



Upper Colorado River Endangered Fish Recovery Program

Dated: June 8, 2020

Biology Committee Webinar Summary Wednesday, May 27, 2020 9:00 am - 2 pm MDT

Participants: Dale Ryden, Harry Crockett, Dave Speas, Derek Fryer, Melissa Trammell, Pete Cavalli, Paul Badame, Tom Pitts

Interested Parties: Kevin McAbee, Julie Stahli, Tildon Jones, Tom Chart, Don Anderson, John Hawkins, Scott Durst, Katie Creighton, Matt Breen, Cheyenne Owens, Ryan Christianson, Kevin Bestgen, Tom Econopouly, Zach Ahrens, Kathy Callister, Craig Ellsworth, Jojo La

CONVENED: 9:00 a.m.

1. Hydrology update – Don Anderson said near-average to above-average runoff conditions were expected in earlier winter forecasts for much of the upper basin. Unfortunately, March and April were hot and dry and now most upper basins are well below median. Projected April-July inflows to Lake Powell have dropped significantly, from around 6000 KAF to 4000 KAF. At the end of July 2020, Lake Powell is expected to be around 9 feet lower than in 2019. Drought is predicted to persist and expand across the southwest in 2020. Projected April-July runoff is expected to be somewhat- to well-below average in most river basins, but higher than in 2018. The Yampa likely already peaked on May 5th. Another peak around 11,000 cfs is expected. The program is not currently anticipating requesting additional water out of Elkhead Reservoir this year, beyond the 5,000 AF available annually, based on the 99% of average spring runoff conditions predicted in the Yampa basin. Conditions in the mainstem Colorado River deteriorated quickly this year, and are currently anticipated to be about 80% of average runoff to the 15-Mile Reach. CROS operations to augment peak flow in the 15-Mile Reach are unlikely in 2020, but will depend on developing runoff conditions. [Update: on May 29, reservoir operators did decide to proceed with CROS operations beginning May 29-30 – good news!]. In the Gunnison River, hydrologic conditions deteriorated quickly and current projections are for about 45% of average snowmelt runoff. The target peak flow was already hit this year with 4,500 cfs achieved at the Whitewater gage as a result of Reclamation’s elevated releases from the Aspinall Unit for a number of days in May. No shoulder peak flows targets are prescribed under the ‘moderately dry’ conditions applicable this year, but Reclamation will continue to aim for baseflows of 1050 cfs through the summer (July-Aug) and 750 cfs in the fall (Sep-Oct).

Don shared good news from around the Program. Reclamation and Grand Valley water users used carryover HUP surplus water from 2019 to help alleviate the ‘April Hole’ in 2020 for the first time -- a successful experiment likely to be repeated in future years. CWCB and Ute Water are finalizing renewal of their 5-year agreement allowing for 6,000 to 12,000 AF/yr of Ruedi Reservoir water to be leased for endangered fish. CWCB and Garfield County are finalizing a new agreement for an additional 350 AF/yr out of Ruedi. The Colorado State Engineer’s office is revising transit losses for reservoir releases in the Yampa River, meaning more water released from Elkhead Reservoir is likely to be protected as instream flow down to the Green River confluence. The Yampa River Fund is up and running and has funded its first 5 projects in 2020

(\$200,000 in total grants). UDNR and TNC have continued to advance the Olsen Reservoir enlargement project to benefit late-summer flows in the lower Price River. Melissa asked about the Shoshone Power Plant water and whether mechanisms were being explored to protect the water when the power plant was not operating. Don is not involved in those discussions, but noted that the Colorado River District is actively pursuing strategies to protect that water for West Slope interests.

2. GREAT Report Update

- a. Base Flow Experimental Study Plan – Comments were received from four reviewers. Kevin Bestgen met with the co-authors to review the comments and determine next steps. A new draft will be forthcoming in the next 30 days. The document was not peer reviewed, just sent to the BC and WAC for comments [which is consistent with other study plans (e.g. LTSP and Smallmouth Bass Flow Spikes)].
- b. Experimental flows physical effects monitoring plan – Comments were received from a number of reviewers. Dusty Perkins and Melissa are addressing comments and expect to have another draft out to the BC to approve at the July BC meeting.
- c. Flaming Gorge hydropower analysis – Derek Fryer said the analysis has been elevated to Reclamation’s Upper Colorado Regional Director Brent Esplin and his Deputy to talk through what is needed from that agency. Heather Patno and a contractor from the Center for Advanced Decision Support for Water and Environmental Systems (CADSWES) will be providing the modelling for WAPA, starting in about 3 weeks. Derek will work with FWS and Reclamation to refine the SOW over the next few weeks. Dave asked if Reclamation needed funding to assist. Derek said about \$100K was needed and Derek is working through that with others at WAPA, including Steve Johnson. Tom Chart said that at their last meeting the Management Committee had asked that the PDO sort through the related processes of finalizing the GREAT report, completing this preliminary hydropower analysis, and drafting our Green River 2021 flow request letter. Tom has initiated those discussions with WAPA and should be able to discuss a strategy at the next MC meeting. Derek said he will be in touch with Tom to assist in that effort. Jojo said the states had some questions around Lake Powell interim levels and Drought Contingency Planning. She asked if there were discussions around providing information for that effort as well. Derek offered to talk to Jojo to see how the efforts dovetail, as the CRSS models do provide information around DCP. Ryan Christianson has been the contact at Reclamation for that information, Tom encouraged bringing Ryan and/or Kathy into that discussion. Ryan said he is aware of the states’ concern and will make sure they are addressed.
- d. LTSP update – Tildon Jones said larval razorback sucker have been captured in the river since May 19th. The May 1st forecast placed Flaming Gorge in the Average (Below Median) hydrologic condition, which creates a target of 14,000-18,600 cfs. Full power plant releases began on May 26th, ramping up to full bypass on May 27th. Combined with flows from the Yampa River, Reclamation is targeting 9 days above 14,000 cfs and one day above 18,600 cfs in Green River Reach 2. The peak is anticipated on June 3rd. The gates have been opened at Stewart Lake, Johnson Bottom, and Old Charley. Matt Breen clarified that UDWR closed the Stewart Lake gate because the wetland was higher than the river, he anticipates opening

the gates again in the next few days as the river rises further. Larval razorback sucker have been captured and are already in the wetland. Tildon said high numbers of larval razorback sucker were seen early in the sampling (starting 5/20 and increasing since then). Tildon relayed that Mike Partlow said cattails stalks were sprouting from the water. Matt said they will likely see a better picture of the effects of cattail management in mid-June.

3. Habitat project update – Tildon said UDWR found the seals on the inlet and outlet gates were deteriorating under the intense UV light in the Vernal area. Reclamation visited the wetland and examined the seals and Ryan Proctor provided an estimate on replacement (~\$10K). Reclamation anticipates that the Force Account crew would be available in November, which would be ideal from a timing perspective. >Tildon will send a spreadsheet provided by Ryan with cost details to the BC. Dave said this is typical for replacement needs. Ryan said we have approximately \$1 million left under the capital cost ceiling. Ryan asked if there was a way to pay for this out of maintenance funds rather than capital funds. Dave asked for BC approval, regardless of funding source. Pete asked what was fixed on the gates a few years ago. Matt said some of the original gates only let water into the wetland, not out and so they were replaced a few years ago. The gates that need new seals are different gates that were installed in the 1990s. Tildon said that basic repair and maintenance is likely going to be needed at all wetland facilities in coming years. The BC approved the effort, contingent on funding source discussions.
4. Matheson Wetland – Zach Ahrens provided an update on Matheson construction where the canal was dug out and a new gate was installed. Sampling started in the first week of May and razorback larvae have been discovered. They have had some issues with hydraulic head between the wetland and the river. On May 19th, they opened the gates and then closed them on May 22nd. Razorbacks have been identified in the wetland. About 5 feet of water depth was retained in the wetland, which is unlikely to last through the summer without supplemental water. A second peak may occur later in the year. Tildon Jones commended Zach and the Moab office for the funds they have obtained to keep the Matheson effort going. Zach thanked TNC for the funding they provided. Supplemental water could come from onsite spring water that flows onto another piece of TNC land. Zach is hopeful that the supplemental water can occur this summer. Zach anticipates being able to release water if the volume gets too low.
5. Update on Colorado pikeminnow – Tildon said that the collection of pikeminnow broodstock is a high priority for this field season and future years. The San Juan Program is also prioritizing this effort. Mark McKinstry provided funding for ASIR to assist the Moab office in collection efforts. Katie Creighton has developed a scope of work through the San Juan Program to add three weeks of field collection (which is in addition to one week funded by the UC Recovery Program) in late September and early October. Chris Smith plans to use funds from the 158 SOW to fund broodstock collections and base flow monitoring. The middle Green River fish will be held at Ouray-Randlett until sufficient fish are collected. Katie said the four week effort will start right after ISMP concludes. Moab will provide boats and drivers, ASIR will provide seining staff. Tildon will continue to coordinate with SNARRC about collection efforts. Beyond 2022, SNARRC will not likely have space to store broodstock. The BC will need to discuss options with the upper basin hatcheries to ensure we are prepared to accept fish. Tildon thinks the effort to collect broodstock is sufficient assuming that fish are there and available, which will be determined by hydrology and environmental conditions. Tildon will continue to work with PIs to adjust the plan as needed over the next few years. In future years, 3 weeks will be funded by the

San Juan and 1 will be funded by the upper basin program. Dave asked that investigators keep track of tasks which have and have not been completed this year due to COVID-19 to provide end of year accounting. A broodstock group (with members from both the Upper Colorado and San Juan programs) convened earlier this year. The minimum target number was 1,000 for each population (Green and Colorado). The Green would mix stock from both the upper and middle Green. Multiple years of collections, which should capture the offspring of different adult individuals, are ideal. Additional numbers have been proposed as well, calling for as many as 2,000 fish from each sub-basin to develop separate broodstocks for both the Upper Colorado and San Juan for each basin. Splitting one broodstock is also an option (with 500 in the SJ [SNARRC] and 500 in the UC for each lineage [Green and Colorado]).

6. HBC reintroduction plan update – Melissa Trammell said the ad hoc group is continuing to meet regularly, with another meeting scheduled for June 3. The source of fish is still under discussion, but decision matrices have been developed for both sources and strategies which will allow for ranking. If collections are brought in from the wild, it will require hatchery space. If a broodstock needs to be developed, that will take more hatchery space. The group is on schedule to complete the white paper by the end of the fiscal year.
7. Hatchery needs and opportunities – Dave summarized that we have two species that may need hatchery space in the fairly near future. SNARRC can hold some fish indefinitely, but space will also be needed in the upper basin, particularly if propagation is involved. Tildon and Cheyenne have been contacting different hatcheries to assess what space is available at each of our facilities. Answers are still coming in from the hatcheries. In addition, they are trying to determine what construction/rebuild projects would be ideal if funds were available. Tildon has also asked if land and water are available to expand the current facilities. Shifting quotas for the current species is also on the table. Cheyenne is also talking with SNARRC and the San Juan Program to see what cooperation options are available. Tildon is planning on bringing this conversation back to the BC once the information has been compiled from the hatcheries. Dave said the efforts will likely affect current work plans as well as the post-2023 conversation.

