



Upper Colorado River Endangered Fish Recovery Program

Biology Committee Summary

CPW Hunter Ed Building | 711 Independent Ave, Grand Junction, CO

March 26, 12:00 pm – 5:00 pm (MST)

March 27, 9:00 am – 12:30 pm (MST)

DAY 1 - CONVENE: 12:00 PM, Tuesday, March 26th

BC Members: Pete Cavalli, Melissa Trammell (chair), Dave Speas, AJ Keith, Randy Oplinger, Derek Fryer, Travis Francis, Jenn Logan, Rich Belt, Tom Pitts (day 2)

Participants: Brian Scheer, Kate Lunz, Jared Smith, Donald Tuttle, Cat Adams, Kevin Bestgen, Brian Hines, Ed Kluender, Ladd Bunting, Katie Creighton, Kerri Pedersen, Colleen Cunningham (day 2), Zane Olsen (day 2)

Program Office: Paul Badame, Julie Stahli, Tildon Jones, Koreen Zelasko, David Graf, Shannon Nelson, Chris Michaud

Review/modify agenda – Melissa Trammell reviewed the agenda and time was added to day-2 to allow Jenn Logan to provide updates regarding Highline Lake, the debris boom at Elkhead Reservoir, and a few other stocking and screening items.

Consent Agenda

Assignments List as of February 1, 2024

- a. **The PDO** will investigate options for an ‘access lease’ and other potential avenues such as the FWS Partners for Fish and Wildlife Program to address concerns related to accessing the 151 backwater. *ACTIONS: Tildon has been in touch with Bob Timberman with the Partners for Fish and Wildlife Program on the western slope. Bob has worked on similar projects in the area and will reach out to the affected biologists to explore what options might be available. Tildon will bring additional information back to the BC as it develops.*
- b. **The PDO** will share the graph that suggested an inverse relationship between numbers of adult smallmouth bass and YOY pikeminnow. *ACTIONS: Done*

Approve February 1 meeting summary – The Committee approved the meeting summary and Paul will post it to the Program website. Paul proposed a process of approving the prior meeting notes via email to address delays in sharing the summaries with all interested parties due to the long periods between BC meetings. The Program Office (PO) would provide the notes to the Committee for review, and members would return all edits within two weeks of receipt. The PO would then revise and resend the summary for email approval by the BC (1-week approval window). This would allow the notes to be posted on the list serve and the website within three weeks of a meeting and avoid the need to approve notes from 2-3 months prior. The BC agreed to try this method moving forward.

Preliminary Hydrology Picture for 2024

([Hydrology Presentation hyperlink](#)) David reviewed current hydrologic conditions which have substantially improved in the last few months. Currently, 80-85% runoff is predicted into Lake Powell even with above average snow conditions summing to about 8M acre-ft (AF) inflow. Lake Powell is not anticipated to go below an elevation of 3,525 ft in either 2024 or 2025. The lower San Juan and adjacent basins have the highest average snowpack. Despite above or near normal snowpacks, most run-off projections are for average to slightly below average water volumes.

In 2023, the Colorado at the 15-MR was classified as a Wet year, translating to higher flow targets of 1,630 Cubic feet per second (cfs) between August and October. Water users released 30,000 AF from Ruedi, Wolford, and Granby to support the Program. The HUP surplus was available in 2023 totaling over 46,000 AF. We met the dry year target all summer, with many days above 1,240 cfs (the Average Dry target). Coordinated River Operations (CROS) flows did not occur in 2023. There was a substantial amount of unanticipated spill from upper CO Basin reservoirs due to limited storage capacity and wet spring conditions on the front range so transmountain diversions were limited. There was also substantial runoff from the Gunnison and Uncompahgre rivers that when combined with Colorado River flows, induced minor flooding near Loma, Colorado; adding water to already near-flood conditions was not desired. Peak flows were high throughout the system because of substantial snowpack. There was substantial low elevation snow in 2023, so the “April hole” did not develop. The hydrologic category for 2024 is anticipated to be in either the Average Dry or Average Wet. The Program currently has more than 26,000 AF to support the 15-MR. All reservoirs are expected to fill and CROS discussions are expected to occur. Water in Green Mountain is available if needed to fill an “April hole” if it develops.

