



# Upper Colorado River Endangered Fish Recovery Program

Summary Dated: November 1, 2019

CR/FY-17 UCRRIC  
Mail Stop 65115

Memorandum

To: Implementation Committee  
Management Committee, Consultants, and Interested Parties  
Meeting Attendees

From: Deputy Director, Upper Colorado River Recovery Implementation Program

Subject: October 1, 2019, Recovery Implementation Committee Meeting Summary

Attached are the action and assignment summary and the general summary from the October 1, 2019, Implementation Committee meeting.

Attachment

**IMPLEMENTATION COMMITTEE MEETING SUMMARY**  
**OCTOBER 1, 2019**  
**Homewood Suites Denver Airport, 4210 Airport Way, Denver, Colorado**

**ACTIONS:**

1. Approved April 25, 2019 draft Implementation Committee webinar as final.

**ASSIGNMENTS:**

1. The Program Director's Office will distribute and post the final summary from the April meeting.
2. The Program Director's Office will develop a plan for the revision of recovery goals for humpback chub.

**PARTICIPANTS:** See Attachment 1

**MEETING SUMMARY:**

CONVENED: 9:04 a.m.

1. Introductions, modify/review agenda, Chair's updates – Noreen Walsh thanked everyone for continuing to work towards a future of the program, especially the non-federal partners. Noreen shared that last time we had met, the proposed downlisting for humpback chub had been sent to headquarters, it remains there. The proposed downlisting for razorback sucker has moved to headquarters as well, which is a substantial step in that process.
2. Approve draft April 25, 2019 meeting summary – Julie reviewed the changes in the meeting summary. No additions were suggested. The meeting summary was approved by the Committee.
3. FWS Update on DOI Reorganization and ESA Regulation Changes – Noreen reviewed that the Department is interested in reorganizing to improve communication between all of the DOI agencies as well as with other state and federal agencies. In addition, the Department has emphasized moving more decisions down to the field level to facilitate quicker decision-making. Historically, each individual agency within DOI has had its own boundaries. Now there are unified boundaries, each with a Field Special Assistant who serves as a direct conduit to the Regional Directors in each agency and the Secretary of the Interior. Unified Region 7, the Upper Colorado Basin (Utah, Wyoming, Colorado, and New Mexico) now incorporates the area covered by our programs. Interior Unified Region 5 covers the remaining areas of what Noreen oversees for the Fish and Wildlife Service. Alan Mikkelsen is the Field Special Assistant for the Upper Colorado Basin; the Lower Colorado Basin Field Special Assistant is Ray Suazo. Linda Walker is the Field Special Assistant for

Interior Unified Region 5. The Albuquerque regional office will begin to oversee Interior Unified Region 6 for FWS (focusing on the Rio Grande and Texas gulf). The supervision of the staff and field operations in New Mexico will likely come under Noreen's purview. Alan has asked the Regional Directors to come up with some regional goals, which have been identified as follows:

- a. To increase policy direction and flexibility and re-delegate some processes back to the Regional Directors.
  - i. Noreen clarified that there are some roles that have moved into the Department (such as NEPA approvals) that can effectively be done at the Regional level to decrease approval times and serve the public more effectively
- b. To increase shared capacity in areas like cultural resources, biology, and engineering to use specialized expertise as effectively as possible.
- c. To increase cooperation among bureaus in wildlife habitat corridors, permitting, and recreational opportunities;
- d. To increase sharing services across bureaus across all functions ( e.g. IT, HR)

Aurelia Skipwith has been nominated to lead the Fish and Wildlife Service (FWS or Service); her nomination passed Senate committee vote; she is currently awaiting a full Senate confirmation vote. Margaret Everson is currently and will continue to serve as the interim director until Ms. Skipwith is confirmed.

Marj Nelson said the Service recently published changes to the implementing regulations for the ESA, specifically joint regulations (w/ NMFS) 50 CFR 424, which deals with listing and 50 CFR 402 which deals with Section 7 consultation, and 50 CFR 17 specific to USFWS. The changes in the regulations codify policy and direction that FWS has been implementing for approximately a decade. The regulation changes have not substantially changed how we do business on a day-to-day basis. Marj said the current media coverage has misinterpreted some of the changes.