Melissa asked if the information could be presented at the HBC reintroduction ad hoc meeting on June 3rd. Tildon said he will provide the information he has, but it may not yet be complete. For the near term, some prioritization is likely needed from the BC to guide future discussions. For the most part, most hatcheries could be expanded, with the exception of Mumma which is water limited. Reprioritization could occur, allowing for additional space if other species were removed or reduced. Ouray-Randlett may also be water limited. Dale said a long-term game plan for the species currently in the hatcheries would be helpful to set these discussions. The hatcheries will re-arrange their work based on what the BC wants to see. Dave asked when stocking plans were likely to be revised. Cheyenne said that she has been working on revising propagation and genetics guidance documents and all of that information will feed into this discussion. Tildon asked if these discussions should occur at the BC level or within a subgroup. Melissa recommended that a sub-group be formed.

Julie asked if another hatchery was a realistic option from an annual funds perspective. Paul noted that any new hatchery would cost the State of Utah \$200-\$400K in additional annual funds as an example. Dave said the possibilities should be discussed, particularly in conjunction with the San Juan Program. Dave recommended convening a team in July. Dave volunteered to be on

that group, all others interested should email Tildon, Cheyenne, and Dave. Melissa, Harry, Matt Fry, Dale, and Brian Scheer also volunteered. Tildon will take the lead on that group. Tildon would like to bring the San Juan Program and SNARRC into those discussions. Dale noted SNARRC has been growing pikeminnow for many years which will provide valuable expertise.

8. Targeted walleye sampling – Chris Michaud said targeting walleye has been able to continue despite the COVID restrictions. Endangered fish have not been captured in large numbers, but all four endangered species have been seen. Flannelmouth and bluehead suckers were captured in decent numbers. Large numbers of razorback sucker have been seen in the Tusher area. Walleye have been captured in large numbers as well; smallmouth bass have also been captured. Declining flows in late spring reduced catch rates, but they have since rebounded. Northern pike have also been encountered in these targeted walleye efforts. Walleye length is most commonly around 450 mm in TL, which is consistent with previous years. UDWR-Vernal is helping out with this effort as the Moab office transitions to other areas. Paul asked if any of the smaller fish might be from in-river production. Chris said one was pulled out yesterday at 344 mm, which is much smaller than normal but was unable to confirm origin. On the Colorado River, more native fish have been seen, including four Colorado pikeminnow, four humpback chub, and a bonytail. Smallmouth bass have been captured in large numbers (156 in 2.5 river miles). Smallmouth bass this year are also larger, on average, than in other years. A few years ago, catch rates of 15 fish per hour were seen, but this year, catch rates exceeded 25 fish/hour, striking the biologists as noteworthy. After querying STReaMS, Chris found that northern pike catch rates are also higher than they have been in previous years. Smallmouth bass and largemouth bass catch rates in the Colorado were higher in 2019, and remain high in 2020 as well. Walleye numbers have been fairly consistent across years. One large pikeminnow was captured in lower Westwater Canyon.
9. STReaMS update – Julie summarized Chris Michaud’s detail in the PDO this winter, and gave an update on some of the products he worked on. These include using program R to compile data and create dynamic reports for nonnative fish projects and PIA detections. She directed the BC’s attention to the Program report website, where Chris Michaud has revised the 123a report using tools he developed during the detail. Julie thanked Chris for his work and the progress he made, as well as Katie for agreeing to Chris’ detail. Dave Speas asked if this was the direction the reports might take in the future. Julie pointed out the database manager position is currently unfilled, so implementing major changes will be slower. She envisions a more interactive conversation with PIs on how to best develop these tools for their reporting needs.
10. COVID-19 Restrictions on Field Work Updates – Dave said Reclamation has rolled out guidance, which has prompted many discussions within the agency. Paul said UDWR does not have any significant updates. All administrative employees will be working from home for the foreseeable future, Wahweap hatchery operations have not been affected.

UDWR-Moab: Katie will start the field season in June. A soft quarantine will occur, with multi-day trips starting in late June. Katie has talked with many other PIs, so they are all on the same page and have planned safety measures. Project 160 is supposed to start the first week of June, targeting larval razorback sucker through light-trapping, and Katie was looking for feedback on whether that should continue or whether the crews should continue to target walleye. In future years, she is anticipating expanding light-trapping into Lake Powell with Reclamation funds. Understanding razorback sucker ecology has been a good success of the program, and timing of

reproduction has been important in the lower Green. Typically, information on walleye reproduction has been gathered during project 160. Melissa and Pete would prefer to focus on nonnative fish removal. Dave concurred, with a focus on smallmouth bass in the vicinity of Westwater Canyon.

UDWR-Vernal: Matt Breen said light traps would be set in Stewart Lake wetland to confirm presence of larvae. Antennas are still deployed in the Green River and in tributaries and the office is helping target walleye down by Tusher Diversion. Three new technicians will arrive in UDWR-Vernal in early June. Mike Parlow and Matt developed a press release for razorback sucker around Endangered Species Day. They covered LTSP and all the partnerships, along with the downlisting rules. Three papers picked up the story and Mike presented on Good Morning, Utah. Mike also presented on KSL-Outdoors with a question and answer session. Matt plans to start sampling the White River in June. The BC thanked Matt for the excellent work.

FWS-Vernal: Chris Smith sampled Sheppard Bottom, catching a wild razorback sucker that likely overwintered in the wetland. The BC recognized this (age-0 razorback sucker overwintering in a wetland habitat) as an important milestone. Light traps have recently been moved downstream to Baser and Walker wetlands to try to document expansion of larval distribution. Chris's crews will continue to net in Stirrup and Sheppard targeting wild razorback sucker. Chris will transition onto the White River in coming weeks, from Taylor Draw Dam down to Trujillo Wash. Harry said CPW crews reported high catch rates of bass in that area and encouraged Chris's work. Chris will target the descending limb of the peak that is predicted the week of June 1. Additional sampling has been permitted beyond wetland management. Overnight travel is still not permitted by FWS. Razorback Bar antennas have been deployed.

FWS-GJ: Dale said this is the second week of sampling, focusing on Colorado pikeminnow estimates and fish ladders. Eighteen Colorado pikeminnow have been collected, several untagged fish that were 600 mm or larger. Six bonytail and 130 razorbacks were captured. High numbers of bass were also seen, including one about 450 mm, especially around Westwater Wash. Three additional seasonals will be coming on in the weeks to come, for a full crew of 13. Dale is targeting Aspinall monitoring and nonnative fish after CPM estimates are finished. Dale's office now creates monthly newsletters. Mike Gross talked about what is necessary to grow and stock razorback sucker which will likely turn into a blog post from External Affairs (FWS).

CPW: Overnight travel has to be authorized by DNR. Leadership is very cautious about hiring new staff, including seasonals. Mumma is still operating normally. Traveling is still restricted to one person per vehicle which makes shuttling very difficult. Jenn Logan completed a targeted reach on the White and saw high levels of smallmouth bass. Submersible PIT antenna have been deployed in Salt Creek.

CSU: Kevin Bestgen said the University is not open yet, but travel permissions have been granted for most field work. On May 28, Ed and two crews will deploy to Browns Creek to monitor and remove pike. PIT antennas were set in Vermillion Creek prior to the spring releases at Flaming Gorge Dam. Colorado pikeminnow larval drift net sampling permission has also been cleared by the university. Kevin is waiting for permission to begin drift netting from Dinosaur National Monument. Northern pike removal near Steamboat Springs, CO probably will not occur this year, but CSU crews will sample the Yampa River downstream of Steamboat Springs

starting the first week of June (Project 125). All planned work in western Colorado can proceed from this point forward. Travel has been permitted with detailed safety plans.

11. Red Fleet and Ridgway Screens - Kevin McAbee said O&M contracts for both projects between Reclamation, FWS, the local state agencies, and the local water districts are nearing completion and execution for each project. The Ridgway steel plate screen on the outlet structure is at the 95% design stage, with planned construction in fall 2021. This date was pushed back a year to allow construction companies adequate time to prepare for construction and acquire materials. Construction has begun on the Red Fleet coanda screen downstream of the outlet (see below). Expected completion date is July.



Construction progress on the Red Fleet coanda screen. Gravel base for the screen was installed the week of May 25. Photo credit: UDWR.

12. Harvest tournament schedule – Harry Crockett provided an update on all tournaments planned for the summer.
 - Kenney Reservoir: June 5-6 (Rio Blanco Water Conservancy District & Rangely Chamber of Commerce). CPW harvest incentive for pike May 15 – Nov 30. Seven turned in so far.
 - Elkhead Reservoir: June 27 – July 5
 - Ridgway Reservoir: July 11 – August 9
 - Rules for the two CPW-run tournaments have been adjusted for social distancing: all cash prizes, “drop-box” freezer rather than a check-in station at Ridgway; no daily prize give-away.
 - Green Mountain & Wolford Reservoirs pike harvest incentives started mid-May when boat ramps opened & will continue as long as the marina/campground are open, usually

early September. Green Mountain is funded with CWCB SCTF dollars; payment for northern pike harvested at Wolford Reservoir is funded by the Colorado River District. CPW is working on a press release which will go out this week about those incentives.

- Contracted removal of northern pike and nonnative suckers at Green Mountain concluded last week. Harry is waiting for final numbers but over 80 pike and hundreds of pounds of suckers were lethally removed.

13. Post-2023 capital project projections – Tom Chart sent an email outlining both annual and capital draft funding requests. On May 1 the Funding Group asked the PDO for a re-evaluation of the requests for review at their May 26th meeting. Specifically, the Funding Group asked if there were likely to be significant reductions in recovery actions at some point in the future that could influence the term of future funding legislation. The PDO took the information we have been provided thus far and responded to the Funding Group’s inquiry. Tom said some actions may diminish, but other actions will likely take their place in the next 15 year period (FY24-FY38). Any concerns that arise should be communicated up through the Management Committee representatives.

Tom said that WAPA and Reclamation have proposed that the availability of hydropower funds will be reduced in the future and that the GCDAMP is a higher priority for those funds. Paul asked if the paper addresses a split of funding between the federal family and the states. Tom said no, the PDO did not propose any specific funding strategy but instead provided greater rationale for our proposed Post 2023 annual funding (\$10.7M/yr) and why we did not think that funding level would diminish over the 15 year period in question. The Funding Group also asked for various strategies to implement future capital funded project that would allow them to consider different timelines for reauthorization. The capital estimates came from Ryan Christianson and were then ranked by the BC last fall. The first priority (option 1) was \$40M to maintain existing projects. Ryan has been spending a little more time working on those numbers to see if more accurate numbers can be developed. Ryan said he is working on a facility replacement reserve fund that would not be dependent on appropriations in any given year. Questions were asked about what was planned under our current capital ceiling, which the PDO is investigating with Ryan. Option 2 adds in a few new projects (those with the highest rank), focusing on screens, floodplains and hatcheries. The hatchery funding here would allow for major expansions and is a placeholder for what may be necessary. The Catamount screen is also on that list. Right now \$500K is allocated before 2023, but future funding is likely also needed. Option 3 adds a rebuild of the GVIC screen, retrofitting Tusher Wash fish passage to facilitate selective passage as well as a few other moderately ranked priorities. Tom anticipates that the actual costs and priority of projects will likely change over time as we learn more. The PDO captured the remaining projects (lower ranked) in this document, but they were not included in a funding option because of the very low probability that we could accomplish them in a 15 year time frame. For that matter, Tom was skeptical that the full list of option 3 projects could be built over the next 15 years without concerted effort. Dave asked how the Funding Group would interpret the three options in relation to recovery. Tom said they are wrestling with those questions now, specifically in relation to timeframes. The PDO is also concerned about the implication of additional capital projects on annual funding levels. Dave said the annual portion was well supported and documented. Tom distributed the document to all the technical committees and the Management Committee.