Other basin water supply summaries:

- Flaming Gorge – Green River: Near bottom of ‘below average’ year type but higher than ‘moderately dry’ category (where BOR might have more operational flexibility); supplies trending up (88% average; 86% median), which would put Flaming Gorge in the middle of the ‘below average’ hydrologic category (50-70% exceedance).
- Yampa River: Elkhead reservoir will fill and spill, which means the 5,000 AF pool will be available. The Program needs to decide whether to keep a placeholder for a 2024 option on the 20,00 AF lease pool (@\$50/AF), WAC and MC members will discuss this with the PO in the near-term to come to a decision. May 1 is the due date for ‘tier 1’ lease decision. Colorado Water Trust is currently considering a 2,000 AF lease from Elkhead Reservoir to support environmental flows and keep the call off the lower river. The BC recommendation was to keep a ‘foot in the door’ for potential lease but keep an eye on runoff forecasts and CO Water Trust’s grant proposal to secure their own 2,000 AF lease from Elkhead. Maybell gage runoff forecast: 105% avg; 109% median.

- Duchesne River – assuming spill/ spring shoulder season, and Priority 1-3 base flows should be met based on basin snow water equivalent (swe) (90% avg, 124 % med).
- White River – run of river (97% avg, 101% med). Anticipating average runoff season in the White.
- Gunnison River – Aspinall operating according to Record of Decision (Whitewater gage runoff forecast: 87% avg, 93% med)

David highlighted an opportunity with USGS' Federal Priority Stream gage Network 'Open Season, which may allow us to shift some of our gage funding commitments to USGS. David is collecting information (DUE 4/30) about our current inventory of gages and what our priorities should be. One identified priority is to install a gage at the end of the 15-MR, which CWCB is exploring installation of. >**David Graf** will send a spreadsheet to the BC for review and comment, which will include a map of the gaging stations. Chris Michaud provided a map of all [environmental sensors](#) deployed on the major rivers by FWS, USGS and GCMRC. There are others managed by CPW and NPS, but those are not included in this linked map. When viewing the map, you can click on a marker to generate a popup window with site information including the parameters available from that sensor. This weblink is temporary so please download the html if you want to hang on to it.

RAP Tables Review – General and Stocking

Congratulations to Pete Cavalli for finding the treasure! The Baloneytail (*Morta dellagans*) is the adorable and delicious result of luxurious living conditions and a steady diet of fish feed and pistachios.

The notes recorded in the sections regarding the RAP tables consist of broader discussions arising from topical discussions or new action items. The edits to the tables were recorded in the tables and an updated version will be provided to the MC for their final review and approval.

Question: Are white sucker/razorback hybrids removed when encountered? Records of that hybrid are unknown and none of the PI's or others with field experience recall capturing that cross. It was postulated that they might be hard to identify in the field since they may be a flannel/white hybrid backcrossed with a razorback. The most common hybrids caught and removed are white sucker/flannelmouth sucker.

Discussion: Melissa called attention to a citizen science Nonnative Fish Reporting App ([weblink](#)) developed by the Middle Colorado Watershed Council. >**Shannon Nelson** is in contact with the Middle Colorado group about what opportunities might exist to expand and will report back when more information is available.

Discussion: Note that humpback chub were stocked into Cataract Canyon with coded wire tag. The humpbacks were from Black Rocks – this is referenced in the SSA – what do we do with this?

Pete asked about Asian tapeworm and hatchery releases – we need to figure out what to do about this for future years. Jenn said AT is a reportable species, which should be a conversation between CPW and FWS if we see more Asian tapeworm in the summer disease inspection. We need to figure out what the prevalence is in the wild populations. David Ward has some suggestions for studies around the Grand Valley that could document infestation rates in the wild. <The BC suggested the propagation workgroup address the treatment need and options for treating fish at different facilities.

