Rivers - Segment 7 (Map 12) – Floatboating data collected

No additional interviewing locations will be added without discussion and approval by the Floatboating and Fishing Recommendations Committee and Monitoring Committee.

Coordination with Agencies and Commercial Outfitters

- This survey research effort is not an official study or survey conducted by BLM or the U.S. Forest Service. Interviewers shall be briefed on the specifics of the research and shall be provided a verbal and written description of the effort as a part of their training.
- The SRC shall coordinate with agency staff (from the respective BLM field offices, the USFS and Eagle County Open Space) prior to commencement of work each season. That outreach shall address the anticipated schedule for the spring to summer period, locations of interviewing, signage, and set up procedures. This protocol document shall be shared; it provides a written overview of the intercept survey work program. While it is recognized that some modifications to the protocols may occur to address particular situations at an individual interviewing location, the protocols shall be followed by SRC staff, and agency staff can assume that the overall work program will be as described in this document.

Additional Survey Techniques to Complement the Intercept Survey Program

The SG and Monitoring Committee have discussed alternative or complementary techniques for collecting experiential boating and angling data that could inform and provide more depth to the results of the ongoing monitoring of adopted floatboating and angling ORV indicators. Specifically, there is a stated desire to continue to explore new or evolving methods for gathering user-based information. The purpose of this exploration would be to identify and evaluate new data collection techniques that could be used to provide ORV related information on an ongoing basis that could potentially reduce costs, and/or provide a means of monitoring river experiences on a more periodic basis once the data presented in Table 1 and Table 3 is complete. The following techniques have been discussed and will be considered for further evaluation:

- Displaced visitation. Visitor displacement can occur when visitors are driven away from a preferred place due to changes in conditions. Recreational experiences can be influenced by changed conditions further described in terms of changes or degradation to social, physical and/or administrative settings of an area. The intercept program would not fully identify changed conditions because new visitors intercepted often have not experienced the river corridor previously and have nothing to compare it to. Degraded setting conditions can become the new normal for high visitation river corridors and/or recreational. Repeat surveys need to be conducted with visitors who have been previously surveyed in order to ensure that desired conditions are sustained.

In order to understand displacement and where it occurs, post-visit surveys are preferred to get a baseline estimate of whether users may return. However, to understand whether they become truly displaced requires more detailed year-over-year tracking. As described below, this type of research could be undertaken to complement the intercept program. The desire of the Monitoring Committee to better understand and measure these potential trends is identified herein. The intercept survey instrument will continue to request email addresses of river survey respondents to allow for potential research via a Web-based follow-up survey on displaced visitation. The email addresses could provide the basis for follow-up surveying to determine whether visitors in-fact had come back, and if not why not?

Self-Administered Survey Forms. New techniques for gathering survey responses in low use areas will be tried. These will include creating postage paid survey mail-back forms that could be distributed in selected locations to complement the intercept surveying. Additionally, kiosks would be considered for testing in several locations. These kiosks would contain self-administered forms that could be completed when intercept surveying is not taking place.

- Stakeholder and Outfitter/Guide Surveys. Other survey techniques will be considered for testing and evaluation including surveys of stakeholder groups (for example American Whitewater, Trout Unlimited,

Mountain Buzz, etc.). These types of surveys would be conducted online, and results would be used to potentially test and establish benchmark measures that could be used in addition to intercept survey results, to measure river experiences and angling results.

- Intercept Surveying Program. The intercept surveying program will continue in accordance with the protocols described in this document. However, over time, surveys obtained via self-administered methods, on-line interest group surveys, or other not yet identified techniques may be evaluated as partial substitutes or complements to the current intercept survey program. It is recognized that any substitute techniques would need to yield comparable survey results to those of the intercept protocols and would require SG approval for use as substitute measures.

FIELDWORK PROCEDURES

Interviewing Procedures

- Description of Survey Research Work. The primary goal of the SRC is to survey as many river users as possible using the techniques described in this Protocol document. The surveyor will always be stationed at a takeout for assigned fieldwork. Interviews will be conducted with river users who are taking their craft out of the river. Interviews are conducted only with river users who are using watercraft. The intercept surveys do not include interviews with wade anglers, runners, bicyclists, campers, sightseers, people dipping their feet in the water, etc.

Many of the commercial guides in the study area are familiar with this project and are cooperative with interviewing efforts. Each year the SRC will contact agencies and commercial outfitters/guides to explain the summer research program. Typically, boaters who are not a part of a commercial party (private boaters) may require additional information concerning the surveying effort. Most river users will be greeted with a sign and survey description at the put-in (the upstream location where they first enter the river with their watercraft), so they may prepare to take the survey upon taking out.

- Professionalism. Interviewers will be hired with the goal of selecting staff who are enthusiastic, confident in approaching others, and can clearly (and often at full volume) communicate intentions to interview a boating group taking out from a particular craft. Interviewers are expected to be prepared to answer any questions the river users may have about the survey process. Questions concerning rules, regulations, user safety, facilities, and conditions found along the river should be referred to BLM or USFS staff. In contacting respondents, interviewers must be cordial and friendly, while remaining businesslike and professional.
- Survey Set-up. Field researchers are expected to do some preparation at the start of each study day. Each researcher will be prepared with at least ten clipboards and at least as many pens. Once participants have agreed to take the survey, it is acceptable for the respondents to complete the survey on their own, or for the interviewer to read the questions and record responses. Similarly, a respondent can read along with the interviewer and point to answers.

Because raft loads of people may be coming up the takeout ramp at any given time, interviewers will implement a plan that allows for engaging participation from as many people as possible. A proven approach is to set up surveys on the clipboards during any downtime, so that when river users do arrive, they can fill out the surveys themselves. While this is happening, interviewers can directly survey anyone who may prefer being asked the questions as opposed to reading and filling out the survey. This is a proven quick and efficient way to enhance survey participation.

- The Approach. When approaching river users to take the survey, interviewers will begin by asking if they have a few minutes to answer some questions about their experience on the river. The following language is typical and proven: "Hi, my name is _____, and I'm conducting surveys on behalf of the Upper Colorado River Wild & Scenic Stakeholder Group. Could you please take a few minutes to answer some questions about your experience on the river today?"

If asked about the purpose of the research or the group sponsoring the survey, the interviewer can explain that the SG is responsible for a regional management plan that addresses multiple users of this section of the river. Potential respondents with questions can be shown or given an Upper Colorado River Wild & Scenic Description Card, which describes the research program and provides the SG's website address.