14. 2020 RIPRAP review updates – Tom reviewed that due to unusual work load this year we are proceeding with a streamlined RIPRAP assessment, i.e., the PDO is soliciting stakeholder comments via email. Comments were received from Reclamation, Colorado, National Park Service, and the water users. We have not seen any large issues that we need to bring back to the committees. We are developing a response to comments and addressing changes in the document itself, which will be distributed again. Julie asked if people like the new process this year. Dave supported the process, but missed the interaction that allowed the committees to discuss the program as a whole. Paul agreed, noting that being able to hear thoughts and concerns of others was helpful. Melissa agreed. Tom agreed that the interaction was important and helps remind everyone about all the work we are doing throughout the Upper Colorado and Green river subbasins. Tom recognized Paul Badame for his RIPRAP treasure finding ability. Well done Paul!
15. Annual Report format update – Julie informed the BC about webinars she hosted for PIs. These webinars addressed 508 compliance in annual reports and provided hints and tips on expediting the process. Dave asked whether this requirement applied to final reports. Julie indicated yes, and the PDO has been handling that behind the scenes before those are posted. Pete asked for an example. Julie presented highlights from the presentation used in the webinars.
16. Review reports due list – The list was updated.
17. Reminder – Next in-person meeting July 8-9 in Grand Junction (at BOR), or option to meet through webinar. The BC will still plan to meet in person and will default to webinar if needed. A final decision will be made by June 18th. The BC will continue to meet to revisit COVID discussions starting on June 11th.

Consent agenda – The BC supported approval of March 2020 Biology Committee summary.

ADJOURNED: 1:17 p.m.

DRAFT Biology Committee Covid-19 Webinar Summary

May 21, 2020 9:00 am – 10:30 am MDT

BC Members: Dave Speas (chair), Harry Crockett, Derek Fryer, Pete Cavalli, Melissa Trammell

Interested Parties: Julie Stahli, Tildon Jones, Kevin McAbee, Tom Chart, Katie Creighton, Melanie Fischer, Kevin Bestgen

CONVENED: 9:02 a.m.

FWS-GJ: Eight people are conducting Colorado pikeminnow estimates with 2 additional people running shuttles and fish ladders (which were opened on May 19). Sampling is occurring from Grand Valley Water User's Dam downstream to Westwater Wash. On the first day of sampling (Tuesday, 5/19/2020), one crew (2 boats) caught 42 razorback sucker, 3 pikeminnow and 6 bonytail in the short section of river between Fruita State Park and the Loma boat launch. On Wednesday, crews caught at least 6 Colorado pikeminnow between the two sampling crews.

Reclamation: No new information has come out.

FWS-Vernal: Field work restrictions have been relaxed based on a list of activities, risk assessments, and the inclusion of safety measures. Fish sampling has been approved under those guidelines. Fyke nets will be set in Stirrup and Sheppard to detect overwinter survival of young razorback sucker. Returning seasonals will start on Tuesday, May 26. PIT tag antennas will be deployed at Echo Park next week and potentially Razorback Bar (but the majority of razorbacks may have already moved on from that area). Four new seasonals will begin on June 8th. Chris is currently investigating what is needed to cross state borders to sample in Colorado along the White River. He is anticipating sampling in early June.

Razorback sucker larvae have been detected in high numbers as of May 19. Larvae were caught at Cliff Creek and Stewart Lake outlet, with high numbers at Cliff Creek. The light traps at Cliff Creek on 5/21 had 114 razorback sucker larvae in the light traps, with double digits in each trap. Kevin Bestgen said this is a faster pace than normal, which may be because of high temperatures in the river. Dave said Flaming Gorge will likely not increase flows until Tuesday to avoid the Memorial Day weekend, but a Yampa peak is expected over the weekend (increasing from 9000 cfs to 14,000 cfs) which will provide some entrainment. Mike Partlow is ready to operate gates at Stewart to catch both the unregulated peak and the subsequent Green River peak. BOR has notified the stakeholders about what the schedule may be. Chris is opening gates at Old Charley and Johnson to catch the Yampa peak.

CPW: Harry has not been provided with any new direction and he does not anticipate that guidance will change any time soon. Restrictions on people per vehicle and no overnight trips makes sampling difficult. Chris and Jenn will communicate to make sure they each know what the others are doing.

UDWR-Moab: Katie is still conducting walleye removal (which now includes smallmouth bass) in day trips. Matheson is currently operating. Katie still plans to start with 123a bass removal starting in June. Utah has transitioned from Orange condition to Yellow in all counties except for Salt Lake and Grand County. Katie is continuing to be cautious. The PIs held a call for planning field work collectively so everyone could plan multi-day trips effectively. Walleye collections have picked up at Tusher Wash. Katie has coordinated with Matt Breen who will start collections at Tusher. Katie will move her crews to target smallmouth bass below Westwater. They have found about 90 large bass in Westwater, which is concerning but not surprising. Sampling at Matheson began on May 5th. Larvae were documented immediately and confirmed by Kevin Bestgen. Katie expects a hydrologic peak in the next few days, so they opened gates on Monday. Light traps on Tuesday detected larvae in the pond. They anticipate closing the gates late in the evening on Friday, when flows are predicted to fall.

CSU: Kevin Bestgen said CSU now has a process to get travel and field work approved. His team has submitted four proposals for approval covering both working in the lab on campus and conducting field work. CSU has relaxed one person per vehicle restrictions and now two people may be allowed with precautions. Prep work is continuing and crews will be ready to go as soon as permission is given. Kevin expressed excitement about the developments at Matheson and said that the model that works on the Green seems to also work on the Colorado.

NPS: Melissa said there is a dashboard for all of the parks, but it is not necessarily up to date. Currently, the thinking is that river trips may begin on June 7th.

WY: No news from Wyoming.

ADJOURNED: 9:37 A.M.

DRAFT Biology Committee Covid-19 Webinar Summary

May 14, 2020 9:00 am – 10:30 am MDT

BC Members: Dave Speas (chair), Paul Badame, Harry Crockett, Derek Fryer, Pete Cavalli

Interested Parties: Travis Francis, Julie Stahli, Tildon Jones, Kevin McAbee, Tom Chart, Darek Elverud, Chris Smith, Katie Creighton, Cheyenne Owens, Don Anderson, Kevin Bestgen

CONVENED: 9:00 a.m.

COVID Update – No changes have been seen from NPS on permitting, Melissa urges PIs to contact the parks directly. Reclamation does not have any new guidance either.

CSU – Kevin Bestgen said not much has changed at CSU either. A committee is currently developing recommendations for safe field work and lab openings. Getting people to field sites safely is still a large concern. New ideas are being considered, such as using personal vehicles to

travel. Personal insurance may or may not cover work travel and traveling alone is not as safe when people are tired.

FWS-GJ – Darek Elverud said the Regional Director permitted their office to start Colorado pikeminnow estimates and open the fish ladders. Sampling will start next week, practicing social distancing and wearing masks. Field work guidance is forthcoming on a wider scale in FWS. GJ is allowed to do these tasks because of special permission. All office work will still occur at home. Protocols are in place to disinfect vehicles and equipment; the BC asked to see the justification memo. Mesa County recently expanded testing and restaurants can reopen at 30% capacity. Darek is hopeful that they will be able to get enough passes to make an estimate to serve as the second year in the estimation trend. Tom Chart said with the datapoint in 2019, if no data was collected in 2020, then would have had to restart in 2021. Originally, Dale was hiring 7 people on June 8th, but three of them have chosen other jobs. Three have confirmed that they will show up in June. Questions remain on how seasonals will be on-boarded. Kevin Bestgen asked for a copy of the justification as well. >Tom will share what he can within the next week (*done*).

FWS-Vernal – Chris started light trapping this week. No larval razorbacks have been caught yet. Beyond that, the office is in a holding pattern. An all employee call is scheduled for later today where new information will hopefully be provided. Emily Spenser at Dinosaur will allow research permittees to conduct day field work. The Razorback Bar spawning season has likely passed by, but he is hopeful for Echo Park monitoring. Seasonals are still planned to onboard in June. Gates will likely open at Johnson Bottom and Old Charley around Memorial Day. Chris said 6-7 antennas are usually set around Razorback Bar, but they do not do any electrofishing around that area. Chris said a Phase 1 (confirmed COVID cases, 14 day decline in cases, 14 day decline in flu like symptoms, hospital capacity exists) designation would allow for field work without special permission. In Uintah County, another confirmed case appeared, but only 8 cases have been confirmed since April. Chris will send the guidance to the committee. Travis said it is also possible to move backwards through the phases.

CPW – Harry said no new guidance has been provided from Colorado’s perspective. The no overnight travel and one person per vehicle regulations impair their ability to do field work. Some creative ideas have been implemented to get a few things done, but most actions are not possible. Bringing on seasonals has been really difficult and most biologists will be short staffed for a while. Masks have been found and distributed. The hatchery is still operating normally with social distancing. Tagging is a problem, so stocking has been delayed.

UDWR-Moab – Katie said walleye removal is continuing as well as sampling at Matheson. Larval razorbacks have been found. Over the next week or so, flows are anticipated to increase from 7-8,000 cfs to 15,000 cfs so they will crack the gates to fill the wetland. Seasonals are still anticipated to arrive in June. Moab is anticipating an increase in cases as visitors from other states are flooding into the area to recreate. Katie was planning to light-trap in Lake Powell in conjunction with the 160 project on the Colorado River arm, but that was not possible. She is still planning to light trap in the Colorado River arm for 2 nights, in addition to one night at Green River State Park.

UDWR Salt Lake Office – Still continuing under previous guidance. Office staff are working from home for the foreseeable future. Force Acct broke ground on Red Fleet this week, which is exciting.

Wyoming – Restaurants can reopen, Pete is anticipating more actions to be permitted for WYGF in coming weeks.