For downlisting, the regulations define foreseeable future based on a Solicitor Opinion that we received approximately 10 years ago. The regulations do not limit the timeframe or direct the agency to define a specific timeframe; but encourages careful thought of the biology of the species in question. The regulations clarify that the standards for listing and delisting are the same: does the species meet the definition of threatened, endangered or neither. A reference to economic impacts was removed in regulation, which was redundant with statutory language. The change does not affect the statutory language that prevents economic impacts from being considered in listing/delisting decisions. In addition, some of the categories by which the FWS delists have been clarified. When a species undergoes a taxonomic change, those species are now eligible for delisting. There were additional changes around critical habitat, which allows the FWS to determine whether it is prudent to designate critical habitat. There have been some situations in the past where FWS has determined that lack of or loss of habitat was not a substantial threat to the species, yet the Service was still required to designate habitat.

The Section 7 changes codify terminology that FWS staff have been using regularly, and these changes mainly apply to technical details in how consultations are carried out. The regulations clarify the ‘effects of the action’, which eliminates the distinction between direct and indirect effects. In addition, the effects of the action used to be defined using the word effects and now uses the word consequences. ‘Environmental baseline’ was removed from the definition of the effects of the action. The regulations define ‘reasonably certain to occur’ as well. ‘Destruction or adverse modification of habitat’ was defined as within the context of all critical habitat. ‘Consideration of mitigation’ was further defined. The 60-day time-frame requirements were clarified, but the regulations do not imply that concurrence is assumed without response.

The Section 4(d) rules change for threatened species. Many years ago, FWS promulgated a “blanket” 4(d) rule, which gave all protections of endangered species to threatened species. NMFS never had a blanket rule, the regulations changed FWS procedures to align with the NMFS. Now, each threatened designation must be accompanied by a species-specific 4(d) rule, which allows us to focus on prohibitions that assist in the conservation of the species. The blanket rule is grandfathered in for all species currently listed as threatened.

Tom Pitts asked if the Section 7 procedures currently implemented by the Program and the Section 7 agreement will be affected by these regulations changing. Marj said she does not expect either to change. The regulations are published as final; there is typically a 30-day delay in effect to assist staff in effective implementation. For these regulations, they have delayed implementation for another 30 days to go into effect in October. Bart asked if these are likely to be challenged. Noreen clarified that legal challenges could occur after the changes are implemented. Bart asked which of these changes might affect the Program most. Marj noted that the 402 changes on consultation are probably most important. In relation to the downlistings of humpback chub and razorback sucker, both documents currently have species-specific rules in their packages. Noreen said these changes are actually better because the 4(d) rule has allowed us flexibility in implementation. Tom Chart said the humpback chub is fully protected, except that we now allow for conservation actions by our partners including nonnative fish control and catch and release fishing to support education. The 4(d) rule for razorback sucker included the same actions as listed for humpback chub with additional variations for classroom educational programs using captive bred fish and the development and operation of floodplain wetland habitats.

4. WAPA’s projection of hydropower availability – Brian Sadler reviewed the presentation given to the MC/CC yesterday. In this meeting, Brian focused on the impacts to the Basin Fund that are most relevant to this program. The Basin Fund is a revolving fund that funds O&M, capital replacements, BOR operations and also returns funding to the treasury to repay the initial investment, as required. The CRSP Act authorized the Secretary of the Interior to build, operate, and maintain Glen Canyon, Aspinnall, and Flaming Gorge among others. Funds are transferred to BOR throughout the year to

cover their related expense requirements. At the end of FY19, the fund balance was approximately \$138M; the goal to put the agency at an acceptable level of risk is \$184M. That goal includes funds to cover purchase power expenses for a period of 3 years of dry hydrology (~10% exceedance level). Basin Fund risk factors include replacements needed in the system, environmental programs, bypass flows (including spring flows), the market price for purchase power and hydrology of the system, including risk associated with drought impacts. When large items are purchased (e.g. transformers), they are commonly amortized over 30-40 years, which are then repaid from annual hydropower revenues. . Approximately \$23M is currently needed annually to pay for environmental programs (\$21.4M), including the San Juan and Upper Colorado recovery programs. The difference between \$21.4M for environmental programs and \$23M provides the funding for WAPA to support the programs through environmental studies, flow experiments, and meeting participation as determined by WAPA.