The feed issue needs to be resolved. The original study was incomplete, and we need additional information. Koreen is looking for more information about what HCPs can do.

Lines 123, 124, and 125 BIL funding was awarded to these projects in 2023.

Question & Discussion: How big is the Larval Fish Lab collection and do we need to continue to add all new samples to it? Kevin Bestgen said that currently all samples are identified and cataloged into the collection, which represents 175,000 lots and approximately 4.5M individual fish. Sample fluid levels are checked by work-study students, which is inexpensive. The samples are used for research, including training staff on identification, and performing research on otoliths. The information has also been used to assess genetic distinctions within wild broodstocks (CPM in Green and Yampa). Historical samples have been used by SNARRC for various purposes. Kevin estimated that the collection is second in size to the Smithsonian. Pete asked if there are ways to consolidate or only keep a subset of samples to make sure we are using Program funds wisely. >**Kevin Bestgen** will add a short accounting of past and current uses for the collection in the Larval Fish Lab's next annual report.

Propagation Group Report Out & Disposition of 2024 untagged bonytail from Wahweap

Koreen relayed that the propagation group has been meeting regularly and making progress on several priority topics. Regarding razorback sucker, there are no adjustments to rearing at this time. Brian Scheer and Zane initiated conversations with SNARRC to explore genetic makeup of current broodstocks and best approach to future spawning. This will be part of a larger, necessary conversation about the Program's genetic analysis needs. In the meantime, both Ouray units plan to fin clip their broodstock during this spring's spawning events to be ready whenever analysis can happen.

Several bonytail-related efforts are underway. Flow training was recommended in the 2015 stocking plan but not formally undertaken. Zane & Ben volunteered to experiment with it this spring at the Randlett unit, and Ben already dove in to see what kind of differences in flow can be achieved among tanks with an imprecise, connected system of nozzles.

Three new bonytail rearing experiments were proposed by facilities: Wahweap is splitting their larvae order to stock half directly into pre-fertilized ponds, while the other half spends several weeks in hatchery tanks, as usual. If successful, the pond approach could save staff time and effort. Brian offered Jared any assistance needed since that's the procedure at Grand Valley. Grand Valley ordered fewer larvae to rear at lower densities, and they'll compare growth and condition to previous years. Randlett is hoping to rear 2024 larvae for just one year and stock at a smaller mean size, which may fit with a colonizer strategy. It would also reduce demands on hatchery resources and may reduce incidence of disease. This is contingent on stocking options for 2025 and the fish can be held for typical 2-year cycle, if need be.

Kevin Bestgen and Cat Adams are proposing to conduct another Green River Canal survival and condition study, this time with a couple hundred bonytail. Completion this spring will depend on canal operations and their own spring schedule, but fish are tagged and set aside if they can proceed. This effort is not Program funded, but they wanted the BC to be aware, and Kevin is available to answer any questions.

The workgroup approved Wahweap's plan to stock all remaining 2016 and 2019 year-class fish on station, per Program request. All fish will be tagged and divided between spring and fall stocking events. The total will be more than double Wahweap's usual numbers and all at the same location to allow the possibility of evaluating season as an effect on any future encounters.

One item the group wanted to bring to the BC's attention was the stocking of an additional 25K bonytail by Wahweap. These are 2020-year-class fish, progeny of previous year classes on station during the pandemic when acquiring larvae from SNARRC was uncertain, and part of Program's request to stock out all bonytail due to age and origin.

Jared proposed stocking those fish in May, which is later than they usually hold fish and would test thermal constraints in ponds and during handling. The group already deemed the 2020-year-class to be an appropriate batch of fish to play with, given the request to get them off station. The plan to stock them out fits with this experimental phase for bonytail: if they stocked these, plus the spring/fall fish all at Cisco, they would be inundating the Colorado River subbasin. Even if a different location was used, it would receive 25K fish all at once.