Derek Fryer said WAPA funded Argonne National Lab to assess smallmouth bass spike flows using LIDAR. Nine sites were inundated at power plant capacity (ca. 4,600 cfs) in those models. More data was needed to assess suitable velocities under those conditions. Derek asked if there was anyone who might be sampling in those areas who could collect some of those data during power plant capacity. Derek said the final report is forthcoming, but he does have a draft report. He can share information from the presentation at the Researcher's Meeting on that topic. Kevin Bestgen said all of those sites are in the Monument and most of them would require an overnight trip. Some close to Island Park may be accessible in a day trip. CSU did complete a lot of that work last summer and although extended powerplant flows were requested to support that work, they were not granted. Crews launched from Lodore in June to assess bass habitat at power plant flows. Because of travel times, it is difficult to determine the exact flow at which they sampled, but they anticipate that they were close to power plant flows. Kevin said good flushing and connections are anticipated based on that data – combining power plant capacity and moderate flows from the Yampa. Tom Chart said as soon they dropped below power plant capacity during that trip, they also started fluctuating flows for hydropower, which made that study very complicated. Derek was thankful for the information and will reach out to Kevin for more information. >Tom will also share the draft proposal sent to the MC last year. >Derek will send out a copy of the presentation from the Researcher's Meeting.

Next meeting, next Thursday, May 21st at 9 am.

ADJOURNED: 9:56

DRAFT Biology Committee Covid-19 Webinar Summary

May 7, 2020 9:00 am – 10:30 am MDT

BC Members: Dave Speas (chair), Dale Ryden, Paul Badame, Harry Crockett, Derek Fryer, Pete Cavalli, Melissa Trammell

Interested Parties: Travis Francis, Julie Stahli, Tildon Jones, Kevin McAbee, Tom Chart, Matt Breen, Darek Elverud, Chris Smith, Katie Creighton, Cheyenne Owens, Don Anderson, Melanie Fischer

CONVENE: 9:00 a.m.

UDWR Moab – Walleye removal is still occurring at Tusher diversion, with continued catch rates of 3 per hour. Flow rates are currently ~10,000 cfs and rising. Sampling yesterday produced a few large grass carp and a large smallmouth bass. Katie Creighton's crews caught 35

smallmouth bass after uprinning into Westwater yesterday, which is cause for concern. She asked whether USFWS could assist with efforts to remove smallmouth bass from Westwater Canyon (see below). Light trapping has been occurring in the Matheson wetland, with captures of sucker larvae yesterday, but they are waiting for razorbacks specifically. Katie is continuing to develop guidance for beginning full field work in June. She will delay multi-day trips for 14 days after the seasonals are brought on. The crews have not seen many pikeminnow during sampling yet, but Katie thinks catch rates of pikeminnow may increase now that flows are rising. Tildon Jones asked if passage was likely through the diversion, Katie will look on future sampling trips. Tom Chart asked for details around the bass concentrations in Westwater. Katie will be ready to present that information on May 27th.

UDWR-Vernal – Matt Breen reported that a new directive allows a maximum of 2 people per vehicle (car or boat), both wearing facemasks. They are washing hands frequently and have increased communication around actions both inside and outside of work. Northern pike work has begun, both netting and electroshocking. Timing seems really good this year, with high catch rates. Staff have uprun past razorback bar to target walleye. Razorbacks are not quite in spawning condition yet. The gates are closed at Stewart, ready for LTSP flows. Four submersible antennas have been deployed at Escalante Ranch, Brush Creek, and Ashley Creek but crews were avoiding Dinosaur National Monument (DNM). Four new crew members were added in the last week. They will continue to target walleye with launches from Split Mountain as possible. Two trips are planned for the White River in a few weeks, which will not occur until out-of-state seasonals are in place. They will pay out-of-state seasonals to quarantine in Utah for two weeks before working with others in the office. Melissa Trammell praised Matt and Katie for all they have been able to accomplish during these times. Melissa said she encouraged conversations with the Monument to gain access if they need it. Matt said they have found good spots to target razorbacks outside of DNM.

Tildon said LTSP calls started yesterday. Larval razorback emergence is predicted for late next week at the earliest but more likely later in the month. The Stewart Lake gate seal repair is on Reclamation's list of things to do, potentially this winter. Peter Crookston or Dave Speas will be providing details as they become available. Dave anticipated a capital cost of \$10K, which will need approval.

Paul Badame said one person per day is permitted in the Salt Lake office. Paul has had some conversations about stocking Pelican Lake. Raising tiger muskie has not been possible in Utah, so they were looking to import fish from Oklahoma. They are trying to address a growing carp problem, which entered the lake from unscreened tributaries. Pelican Lake is double screened to prevent escapement. Approval for stocking tiger muskie was provided by the PDO, Utah, and Colorado. The fish were obtained and distributed to the appropriate lakes and reservoirs. Paul is working on O&M contracts for Red Fleet as construction is scheduled for June.

FWS-Vernal – Light trapping has begun at Cliff Creek and the Stewart Lake outlet. Chris Smith is planning to continue light trapping through all of next week. They have transitioned to LED lights. Chris's team is working to prepare Johnson and Old Charley to receive LTSP peak flows. They have seen some leaking around gates, but after investigation, they don't think they are big

enough to allow access by larval fish. The lower breach point at Johnson is getting close, but it has not overtopped. Seasonals are on track to arrive on June 8th. Chris is still seeking permission to begin field work. Setting PIT tag antennas is the next priority. Chris is talking with Emily Spencer at DNM. Chris is also seeking to set fyke nets in Stirrup and Sheppard to see if they can catch any overwintered razorback sucker. Dave suggested getting Ryan Proctor's opinion on the leaking at Johnson and Old Charley. Chris will document the leaking now, during high flows. Dave will get in contact with Ryan (*done*).

FWS-GJ – Dale Ryden said FWS is still restricted from all field work without a waiver. Dale has acquired hand sanitizer, wipes, and masks on order to support field work. Mesa County has a low number of cases and has had 15-days of declining numbers, which may meet the first criteria for resuming travel and other activities. Dale has submitted a waiver request for Colorado pikeminnow estimates and to open all of the fish passages. That is under review today by the Regional Directorate Team. Dale's crew is ready to go as soon as they get permission to do so. Crossing state lines is also causing concerns at the regional level, which could complicate assisting with smallmouth bass removal in Westwater Canyon. Dale has a staff meeting this afternoon to discuss the information likely to be provided by the Region today. Swim up fry for razorbacks look good and they will be going out into grow-out ponds soon. Bonytail fry should arrive soon from Dexter. Travis Francis has been monitoring Price-Stubbs fish passage PIT antenna and reported that 695 individual fish have moved up the ladder since last fall, mostly three species. Almost 200 came from the canal salvage last fall. In the last week, four bonytail and five razorbacks used the passage.

CPW – Harry Crockett said CPW is in cautious phased re-operation. Direction to field staff remains the same as it has been since the shutdown occurred. The window of opportunity to remove nonnatives from Kenney is likely closed at this point. The Mamm Creek pits have lots of prey species in them, indicating they are likely still free of pike. The \$20 bounty on pike will occur this year within the Rio Blanco Water Conservation District area, including in Kenney Reservoir. The District is processing the fish and distributing the vouchers. CWCB is funding that effort. Anglers turned in a total of 19 pike over the last year. Pike and nonnative suckers are being removed by local contractors at Green Mountain Reservoirs, the suckers are provided to Cabela's for bait and each pike collected earns the contractors \$5. The contractors are required to follow all social distancing guidance provided by CPW, and unlike CPW travel during COVID-19 is not as big of an issue for the contractors as they live nearby. As of yesterday, they have removed 45 northern pike and hundreds of pounds of suckers. The BC expressed interest in expanding these efforts if they are effective at Green Mountain.

Next meeting, May 14th, 9-10:30 am.

ADJOURNED: 10:14 am

DRAFT Biology Committee Covid-19 Webinar Summary

April 30, 2020 9:00 am – 10:30 am MDT

BC Members: Dave Speas (chair), Dale Ryden, Harry Crockett, Derek Fryer, Pete Cavalli, Melissa Trammell

Interested Parties: Travis Francis, Julie Stahli, Tildon Jones, Kevin McAbee, Tom Chart, Darek Elverud, Chris Smith, Katie Creighton, Cheyenne Owens, Don Anderson, John Hawkins, Melanie Fischer

CONVENED: 9:00 a.m.

CSU – Still no clear COVID-19 guidance from the University, but Kevin Bestgen anticipates some field season this summer.

Few specifics have been provided since last week.

Melissa Trammell asked if anyone has applied for a research exception other than CSU. Katie Creighton said she has not yet applied as they are still deciding whether to enter Canyonlands in early June and then wouldn't go into the park until July. Emily Spencer from NPS said restrictions may open up by early June. Dale Ryden hasn't applied yet as they are still planning; talked to Emily last Friday and said essential research has been permitted. Emily gave permission to install PIT antennas in DNM, but river trips are still up in the air as they are concerned about researchers potentially needing rescue. Chris Smith has been communicating with the park about the antennas on Razorback Bar as well, but he can access that location without being in the park. FWS has not provided clearance to install those antennas yet. Matt Breen is in contact with DNM as well. Melissa would appreciate being cc'd on any emails with the parks so she can stay in the loop.

Dale said at this point, lack of PPE is what is driving conversations with FWS leadership regarding approval for field work. PPE is the responsibility of each individual field station but must be in place before sampling can occur. A number of boat launches are still closed. Dale is going to re-apply for an exception to open the fish ladders, but that was denied the first time. Dale said completing Colorado pikeminnow estimates this year is becoming increasingly unlikely.

Katie will reach out to the other Project Leaders to coordinate on reopening strategies.

At the MC meeting, Jojo asked for a specific list of which projects have been delayed or postponed because of COVID19. Dave said we likely will not be able to know about a comprehensive list until later in the year, but asked Project Leaders to keep tabs on the work being done or not.

Wyoming Game and Fish is not selling 1 or 5 day fishing licenses to non-residents. The Governor of Wyoming is reducing some restrictions, including allowing barber shops and hair salons to open. Restaurants and schools will be closed through the middle of May. All non-residents are still supposed to self-isolate for 14 days if travelling to Wyoming. WYGF can still conduct field work as long as everyone drives in their own trucks, seasonals will not be brought on until May 18th. No overnight trips are permitted without permission.

Dave will distribute the "Safer at Home" plan released by Gov Polis in Colorado (*done*).

We will continue to meet weekly as things change, next meeting May 7 at 9 am.

DRAFT Biology Committee Covid-19 Webinar Summary

April 23, 2020 9:00 am – 10:30 am MDT

BC Members: Dave Speas (chair), Dale Ryden, Paul Badame, Harry Crockett, Derek Fryer, Pete Cavalli, Melissa Trammell

Interested Parties: Travis Francis, Julie Stahli, Tildon Jones, Kevin McAbee, Tom Chart, Kevin Bestgen, Matt Breen, Darek Elverud, Chris Smith, Katie Creighton, Cheyenne Owens, John Hawkins, Jojo La

CONVENED: 9:00 a.m.

COVID-19 Update - Dave Speas said Governor Polis in Colorado is planning on easing the stay at home restrictions as of April 27th. Reclamation is supposed to issue updated guidance by the end of this week.

CSU – Guidance remains murky; universities are to remain closed with online classes and there is not current guidance around how research fits into the new restrictions. Kevin Bestgen will not be able to even apply for permission to continue work until next week. He believes permission to travel is unlikely.

Colorado – Harry Crockett said CPW is in a position similar to CSU. The Safer at Home phase is encouraging and may provide some additional flexibility in those regulations, but that guidance has not yet been provided. Overnight travel is still unlikely. CPW leadership will likely develop guidance based on the new guidance from the Governor, but has currently said that everyone who is currently working from home should continue to work from home.