- Reading Survey Questions. When reading a question, interviewers are instructed to not paraphrase or summarize. Interviewers are to read the question exactly as written and in the order the questions appear

on the survey. Failing to do this can have some people answering a question differently than they might have if it had been read verbatim. The interviewer is expected to record the answers to questions in an objective manner, not passing judgment (either positive or negative) or commenting on the person's answer. The objectivity, neutrality, and professionalism of interviewers are critical to collecting accurate information. Upon completion of the interview, respondents are to be thanked for their participation.

- Important Information about the Surveys. There are two slightly different survey instruments that are used at takeout locations. One version is the Floatboating Survey for boaters (e.g., rafters, kayakers, floaters), while the other survey is the Angling Survey for anglers (e.g., float-fishers). It should be noted that the Angling Survey asks experiential questions that are identical to those posed to floatboaters. The technique described above encourages the participation of as many river users as possible. For anglers, the interviewer selects just one of the anglers (if in a group) to complete the survey. The Angling Survey instrument is designed to gather information for the respondent as well as for the other anglers in the group; the survey form will ask for and the interviewer will record information on the "catch" and total time fishing in order to obtain data on Total Fishing Effort. The angler survey method and the associated survey instrument are designed to make it unnecessary for all anglers in the group to respond; again, one respondent summarizes the fishing results for the total party. Special note for Angling Surveys: Interviewers will ask whether other members of an angling party wish to complete a survey. If yes, they will be requested to not answer the sequence of questions on Total Fishing Effort or Catch. Rather, they will be answering about their experiences only. In this way, the sample of experiential data for anglers will be increased without reducing the accuracy of ORV-related angling measures. Interviewers shall remain alert to completed angling surveys one boat at a time to ensure that angling results are not reported multiple times by a single craft.
- Returning Completed Surveys. Upon completion of a study day, interviewers are expected to return the packet of completed surveys to the research vendor within two days of the survey date via FedEx. Each interviewer is required to complete a Chain of Custody form when sending back the packet of completed surveys. Here are two important components of this form. The first is a count of the number of surveys conducted (in which the interviewer will also account for the beginning and ending survey numbers, which are pre-printed on each form). The second is an observation regarding weather conditions on the study day.

Site Set-Up

Interviewers are required to set up the site upon arriving for their shifts. For each survey location, the set-up location will be at the top of the takeout ramp. This gives river users an opportunity to bring their watercraft out of the river and helps to create a more comfortable, and less chaotic, survey environment.

- Pop-Up Tent, Banner, and Table. Interviewers are provided with several tools to create their surveying site. These include a pop-up tent, banner, and table. Across the front of the tent, the interviewer will affix a sign that reads "SURVEY TODAY." Next, the interviewer will set up the fold-out table. This creates a surface for river users to take their survey. A tarp will be provided to have on hand for rainy days. Interviewers can use the tarp as a tablecloth or to cover survey forms and equipment in cases of heavier rain.
- Chairs. Given the length of shifts, interviewers will want to have a chair to sit in throughout the day. This will be provided by the vendor or may be provided by the interviewer if they have a particular preference. It is important that the chair be positioned in such a way that the interviewer will be able to clearly see river users as they approach the takeout. This gives the interviewer adequate lead time to set up surveys before the arrival of boating parties.

Flags. Interviewers will also set up a tripod sign at each interviewing location. The sign serves as a signal to river users that they will be asked to participate in surveys at the takeout.

- Common Sense Rules. All interviewers shall practice common sense rules of neatness, personal grooming, good taste, and comfort. Provocative clothing is prohibited; torn jeans, tank tops, swimsuits, short shorts, jogging suits, and similar apparel are not permitted. Preference is for interviewers and observers to wear cool comfortable summer clothing, free of commercial logos or phrasing. Interviewers shall always wear a name tag.

Interviewer Checklist of Items to Bring On a Surveying Day

Personal

- Water
- Lunch
- Snacks
- Hat
- Sweatshirt/ Raincoat
- Sunglasses
- Sunscreen
- Cell phone or quarters to use nearby payphone

Surveying/Observing Equipment

- Chair
- Clipboards (10-20)
- Pens (15-30)
- Table
- Pop-up tent
- "Survey Today" banner & bungee cords
- Tripod sign
- Surveys
- Observer Logs
- Upper Colorado River Wild & Scenic Description Cards
- Map of work site
- Chain of custody form



Example of an Interviewer (Take-Out) Set-Up

DATA TABULATION AND ANALYSIS

The SRC shall be responsible for aggregating survey data and providing an analysis of survey results on an annual basis. The tabulation and reporting of results shall be performed according to schedules designed to provide the SG with access to data and seasonal results on a timely basis.

The SRC will provide, at minimum, an update of the following tables.

Table 4: Survey Results: Percentage Values Not Likely to Return by Segment and Year

Year	Segment	Year type	ORV Indicator % Value by year type	Annual % Values	Divergence?
2013	5	Dry	6.1	5.4	None
2013	6	Dry	Not locked	--	None
2013	7	Dry	Not locked	1.1	None
2014	5	Wettest	3.1	2.8	None
2014	6	Wettest	1.6	0	None
2014	7	Wettest	3.2	2.6	None
2015	5	Wettest	3.1	1.1	None
2015	6	Wettest	1.6	0	None
2015	7	Wettest	3.2	0.7	None
2018	5	Dry	6.1	2.8	None
2018	6	Dry	Not locked	1.0	None
2018	7	Driest	4.0	2.3	None
2019	5	Wettest	3.1	1.7	None
2019	6	Wettest	1.6	1.0	None
2019	7	Wettest	3.2	2.3	None
2021	5	Driest	4.9	3.6	None
2021	6	Driest	2.2	1.2	None
2021	7	Driest	4.0	0.9	None