WAPA has long-term contracts that require provision of a certain amount of power to its customers, scheduled on an hourly basis. When WAPA cannot generate sufficient power from the hydropower projects, WAPA must buy power on the open market (“purchase power”). Tom Chart asked if / how WAPA budgets for lost power due to experiments. Brian said WAPA estimates lost revenue due to experiments. Current estimates for High Flow Experiments (HFE) on Glen Canyon Dam are \$1-2M. Actual costs are calculated by Argonne National Labs (ANL). The efficiencies of the generators are impacted by lake levels in the reservoirs, with declining elevations resulting in lower hydropower head and less efficiency. This means that releases of the same amount of water generates less energy when elevations are lower. In all years from 2017-2019, 9 million acre-feet (maf) were released from Glen Canyon Dam, but produced a variety of energy outputs based on lake elevation. The fluctuations in these lower elevations helps drive the forecasted generation and expenses, which is also used to determine the target balance of the Basin Fund. The release volumes from Glen Canyon Dam, based on the Interim Guidelines, also determine the potential power generated. Noreen asked how often WAPA misses the target of \$184M. Brian said they have never reached \$184M in the Basin Fund. To reach that amount, WAPA would likely need supportive hydrology and flexibility in risk factors. Should the fund go above the \$184M, WAPA would likely process a return to the Treasury. Jojo asked if there are projections into the future on those balances. Brian says WAPA conducts a 10-year cash flow analysis for the Basin Fund using probability models to project variations in basin fund balances, including probability of triggering a cost recovery charge.

The environmental programs include the Upper Colorado and San Juan Programs, Glen Canyon Dam Adaptive Management Program, Quality of Water and Consumptive Use Studies, High Flow Experiments and the Salinity Control Program. Current language from the House and the Senate appropriations bills indicate that \$21.4M shall be transferred to DOI for the environmental programs in FY2020 (this does not include the Salinity Control Program). The Basin Fund cannot sustain the current level of funding. WAPA and Reclamation are in discussions to determine what a sustainable

level of funding will be and will report back to the programs once a decision is made. This is critical information for post-2023 planning

5. Update on Program Funding – Kathy Callister defined federal authorizations and appropriations. The authorization authorizes Congress to appropriate funds and agencies to receive and spend funds up to specified amounts, for specific purposes, and within specified time frames. Authorizing legislation may also authorize agencies to carry over appropriated funds to subsequent fiscal years. Congressional appropriations then provide a specified amount of funds for the fiscal year to authorized programs. The recovery programs are authorized through 2023, and funding of capital projects is appropriated annually. Annual funding from WAPA with hydropower revenues is authorized through 2023 without appropriation. However, for FY19, OMB directed WAPA not to provide hydropower funding to the programs. For FY19, the annual funds were appropriated by Congress. For FY 2020 House Bill 2740, which has passed the House and Senate Bill 2470 which has been introduced in Committee, direct WAPA to transfer hydropower revenues to the programs. Kathy recognized that both House and Senate bills have incorporated the same language, which avoids another step in the legislative process. The continuing resolution for FY20 funding has been signed into law, but specifically excluded FY20 appropriations for the Recovery Programs. Kathy interpreted that the intent of that language was to avoid double funding the Recovery Programs, i.e., clears the path for the use of hydropower revenues as authorized in the House and Senate bills. That means that funding for FY20 has not yet been transferred to Reclamation and will not be until the final appropriation bills are passed and signed by the President. Reclamation has carryover funds that can cover the programs for the next few months (through the current expected term of the continuing resolution of Nov. 21, 2019). Should the bills not be passed at that point, prioritization of resources is likely needed. Kathy will be monitoring the situation closely and will notify the programs if action is needed. Kathy reviewed the budget process and noted the fact that budgets are not discussed outside the agency until the President’s budget is released in Feb-Mar of any given year. Should program annual funds have to rely on appropriations, uncertainty in funding will likely continue through most of the current planning window. Typically, appropriated dollars must be obligated by the end of the fiscal year and are impacted by continuing resolutions. Power revenues are not appropriated and typically are not impacted by continuing resolutions and are typically provided on a monthly basis. Obligations of those funds are more flexible.