Utah – Expected to begin easing restrictions on May 1. Most personnel should continue to work from home until at least June 1. Paul Badame is expecting guidance for field work in coming days. The Force Account Crew will begin construction on the Red Fleet screen in May. Matt Breen is continuing to conduct small-scale projects, including mainstem walleye removal and nonnative removal from tributaries and fyke netting. Pumping from the Green River into Stewart Lake stopped earlier this week; a decent amount of water is in the wetland which will hopefully stifle cattail growth. UDWR Vernal has set PIT antennas in areas they have access to. Matt will bring on additional staff in early May from the local community if they can work out logistics. Katie is still planning on bringing on new hires until June 8. She is focused on planning for June and how to do that effectively. She is anticipating that multi-day trips may not occur for those staff until they have been on-board for more than 14 days.

FWS – Dale Ryden is hopeful that lifting of some restrictions will allow for local work. Conversations are ongoing regarding what work can occur on Colorado pikeminnow population estimates. The Westwater Ramp is currently still closed, but they could theoretically sample

down to the state line and uprun to the take-out at Loma. Dale has 7 people he can put in the field very quickly but needs additional supplies (like forehead thermometers and masks). In addition, the Regional Director is still very cautious so opening on a large scale seems unlikely. Dale will prioritize the estimates as soon as they are able to go into the field. The hatchery was able to spawn fish, eggs from 15 paired lots are on station. Approximately 50 of the old broodstock were also stocked into the river. Chris Smith said Noreen Walsh allowed larval light trapping as operation of the wetlands is mission critical. Both tasks will occur while following social distancing guidelines. Larval light trapping will begin on Monday, May 4th. Chris has returning seasonals who are working on repairing equipment for the field season. He can organize some river trips with the staff he has on hand once guidance is relaxed and also had multiple projects in the pipeline that can occur locally. Chris said according to the county website, the Ute Tribe still has zero confirmed cases. Kevin Bestgen applied for permits in Dinosaur for river trips after things open up. Emily Spencer (at DNM) is accepting applications for field work if project details are provided, including how they plan to follow CDC guidance. Kevin Bestgen encouraged noting the continuous nature of datasets on park aquatic resources that would be harmed without clearance for sampling. Melissa confirmed that the parks are considering exceptions and noted the importance of addressing how the research will fall into CDC guidance.

WY – Cases are ramping up in Wyoming, but are still at very low levels. Guidance has not changed.

Dave noted that Colorado is recommending that everyone go out in public with facemasks. Paul said guidance on masks in Utah is unclear, but likely similar to Colorado.

The BC will meet again next Thursday, April 30th from 9-10:30, Dave will cancel the meeting early next week if guidance is not forthcoming. Dave appreciated all the parties' efforts in communicating about this so clearly.

DRAFT Biology Committee Covid-19 Webinar Summary

April 9, 2020 9:00 am – 10:30 am MDT

BC Members: Dave Speas (chair), Dale Ryden, Paul Badame, Harry Crockett, Derek Fryer, Pete Cavalli, Melissa Trammell

Interested Parties: Travis Francis, Julie Stahli, Tildon Jones, Kevin McAbee, Tom Chart, Darek Elverud, Katie Creighton, Cheyenne Owens, Don Anderson, Jojo La, Tory Eyre, Matt Fry

CONVENED: 9:00 a.m.

COVID-19 Update - Dave thanked Harry for submitting his letter outlining CPW activities. Dave Speas did not go work on the San Rafael antennas, but stocking is still planned in that area by Wahweap.

CPW: Harry Crockett said Colorado's stay at home order has been extended from April 11 to April 26th, which is reflected in the memo that Harry provided. Field work may be able to commence on Monday, April 27th, but most seasonals have not been hired, so additional delays are likely. Harry said they will move as quickly as possible to make things work. Mumma will stock 500 fish in Salt Creek as soon as they can (it was scheduled for early April). Jenn has put antennas in that system for a few years and has detected bonytail that were originally stocked in the Colorado River.

CWCB: Jojo La said reservoir releases are not currently being impacted by the COVID-19 problems. There are some flexibilities in flow management as reservoir levels are higher than they have been in other years. This may be a tool available to disadvantage nonnative species if the opportunity presents itself. Dave encouraged the Committee to consider what options might be promising.

UDWR: Paul Badame said stocking from Wahweap occurred this week, including Lake Powell, Price and San Rafael rivers which completes all their stocking for this year. Wahweap stocked higher up in the reservoir this year. Lake Powell boat ramps have been closed to the public. Wahweap stocked below Woodside on the Price on April 6, stocked just below North Wash at Lake Powell on April 7th. A total of 3,500 bonytail were stocked in the San Rafael on April 8, half below Cottonwood Wash and half off the 24 Bridge. Zane confirmed that USU was able to deploy antennas in that system. Public lands in Kane County are now also closed to non-residents of the county. Stewart Lake is being filled from river pumping. That will continue for the next few weeks. Pike netting is continuing as well as antenna deployments for project 172. Nothing has changed from a seasonal hiring perspective. Katie has begun working on how specific projects may be affected as the summer rolls on and is willing to share her process if anyone is interested. She has predicted current status and future status by task based on various scenarios. The only work they are completing is walleye removal at the Tusher Diversions. Five days of removal have occurred (approximately 15 hours) and they have encountered 44 walleye. As flows increase, they anticipate numbers to increase. They have also encountered a few smallmouth bass and a few northern pike. Light trapping will begin in Matheson in coming weeks.

CSU: CSU is operating under the continued restrictions through April 26th.

Colorado's restrictions describe travel for essential functions, which excluded most of our work, but allowed continued actions for animal husbandry. Very little else is excluded.

FWS-GJ: Dale Ryden said this week should have been the first pass of Colorado pikeminnow estimates. Lake Powell work is not scheduled until early May. Fish ladders may still open during the 3rd week of April. FWS is very restrictive for field work. FWS-GJ has submitted proposals for actions (thermographs and maintenance) that could occur with only one human. Most of those have been denied out of an abundance of caution. The hatchery is stocking into growout ponds this week. Spawning will likely occur in the third week of April.

FWS-Vernal: Matt Fry at Ouray has about ½ of his bonytail tagged. Razorbacks are moving out to production ponds next week; the hatchery is on track for all stocking efforts. Melissa

Trammell asked if any were likely to go into Dinosaur. Matt said bonytail will go into flooded tributary mouths (Willow Cr, Cliff Cr, and Walker Hollow) and the White River at Enron both in May.

Stewart Lake working group met and Dave praised the effort to smother the crushed cattails. For the last three weeks or so, pumping has occurred out of the river. About 6-8 inches are currently covering the wetlands. Discussions are still needed on who can do light trapping for the trigger, which may depend heavily on UDWR staff. FWS conversations are ongoing about allowing light-trapping to take place during COVID19. Flows are anticipated to peak around 18,600 and stay above 14,000 for a week or more. Stewart and Cliff Creek are the sentinel sites that are used to trigger peak flows, if FWS cannot sample, UDWR samples can be used. Tildon encouraged Mike and Matt to move their Stewart Lake light traps towards the river a bit. Light-trapping often does not begin until May 4th, so we have some time to get FWS approval if needed. Uintah County is starting to detect increased incidence of COVID-19 cases and additional social distancing restrictions may be forthcoming. Pete asked UDWR to take GPS coordinates of what got flooded if possible to determine whether the pumping made a difference. Paul said pumping is ongoing. Mike has been walking the wetted perimeter, and estimated that 100 acres have been inundated so far.

Kenney Reservoir: Dave asked what options are available at Kenney Reservoir. Tildon expressed concern about dumping pike out of the reservoir with peak flows. Don said a flow spike occurred in 2018 out of Kenney which was designed to eliminate some algae that was building up on structures downstream. Don could touch base with Alden to see if there are options there to time flows to either disadvantage bass or ensure pike are not spilled out. Kevin Bestgen said the effects of the 2018 flows are documented in Project 140, he was skeptical that spring releases could help bass, but flow-spikes could be very valuable later in the year after bass start spawning.

Jojo said she can explore ways to adjust timing of peak flows in certain reservoirs. Dave encouraged continued conversation on this topic.

The next meeting will be held on Thursday, April 23rd from 9-10:30.

Tom said we have an Implementation Committee webinar on April 15th. Dave will plan to be on to provide an update to that group. Tom thanked Dave for his willingness to provide that update.

ADJOURNED: 10:00 a.m.

DRAFT Biology Committee Webinar Summary

April 2, 2020 1:00 pm – 3:00 pm MDT

BC Members: Dave Speas (chair), Dale Ryden, Paul Badame, Harry Crockett, Derek Fryer, Pete Cavalli

Interested Parties: Travis Francis, Julie Stahli, Tildon Jones, Kevin McAbee, Kevin Bestgen, Matt Breen, Darek Elverud, Chris Smith, Katie Creighton, Cheyenne Owens, Don Anderson, John Hawkins, Jojo La

CONVENED: 1:00 p.m.

COVID-19 – Wahweap stocking is likely to go forth next week in Lake Powell, the Price River and the San Rafael. Dave praised the effort to continue stocking efforts while implementing all social distancing efforts. USU is working to try to get antennas out in the river to document movement of those fish.

Paul asked if there was any consistent information about whether or not the Force Acct Crew would continue on their current schedule. Dave was not sure, especially in relation to construction at Red Fleet.

UDWR – Salt Lake is still working from stay at home. The State of Utah is working on building a 1,000 person team to try to track the virus after people have been confirmed. Paul has been identified as one of those people and it may dramatically affect his schedule. He will designate an alternate to serve as a Utah vote if needed in future meetings. Utah is restricting movement between counties, Moab and Park City are not welcoming visitors and encouraging people not to travel.

Katie Creighton is working on a google doc listing all projects and deliverables. Her team will document all impacts because of the halt of field work until June 1st and then will document anticipated impacts of what will likely happen if field work is additionally delayed beyond June 1st. Most of the spring field work is SJ based. Matheson and walleye removal will continue as possible. The office is working through pending reports as possible (see Attachment C for more details on impacts to field work)

>As demonstrated by UDWR, Dave asked that all offices list project and deliverables likely to be impacted as he will likely need to report on that.

Matt Breen has sent a similar breakdown to Paul Badame. They are continuing to work at Stewart Lake, including pumping to cover the cattails. The canal company is about a week behind schedule and will likely be able to supply water in another week or so. Matt has been completing some nonnative fish removal where possible, including fyke netting and electrofishing for northern pike (see Attachment D for more details)

WY: Pete Cavalli said Game and Fish offices are still open and staffed with at least three people, although people who can work from home should do so. No seasonals will be hired until

May 18th in fisheries. The governor is avoiding a restrictive order if possible, but restaurants are closed. Pete's supervisor has hired two seasonals that could start after that May 18th date or possibly sometime in June depending on the situation at that time.