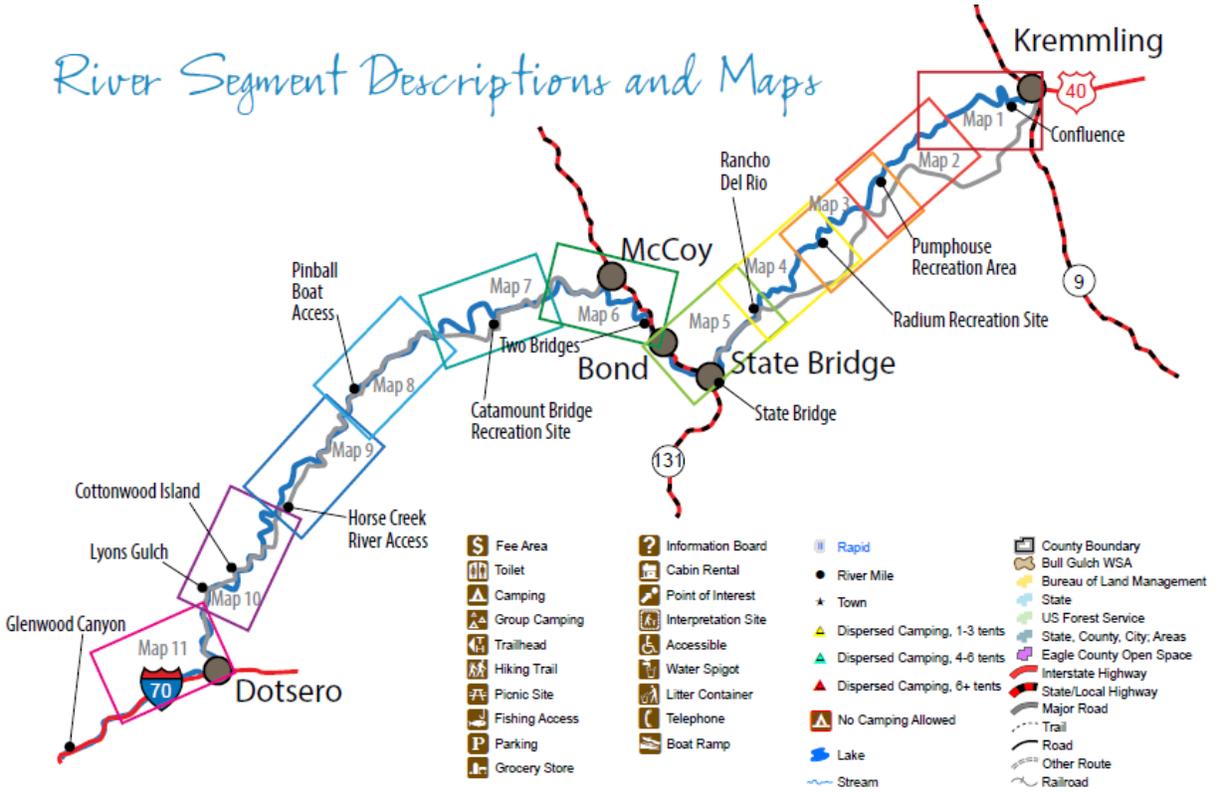
Table 1 will also be updated if minimum requested survey number is met and can fill in some blanks.

APPENDIX 1 -ADDITIONAL BACKGROUND INFORMATION

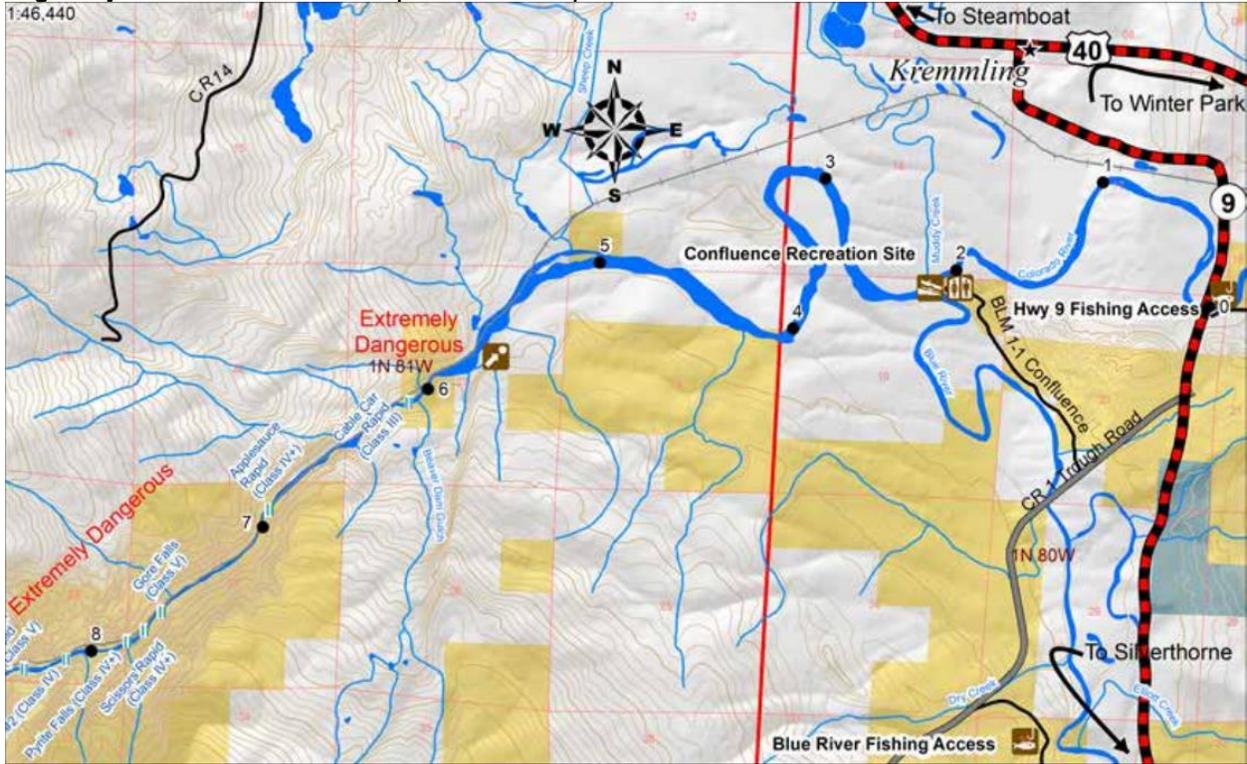
Maps of the Upper Colorado River (BLM Segments 5 through 7, USFS Segments 1 and 2)

*Maps 1-11 taken from the BLM and Eagle County Upper Colorado River Guide, 2015.

