

**Biology Committee Summary**  
Double Tree Inn, Grand Junction, CO

**July 11<sup>th</sup>, 1:00 pm – 4:00 pm**  
**July 12<sup>th</sup>, 9:00 – 12:30 (MST)**

**BC Members:** Pete Cavalli, Harry Crockett, Dale Ryden, Dave Speas, Melissa Trammell, AJ Keith, Tom Pitts, Derek Fryer, Sarah Seegert

**Participants:** Kevin Bestgen, Katie Creighton, Darek Elverud, Colleen Cunningham, Kara Scheel, Andrew Schultz, Travis Francis, Lee Traynham, Mike Partlow, Brian Hines

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

**CONVENE: Day 1, July 11 – 1:00 PM**

**Introductions & requests to modify agenda** – The agenda was modified to include a discussion of whether FY 2023 scopes of work need to be updated (included in the Director's update).

**Hydrology update** – David Graf showed updated drought conditions across the basin. The western portion of the basin remains under severe drought. The only area with decent snow has been the upper Colorado River. Projected inflows ended at 56% of average and 59% of median based on snowpack. While still low, the values are substantially higher than last year which were in the 20's. The elevation of Lake Powell peaked at 3,549 and is now declining but will likely stay close to 3,525 and could decrease to 3,490. David reviewed how Lake Powell has dropped over the last 20 years, showing that we are far below the long-term average elevation. Within-year drought conditions are changing quickly, with substantial decreases in projections between spring and summer 2022. Current streamflow looks close to average because of some storms and the end of runoff. As of now, runoff has finished across the basin. The Uncompahgre flows ended substantially lower than normal. Green River conditions were in the 'moderately dry' category and were helped substantially through the drought operations flows. The Yampa River was projected in the moderately dry hydrologic type, but the snow continued in that basin producing an 11,900 cfs peak and a longer peak than we typically see. In the Gunnison River, the flow targets were based on the moderately dry category and all the flow recommendations on that system have been met. No CROS flows occurred this year on the Colorado River. Flows in the Colorado have been hanging on, flows are likely to fall below the 810 cfs flow recommendation level the week of July 11<sup>th</sup>. The 4-in-5 year water in Ruedi is not available in 2022 (nor in 2021) and the Wolford pool is not as large as it usually is. Thankfully, CWCB is working with Ute Water and others who are willing to lease water to the Program to help fill the gap. Windy gap? Colorado Water Trust is working with Carris to lease water again in 2022. HUP calls kicked off in mid-June and will continue through the fall. Yampa River calls are starting up as well. The MC has approved up to an additional 2,000 acre-feet (a/f) for the Program to manage. CRWCD is working to release flows from Stagecoach that will make it down to at least Maybell. The White River Management Plan draft is imminent this summer. Pete asked if all the 500k a/f of water has been released out of Flaming Gorge. Tildon said a substantial amount of water remains and will be released through Colorado pikeminnow

baseflows. Reclamation is releasing water consistent with the flows requested at Jensen. As the Yampa declines, Reclamation will adjust Flaming Gorge releases to stay within the optimal range for pikeminnow base flows.

### **Habitat Updates – Tildon Jones**

Green River LTSP Wetlands – Thanks to the LTSP flows out of Flaming Gorge, Old Charlie, Johnson Bottom, Stirrup, and Stewart Lake all filled and have 4 to 6 feet of water depth. Above Brennan connected, but it did not fill all the way (it was not expected to fully connect based on flow levels). Sheppard Bottom did not connect this year. The Stirrup connects somewhere between 6,000 and 8,000 cfs, based on the water gage data during the flow spike. Matheson connected and had 5.5 ft of depth in June. The Moab office indicated that they found green sunfish in the wetland.

Audubon – The group will be visiting this site on day 2. The MC recommended using capital or infrastructure funds to help support construction at that site. Tildon will continue talking with Ducks Unlimited to figure out design plans that will be brought back to the Program in the next few months.

CPM larval timing – Colorado pikeminnow were detected on July 2 in the lower Yampa River. The flow spike experiment did conclude before pikeminnow larvae were found. Lots of complex habitat is currently visible along the Middle Green River.

Flash flood in lower Green – A flash flood occurred in early July at Green River, UT where the river peaked at 13,000 cfs. Tildon will continue to investigate and will report back as he learns more.