The challenge is that those 25K are untagged and there are no resources to tag during 2024. (One tagging event for 10,000 fish takes 12 people and 2 full days, plus distant travel.) The BC previously gave the propagation workgroup leeway to experiment with this species and diverge from the stocking plan for a time. There was not much concern expressed by the workgroup over stocking these fish untagged, given the low likelihood of confusion with wild-recruited adults in the near-term. But with the confirmation of wild-spawned bonytail larvae captured in Lake Powell in 2022, the group thought it best to get the BC's input.

Dave Speas asked if we would be able to see the effects of temperature if the fish aren't tagged. Wahweap has always expressed that stocking in May would cause more mortality through handling, so they would just be looking at the handling stress. Matheson wetland was mentioned as an alternative stocking location, and Katie Creighton stated that the size of the managed wetland is too small for stocking 25K fish. In addition, UDWR is just starting to see success with razorback rearing in Matheson and they would prefer to maintain that as the near-term priority. Matheson could be useful for bonytail stocking in the future because it has water through the winter. It was discussed that if untagged bonytail are captured in the future their origins could be tracked through isotope analysis using fin ray clips and water chemistry samples from Wahweap. Lake Powell was also considered as an option and some concerns were expressed about recent captures in the Grand Canyon as well as ongoing captures of adults and larvae (2022). Regarding opportunities to recapture these stocked fish during the next two years in the Colorado subbasin; fall sampling will occur in 2024 and pikeminnow estimates will occur in 2025. Lake Powell sampling in 2025 is still to be determined. **The BC approved Jared's plan to stock those bonytail at Cisco.**

>**Koreen Zelasko** - Collection protocols will be added to the ancillary data requests to collect fin clips (fin rays) from any untagged bonytail.

2024 Green River flow request letter and FGTWG update

The flow request letter was submitted to Reclamation in late February. The Technical Working Group has met twice to review the request. Currently Flaming Gorge water supply forecasts are on the cusp between Moderately Dry and Average. The priorities will be a smallmouth bass flow spike, CPM baseflows, followed by a LTSP spring peak. The draft operations plan included all three experiments, if LTSP is included, Reclamation would target 14,000 with a single day 18K cfs peak. One FGWG meeting has occurred, another one is planned in mid-April. DROA operations are not expected based on the March 24-Month Study.

RAP Table Review – Green, Yampa, Duchesne, and White

Discussion (GR-I.A.4.b.(3)): AJ asked if the Colorado River Storage Project Section 14 Contract for the Lake Powell Pipeline Project provides protection for 83,000 AF of water, given the uncertainty of the project. There was a lack of knowledge among participants attending this meeting regarding how Utah utilizes block exchanges to protect flows for fish. This discussion will be forwarded to the MC during their review of the RAP. This topic sparked additional discussions about large future depletions that are on the radar of Ecological Services or State water managers and how the BC might want to consider the potential impacts to recovery. Pete noted a few specific Wyoming examples, like the Blue Castle nuclear proposal, which has water rights for 53,600 AF to be used at Green River, Utah ([Info Weblink](#)), and a couple of trona mines, including Project West which has identified a 5,000 AF water right. Because these projects are still speculative, the BC agreed that they should limit their discussions to projects

that have started permitting or consultation processes. >**PO to ask Kate Lunz** to update the WAC and the BC on current large consultations.

Program update

Julie highlighted the continued work on [Section 4 documents \(Recovery Planning\)](#). Kevin McAbee continues to lead the HBC recovery team. Tildon will write the SSA and draft the recovery plan for that species. Developing recovery criteria could take some time given the complexities of multiple basins and varying habitats. The RZB downlisting rule is still under FWS review.

Julie said partners are still finalizing [program documents](#), and the NEPA is complete and the FONSI will be signed soon. The final draft of the Program document is nearing completion. Julie will be sending out a draft for a fatal flaw review. The MC should be looking at that document in their April meeting. Reclamation would like documents ready to go up for approval by the end of April, where it will undergo Reclamation's internal review. The cooperative agreement will remain mostly unchanged from the current version.