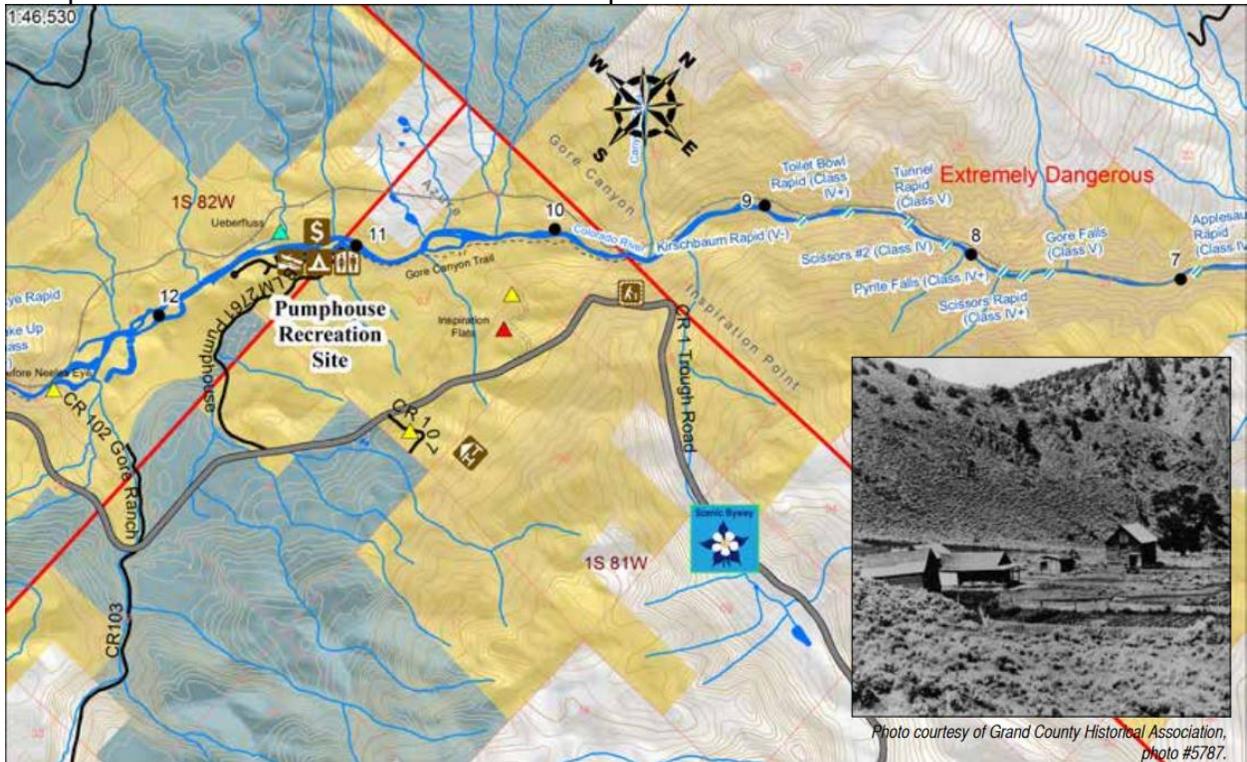
*Map 12 generated from Google Maps.