GJ-FWCO: Dale Ryden said all FWCOs have been told not to do field work until at least the 3rd or 4th week of May (formal guidance is currently through the end of April). All field work must now be sent up to the Regional Director for approval. Dale's seasonals have hire dates of June 8th, which could be extended if needed. Dale's staff are working on reports due to the program, database cleanup etc. The Redlands Fish ladder has had some work done to remove sediment by the canal company for when the fish ladder could run. Grand Valley Water Users have agreed to sluice the bay closest to the fish ladder to clear out sediment. Dale has worked with Middle Colorado Watershed Council on side channel work to prevent nonnative fish coming in from ponds. Dale thinks Colorado pikeminnow estimates are untenable at this point (but will try to do the best they can when we open up), but will push for larval sampling and opening the fish ladders in May. Dale is also working on temperature data (both putting out thermographs and analyzing data). The hatchery has been working normally. Fish will move from the tanks to the ponds next week. Spawning is currently on schedule, close to the end of April unless they are told they cannot spawn. They will use protective gear during that event to make it as safe as possible. Travis said antennas were put out before the closure occurred. (See attachment E for more details on impacts to FWS projects.)

Vernal-FWCO: Chris Smith said all new seasonals are now on track to onboard on June 8th. One earlier individual will potentially start earlier at Jones Hole, which has been determined to be essential. He will return back to Chris's office once field work is permitted. Two returning seasonals will be teleworking, primarily working on data and training. Chris submitted a justification letter to allow for light trapping for larval razorback sucker and operate the gates at Old Charley and Johnson Bottom. Thanks to Kevin McAbee for his help in reviewing that letter. Chris expects to get back in the field in early June, which will eliminate most of the work done on the Yampa to remove pike, which all happens early in the year. Uinta County will close the schools tomorrow, so Chris is working to figure out what to do with the razorbacks from the classroom projects. Travis said that Kathleen Tadvick (CPW) PIT tagged and stocked out most of the fish in the Grand Valley.

CPW: Harry Crockett said the statewide stay at home order currently only goes through April 11th, but may be extended by order of the governor. Employees should be teleworking and to avoid all non-essential travel. Mamm Creek pits were netted with no pike. A few CPW offices were closed due to quarantine, but most others have a few people in them to answer phones and respond to the public. The plan is to try to get up and running by the beginning of May, though that may have to change. Mumma is still raising bonytail. Jenn Logan has deployed some antennas in Salt Creek to target three-species, but they have detected bonytail in the past. CPW will continue to maintain nets and monitor to ensure no escapement at the end of the seasons. The tournaments are still planned for June and July at Ridgway, Elkhead, and Kenney. Harry is working on a memo, and it is currently in CPW internal review (received; see Attachment A).

CSU: Kevin Bestgen said not much has changed since last week. CSU can hire people but cannot do field work. They are hiring people with flexible hiring dates based on when the state opens again. The first work in the series is the Yampa River nonnative fish control work,

followed by Browns Park. The Larval Fish Lab is focused on data compilation and report writing, Kevin is trying to gain access to summer-ize boats and mend nets. Kevin noted that the public doesn't see a difference between states, federal or university agencies when it comes to public perception about the Recovery Program continuing work during the pandemic. (See Attachment B for more details on impacts to field work).

Paul asked if LTSP would continue this year. Dave assumes it will continue, ideally if larval fish collection work is permitted by FWS. Matt Breen is planning on conducting his light trapping which may be the data we have to proceed. Kevin Bestgen said CSU always runs a predictive model based on when first emergence might happen to drive when light-trapping should occur. Kevin said he can work with both Matt and Chris to figure out ways to conduct the analysis of those samples while allowing for social distancing.

Paul said many people are traveling to Lake Powell to recreate at this time. The State of Utah is considering the ramifications of not decontaminating boats including potentially quarantining all boats for 30 days after going onto Lake Powell. The group was interested in what would likely happen to Lake Powell from the NPS perspective. Melissa said the public website is the best source of information. The park is open and decontamination stations are open, but the stations are not staffed, so individuals have to decontaminate their own boats. Grand Canyon National Park is closed as of today.

This group will continue to meet from 9:00-10:30.

Note: Memoranda from field offices regarding impacts to field work from COVID19 can be found in attachments A-E.

ADJOURNED: 2:04 p.m.

DRAFT Biology Committee Webinar Summary

March 26, 2020 9:00 am - 11 am MDT

BC Members: Dave Speas (chair), Dale Ryden, Melissa Trammell, Paul Badame, Harry Crockett, Derek Fryer, Pete Cavalli

Interested Parties: Travis Francis, Tom Chart, Julie Stahli, Tildon Jones, Kevin McAbee, Kevin Bestgen, Matt Breen, Jenn Logan, Darek Elverud, Chris Smith, Katie Creighton, Melanie Fischer, Lori Martin, Melissa Mata, Tory Eyre, Cameron Walford, Cheyenne Owens, Don Anderson, John Hawkins

CONVENED: 9:00 a.m.

COVID-19 and potential impacts to 2020 field sampling – the State of Colorado is officially on a stay at home order. OMB has provided guidelines to all the Federal Agencies, which prioritize telework for all non-essential work. Dave Speas said little guidance has been provided around Recovery Program agreements, but that work can continue based on the recipients opinions on what is prudent and safe work to conduct at this time.

Paul Badame said Katie Creighton (Moab field office) put together a memo last week, which explained the situation very well. Even though the agencies do have the capacity to do work, it is very difficult to plan any work effectively. Both Moab and Vernal UDWR are planning work stoppages for the most part, with only a few minor exceptions. During walleye spawning, UDWR was trying to separate employees as much as possible. One employee tested positive after the trip and now many employees are in quarantine and unavailable for field work. The current focus for both Vernal and Moab is to operate the wetland facilities, including Stewart Lake and Matheson wetland. Both can occur without large groups of people. The first shelter at home order was given for Park City. Paul expects more restrictions to begin in the not too distant future. Katie said Moab would continue to do walleye work on the Green River, sending two people and one boat out a few times a week until a shelter in place order is in effect. They caught 12 the first day and 10 the second trip, which is very alarming and why she is continuing to prioritize this effort. Matt Breen said they have made a few decisions that will affect the rest of the season. Matt is not bringing on seasonals at this time and said he has conveyed that they may bring them on in summer. He is not sure who will be available when hiring is feasible as many are looking for other positions. Katie already had some local or returning seasonals on the books. She has bumped the new seasonals who were supposed to start in April to a June start date if they are still available. Zane is scheduled to stock bonytail the week of April 6. He has assembled sufficient individuals in the region to harvest fish to complete those stocking events. Paul will provide updates as available. Dave thanked UDWR for their clear and concise documentation of their plan to this point and asked other organizations to distribute similar information if possible.

Harry Crockett said CPW employees are encouraged to work from home to a maximum extent until April 11. They will not be bringing on any additional seasonals during that time. Field work could theoretically begin on April 13, starting with limited biologist time. CPW would not be able to staff up until at least the end of April. Harry is unsure what will happen after that point. Harry and Lori have considered a lot of options, but they remain concerned about the effectiveness of those efforts and how they appear to the public. The Mamm Creek pit netting, backwater netting and Kenney Reservoir pike removal have all been cancelled.. Yampa electrofishing is the next thing on the project plan. CPW is anticipating being able to run the tournaments this summer. In Mamm Creek, Jenn did not catch any northern pike, but did catch bass. Dave said having all that in an email would be sufficient documentation. There are currently two orders in place restricting CPW, the internal guidance encouraging working from home and the statewide shelter in place order. Harry said Mumma is using fewer people per shift and maintaining social distancing. The hatchery is running effectively. Harry said there are a few people COVID positive in the Ft Collins CPW office.

Dale Ryden said he has five returning seasonals currently on staff. Two more will come on in April and June. The seasonals were working on a variety of projects, but that has been restricted as only hatchery work is noted as essential. Dale will consider moving hiring dates into June if possible. Right now, Dale is planning on things that may take place in mid to late April. They will stock from the hatchery tanks to the grow out ponds if possible as well as spawning razorback sucker. Fisheries would prefer those things do not happen, but Dale is working diligently to make sure he can do that safely. Another option would be to grade the fish, stocking larger fish this year and smaller fish next year. They would not likely make targets for both the San Juan and the Upper Colorado program in coming years. Brian noted that without spawning

this year, the problem year would likely be 2024. Typically three year classes of fish are spawned together, so brood recruitment would be impacted without a year class this year. Four-five year classes of brood are held on station at one time, one that is typically too immature to be used at that time. Dale said they are still considering ways to conduct spawning while maintaining social distancing protocols. They will make a decision by the end of next week.

Mark McKinstry and Ben Schleicher were planning on pulling some of those smaller fish and stocking them in Lake Powell to assess recruitment. Colorado pikeminnow pop estimates were supposed to start next week, chances are sampling would be limited to 3 passes in the upper river if work can begin in late April. If work stoppages continue, it could be a problem in completing at all. Passages are prioritized to continue as it can happen with day trips and single individuals if they can add that work after the stay at home order is lifted. All travel is currently restricted. Navajo Nation has currently closed their borders. Dale says he is considering all scenarios between starting in mid-April and June. Dale remains the most concerned about pikeminnow estimates as the window for sampling will begin to close after the second week in April. Paul suggested further discussion around the Colorado River pikeminnow estimates as a group.

Chris Smith said the FWCO cancelled age-1 pikeminnow collection trips as transferring those fish to Dexter seemed unlikely. Currently, Chris has no seasonals online at this time. Some guidance has been provided from Fisheries leadership. Chris has two seasonals returning from previous years, along with himself and Dave Beers on staff. Chris will bring those two seasonals online in the next few weeks. Bringing on additional seasonals is unlikely based on bottlenecks in the hiring systems, but will consider bringing additional staff on in June. Chris was considering independent work, like razorback sucker light-trapping, to be essential, but Fisheries disagreed. Justification would need to be submitted to Greg Gerlich or Steve Small for Regional Director approval for that work to occur. Chris noted this work could be completed with only one person. All other work has been delayed as non-essential even if possible because of optics and DOI restrictions. Dale said Reg 6 leadership is concerned about the optics of being safe and is concerned about permitting work to continue under shelter in place orders. Tildon said it is also essential that program staff do not burden emergency services at this time. Tom asked when larval light trapping would begin. Chris confirmed that it would occur in early May and there will be many decision points between now and then. He encouraged the program to begin paperwork to allow for those efforts now. As far as Dale knows, the Randlett hatchery will remain online and has sufficient fish to handle two years of stocking requirements even without spawning because they have more space to rear this year's larvae. Tildon noted that the response of rural communities to COVID 19 may be delayed, and should anticipate impacts after urban areas.

Kevin Bestgen said Larimer County and the State have issued stay at home orders. In addition, Dinosaur Natl Monument is closed, all of which are affecting their ability to do work. Brown's Park said research permits are currently available, but the campgrounds and offices are currently closed. Kevin has not brought technicians on yet and is not restricted from hiring. He is encouraging the people they are considering to look for other work to do so, but may hire them later in the summer. All Program projects are on hold, including a USGS study on larval razorback sucker dynamics. They will plan to conduct that work in 2021. CSU is continuing to prepare for work, but severe restrictions are in place to limit on-campus actions. Kevin is prioritizing data and writing assignments.