Regarding [annual Program funding](#), Julie reminded the group that the Program only approved a 1-year workplan budget for FY24. She then reviewed the 6-year history of the growing gap between proposed annual budgets and flat appropriated funding received due to the loss of annual inflation indexing. The gap was covered each of the last six years by both reducing recovery activities and applying carryover funds held by FWS, those carryover funds have been fully expended as of FY24. If there is a gap between the proposed workplan budget and appropriated funding in FY25, the only option to close the gap will be cutting or reducing recovery actions from the workplan. The BC agreed to meet for two days near the end of June to primarily focus on reconciling the workplan and budget.

DAY 1 – ADJOURNED 4:50 p.m.

DAY 2 - CONVENE: 9:00 a.m., Wednesday, March 27th

15-MR Flow Target Study Plan Update

David reviewed the [structure and results of the 15-MR Study Plan](#). The PO staff are continuing to work on the details within the report and will have a final draft for approval likely at the next meeting. David reviewed the task list from the plan. Essential studies will be conducted as soon as possible.

AJ stated that the connection between habitat availability and fish presence is important and that the connection between studies 2.3 and 3.2 should be maintained. Jenn Logan, mentioned that Colorado conducts 3-species sampling within the 15-MR, including a survey in 2018. Tom Chart and Don Anderson did have copies of those data. Travis Francis added that the antennas that Dave Speas has been working to install will help provide important information for these

studies. >**Dave Speas** requested future conversations about ways to manage water elevations in the 15-MR to allow for installation of antennas.

The Grand Junction FWCO is starting larval drift sampling this year for pikeminnow within the 15-MR. Travis noted he may also be able to work with Chris Michaud to determine SMB population dynamics in relation to flow. David and Julie asked the committee to approve moving ahead with the study plan and its current action priority ranking. Accommodating some of these studies will likely impact other current work and may reshuffle the workload for the GJ FWCO. Travis thought this might impact the frequency of fish ladder checks and reduced NNF control passes. Julie noted that the additional 15-MR samples will likely impact the LFL workload and may push Green River samples back in priority. Travis Francis stated that the study plan serves as a guidance document and the SOWs will provide details and go through BC review. Tom Pitts agreed with this view and suggested BC approval explicitly mention that perspective. The BC agreed to start the essential studies listed in the plan as soon as possible and to approve the study plan as final after having additional time to review it. >**David Graf** will provide the BC the final study plan before the June BC meeting.

CPW Updates

Highline Reservoir: Jenn Logan said they have begun to release water out of Highline (about 9 cfs) now that the copper levels are below agricultural standards. The copper levels in the reservoir itself are still above the aquatic life standard, but once the water reaches the confluence with Salt Creek, the discharge does not exceed the ALS. The water release is coming from the bottom of the reservoir, complete with a picket weir to collect any stray fish who exit the reservoir. The goal is to hold the reservoir 25 ft below full pool throughout the season and then dry it after irrigation season and freeze over winter. The sentinel mussels died early in the treatment. The reservoir will remain closed to boating for another season. The ANS crews have received a grant for a boat immersion treatment to disinfect incoming watercraft. Details will follow when available.

CPW Stocking: CPW stocked two ponds with black crappie and bluegill that did not have approved lake management plans (LMP): Shadow Lake near Redlands (bluegill) and Dry Creek Pond, Hayden (bluegill, black crappie). Both ponds meet screening specifications and won't be stocked again until after the LMPs are approved. The LMPs will go to partners, including FWS, for approval. CPW has changed their stocking process to ensure that similar stocking events will not occur without LMPs in the future.

Elkhead debris boom has developed a break. It is not critical but should be repaired. The C-20 SOW indicates CPW will cover costs up to \$10k/year. The estimate came in at \$27,505, of which CPW can cover \$18,752.50. CPW will ask the Program for \$8,752.50. Jenn mentioned this is the first time they have needed to ask for additional Program funds for this net. Melissa asked about the funding source. Julie said annual or NFWF. Melissa asked the committee for approval

to support the boom repair. **The committee approved** providing the requested funding to repair the boom. The PO will work with the MC to determine the most appropriate and timely funding source (PO annual funds or NFWF).