**Flow Spike Sampling Update** – Kevin Bestgen reviewed the implementation of the 2<sup>nd</sup> year of flow spike to disadvantage smallmouth bass reproduction in the Green River. Kevin noted that the effectiveness of the flow spike won't be assessed until after autumn bass sampling in the Green and Yampa Rivers is completed and even into next year, when 2022 year class strength can be measured again. The flow spike can be used to increase velocity and reduce temperatures in the river to displace larvae off nests, disadvantage eggs in the nest, and discourage spawning in adults. Flow spikes are used in moderate to low flow years and timing is targeted at the first half of reproduction, timing of which is driven primarily by water temperatures. In 2022, the flow spike was well timed in Lodore Canyon above the confluence with the Yampa River. Timing in the Green River downstream of the Yampa River may have been early but evaluations from field data are needed to assess that. The Yampa River flows were much higher in 2022 than in 2021 and the resulting lower river temperatures (in 2021) may have delayed or shut down bass reproduction in both the Yampa and Green rivers downstream of the confluence. The flow spike occurred on June 21 and pre-spike monitoring occurred June 19-21 followed by a “during” trip of June 22-24.

During the 2022 flow spike, flow and temperature metrics in the Green River just downstream from Flaming Gorge Dam were similar to 2021. Below the dam, the temperatures dropped from about 10-12°C to 8 °C and the stage increased about 3 feet. In Lodore, temperatures dropped from 15°C to 11°C. At Jensen, the flows increased from about 6,000 cfs to 9,000 cfs, but the effects were attenuated by flows from the Yampa that dropped during the flow spike. Water temperatures did decline at Jensen to less than 16°C, but not as dramatically as in 2021 because

of higher and relatively warmer Yampa flows. The stage at Jensen changed by about 1 ft, which was also less dramatic than in 2021. Kevin noted that stage change does not change linearly with flow releases because of the shape of the channel. One spawning site was seen at Lake Limestone that increased from 0.51 m to 1.37 m in depth. Mean velocity increased from almost 0 to 0.76 m/s. Kevin displayed a number of comparison sites both before and during the flow spike. Kevin expects future presentations on age-0 catch rates, seine sampling densities, and hatch date distributions. Many adult bass were seen in Whirlpool Canyon and downstream during the flow spike, which is expected as some habitat is still available even at 8,500 cfs. Turbidity changes were modest in each of 2021 and 2022.

**Program Director's Update** – Julie Stahli talked about why we are holding this committee meeting in person and some of the difficulties we've experienced due to meeting virtually for so long.

Post-2023 update – Funding discussions are currently in a holding pattern, Wayne Pullan has met with the non-federal leads. Utah's representative (Brian Steed) is no longer with the Utah Department of Natural Resources and Todd Adams is sitting in on those talks until Steed's replacement is in place. Julie said that while those negotiations continue, she and Melissa Mata have begun looking at the time and effort needed to complete an Environmental Assessment (EA). Pete Cavalli asked why we need to do an EA and Julie replied that the funding and cooperative agreement are federal actions that must undergo NEPA review, and it is also partly due to the age of the program and modernizing the existing NEPA from the 1980's.

Report to Congress – Still proceeding with the assumption that size, scope, and budget are where we expect them. Tom Pitts and Leslie James are currently working on draft legislation for the next authorization. The Program Director's Office (PDO) will begin working on the next round of program guidance for post 2023 work plans and scopes of work.

I&E Position - Interviews are set to begin next week and Julie hopes to have someone in place by the next committee meeting and expressed excitement for a fully staffed PDO. Since the position has been vacant, we will not try to create a new Field Report for this year.

2021/2022 Sufficient Progress – Paul is working on the latest round of sufficient progress and hopes to get that out by the end of August.

2023 Scopes of Work & Funding – We are planning on using year-2 of the scopes that were developed in 2022 unless there are approved changes or new needs. The Program office will begin working on the next round of program guidance to provide as much lead time as possible for our first round of post-2023 scopes. Kevin McAbee asked Sarah Seegert if UDWR biologists received a significant raise this year and if that would affect the FY23 project budgets. Sarah said yes, they received 5-10% raises and it is large enough that next year's scopes will need to be reexamined to determine the effect on budgets. > **PI's** Please route needed changes through the appropriate coordinators.