Tom Pitts noted that as a program, we are striving to come to resolution on a post-2023 funding plan in the midst of the Reclamation budget process. Reclamation must request funds be included in a budget 3 years in advance, which means the budget process for FY2024 begins in October 2021.

Amy Moyer asked if the monthly allotments from WAPA will backfill the amounts missed during the continuing resolution once the budgets pass. Brian said the payments are not typically provided every month (this contradicts statements above that funds are received monthly), but that BOR and WAPA work together to ensure payments are made as needed. The continuing resolution should not

impact project funding in the coming year, assuming final appropriations bills are passed by Congress in a timely manner, as there is adequate carry over funding available for the short term. Bart asked if any of the other environmental programs are investigating their futures in a way that will affect how much funding might be available for this program. Kathy said an exercise has been completed in the GCDAMP to see what might happen if funding was dramatically reduced. Tom Chart said the Program has thought about similar efforts and how items would be prioritized in the event that funding was reduced. The GCDAMP has a federal advisory committee that makes recommendations to the Secretary.

6. Summary of Post 2023 Program Planning – Tom Pitts reviewed the September 30-October 1 Joint Meeting of the Upper Colorado Management Committee and San Juan Coordination Committee regarding Post-2023 planning. Over the course of the Upper Colorado Program, three significant events have occurred. The first was the creation of the Program, the second was the authorizing legislation and third is this post-2023 process. The Committees reviewed a draft outline for the Report to Congress by the Secretary of the Interior that is due in September 2021. The two programs will complete a draft report by September of 2020. The primary committees charged with that effort are the San Juan Coordination Committee and the Upper Colorado Management Committee. The first day consisted of briefings about the activities, cost sharing and different dynamics of each program. The group continued to agree that recovery of the four fish species is still the goal of the programs. The Joint Committee also received a presentation about the Basin Fund to help set the stage for funding discussions. As reported above, funding of environmental programs from the Basin Fund at current levels is not sustainable. Tom Pitts reviewed the importance of the hydropower contributions for both of the programs. He noted that the states and the FWS both contribute to annual funding for the Upper Colorado Program. In the San Juan program, the states do not contribute to annual funding, nor are there Section 7 fees for water users. More than half of the total funding for the San Juan Program has come from hydropower funds. Tom Pitts said once Reclamation and WAPA determine what the long-term sustainable level of funding from hydropower is, it is likely to cause a restructuring of the funding sources in both programs. Reclamation and WAPA committed to providing a sustainable long-term figure in the next few months. Both programs have been working towards defining needs post-2023 and the estimated cost of those activities, for both annual and capital funds. Both programs have a preliminary answer and will continue to refine those costs over the next few months. Tom Pitts reviewed the language in the FY20 appropriations bills presented by Kathy that provides \$21.4M to the environmental programs from hydropower funding instead of returning that money to the Treasury directly in FY20. This language is an indication of the support these programs continue to receive from the congressional delegations of the western states. Funding allocation discussions will assess and determine recommended options for the programs moving forward. A subgroup of the Joint Committee has been created to develop a post-2023 spending and funding recommendation, which will be chaired by Michelle Garrison (CWCB) and includes parties from both the San Juan and Upper Colorado programs. Tom Pitts expressed appreciation for the information presented by Brian Sadler and

Rodney Baily of WAPA that helped inform the Joint Committee members how the Basin Fund works.

