

Biology Committee Meeting Summary**March 28, 12:30 pm – 4:30 pm (MST)****March 29, 8:30 am – 12:30 pm (MST)**

BC Members: Dale Ryden (chair), Pete Cavalli, Jenn Logan, AJ Keith, Tom Pitts (Day 2), Derek Fryer, Sarah Seegert, Dave Speas, Melissa Trammell, Harry Crockett

Participants: Lee Traynham, Leslie James, Zane Olsen, Russ Franklin, Saidee Hyder, Melissa Mata, Trina Hedrick, Kara Scheel, Darek Elverud, Shannon Woodring

Program Director's Office: Julie Stahli, Tildon Jones, Kevin McAbee, Paul Badame, Koreen Zelasko, David Graf, Shannon Nelson, Chris Michaud

DAY 1 - CONVENED 12:30 pm MST

Introductions & requests to modify agenda – The agenda was not modified.

Review Committee assignments list from February 2

- 1. Assigned 2-Feb-23: Ed Kluender** will contact Melissa Trammell to ensure she and NPS are aware of changes in 2022 brown trout capture rates and other species composition dynamics within Lodore Canyon. *NPS, CSU, and PDO met on March 9 to discuss this topic.*
- 2. Assigned 2-Feb-23: Tildon Jones** will work with ISMP investigators to develop a recommendation for implementing a rapid sediment assessment to data collections and bring that recommendation back to the Biology Committee for consideration. *Complete.*
- 3. Assigned 2-Feb-23: PDO** will distribute Program Guidance for the development of scopes of work for FY24-25 by February 17. *Done.*
- 4. Assigned 2-Feb-23: PDO with input from PI's** will develop a proposal for upgrading field computers and software and present the proposal to the Management Committee for funding. *March 27, ongoing discussions with a service provider to develop a data collection application with substantial input from PIs to ensure the solution meets their needs.*
- 5. Assigned 2-Feb-23: Reclamation and Tildon Jones** will meet with the Green River Canal Company to discuss operations and maintenance and try to find ways to make things easier on them and establish expectations for cleaning and maintenance. Recommendations will be added to the Program's capital project list as appropriate. *Reclamation and Tildon met with GRCC on March 24th and reviewed the 2022 operations and future needs. Lee Traynham and Josh Dunham from Reclamation are working with GRCC to address the remaining issues. The gate automation in particular needs to be corrected. 2022 proved to be challenging because burn scars and flash floods contributed to increased debris loads at the screen.*

6. **Assigned 2-Feb-23: CPW/PDO** to determine if a fish screen is needed for the East Rifle Municipal Pond and add to the Program's capital projects list if needed. *A fish screen is needed at this facility. CPW is working on a process to receive Program funds through existing agreements in order to fund an initial engineering assessment for cost estimates. We are hoping this can be accomplished in the next 6-9 months.*

Dave Speas asked if we could add the assignments list to the agenda before the meeting. >**Paul Badame** agreed and will begin that practice with our next meeting.

February 2 meeting summary – The summary was approved by the committee and will be posted on the Program website by the end of the week.

Preliminary Hydrology Picture for 2023 – David Graf presented the current snowpack and snow water equivalent (SWE) for the entire upper Colorado basin and then walked through the conditions in each subbasin. Snowpack is currently good or excellent in terms of water supply. Conditions have even improved in the last week. David reviewed winter flow conditions in the 15-MR of the Colorado River. Sediment is starting to move in that system providing channel maintenance flows. Recommendations for the reach were generally met from November through March. Now almost the entire basin from Colorado through California is doing incredibly well, most subbasins are in the top 10% of historical values. Lake Powell forecasts continue to rise, currently at 156% of average and equating to approximately 11 million acre/feet (MAF) of inflow.

Colorado - The 15-MR system will likely be in the Wet category (it is currently), which recommends 1630 cfs throughout the summer. CROS operations to enhance peaks are undetermined at this time; water users did not feel like it was possible during the first meeting on March 8 (Williams Fork and a few other reservoirs may not physically fill). Peak is currently predicted mid- May to mid-June at 15,500 cfs. David queried the BC to ask whether the priority is to spread our supplies throughout the summer or to hit the 1630 target as many days as possible (potentially for a shorter timeframe). '4 in 5-year water' will be available along with firm supplies which gives us about 26,000 af of water to manage.

Yampa – The Yampa is likely to be classified as 'Moderately Wet'. The current set target is 134 cfs for average years as no 'Wet' year target is established in the PBO. The peak is predicted to occur in mid-May to mid-June at over 21,000 cfs. David is not currently planning to lease the extra 2,000 AF out of Elkhead but may reconsider using the short term lease water if the system gets hot and dry.