**Colorado pikeminnow Recovery Plan Q&A** – Tildon reviewed the common questions raised during the partner review phase of the recovery plan development. A few questions were raised about the differences between the 10 and 15 year time frames included in the different recovery criteria. The time periods were based on life history and specify an appropriate duration of data considered during a decision. They are not a timeline to recovery and downlisting is not needed

prior to delisting. Life history is looking at the last 10 years of consecutive data, which gives us 6 estimates within 10 consecutive years. For the trajectory, we look back at the most recent 15 consecutive years of data, which would give us 9 estimates. All the data for adult abundance and trajectory look at the data we have collected over the most recent years. Tildon clarified that for demographic criteria 1 (population stability), the trajectory of wild *and* stocked fish is included in the downlisting criteria; however, only wild adult trajectories are considered in the delisting criteria. Demographic criterion 2 (population size) considers adult abundance estimates for both wild and stocked fish for downlisting and delisting. Tildon reviewed the SSA and 5-year review process and the assessment process of whether a species meets the definition of endangered or threatened. Each criterion is weighed individually and combined for each population to assess resilience of each. Criteria 1 and 2 look at where the species are now. Criteria 3 and 4 look at where the populations are going. Tildon reviewed a few scenarios to illustrate how the criteria work together to assess the populations. The ‘consecutive’ term indicates that we look at the last period of consecutive years and assess all the data within those years, but it does not imply that each estimate must be higher than the previous one. Melissa asked if the recovery goals imply that the Green River will be stocked. Tildon said those decisions have not yet been made. He also noted that we will likely have to stock young fish, so making it to adulthood is a substantial accomplishment. The team did not want to discount the presence of adults in the system to the overall health of the species. He noted we may also struggle with discerning the difference between stocked and wild fish.

**Propagation Coordinator Work Plan** – Julie introduced Koreen Zelasko as the new propagation coordinator and expressed her excitement to have that position filled. The PDO has heard lots of ideas on what the position could address. Koreen will be the RZ species lead as well as hatchery and BIL/hatchery related topics. Koreen then reintroduced herself to the committee. She has worked at the Larval Fish Lab at CSU for the last 25 years and is excited to expand on the relationships that she has built over that time. She is looking forward to building relationships with the hatchery managers, where a lot of turnover has also occurred. She reviewed a few priorities that we have identified within the PDO.

Facilitate the spending of BIL funds at the hatcheries – Projects at Wahweap and Ouray-Randlett are being identified and estimates and timelines are in the works.

Visiting each of the hatchery to meet staff – Sometime over the next three months based on what is convenient for the hatcheries. Koreen is interested in figuring how she can serve them best, as well as what their daily and annual schedules look like. She is interested in hearing about any needs they have and/or whether they have any interest in experimentation.

Revisit Revised Integrated Stocking Plan (2015) – Look at what has been accomplished to date and determine how to track results effectively. Koreen asked if the document should evolve, and if so, how. She noted the new information regarding razorback sucker survival and suggested that it might affect numbers needed. Much work has been done with bonytail regarding the feed studies. Pikeminnow and humpback chub may need to be incorporated and we need to figure out how to do that. She noted we have been struggling with bonytail and encouraged a reexamination of all we know about that program to make sure we know what we know. Chris Michaud is also available to help pull data out of STReAMS to help inform those choices. She recommended looking at the RISP from the perspective of each species.

Comments from the committee: Dale mentioned the bonytail feed study in conjunction with the Bozeman Fish Health Center. He recommended reviving that effort to see if the diet could improve the survival of the species. Dave called attention to the techniques around stress reduction for the species and how those efforts are documented. He noted that hatchery staff take really good care of the fish they are putting out but putting thousands of fish in a truck and driving them hundreds of miles may just be overwhelming. Dave noted that we completed the Stirrup wetland which may be a great place for rearing or soft stocking for bonytail. He noted Andrew Schultz at Randlett has a lot of ideas in regard to experimentation, especially for bonytail. Humpback chub may be imminent with collections occurring this fall. Dave agreed that it may add a substantial amount of work. Melissa agreed. Dale said prioritization of which species go where is important soon. Tildon said we have started initial conversations with Southwest Native Aquatic Resources Recovery Center (SNARRC) especially pertaining to Colorado pikeminnow. SNARRC indicated that they could likely hold broodstock and could produce fry which would then have to be grown out at the upper basin hatcheries. Pete Cavalli placed priority on bonytail and pikeminnow and recommended focusing on the species that are in the worst shape if we are space limited. Harry agreed regarding bonytail; he said he has not witnessed stocking events but has seen them leave Mumma when they look very healthy. Dale said the necropsies showed a lot of differences during the feed study and recommended reexamining those results. Also, wild roundtail chub were collected as a comparison species and that data has not been seen. The importance of having a wetland with water in spring months (like Stirrup) may allow for bonytail management. BC members reiterated the importance of considering wetlands for bonytail. Chris is willing to work with PIs early in the process to help identify as much of a game plan as possible so that everyone knows what we need to collect, especially for broodstock collection for humpback chub and Colorado pikeminnow.