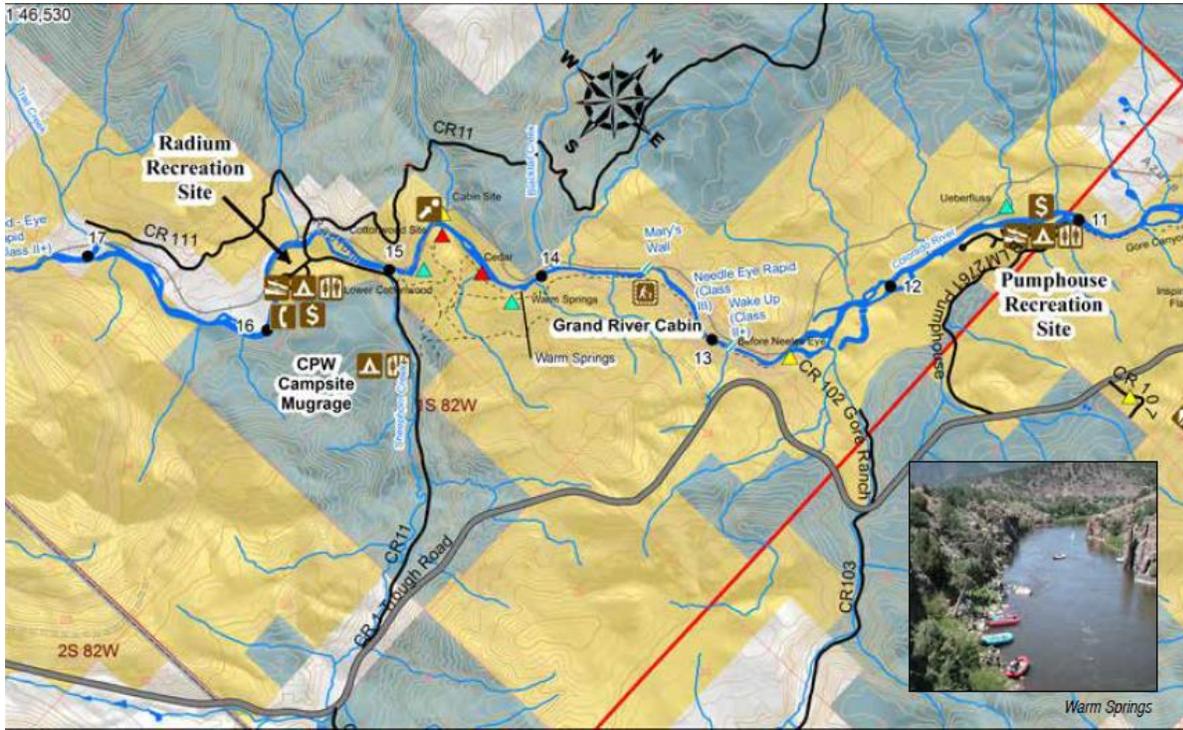
Highway 9 West toward Pumphouse – Map 1



Pumphouse Southwest toward Radium – Map 2



Pumphouse to Radium - Map 3



Radium to Rancho del Rio - Map 4

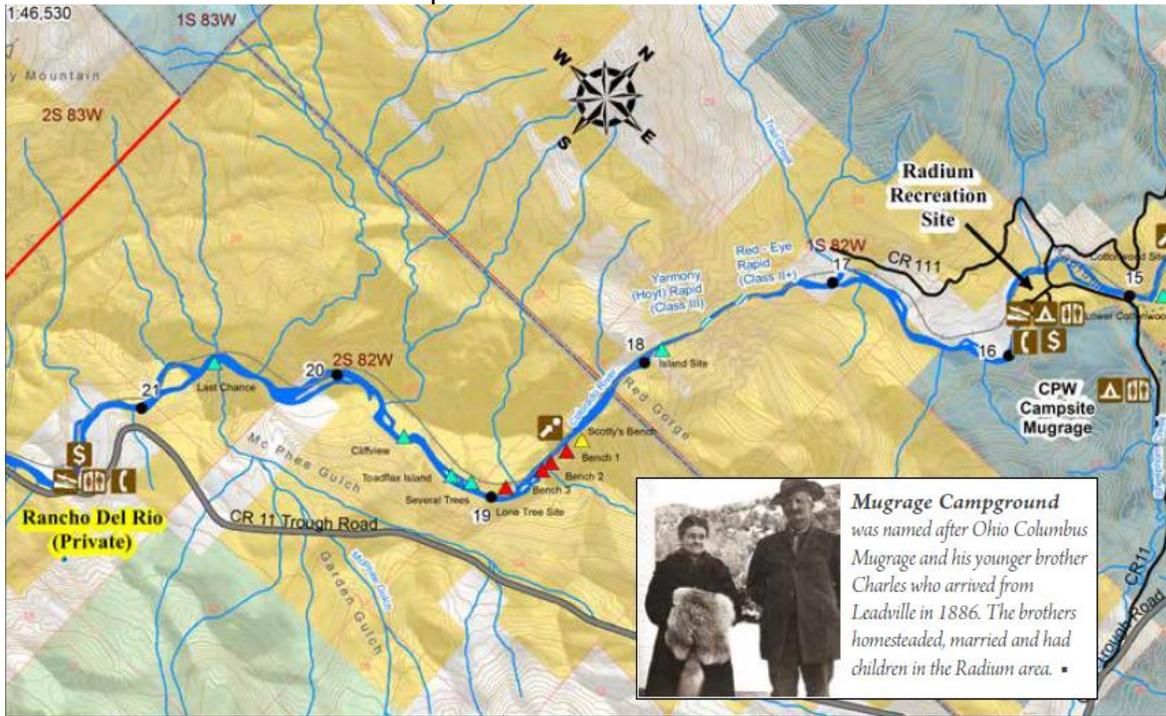
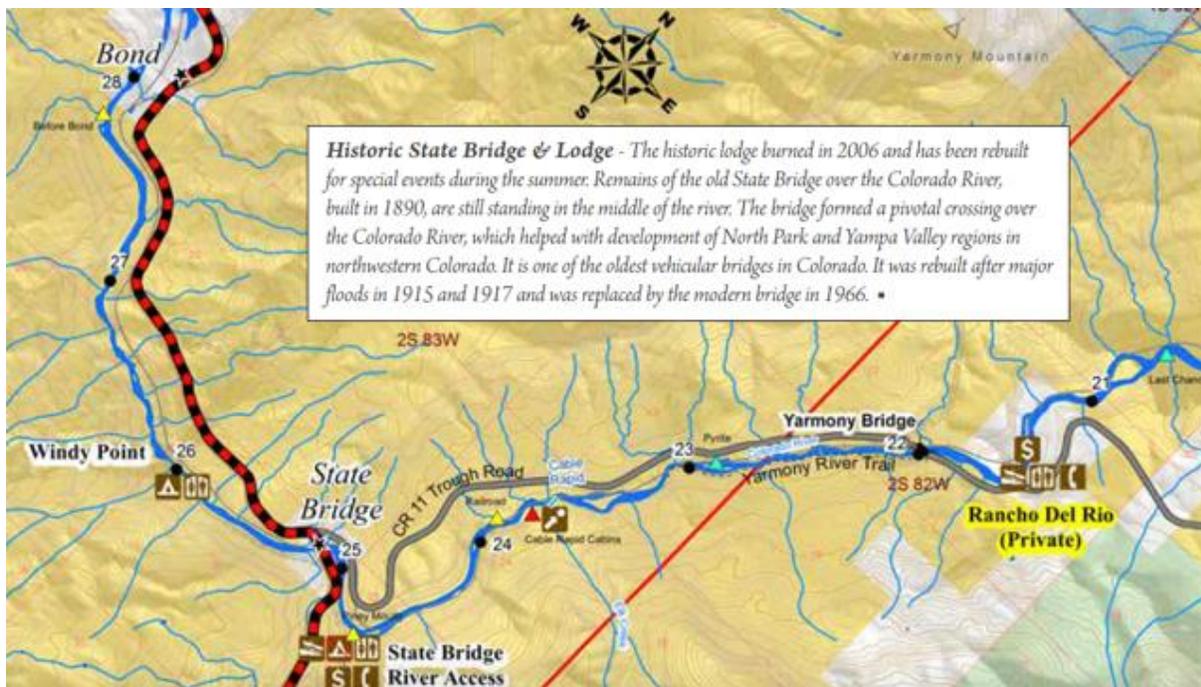
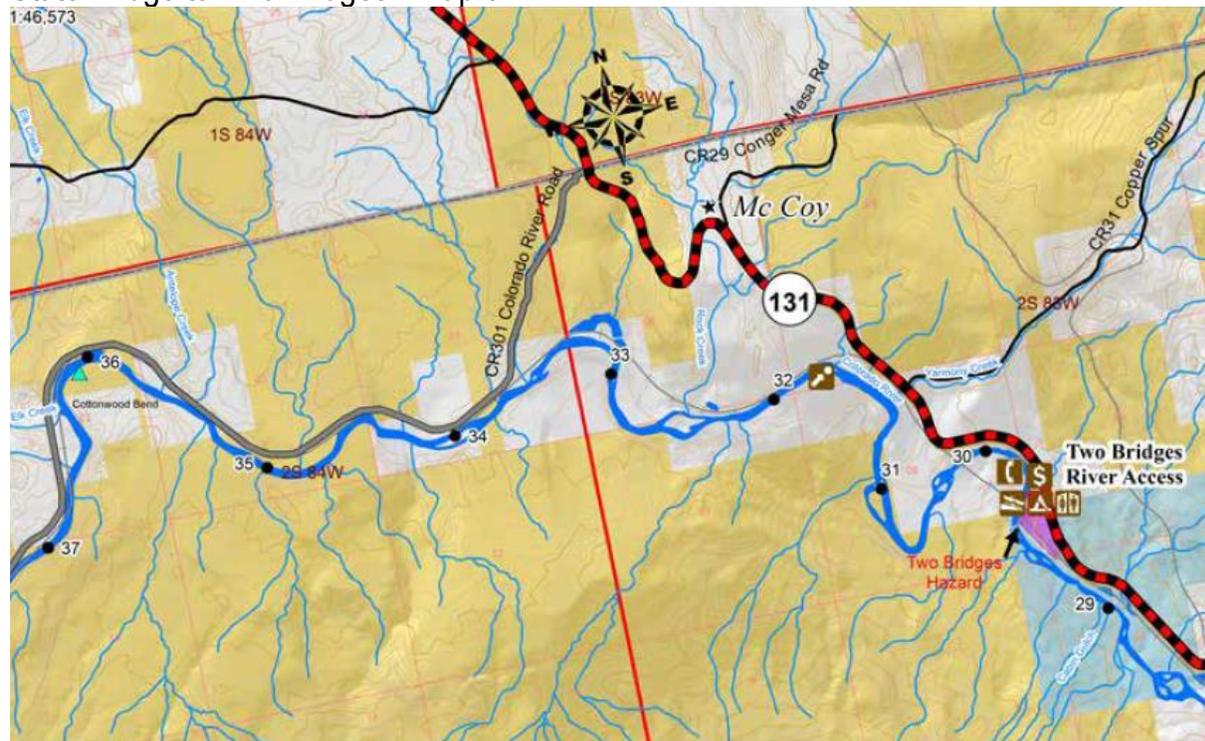