Sweitzer Lake: CPW installed a drum filter to prevent SMB escapement. The drum filter is no longer operable. CPW engineering and the manufacturer are looking at solutions. CPW re-installed a picket weir and will probably leave it in as a backup. Sweitzer feeds into the Gunnison. Melissa asked if the weir was catching nonnative fish. Jenn said the discharge is minimal and fish are unlikely to be in the area of the weir, however sampling shows that it has been effective in preventing any downstream movement.

RAP Tables Review – Colorado, Gunnison, Dolores River

Notes: Jenn updated that no triploid walleye were stocked by CPW in 2023, because they didn't meet the induction rate.

Question: Pete asked about the OMID check structures and funding sources. David thought maintenance of the structures is covered under the current contract.

Discussion (Colorado-II.A.6.a.) – The BC discussed the current state of managed wetland management in the Colorado subbasin and agreed that there should be clarification in the RAP about why a number of specific locations were evaluated for management, but not pursued. There was additional discussion about the need to revisit the prioritization list developed by Tom Chart as part of the Colorado River Subbasin Floodplain Management Plan. Further discussion is needed to determine if we need a new wetland assessment for the subbasin.

Question: How do we deal with updates to annual reports when there is data or analysis completed for previous years reports; should the new information be included in the most recent report or updated in the original? It was concluded that the revised data should be updated in the original report and a notation of that update could be made in the current year's report.

RAP Text Review

Paul noted that there have not been dramatic changes to the text this year. Each element outlines general concepts to provide an outline and context for the tables. Paul asked the Committee what the purpose of the text should be. Dave noted that the text has been useful for people not familiar with the Program. He supported the draft as written this year.

Examine Green River block exchange language.

Under the Gunnison paragraph should move to CO section in Instream Flow Section. Add Audubon and Matheson in Habitat. Fix language around Audubon.

Schedule for assessment and work planning

- a. [Program Workflow Gantt](#) Paul shared a “ClickUp” chart showing the annual Program workflow. These tools are available to partners in various organizations, and the PO is looking for other ways to apply these tools to our different activities.
- b. Planning for FY25 budgets – Due to continued uncertainty

Administrative tasks

- a. Next meeting date—June 26-27, 9am-5pm in Vernal, UT. >**Tildon** will find a hotel and secure a group rate for a block of 20 rooms. Randy Oplinger will secure a meeting space at the DWR office for both days of the meeting.

ADJOURNED: 12:21 p.m.

Assignments List as of March 27, 2024

Previous tasks completed are described in the opening section of the meeting summary. Only remaining and new assignments are recorded below.

1. **Tildon** will find a hotel and secure a group rate for a block of 20 rooms for the nights of June 25,26, and 27. **Randy Oplinger** will secure a meeting space at the DWR office for both days of the meeting. *ACTIONS:*
2. **David Graf** will send a spreadsheet and map of USGS gaging stations to the BC for review and comment (Due back to PO by 4/29) regarding stations and parameters to be considered for USGS’ Federal Priority Stream gage Network ‘Open Season. *ACTIONS:*
3. **Shannon Nelson** will contact with the Middle Colorado Watershed Council about what opportunities might exist to expand efforts related to their citizen science Nonnative Fish Reporting App ([weblink](#)) and will report back when more information is available. *ACTIONS:*
4. **Kevin Bestgen** will add a short accounting of past and current uses for the collection in the Larval Fish Lab’s next annual report. *ACTIONS:*
5. **David Graf** will provide the BC the final 15-MR study plan before the June BC meeting. *ACTIONS:*
6. **David Graf and Dave Speas** will work to convene a call to discuss options to manage water elevations in the 15-MR to allow for installation of PIT antennas. *ACTIONS:*