**DAY-1 ADJOURNED: 4:00 PM**

**DAY-2 CONVENE: July 12 – 9:00 AM**

**Flow Recommendation Assessments** – David Graf reviewed a few issues that were recently identified in terms of water and flow assessments. David reviewed comments from the 2020 and 2021 RIPRAP reviews asking to reexamine flow recommendations for all the systems managed by the Program. In addition, Ecological Services (ES) requested a specific review of the 15-Mile Reach (15-MR) flow recommendation targets before 2028. They recommended assessments of the flow recommendations from a perspective of climate, supply and demand, and biological/geomorphic changes. David reiterated the challenging hydrology that is affecting the basin, especially the 15-MR, even in the wet years.

15-Mile Reach PBO Requirements – David reviewed the importance of the 15-MR, including its importance as spawning habitat for both razorback sucker and Colorado pikeminnow with an optimum balance between temperatures and food availability for adult Colorado pikeminnow, and it provides an important refuge should a catastrophic event occur in the 18-MR or the Gunnison River. David presented an analysis of the flow targets in the 15-MR by hydrologic type. During the driest years, the goal is 810 cfs with higher targets in average and wet conditions. The Programmatic Biological Opinion (PBO) quantifies the targets in monthly average flows. During the dry years, flow targets were not met 71% of the time. In average-dry conditions, we are not meeting targets 80% of the time (lowest flow target is 1240). In average-

wet years, we do not meet targets 61% of the time, and even in wet years, we are not meeting targets 43% of the time. In 2021, David noted we have over 56 days of flow less than 500 cfs. David reviewed some components of the 15-MR discussion that we need to have in coming years. David asked some questions about how we should proceed in moving forward for the 15-MR.

Discussion – Dale provided context around where the 15-MR recommendations came from. In the 1990's, the majority of the Colorado pikeminnow were captured within the 15-MR. Dale asked what we are willing to give up as the 15-MR is important for both Colorado pikeminnow and razorback sucker. Dale provided an illustration of how long the effects of very low flows last by saying that a 12-hour drying event will kill off the forage base in the reach for about a month. Regarding David's statement about the 15-MR providing a refuge in case of disaster in lower reaches; Dale noted that a coal train derailed into the Gunnison and caused a fish kill. The flow that goes into the 18-MR comes through the 15-MR, so if we give up flow within the 15-MR, then it will dewater the 18-MR as well. Dale also noted that the structures we have put in for passage go throughout the 15-MR. Dale distributed photos of the 15-MR that show that flows of 450 cfs have a depth of only 6-8 inches and flows that go to 150 cfs are only 1-3 inches deep. Julie reiterated that we are not going into this process assuming that we will be changing the numbers for flow recommendations. The original flow recommendations were based on river profiles and spawning habitat depth and velocity. They also looked at migration ability based on those profiles. Tom Pitts said the flow recommendations have two components, one of biology and one of hydrology. He noted no one anticipated that we would be missing base flows as frequently as we are and supported ES recommendations to review flows. Tom noted that we do have resources to augment both the base flows and the peak flows and that water users are voluntarily participating in that augmentation. He advocated for a realistic assessment to manage the resources we have. He said the original recommendations are based on a hydrology that no longer exists and advocated that we talk about how we use our resources as best as we can for the species. AJ thanked David and Dale and echoed Tom's thoughts. Dale also recommended examining geomorphology of the system along with hydrology and biology. He recommended weighing the pros and cons of separate contractors to do biology/hydrology or whether that should be an integrated analysis. AJ appreciated the quick action on these discussions. Dave asked two simple questions – why aren't we meeting the baseflow conditions and what can we do to fix it? The BC discussed potential habitat manipulation. Dale said high flows move cobble around substantially so manipulating the river may be really complicated. Sarah asked if there could be a 2 in 3 year sort of option where we store water up in the system and put all our resources into a single year. Dale thanked all the water users who have been amazing partners in helping to manage these problems. He said they have been managing the flows to get rid of large fluctuations so that the fish can adapt and don't get stranded. Tom reiterated the importance of this as a compliance issue and noted it is an extremely high priority for the Program. There are operational options that need to be explored in this complex system. Tom recommended an iterative process that brings both hydrology and biology together. Tom recommended action as soon as possible. David highlighted both Dale and AJ as possible biological representatives and asked for anyone else interested to volunteer.