Photo courtesy of Grand County Historical Association, photo #5886.

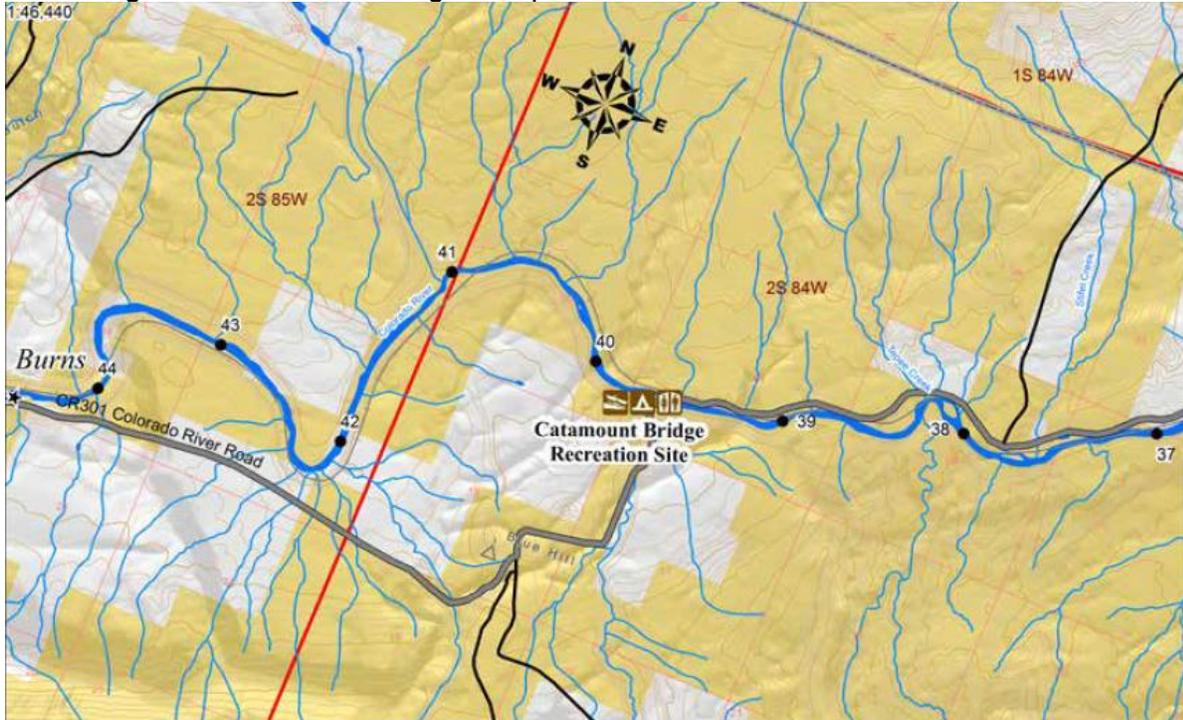
Rancho del Rio to State Bridge – Map 5



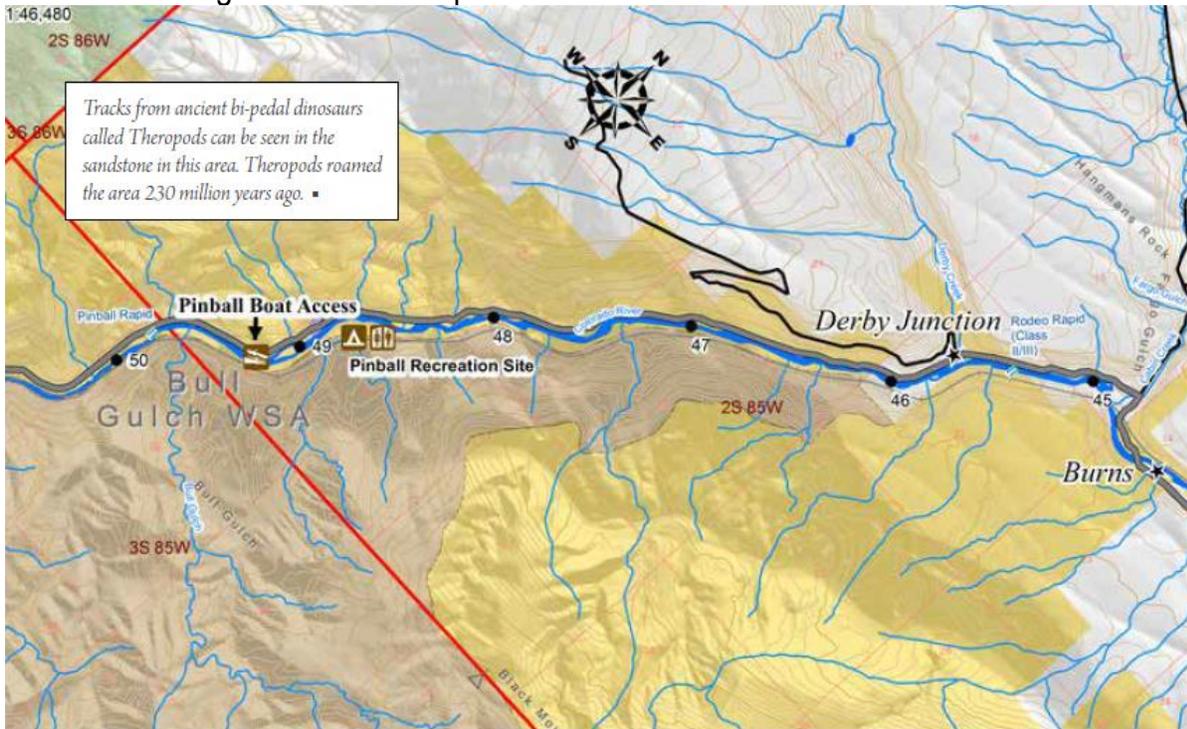
State Bridge to Two Bridges - Map 6



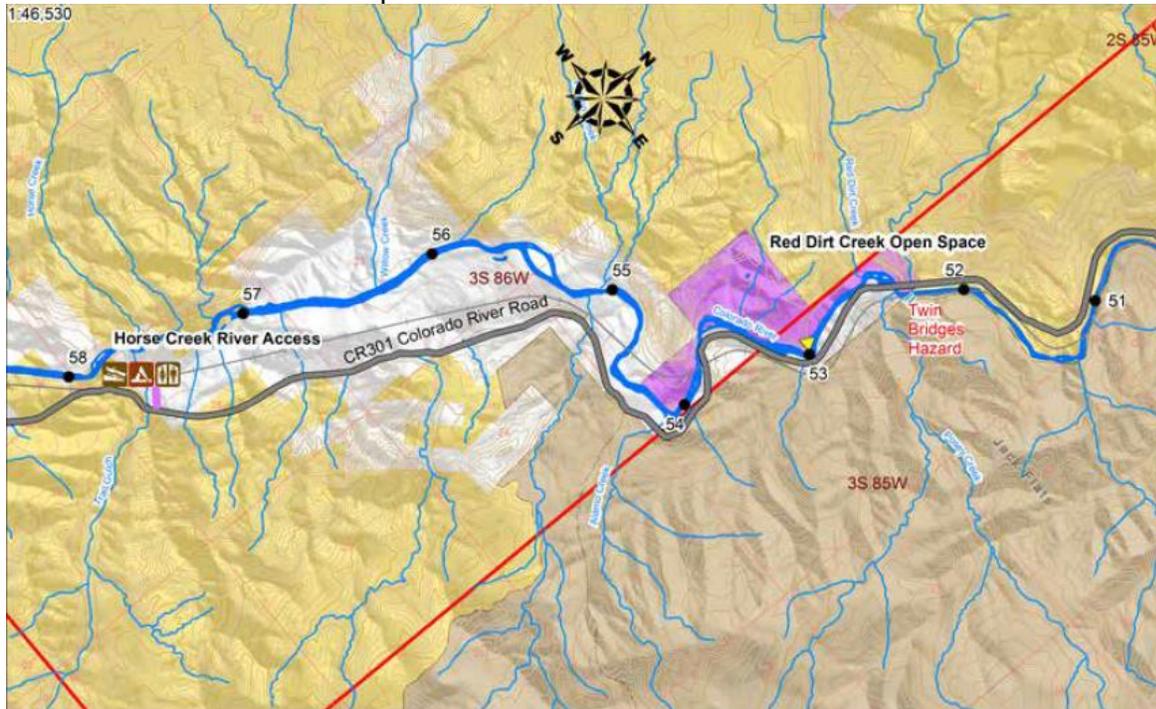
Two Bridges to Catamount Bridge - Map 7



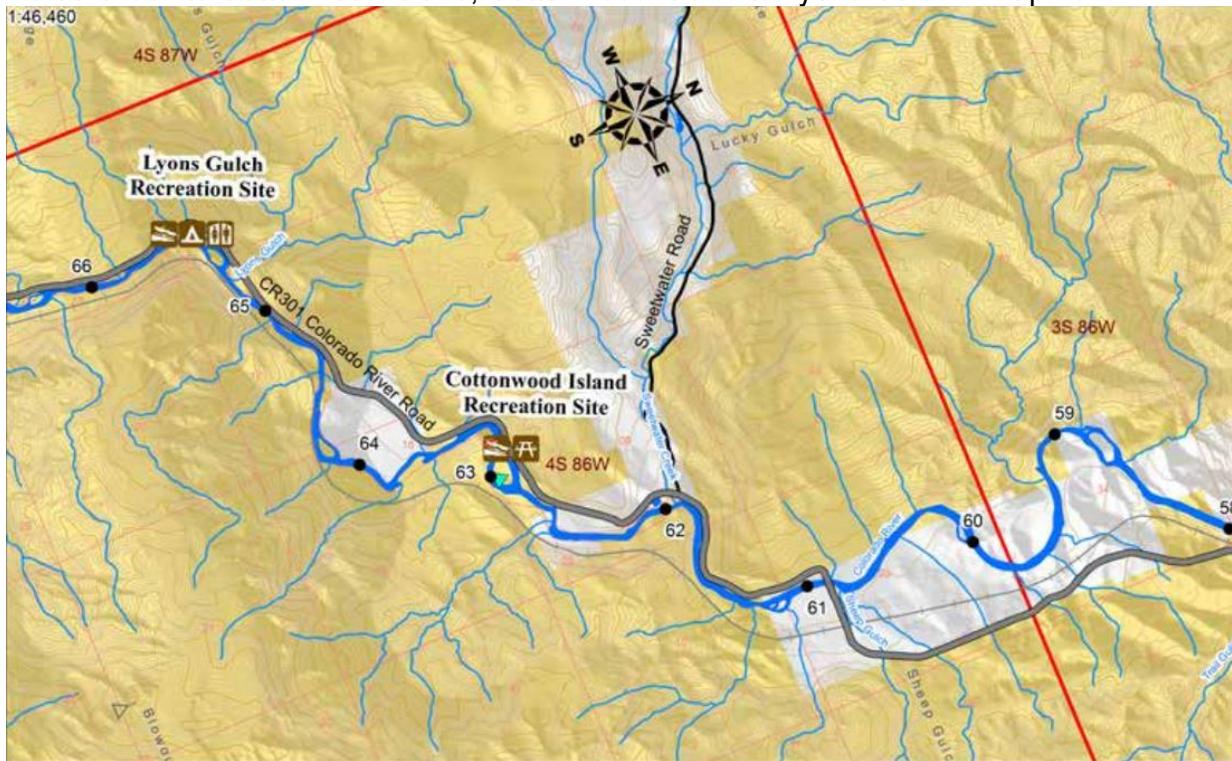
Catamount Bridge to Pinball - Map 8



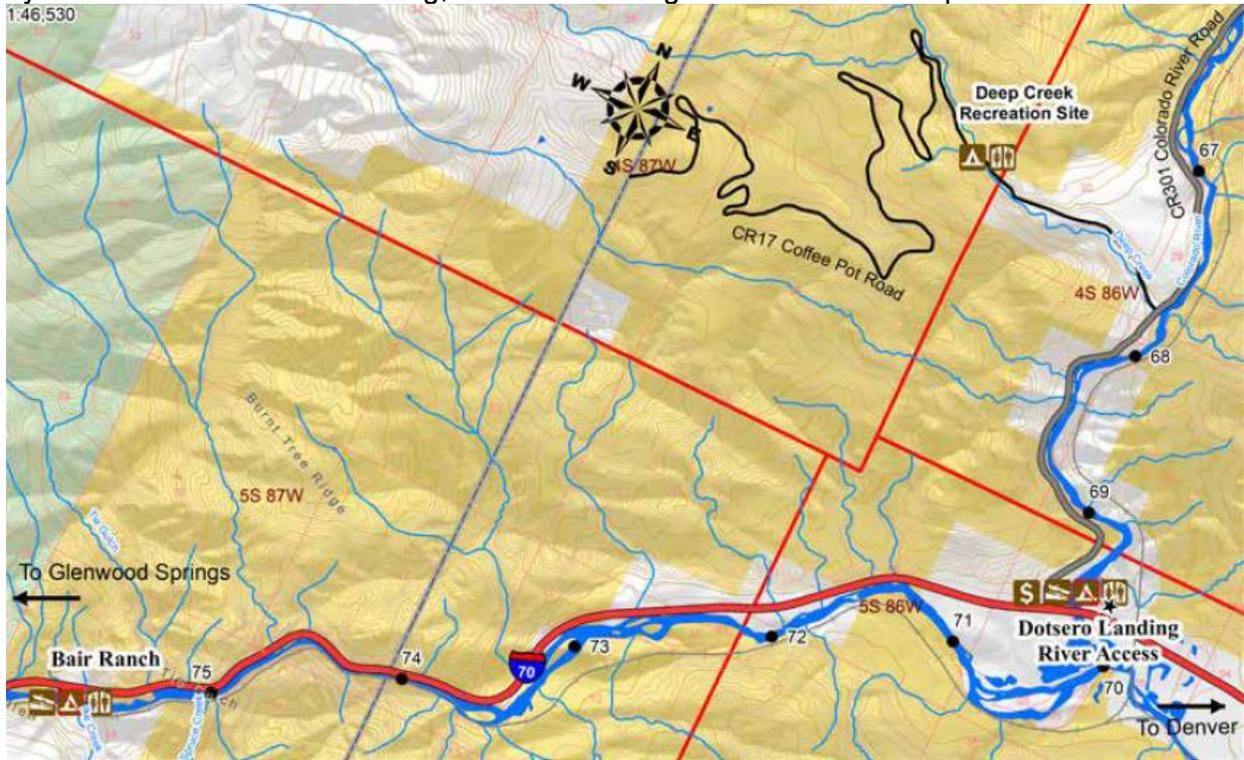
Pinball to Horse Creek - Map 9



Horse Creek to Cottonwood Island; Cottonwood Island to Lyons Gulch – Map 10



Lyons Gulch to Dotsero Landing; Dotsero Landing to Bair Ranch - Map 11



Bair Ranch to Glenwood Springs/Two Rivers - Map 12

APPENDIX 2 – BOATER AND ANGLER SURVEYS

BOATER SURVEY – 2021 and 2022

Were you boating with a commercial company, outfitter or guide today?

Yes No

How many people were in your craft, including yourself? _____

How many people in your craft are under age 16? _____

Prior to today, how many times have you floated this section of river?

This is my first time 1 time before 2-5 6 or more

Today, were you:

Recreational boating Float-fishing Both

What craft were you in?

Raft Dory Canoe Inflatable Kayak Kayak
 Stand-up Paddleboard Inner Tube
 Other: _____

Please rate your boating skill level on the type of craft you were on today:

Beginner Intermediate Advanced Expert