Melissa Trammell directed the BC's attention to the memo she sent out a few days ago. Most parks are closed to river trips, and closed with no advance warning to staff. She is unsure about shore-based research, but she recommended continued caution. She recommended checking individual park pages as they currently all have different projected opening dates. Melissa will continue to send information as she can.

Colorado River – Pikeminnow Population Estimates – Paul concurred with Dale that skipping a year would be better than trying to do it in a short time window. Darek said three pass sampling in the lower river has been done before in low water years, and could occur this year if everything opens. Five passes would still need to occur in the upper reaches because few captures occur. The FWCO would have to start the first full week of May to get everything done (and would mean no other work could occur from the FWCO). Starting the first week of May would mean finishing at the end of June. In past years, some data has been provided from nonnative fish passes, but it is not ideal. Katie said Canyonlands is not allowing anyone in through April and this work would require Canyonlands opening back up. Tildon suggested completing sampling only in the upper reach. Darek said that would be possible with guidance from the program, but any work would require permission from FWS. Darek said cancelling everything this year isolates last year's dataset and asked if not having three consecutive years made the data less valuable. Dale reiterated that the sampling in subsequent years affects the data in the previous years. Tom said it would be valuable to have discussions with statisticians to determine the best path forward. Darek said we have some time and encouraged the BC to continue to assess in coming weeks.

Dave asked if the BC wanted to meet weekly to assess the evolving changes affecting the programs.

The BC suggested 9 am most Thursdays, 1 pm next Thursday for 1 hour and 30 minutes.

Tom said a lot of coordination is forthcoming between BOR and the Program about operations at Flaming Gorge. Tom asked if it were possible to operate the dam without larval trigger data. Tom asked that the Program discuss that on these weekly calls. Dave said the current plan is to operate Stewart Lake and Chris is interested in light-trapping if approval can be obtained from Noreen. Without that data, conversations will need to continue. Tom asked Dave to talk to people in the power office to see what options might be. Dave said larval emergence predictive modeling may be helpful and that more FGTWG meetings to plan for LTSP would be likely. Melissa said the next workgroup meeting is on April 16th, which could conflict with the upcoming BC check-ins.

Jojo provided an update on the DC briefing. They have received a lot of questions from the Congressional members about the effects of COVID on field work. The DC group has been conveying that efforts are being taken to consider each action and ensure safety. Jojo said that because the Programs serve as a reasonable and prudent alternative for ESA compliance and she is noted that communication around what is still continuing is essential to ensure that we are also conveying some of the positive information coming out of the program. Dave said the current plan is for all PIs to document what work is possible to conduct safely and which isn't and won't be conducted. Tom said he plans to provide a briefing to Noreen and leadership from a Sufficient

Progress perspective and will include positive information as well. From FWS perspective, personal safety takes precedent over field work if necessary.

Kevin Bestgen said he is also considering opportunities during this time. He encouraged that the program should be prepared to take advantage of the situation and document what happens when work stops, potentially around nonnative fish management and what happens when we are unable to remove fish.

Potential agenda items for next week: Colorado pikeminnow estimates, spawning at Grand Valley, safety and security/current guidance and restrictions, what we are still doing and could be doing.

Next meeting: Thursday, April 2, 1-3pm.

ADJOURNED: 10:33 a.m.

Attachment A: Memorandum from Colorado Parks and Wildlife on impacts to recovery field work due to COVID19 in 2020



COLORADO

Parks and Wildlife

Department of Natural Resources

317 W. Prospect St.
Fort Collins, CO 80526
P 970.472.4339 | F 970.472.4339

MEMORANDUM

TO: Upper Colorado River Endangered Fish Recovery Program and Partners
FROM: Harry Crockett, Native Aquatic Species Coordinator
SUBJ.: Impacts of COVID-19 on Recovery Program work
DATE: April 6, 2020
CC: Matt Nicholl, Aquatic Section Manager

In response to the COVID-19 pandemic and response measures, CPW has suspended most Recovery Program-related work under our Cooperative Agreement with the Bureau of Reclamation. Given the dynamic nature of this situation, the following information may soon be superseded by additional developments or agency directives. We will provide updates to the Program Office, Biology Committee and other interested parties during the scheduled weekly calls about this situation.

In response to the coronavirus outbreak, the Colorado Department of Natural Resources requires staff to comply with social distancing guidelines, to telework as much as possible, and to avoid non-essential travel. Additionally, the Governor of Colorado has issued a stay-at-home order through April 26. Therefore, all Program-related field work is suspended until at least Monday, April 27, or possibly longer until these orders and requirements can be safely relaxed. We have also postponed hiring most seasonal technicians whose jobs would consist mainly of field work, due to the uncertainty about when we might be able to start them. In practice, field work is therefore unlikely to begin before early May at the earliest, because of the time that will be needed to staff up.

Projects that are currently suspended are portions of 98a and 126b, specifically; 1) backwater netting in the Yampa River to remove non-native fish, 2) non-native fish removal from Kenney Reservoir, and 3) removal of non-native fish from constructed ponds within the Colorado River floodplain. On the latter project, some pond netting was accomplished before these restrictions took effect. Other than that, we are doubtful about our chances of completing any of the rest of this work, as the Yampa work must be done pre-runoff, netting and electrofishing for pike in Kenney Reservoir will likely become inefficient post-spawn, and there will likely be conflicts in timing related to other priority projects previously scheduled.

The Mumma hatchery is operating normally and we expect to stock Bonytail in Dinosaur and the Colorado River in June and August, as scheduled.

Other project work we still expect to complete per scopes of work includes: electrofishing the Yampa, White and Colorado Rivers, post-runoff; fall sampling and northern pike removal in Kenney Reservoir; sampling and non-native removal in Colorado River floodplain ponds when conditions allow; and contracted maintenance of the nets at Elkhead and Highline Reservoirs. Additionally, we expect to proceed with a number of activities that support the Program over and above the projects contracted through scopes of work, including: northern pike removal efforts at Catamount, Green Mountain and Wolford Reservoirs; conducting the harvest incentive fishing tournaments at Ridgway and Elkhead Reservoirs; re-initiating the harvest incentive at Kenney Reservoir; continued efforts to address illicit introductions at Stagecoach Reservoir; and standard monitoring downstream of the Elkhead and Highline Reservoir nets.



Attachment A, continued

We are extremely disappointed to have to discontinue the early-season work, because the work foregone is vital to endangered fish recovery and overall Program success. But the health and safety of CPW employees, their loved ones and the broader community is paramount. Most of our fisheries field work involves situations where crew members might have to violate social distance guidelines at some point in the day, despite their best efforts. Travel to and from field sites would be prohibitively inefficient, as crew members could not share vehicles. Some of the work requires multiple nights of overnight lodging, which is also impracticable in the current circumstances. We seriously assessed stripped-down ways to accomplish some of the work while adhering to the guidelines—for example, a two-person boat crew with one biologist in the bow and the other in the stern. But we decided this posed too great a risk to the crew. We were also concerned about the visibility of state employees continuing to work while other citizens are urged to stay home, and the possibility that even a safe operation might not appear so to members of the public. CPW leadership, Senior Biologists and the Aquatic Biologists who would be directly involved in conducting the work concurred in these decisions.

Please contact me with any questions or concerns.



Harry Crockett
harry.crockett@state.co.us
mobile: 970-556-2999.



Kevin R. Bestgen, Ph.D.
Larval Fish Laboratory
Department of Fish, Wildlife, and Conservation Biology
Fort Collins, Colorado 80523
(970) 491-1848, FAX 491-5091
kbestgen@colostate.edu

Dear Mr. Speas,

1 April 2020

This letter summarizes present and possible future activities for research projects conducted under our Cooperative Agreement between the Bureau of Reclamation and the Larval Fish Laboratory (LFL), Colorado State University (CSU). Modifications to activities are needed in response to circumstances surrounding the COVID-19 pandemic.

First, we suspended all field research activities conducted under our agreement until further notice. This is in accord with Colorado State University, Larimer County, and State of Colorado policies that limit non-essential activities and travel. We are presently allowed on campus only for essential activities that include animal maintenance and lab and equipment security checking.

Although we can apply for exemptions to conduct fieldwork through the University, especially that in more remote locations, we recognize several shortcomings with conducting such activities. First, it is difficult to safely transport a field crew to sites, which would require that each person drive a separate vehicle to maintain recommended social distancing norms. Appropriate housing of a field crew is also difficult. Second, while we would reduce contact, field research would also require extra exposure to purchase fuel and provisions for such a trip. This would occur both near home bases as well as near field sites. Third, the idea that State employees are able to travel about for research may set an inappropriate example for private citizens that are already attempting to minimize contact and maintain distancing in towns that are not our home towns. This may increase potentially hostile feelings toward crews that will hamstring efforts in the future after virus concerns subside. Fieldwork is also difficult or prohibited due to restrictions or closures at Browns Park National Wildlife Refuge and Dinosaur National Monument, and lack of access to fish needed for research from the Ouray hatchery. Thus, these restrictions and moral obligations will limit our fieldwork activities at least through April 2020.

In the meantime, we are focusing on other tasks. Several of us are working on reports or manuscripts that feature data collected in various Recovery Program projects over the past several years. For example, Koreen Zelasko just yesterday submitted a paper to *Transactions of the American Fisheries Society* entitled "Estimation challenges with large-river fish: Razorback Sucker abundance and vital rates in the Green River, Utah", which details issues regarding sampling and parameter estimation in large open systems, and also discusses the need to incorporate additional detection data available from antennas. Others are working on data compilations and quality checking to assist with completion of said reports or manuscripts. Still

Laboratory for the Study and Identification of Fishes in North American Fresh Waters

Research	Education	Service
Early Life Stages/Adults Native Fish Biology/Ecology Aquatic Toxicology/Behavior	Extension/Consultation Study Design/Analysis Shortcourses/Guest Lectures	Identification/Verification Sample Processing/Depository Descriptions/Key/Illustrations

Attachment B, continued

others are repairing equipment and preparing, as allowed, so that we are ready to begin fieldwork when it is safe to do so. We are also beginning discussions regarding field research that may capitalize on the unique “opportunity” these circumstances may create in the future; an example may be how to measure responses of nonnative fishes to a limited or nonexistent removal effort in 2020.

Please contact me if you have questions or concerns as we navigate this situation.

Sincerely,

Kevin R. Bestgen

Attachment C, memorandum from Utah Division of Wildlife (Moab field office) on impacts to recovery field work due to COVID19 in 2020



GARY R. HERBERT
Governor
SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

BRIAN C. STEED
Executive Director

Division of Wildlife Resources

MICHAEL D. FOWLKS
Division Director

Memorandum

March 23, 2020

To: Upper Colorado River Endangered Fish Recovery Program and Partners
San Juan River Basin Recovery Implementation Program and Partners

CC: Utah Division of Wildlife Resources- Southeast Regional Office and Salt Lake Office

Effective immediately, I am suspending fieldwork conducted by the Utah Division of Wildlife Resources Moab Field Station (UDWR-Moab) until June, 2020. Given the severity and uncertainties associated with COVID-19 pandemic I feel this is the most prudent action at this time. I do not make this decision lightly as the fieldwork we conduct is of high importance to the recovery of the endangered fishes of the Upper Colorado River Basin. Nevertheless, the health and safety of UDWR-Moab employees, their loved ones, and the Moab community is my top priority.