David asked about looking at this basin wide and highlighted the Duchesne as another system that may need some attention. Melissa asked if the 18-MR should be considered with the 15-MR. David noted that the North Fork drives flows in the Gunnison, which peaks earlier than the

Colorado. Melissa hoped that part of the 2-4 million acre-feet savings showed some opportunities to add flow to these critical sections.

AJ said the flow targets in the San Juan are accompanied by frequency of attainment targets, which was based on historical hydrology as well as biology, which may give us a good framework to work from. He recommended placing a strong emphasis on biology rather than historical hydrology.

### **Field Updates – PI's**

FWS-GJ (See appendix 1 for field notes) – Lake Powell surveys have occurred in the Colorado River arm this year, but the level of Lake Powell is making sampling very difficult. They caught 40 bonytail, 116 razorback sucker, and a Colorado pikeminnow. Bonytail were stocked from 2016 through 2021 in various locations throughout both the Green and Colorado that have moved down into the turbid inflow area of the lake. PIT tag antennas showed 46 RZ in the Colorado arm and 48 RZ in the San Juan arm. Nonnative fish removal is continuing in the Colorado, most of which are smallmouth bass and white sucker. They captured one grass carp. Gizzard shad numbers have not exploded yet, but they remain part of the catch. Beswick's pond (which has excess BT and RZ). They stocked out 198 RZ and 13 bonytail from that pond, along with removing 495 nonnative fish. Dale anticipated the flows dropping would require closure of the fish ladder at GVWU, but all four listed species were found in that section. He plans to sample DeBeque Canyon for humpback chub because they are finding juveniles in the passage. Travis has been identifying the humpback chub. Redlands will continue throughout the season, both razorback and bonytail have been captured. Three larval sampling passes have been completed for the Aspinnall studies. Bonytail stocking occurred last week and this week. They are completing paired stockings during both at early mornings and nighttime. Pete asked if there are design functions on the passages that we could implement to make the others better. GVWU doesn't have water associated with it and once the flow goes below 2,350 cfs, there is nothing that the water users can do to help. The water users are actively helping us keep the fish passage open as long as possible. Part of the rebuild on the GVIC screen has been looking at the return tube, but no good options have been identified.

CPW (See appendix 1 for field notes) – Harry Crockett said the Elkhead Tournament happened and the Ridgway Tournament is about to start. Jenn thought the smallmouth bass numbers were down on the White. Pike are continuing to be captured at the Rifle Municipal pond. Sampling for pike has stopped at Kenney because only one was captured during all last season. Kevin McAbee has been talking to Jenn and Chris and he thinks that how Kenney was operated last year may have impacted the bass distribution positively. Kevin will continue to examine the data to try to figure out what might be causing the lower numbers.

CSU (See appendix 1 for field notes) – Kevin Bestgen said they finished Brown's Park sampling. They captured a few pike, but not many. Three tagged pikeminnow were captured in Vermillion Creek, along with nonnative suckers. Weather on the Yampa and injuries have made things complicated. Numbers of bass and pike on the Yampa are high. One trip through Little Yampa Canyon captured 1,200 bass. Yampa flows have been sustained for a long time, allowing for good sampling conditions. Zero pikeminnow were captured in the Yampa River. Drift net sampling started in mid-June. First pikeminnow larvae were detected July 2<sup>nd</sup>. A Lodore trip will occur in the coming days, which will provide additional information on the effects of the flow spike. He thanked Travis, Darek, and Julie for their help with a walleye bio-energetics study.

FWS-Vernal (See appendix 1 for field notes) – Andrew Schultz thanked all the volunteers who helped while their staff has gone through several injuries. They have gotten help from BLM, FWS in Grand Junction, the Ute Tribe, and the PDO. Special thanks to Kevin McAbee for his work spearheading the volunteer coordination! For Project 128, all three passes were completed on the Green and White rivers. Very low catch rates were seen. Four passes were completed for Project 110 for nonnative fish removal, gila sampling and community monitoring. 16 pikeminnow were captured during Project 110. The office has completed the first marking pass for 123a and a recapture pass will start on Wednesday, date. Water is currently being pumped into Old Charley to maintain wetland levels. Pumping will occur in Johnson Bottom after Old Charley. All antennas have been collected other than the two in Desolation Canyon which will be picked up by Jerrad at BLM. The fourth 98b northern pike removal pass was skipped because of Yampa flow levels and the need to address higher priority projects. Crews are out helping CSU with the surge and have captured both smallmouth bass and some small pike. Kevin said 868 smallmouth bass greater than 100 mm were tagged in the marking pass in 123a, which was more than 2020 and 2021 together. The size classes of those fish were noteworthy. Kevin anticipated that most of those marked fish were from the 2020 year class. Ouray-Randlett completed an inventory of fish on station. Some fish are in less than optimal condition and they are working to resolve them. They have the green light to transfer some of the Colorado pikeminnow on station to David Ward with USGS. They are working to update and repair the hatchery building while fish are out in the grow out ponds for the summer. He asked for help with razorback sucker PIT tagging and harvest over the course of 2 days this fall. He also noted that he will continue to work with Koreen and Dave Speas on infrastructure funding. He recommended changing the 2022 bonytail stocking to a spring event as they will not be of appropriate size before the end of fall stocking, likely due to later than usual spawn. Pete asked what the water issue was and whether it would happen each year. Andrew said they went down to one well this spring, which Reclamation resolved. Low staffing levels have also caused problems at the site.