What is your zip code (or country of permanent residence if not U.S.)?

TODAY'S EXPERIENCE

Based on your experience today, how likely would you be to return to this section of river?

0%-will not return 25%-unlikely 50%-maybe
 75%-probably 100%-definitely will return

Today, did COVID-19 influence your experiences or decision to boat on this section of river?

Yes – This location was especially attractive in light of COVID considerations
 Yes – My day was negatively impacted by COVID-related experiences
 In a word or two, what type experiences: _____
 No – COVID-19 did not influence my decisions or experiences today

How did the following affect your experience today?

	Greatly Reduced My Experience Today	Slightly Reduced	Neither Reduced or Enhanced	Somewhat Enhanced	Greatly Enhanced My Experience Today	Don't Know/ No opinion
1. Guide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ANGLER SURVEY – 2021 and 2022

Were you boating with a commercial company, outfitter or guide today?

Yes No

How many people were in your craft, including yourself? _____

How many are under 16? _____

How many in your craft fished today? _____

For how long?

Angler #1 _____ hours

Angler #2 _____ hours

Angler #3 _____ hours

About how many fish of each species did your party catch today?

Rainbow trout _____ # fish

Brown trout _____ # fish

Other (species: _____) _____ # fish

How many fish did your party keep today? _____ (ENTER 0 IF NONE)

Prior to today, how many times have you floated this section of river?

This is my first time 1 time before 2-5 6 or more

Today, were you: Recreational boating Float-fishing Both

What craft were you in?

Raft Dory Canoe Inflatable Kayak Kayak

Stand-up Paddleboard Inner Tube Other: _____

Please rate your boating skill level on the type of craft you were on today: Beginner

Intermediate Advanced Expert

What is your zip code (or country of permanent residence if not U.S.)?

Today, did COVID-19 influence your experiences or decision to boat on this section of river?

Yes – This location was especially attractive in light of COVID considerations

Yes – My day was negatively impacted by COVID-related experiences

In a word or two, what type experiences: _____

No – COVID-19 did not influence my decisions or experiences today

TODAY'S EXPERIENCE

Based on your experience today, how likely would you be to return to this section of river?

0%-will not return 25%-unlikely 50%-maybe

75%-probably 100%-definitely will return

How did the following affect your experience today?

INTERCEPT SURVEY PROTOCOL - DOCUMENT LOG

SG Approval date	Comments
April 23, 2020	Original document. 1 st SG approval.
1 st quarter 2023	Major changes to ensure document is clear with defined steps, rationale, and background for future consistency.