Green – Flaming Gorge is currently releasing 800 cfs, which is about 400 cfs less than in early March. The reduced releases (800 cfs) was needed to perform maintenance on their turbines during the last week of March; potential low releases (below year-type) are in response to the States, and Reclamation agreeing, to forego delivery of the entire 500,000 AF of 2023 DRO flows (they've released over 400,000 AF to date, and more was projected to be released during April, 2023). Increasing snowpack and the States' desire to begin to recovering storage in Flaming Gorge may result in a 'storage recovery' mode for DROA operations in 2023.

Reclamation has indicated that following the work on hydropower turbines, releases would be increased to 1,050 cfs.

Gunnison – Reclamation is managing this system to hit a 14,300 cfs target for 2 days followed by 20 days at 8,050 cfs (½ bankfull). These flows will be significant for the Gunnison given recent years’ (2020-2023) lack of large peak flows.

Weather forecasts may tilt us into El Nino in 2024, but trends are uncertain at this point.

David agreed to provide another update to the BC via email towards the end of April to outline how snowpack developed and what’s new for runoff and summer flow management season.

RIPRAP Review – Background – Julie Stahli provided a brief presentation to the committee overviewing the original purposes of RIPRAP. Julie also reviewed the PDO annual work planning cycle and posed the question: can we turn the RIPRAP text into a long-range plan (15+ years)? Julie shared that Facebook does not use 5-year plans because conditions are change too rapidly in the tech industry. Instead, they use a 6-month plan, assess progress toward their long-term goals, and then initiate a new 6-month plan. Julie suggested that the Program may want to consider changing its planning timeframes as well, potentially a 6–12-month planning window. Pete Cavalli likes the idea of a more forward-looking plan. Dale Ryden also likes the concept but noted that hydrology and river conditions are the real driver of what happens on the ground. Julie suggested that a 1 or 2-year planning window might be a reasonable solution and Chris Michaud countered that a 6-month window might be relevant due to how quickly conditions and circumstances change in our system. Melissa Trammell noted that government agencies can’t act that quickly in terms of providing or adjusting funding. Kevin McAbee pointed out that we are trying to build flexibility into offices’ work plans with comprehensive scopes so that they can respond more easily to changes in hydrology, without worry over budget (which better sets them up for conversations like this about planning timeframes). AJ Keith asked about the primary purpose of the RIPRAP and wondered if we need more than one document – one to plan recovery activities and one to assess sufficient progress.

RIPRAP Review – General and Stocking tabs – The following is a set of brief notes related to specific sections of the RIPRAP tables which are intended to provide context to changes made directly in the tables during the meeting. This is not a complete list of edits.

- *Glossary*: Add “LFL” to abbreviations list. Combine and/or clarify ‘pending, on hold, dropped’ status.
- *Main Headers*: If the assessment period was changed to be a single calendar year, why are the planning years listed as fiscal years? We decided to go with calendar year for all columns.
- *I.A.I.a.*: AJ asked about a schedule for re-evaluating flow recommendations in each reach. David Graf said this also came up at the WAC meeting. Tildon mentioned that it is

important to have current and adequate fish response data in order to have an informed update to flow recommendations for any reach. Dale asked whether it would be helpful to include a list of reaches with flow recs and their status for evaluation on the General tab with references to more detail on specific tabs. AJ supported this idea.

- *I.E.I.*: Leslie James asked for more clarity on “climate change actions” in the activity description. Paul said the language was also discussed during the recent WAC RIPRAP review. Paul said it was intended to call out the “actions” that are in response to climate change or drought, since they could fall into several operational categories. More specifically, actions being implemented by entities outside this Recovery Program. The activity description was reworded to better represent our intent.
- *All Tables*: Pete pointed out that “out years” likely needs an “X” for most activities that are not completed. Paul will make that correction throughout the tables.
- *III.H*. Changed to reference emerging nonnative fish and not just burbot. Combine with lines below into one line.

Propagation Workgroup – Koreen Zelasko proposed creating a workgroup to define long-term propagation needs and efficiency. Issues might include humpback chub broodstock development and Colorado pikeminnow propagation, and whether those adjustments may require changes to existing production of razorback sucker and bonytail. Koreen asked for volunteers to participate in this group. Dale supported the idea and offered his and Brian Scheer’s participation. He also suggested one rep from each hatchery be involved. Dave Speas also volunteered and suggested a group to look at other infrastructure such as passages and screens. Jenn Logan also volunteered and will check with their hatchery for others who might be interested.