My reasons are multifaceted. Primarily, there is such a dearth of information and the situation is changing so rapidly that it is nearly impossible to plan a few days ahead, let alone a few weeks ahead. While I think we can take measures to keep ourselves safe in the field given what we know right now, I am not sure that in the future we will be able to or that the information guiding those decisions will not change. It is crucial that our response to this pandemic remains highly adaptive and I don't feel that is compatible with planning and implementing multi-day river trips.

Secondly, while I feel we can minimize the risk to the crew while we are in the field (arguably a safer place to be than in the front country), the optics to the public may be confusing. In a time when people are scared and are asked to listen to the advice of the scientific community, seeing us leaving our homes to continue our research while they are told to stay home and in many cases cease their work, may complicate that message.

Thirdly, the stress that this small rural community is under is very high and we are already lacking adequate resources. I do not want to add to the potential stress of Grand County Search and Rescue, Grand County Emergency Medical Services, or Moab Regional Hospital should anything happen on one of our trips requiring emergency or medical assistance.

Please let me know if you have any concerns or questions regarding this. I wish you and your loved ones health and safety during these uncertain times.

Katie Creighton
Native Aquatics Project Leader- Moab Field Station
435.259.3780, katherinereighton@utah.gov

Moab Field Station, 1165 S. Hwy 191 Suite #4, Moab, UT 84532
Telephone (435) 259-3780 • facsimile (435) 259-3785 • TTY (801) 538-7458 • www.wildlife.utah.gov



Attachment D, memorandum from UDWR (Vernal field office) on impacts to recovery field work due to COVID19 in 2020

Hi Paul,

As we discussed earlier, Katie's previous memo to Recovery Program partners did an excellent job at expressing our general feelings on the COVID-19 issue as an agency (thanks Katie!) and I don't feel the need to further elaborate. However, for several reasons our situation in the Vernal area differs from Moab, and we have determined that continuing field projects at minimal levels is manageable. After much discussion, our current Native Aquatics crew (permanent employees and seasonal Technician II) have come up with protocols that we are all comfortable following to continue fieldwork, but for our own safety we are not comfortable bringing additional people into that equation at this time. We have taken the following steps regarding oncoming seasonal technicians:

--Out of state hires (3; original start date 4/7/20) have been told that they will not start until the first week of June at the earliest

--Out of state hires have been instructed to get out of apartment lease obligations in case timelines change before June 1; this may translate to no OOS technicians this year

--Local hires (4; original start date 4/7/20), have been told to wait for updates in the coming weeks; we may suggest May 1 (TBD), but this also may lead to loss of commitments

The current number of available employees (6), current restrictions for social distancing, and travel dictates what we can accomplish for Recovery Program Projects:

--**Project 123b:** minimal NNF removal to include fyke-netting and electrofishing tributaries, and localized main channel electrofishing that does not require a shuttle; 3-4 people

--**Project 138:** continue long-term ISMP fall recruitment surveys for pikeminnow in their entirety; 3 people --NNF removal will not occur when this is happening

--**Project 158:** continue project in its entirety for post-spawn monitoring of pikeminnow (pre-ISMP) to evaluate the effects of Flaming Gorge Dam base flow releases; 3 people --NNF removal will not occur when this is happening

--**Project 165:** continue the Stewart Lake project in its entirety as long as the Larval Trigger Study Plan moves forward; 2-5 people depending on the objective, typically 2-3

--**Project 167:** bass removal on the White River will not occur unless crew size increases or we can recruit regional volunteers from our Sportfish section

Attachment D, continued

--**Project 172:** remote monitoring with submersible antennas in tributaries only
(Dinosaur National Monument sites not an option) 1-2 people

--General administrative tasks associated with each project will continue; data management/analysis, equipment maintenance/organization, etc.

--Note: if Utah mandates a shelter in place order, and even if authorized, we would not be comfortable completing fieldwork due to a negative public perception

Thanks, Matt

--

Matthew J. Breen
Native Aquatics Project Leader
Utah Division of Wildlife Resources
Northeastern Regional Office



United States Department of the Interior

FISH AND WILDLIFE SERVICE
445 West Gunnison Avenue, Suite 140
Grand Junction, Colorado 81501



In Reply Refer to:
FWS/IR.05/IR.07

April 2, 2020

To: Upper Colorado River Endangered Fish Recovery Program and Partners
San Juan River Basin Recovery Implementation Program and Partners

CC: U.S. Fish and Wildlife Fish and Aquatic Conservation Regional Office,
Denver, CO

As of this date, the Grand Junction Fish and Wildlife Conservation Office (formerly known as Colorado River Fishery Project) has postponed all field work activities until at least the beginning of June 2020. Given the severity and most recent projections regarding the COVID-19 pandemic, I feel that this is the most prudent course of action at this time. I fully realize and acknowledge that the field work we conduct related to endangered fish recovery programs is of very high importance to the recovery of these species throughout the Upper Colorado River Basin. However, the safety and health of our employees, their families, and the greater Grand Junction community is my top priority at this time.

I do not make this decision lightly, or in a vacuum. Several other partner agencies and organizations associated with the Upper Colorado River Endangered Fish Recovery Program (UCREFRP) and the San Juan River Basin Recovery Implementation Program (SJRBRIP) have already cancelled or pushed back the start dates for their 2020 field activities. Guidance from USFWS regional and program leadership in Interior Region 7 has directed us to cancel all field activities at this time. On-boarding of new seasonal employees in the USFWS has been pushed back or completely cancelled across Interior Region 7. Mandatory telework directives are in place for our agency for all non-essential (in our case all non-hatchery) personnel until at least the end of April (and probably longer). Stay-at-home orders (or very similar directives) are in effect in Colorado, New Mexico, the Navajo Nation and in Grand County, Utah. River permits and park access have been cancelled in most National Park Service areas in which we work, including the lower San Juan River, Canyonlands National Park and Glen Canyon National Recreation Area. In addition, the most recent COVID-19 models I've seen predict a peak in cases occurring about the third to fourth week of April 2020, with a slow tail off in cases through most of May.

I believe we could carry out most of our field activities in a safe manner, once we were actually on the river. However, transporting field crews to and from work sites in enclosed vehicles doesn't adhere to the social distancing guidelines now in place across our nation. In addition, trying to perform field research would also require extra exposure of employees needing to purchase

INTERIOR REGION 5
MISSOURI BASIN

KANSAS, MONTANA*, NEBRASKA, NORTH DAKOTA,
SOUTH DAKOTA

*PARTIAL

INTERIOR REGION 7
UPPER COLORADO RIVER BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

Attachment E, continued

fuel and provisions for sampling trips. Lastly, I believe it sets a generally poor and confusing example to have federal government staff, vehicles and equipment out performing their normal duties during a time when the general public is being told to stay at home and not work (and many of those same people may now be unemployed due to the current crisis).

At present, staff at Ouray National Fish Hatchery – Grand Valley Unit are continuing work as closely to normal as they realistically can, while maintaining good social distancing and disinfection practices. The current plan is to still spawn our razorback sucker broodstock in late April 2020. Extra thought and care have been given to employing extra safety procedures related to this upcoming activity. However, if things change between now and then (e.g., new guidance is received from USFWS leadership, the health of hatchery employees changes, etc.), this activity may need to be cancelled as well.

At present, Grand Junction FWCO staff are working remotely on other UCREFRP and SJRBRIP activities, such as writing reports, working on data compilations and quality checking, etc.

Please contact me if you have questions or concerns regarding this decision.

Dale Ryden, Project Leader
U.S. Fish and Wildlife Service
Grand Junction Fish and Wildlife Conservation Office &
Ouray National Fish Hatchery - Grand Valley Unit
Grand Junction, Colorado 81501
Phone: (970) 628-7200 FAX: (970) 628-7217
Email: dale_ryden@fws.gov

Attachment 1: Assignments

The order of some assignments has been changed to group similar items together. For earlier history of items preceded by an ampersand “&”, please see previous meeting summaries.

1. Floodplain follow-up assignments:
 - a. The Program Director’s Office will discuss terms of the Escalante wetland and Lamb property leases with Ouray NWR (Dan Schaad, Sonja Jahrsdoerfer, and Andrew Pettibone) to ensure the Program really benefits from them. Tildon noted that the easements may be protecting these floodplains from other development. Tildon said there are two easements being proposed to be open to oil and gas leasing though the BLM - Pariette and Escalante Ranch. Pending.
 - b. PDO will develop a prioritization strategy for both the Colorado and the Green by the end of August and will schedule a call (Sept-Oct) to continue discussion. *10/27/17 - Draft discussed by Committee; comments due within two weeks to the Program office. Tom Chart will then take it back to Brent and Ryan and see about next steps. 1/25/18: Prioritization now dependent on elevation surveys and larval information. 9/17/18: Tom expressed support for moving forward with the Stirrup on the Green River and noted the Matheson may be the best option on the Colorado River. The PDO expects to make progress on this issue as soon as we get additional staff online. 2/11/20: Tildon is prioritizing based on post-2023 information and this item will be removed from the next summary.*
2. Exploration of using alternative methods of nonnative fish control in systems where traditional mechanical control is ineffective/infeasible. Kevin/Tom/Don will start the discussion with relevant parties and bring agenda items back to the BC as necessary for both the White and the Duchesne. Kevin will talk to Jenn, Chris Smith and Matt Breen to get more information around the White and Kenney Reservoir. *9/17/18: Don and Tom discussed releasing water in the White for algae control, which might also have benefits of removing nonnative fish. Tom said they released water in early July to control cladophora. CSU field crews were on site and the PDO will check back to determine the effects on the fish population. Kevin Bestgen confirmed sampling occurred pre- and post-flow. The data has not been worked up yet, but will be in the off season. Kevin Bestgen thinks the event occurred pretty late in the spawning season and may not have had a large effect. Tom noted that Alden said it may need to occur on an on-going basis for algae control.*
3. The hatcheries need new guidance from the PDO which will incorporate HCP protocols. Julie Stahl will provide as time allows. Guidance will include collection and reporting of environmental data. Stocking discussions will happen earlier in the year and be more comprehensive. *11/8/18: Julie and Cheyenne will convene a group of BC members and*

hatchery managers to develop a plan forward for bonytail. 3/12/19: The bonytail group met on 3/7/19 to discuss options for a food study. Future meetings will be scheduled to support the propagation element as needed.

4. PDO will figure out how best to distribute spill contact information (potentially on the website). *Pending.*
5. The PDO will develop a plan to have in depth conversations on nonnative fish issues and inclusion of PIT antenna data in analysis and will schedule workshops or meetings as appropriate.
6. PDO will start conversations around a razorback sucker monitoring plan, including revisiting the 2012 report for recommendations.
7. Julie will distribute RefWorks information. *1/24/20: USFWS has run into some major implementation challenges with RefWorks and will continue to seek collaborative tools to share resources.*
8. Kevin McAbee will work with PIs familiar with the White River to suggest potential management actions in concert with the White River Basin Management Plan.
9. Future BC agenda items:
 - a. Inclusion of canal salvage in future work plans.
 - b. Discuss options for a walleye synthesis report.