UDWR-Vernal (See appendix 1 for field notes) – Mike Partlow said bass removal in the White in Project 167 has been completed. Mike confirmed the low levels of catch rates in the White, potentially due to flash flood events last summer catching about 300 smallmouth bass in comparison to 1,500 in 2021. He said a new riffle was created in the Utah section. Seven Colorado pikeminnow were captured. Black crappie catches did increase from other years. Bass removal began on June 27<sup>th</sup> for Project 123b, catch rates seem low in that section as well, but he expects catch rates will increase in future passes. One burbot was captured just below Split Mountain. Stewart Lake started filling on May 23<sup>rd</sup>, but the majority of the water came in on May 27<sup>th</sup>. Larval suckers were present in every light trap set. The gates were closed in early June, which was a short filling period. Red Fleet water is being delivered through the pipeline. 700 a/f is available to keep the wetland full through mid-late September. 109 bonytail from Wahweap were stocked in the wetland, in late June likely after spawning. Stewart Lake has substantial open water, more than we have had since 2012, proving cattail management has been effective. Mike thanked the BC for all their support in managing the infestation. Mike is going to try to manage the cattails through herbicides and recommended drying in years when LTSP is not possible.

**STReaMs Database Update** – Chris Michaud reminded the BC that a small subgroup has been developed and a meeting has been scheduled for July 18<sup>th</sup> to discuss the priorities for PIT tag antenna deployment. He noted that they will be identifying potential questions and then how best

to answer them. Chris has spent a substantial amount of time revisiting how PIT antennas are tracked in the database. Chris called attention to the spatial data that is currently available on the website but is very underutilized at this point. He is working on adding managed wetlands to STReAMS and to that dataset so we can plot stocking events in those locations. An updated copy of the spatial data will be posted soon. Chris said that digitizing the extent of our managed wetlands may be a helpful tool if PI's see opportunities to collect that data.

**Data management** – Chris Michaud reviewed how project 128 (Green River pikeminnow population estimates) data collection and management has worked this year. The PI's send Chris the raw data files and Chris sends QAQC data files back to the field and uploads the data into the database. He said the process worked and was a great start to combining data resources together. Data management plans are being requested by FWS and a lot of other agencies so it's good that the Program is starting to think this way. Chris has received data from most of the project 128 passes and shared a summary of that data with the BC as provisional. He noted that as the BC defines questions, we can program code to provide outputs that can address those questions. Tildon brought up the value of being able to do a lot of the processing while the PI's are in still in the field. Chris also said he can develop scripts to quickly and simply restructure/format the data allowing for transfer to Colorado's ADAMAS (CPW's biological database) or the Utah Heritage database, and he reminded us that computers are much better and faster than people for that type of tedious work.

**Capital Projects Update** – Lee Traynham transferred to the Grand Junction area office at Reclamation and will now be serving as the MC member for Bureau of Reclamation. Lee noted that Ryan has departed Reclamation and that he leaves big shoes to fill in managing of all the capital projects.

Lee shared the tracking spreadsheets for capital projects. GVIC meeting is scheduled for Thursday 7/14. A solid recommendation has been developed and Reclamation is looking for support from GVIC. The project is also on the BIL funding list. A meeting is scheduled for 7/26 to move the Catamount Reservoir discussion forward and explain the need for that project. Kevin noted that we have some time yet before we will be able to figure out what the project will look like. The Green River canal fish screen and passage will be an area of Lee's focus to figure out next steps.

The 2022 appropriations bill includes \$5.7M for 2022. The President's budget for 2023 currently says \$7.6M will be available. HR 5001 includes the swap of capital project ceiling from the San Juan Program to the Upper Colorado Program. It has passed the House, but not the Senate. Most of the capital funding scheduled for 2023 is scheduled to occur in the San Juan Program.