2023 Green River flow request letter and FGTWG update – Tildon said the Yampa is currently in the wet hydrologic category, while Flaming Gorge inflows are forecast to be somewhere in the average category. Flaming Gorge started in the average below median but has been improving in recent weeks. All three experiments (LTSP, SMB flow spike, and CPM base flows) are under consideration, but the May 1st forecast and possible DROA proposals to recover storage at Flaming Gorge will determine the availability of water to implement those experiments.

Melissa Trammell asked if the Recovery Program has the option to influence those discussions or whether the decisions have been made. The Flaming Gorge Technical Working Group (FGTWG) has submitted its final plan for implementation. Melissa called attention to project 177 which is documenting changes in the riparian vegetation along the Green River from Jensen to Ouray, though the reason for those changes is not yet known. She encouraged implementation of different base flows than what we have had in previous years (either higher or lower). She also called attention to the fact that the effects of any flow spike would be limited to Lodore Canyon and significantly diminished by high flows in the Yampa River. Tildon noted the importance of biological triggers in making real-time decisions. Dave Speas noted that flooding will likely be a concern for landowners along the Green River.

White River Management Plan – Julie updated the committee on the management plan, which could eventually become the basis for a PBO in the White River. The timeframe in the management Plan focuses on a 10-year period or when a source for flow augmentation becomes available, such as construction of Wolf Creek Reservoir or other large storage project. The planning group has looked at whether a PBO is needed or would be beneficial, which we were told by ES is somewhat contingent on whether a new set of depletions are expected to occur, creating an efficiency in Section 7 depletion compliance permitting for water development. There is a list of reasonable actions being developed in the plan to offset depletions in the White River. Should a PBO be pursued, the list of actions, related SOWs, and details re: committed parties could be pulled from the management plan.

RIPRAP Review – Green, Yampa, and Duchesne River Tabs – Notes for specific edits and discussions.

- *Yampa III.B.1.a.(2)(a)(vii)*: Dave Speas asked if we have done anything about potential pike reproduction upstream of Elkhead Reservoir. Harry Crockett said when this item was added to the RIPRAP it was more specific to smallmouth bass and no additional investigations have been conducted. Kevin McAbee thought it might be good habitat and asked if the status should be pending?

DAY 1 – ADJOURNED 4:50 p.m.

DAY 2 - CONVENE: 8:30 a.m.

RIPRAP Review – White

All changes were made directly in the White River tab of the RIPRAP table.

Program Director’s update – Julie Stahli shared an update on the post-2023 processes. All partners support the current funding proposal. Legislation to reauthorize the Programs has been drafted by the non-federal partners and they hope to have it introduced in Congress this spring. The NEPA document has finished internal FWS review and will go to partners for a pre-review before going to the partners for (official, final?) review. Julie and Melissa Mata are working on a draft of a new Blue Book. The omnibus bill from late 2022 authorized Reclamation to continue funding the Programs through 2024. Because the FY 24 federal budget has not been enacted yet, funding levels for our Programs are still uncertain. On a positive note, the President’s budget includes an increase over FY 23 levels, but the specific amount to be allocated to the upper Colorado Program has not been figured out yet. The Program cooperative agreement expires at the end of September 2023.

Julie noted that a new outreach plan will be forthcoming after input from the Outreach Committee.

15-MR Flow Target Study Plan Update – Julie summarized the current progress of the group. There is uncertainty as to how the flow study might impact the Program’s budget in FY 24-26. The WAC and 15 MR workgroup have been working on some good proposals to consider in

addressing this reach. Julie recommends having a long-term list of flow recommendations to evaluate and update since the evaluations require a lot of staff time and funding.

Recommend for MC Approval: Audubon Wetland Phase III Site Plans – Tildon Jones showed the committee the phase III plans provided by Ducks Unlimited and led a discussion of their merits. The plans recommend filling in the current breach and inserting a new breach downstream with a water control structure and fish screen/kettle. The contours suggest the wetland (designated in blue on the drawing) could fill up to a depth of 8 ft if the river can supply it. Supplemental water is currently under construction but would only support filling to 4 ft deep because of the elevation of the pipe itself. The red areas in the plan drawing surrounding the wetland are designed for migratory bird habitat. AJ Keith asked if the design allows for draining the wetland to accommodate maintenance, fish capture, or other contingencies. Tildon said it does. Dale Ryden recommended the wetland be bermed off to prevent water from leaking out the sides. Tildon said the engineer is aware of that problem and looking to mitigate it while also protecting the walking path. Dale confirmed that Audubon is aware of the need to maintain water in the wetland and manage the wetland differently than they would migratory birds. Multiple high points exist in the bottom of the wetland. The goal is to keep them as structural elements if they don't prevent effective operation of the gate. Dave Speas expressed support for the design. Dale's office will look at this wetland at multiple flows this year to see at what level the "fish pond" starts to spill over into adjacent low-laying areas. Dale and Tildon praised Audubon and Ducks Unlimited for their open conversations to support multiple uses. **The Committee recommended bringing the designs to the MC** after Tildon confirms that increasing the berms is part of the current plan.

RIPRAP Review – Colorado, Gunnison, Dolores River Tabs – Notes for specific edits and discussions.

- Pete Cavalli indicated the need to focus on instream flows especially during base flow periods, as the changing environment is making it harder to provide adequate flow in important reaches. This concept came up throughout the Colorado tab.
 - Dale – Gunnison PBO wanted to assess a variety of flows, unfortunately, we've only had low flows.
- There was a general discussion regarding the effectiveness of fish ladders on the Colorado River. Providing a few specific examples, Dale Ryden said they typically close passages to meet irrigation diversion needs just as razorbacks start moving. The passage at the Grand Valley Water Users diversion cannot operate at flows under 2,350 cfs. Pikeminnow are now seen both downstream and upstream of the upstream-most ladder.
 - How should the Program evaluate the effectiveness of our fish ladders?
- Melissa shared information about the proposed Uinta Basin Railway Project meant to create a new railway connection in Utah which would link up with an existing rail line in Colorado that runs through Eagle County along the Colorado River. Current debate revolves around the NEPA for the Colorado section of the railway. >**Julie** will check with ES to see what opportunities may be present.

RIPRAP Text Review – Paul Badame and Julie Stahli walked through the current purpose of the RIPRAP text and the group worked through BC edits and comments. Julie highlighted that the text was reduced and made more concise. Several committee members stated that the revised version of the text is more readable and logical. The committee brainstormed ideas for making the RIPRAP tables and text more forward-looking and strategic to better address current priorities.

Review of Program next steps for assessment and work planning – Julie asked the committee if there were topics or issues that came from the assessment that should be considered as we develop the work plan. Julie then reviewed a list of recommendations and new starts that the PDO included in the recently distributed Program Guidance and asked the committee if there were additional items to include in the list. Melissa asked how some of the new outreach projects fit in with the office-based SOWs. Julie explained that outreach is included in the overarching office scopes as an activity and also as part of the year-round staff activities. If additional funds are needed to conduct a specific outreach activity beyond the normal FTE duties, those can be included as an extra budget request to make them possible. If other offices would like to include new outreach activities, those can be proposed as a new start. Dave asked whether restoration of previous work would be prioritized and considered with other new starts. Julie confirmed that the committee will evaluate and review which new starts get approved. AJ asked whether ISF proposals for the Dolores could be considered for new starts. David Graf replied that there are many difficulties with that idea, including no critical habitat in that river. Dave Speas asked whether PIs can submit a new start that is not on the list. Julie said yes. Dave and Pete suggested the committee go through the list of annual report recommendations to review and evaluate those and determine which ones should be pursued. Harry asked about how to address novel ideas that are not included in the program guidance list. Kevin McAbee suggested those could be proposed as short-term experiments for testing.

Annual Report Recommendations

The committee will send comments on these recommendations in advance of a meeting planned for May 1, 10am – 1pm.

Administrative tasks

- Reminder next meeting is July 12 (full day) and 13 (morning 1/2 -day) in Grand Junction focused on the FY24-25 Workplan.
- The 2024 Researchers' Meeting will be hosted by the Grand Junction FWCO on January 30-31 in Grand Junction with the specific location still to be determined.
- May 1 – Webinar to review 2022 annual report recommendations.

DAY 2 - ADJOURNED 12:35 p.m.

Assignments List as of March 28, 2023 – Previous tasks completed are described in the opening section of the meeting summary. Only remaining and new assignments are recorded below.

1. **Assigned Mar 28: Tildon Jones** will reach out to Audubon and Ducks Unlimited to figure out if the dirt work to shore up berms is included in the current designs for the Audubon fish pond.
2. **Assigned Mar 28: Koreen Zelasko** will reach out to those who volunteered to participate in the propagation work group and coordinate the timing and purpose of their first meeting.
3. **Assigned Mar 28: UDWR/PDO** will talk to Starvation managers during the April 13 IBAT meeting to find out if the timing and expected magnitude of spill from Starvation Reservoir this year.
4. **Assigned Mar 28: Kevin McAbee** will reconvene the humpback chub workgroup to discuss the possible effects of brood collections on the population in Desolation/Gray Canyons.
5. **Assigned Mar 28: Julie Stahli** will ask Ecological Services if there are opportunities for the Program to review or weigh in on the NEPA for the Uinta Basin Railway Project.
6. **Assigned Mar 28: David Graf** will create a list of each hydrologic subbasin flow recommendation and document when they were originally developed and when they were last reviewed. He will also provide a proposed schedule for future flow recommendation reviews.