**BIL Funding** – FY 22 BIL funding went to the lower basin MSCP with none to either Recovery Program. The Upper Colorado and San Juan Programs are focused on the \$50M authorized for the recovery programs, the Glen Canyon Program, and the MSCP (Section 12) and we are currently shoring up estimates of cost and time for several proposed FY 23 projects to be as "shovel ready" as possible. Lee highlighted that there are additional funding opportunities all four Colorado River programs can use, noting that many of the WaterSMART funding opportunities have been plussed up. FY 23 BIL funding is currently proposed for GVIC rehabilitation, the two hatchery improvement projects, and the remote monitoring equipment. The goal is to be ready to request these funds on October 1<sup>st</sup>. Dave encouraged lots of specific action both at Randlett and on the PIT tag equipment. The top priority for Randlett is a new

water supply, but we need some value engineering study work to evaluate how best to solve the water supply problem. Dave reiterated Tom's suggestion to add some serious funding to the capital schedule. Dave said we need quick work on the PIT antennas to be shovel ready to be able to request the funds on October 1. Tildon identified another set of wetland projects/repairs that he is working on. David Graf asked if water could be purchased with capital funds. Lee and Dave Speas confirmed that a purchase could work if water were available, but short-term leases were not appropriate. Pete asked about the Green River canal screen. Tildon noted that the fish passage was screened for the first time in June using rented equipment to see how that works.

**Administrative Tasks – All**

- a. The reports due list was reviewed revised with new due dates for CSU and Grand Junction FWCO reports
- b. Schedule October Meeting - October 11<sup>th</sup>, 9 am – 4 pm MST
- c. Schedule December Meeting – Nov. 30, 9 am -1 pm MST

**Consent Agenda – All**

- d. Approve May 26 summary – the summary was updated with Dave Speas comments.  
*The summary was approved as final and will be posted on the website.*

**ADJOURN 1:00 PM MST**

## Attachment 1 – Field Reports

### FWS-Grand Junction FWCO

#### Lake Powell 2022 Preliminary Results

##### Individual Fish Captures, does not include recaptures)

Razorback sucker – 116 (13 of these were later recaptured)

Colorado pikeminnow - 1

bonytail – 40 (6 of these were later recaptured)

1 stocked 2016 at Fruita

1 stocked 2019 in Price River

1 stocked 2019 at Fruita

1 stocked 2020 at Bullfrog

1 stocked 2021 at Salt Creek

1 stocked 2021 in Dolores River

34 stocked 2022 at North Wash

flannelmouth sucker – 95 (18 of these were later recaptured)

##### PIA Detections Colorado Arm 2022 – 3 antenna deployed

Individual Fish Detections, does not include resightings

channel catfish – 1 (tagged at SJ Waterfall)

razorback sucker – 46

Unidentified – 1 distributed to ONFH-Randlett 2013, 3 distributed GJ-FWCO 2020

bonytail– 3 – All stocked 2022 at North Wash

##### PIA Detection San Juan Arm 2022 – 3 antenna deployed, one antenna we were unable to download data

from Peter should be able to get that data for us at a later date

Individual Fish Detections, does not include resightings

channel catfish – 4 (tagged at SJ Waterfall)

Colorado pikeminnow – 1

razorback sucker – 48

#### 126a CO NNF 2022 Preliminary Results

##### NNF removed Beswicks N= 495

black bullhead – 80

black crappie – 101

bluegill – 112

hybrid sunfish – 6

green sunfish – 166

gizzard shad – 10

largemouth bass – 20

##### Endangered fish stocked from Beswicks

bonytail – 13

razorback sucker – 198

##### NNF Removed from River N=3660

black bullhead – 66

black crappie – 1

bluegill– 131

hybrid sunfish – 5

common carp – 2  
grass carp – 1  
green sunfish – 217  
gizzard shad – 5  
largemouth bass – 123  
longnose sucker – 2  
smallmouth bass – 1,520 – In general, catch rates for all life stages in all reaches are down. Ruby Horsethief has highest catch rates for juveniles (8.3 fish per hour) and adult catch rates are highest in the reaches from Lower Westwater Canyon to Fish Ford (6.5 fish per hour).  
white by bluehead sucker hybrid – 107  
walleye – 110 – still providing samples to Ike for Diet study at LFL. The reach from Takeout Beach to Moab Bridge had the highest catch rates (2.4 fish per hour).  
white by flannelmouth sucker hybrid – 181  
white sucker – 1,189  
**Endangered fish collected from River (totals include recaptures)**  
bonytail – 49  
Colorado pikeminnow (lower reach only) – 19  
flannelmouth by razorback sucker hybrid – 9  
humpback chub – 1  
razorback sucker – 566

**Price Stubb Detections 2022 (Oct 1, 2021 through July 5, 2022) Preliminary Results**

Individual tags, does not include resighting N=1,171

bluehead sucker – 59  
bonytail – 68  
flannelmouth sucker – 449  
flannelmouth by bluehead sucker hybrid – 3  
roundtail chub – 93  
razorback sucker – 93  
UNIDENTIFIED 35% (406/1,171)  
- 13 Distributed to UDWR-Moab 2017-2020  
- 4 Distributed to CPW 2005-2013  
- 3 Distributed ONFH-GJ 2014-2021  
- 386 are not program tags

**GVWU – Endangered Fish Only Preliminary Results**

Colorado pikeminnow – 1  
razorback sucker – 8  
humpback chub – 1  
bonytail – 3

**Redlands – Endangered Fish Only Preliminary Results**

Colorado pikeminnow – 1  
razorback sucker – 3  
humpback chub – 1

**Project 163 - 3 Larval Fish Sampling Passes Complete**

## UDWR-Vernal Field Update: July 11, 2022



### Project 165 Stewart Lake

- Began slowly filling on 5/23. Significant inflow began on 5/27 when water arrived.
- Light traps set overnight on 5/27, 5/28, and 5/29. Caught sucker larvae in almost all traps.
- Closed outlet gate on 6/2.
- Closed inlet gate on 6/4
- Filled wetland to 6.5' on staff gauge (about 1' below full).
- Red Fleet water is being delivered. We should have around 700 AF available.
- 109 BT stocked in wetland on 6/30.
- Abundant open water habitat in wetland!

### Project 167: White River Bass Removal

- Three passes were completed in June, 2022
  - o Big Trujillo to Bonanza Bridge 6/2/22–6/4/22
  - o Big Trujillo to Enron Takeout 6/7/22–6/11/22
  - o Bonanza Bridge to Enron Takeout 6/15/22–6/17/22
- Total of 101.06 hours of electrofishing
- SMB catch rates substantially less than previous years, likely due to high flow events last summer & fall
  - o Only 312 SMB removed compared to 1,492 in 2021; CPUE = 3.09 fish/hr in 2021 vs. 23.53 fish/hr in 2022
  - o Avg. = 154 mm TL (range = 75-385 mm)
- 7 Colorado pikeminnow collected; 468-740 mm TL, 3 untagged upon capture, 1 male expressing gametes upon capture
- Black crappie abundant (n=356; 75-270 mm TL)
  - o Why so many spilling out of Kenny Reservoir in 2022 compared to other years?
- 47 White Sucker & WS hybrids removed

### Project 123b Middle Green River Bass Removal

- Bass removal began 6/27. One full pass nearly complete.
- 311 SM removed so far. Mean TL = 163mm (last year cohort seems to be abundant)
- One burbot captured on 6/27. 452 mm TL.

## **USFWS FWCO - Vernal**

**128 (Green and White River Colorado pikeminnow abundance estimate):** Data sent to Chris Michaud after the last minute, so summary results not available but we completed 3 passes on the Green from Snider Bottom to Green River, Utah and 3 passes on the White River from Taylor Draw Dam to the Green River confluence. A lack of large adult Colorado pikeminnow was apparent and overall CPUE seemed low.

**110 (Yampa Canyon):** We completed 4 passes primarily geared toward smallmouth bass removal but also some Gila monitoring in all passes and fish community monitoring during the final pass. At first glance it appears about 50 more bass were removed this year than in 2021. The good news is that we caught 16 pikeminnow, including some larger individuals than we were seeing in 128.

**123a (Green River, Echo Park to Split Mountain):** The initial marking pass was completed last week and we floy-tagged 868 bass. UDWR Moab is following up the marking effort with back-to-back recapture passes and we'll be heading back for the third recapture pass on Wednesday.

**160 (Floodplain wetland mgmt in the middle Green):** We started pumping Green River water into Old Charley/Woods Bottom yesterday(?) and hope to maintain adequate water for razorback sucker nursery habitat this year. We'll be monitoring gains from pumping with the pressure transducer we installed this spring. We plan on pumping at Johnson Bottom after Old Charley.

**169 (PIT tag antenna monitoring):** As of last week, all of our antennas have been retrieved except for the four antennas we set at Three Fords in Gray Canyon, three of which will be pulled and hauled out by Jerrad Goodell and the BLM Desolation Canyon river rangers.