Tom Pitts said the group identified the issue of recovery plans that currently date back to 2002. The five-year reviews identify the need to revise the recovery goals and some committee members indicated a desire to have those revised goals in place before the post-2023 discussions are finalized. Tom Chart reviewed the history of the humpback chub recovery team. The initial charge for the recovery team was to revise the species recovery plan, which led to the development of the Species Status Assessment for that species. The SSA analysis led to the recommendation, as outlined in the 5-year review, for downlisting of humpback chub, which then resulted in the development of additional documents for the Federal Register. These interim steps have led to delays in plan revisions. In accordance with the Service's new recovery planning process, revised plans should build on SSAs and include measurable and objective criteria as well as recovery actions and costs. Therefore many of the current discussions regarding our post-2023 planning process (e.g prioritizing future recovery actions and estimating associated costs) will contribute directly to the revised recovery plans. However, during the Joint Committee discussions several partners reiterated the importance of revising recovery goals as quickly as possible, and suggested starting with humpback chub. Tom Chart will try to accommodate this request as fully as possible over the next year and a half. Tom Chart identified the potential need to bring in additional staff on detail to continue the efforts of the program while these recovery goals are in development. Tom Chart also noted the importance of coordination between Region 6 and Region 2 in the FWS. Tom Pitts recalled the substantial effort needed to develop the recovery goals in 2002. Noreen noted many of those dynamics may still be in place and planning for revision of the recovery goals should account for that. Steve Wolff thanked Tom Chart for being willing to move that effort forward and reiterated its importance.

Tom Pitts noted the two different programs went through different processes to develop actions and proposed costs, which all just sets the stage for discussions about annual and capital discussions in 2023 and beyond. Tom Pitts said that he, Steve and the Program Offices would develop a timetable for these processes moving forward. The Joint Committee discussed the possibility of different institutional structures moving forward, including the possible combination of the two programs. The Joint Committee recommended moving forward as two separate programs with the added goal of combining efforts, where possible, for efficiency. The differences, scope, magnitude, and participants of the two programs really support the maintenance of two separate efforts. The tribal participation on the San Juan is especially valued and the four participating tribes are expected to be better served with a program focused specifically on that river basin. The Joint Committee identified the need for new cooperative agreements among the state, federal and agencies and tribes (State Governors, Secretary of Interior, Administrator of WAPA and the tribes). The time period of the extension of the cooperative agreements is also under discussion. Because the Secretary will be signing a cooperative agreement, the Joint Committee identified the need to determine whether and

what level of updated environmental analysis is needed. NEPA currently occurs on each of the capital projects managed by Reclamation, which may provide opportunities for efficiency moving forward. Noreen asked what the first NEPA analysis covered. Tom Pitts said the analysis covered all of the recovery actions (habitat modifications, nonnative fish removal etc.). Kathy said the important consideration will be to define the federal action once we reach the cooperative agreement phase of discussions.

Tom Pitts said the meeting offered the opportunity for all Joint Committee members to develop a collective understanding of both programs and the potential futures of the programs. He highlighted the three assignments listed above: (1) development of a timetable, (2) final list of actions and costs for each program, and (3) funding projections from WAPA and Reclamation. The Joint Committee Funding Subgroup will identify recommended capital and annual expenditures and sources of funding for consideration by the Joint Committee. The Joint Committee will develop a collective recommendation for inclusion in the draft Report to Congress. Tom Pitts noted the meeting was productive, with resolution on the institutional issue. Tom Chart said the institutional conversation was a large hurdle to overcome. The committee structure of each of the programs seems to be working well and the separation by geographic area allows for specialization that is important to each program. Tom Chart said he heard in the Joint Committee meeting that there is a desire to manage the programs more efficiently. He and Melissa Mata, San Juan Recovery Program Coordinator, will work together to identify potential areas where efficiencies can be found. Tom Chart said the input from Joint Committee members from both programs is essential to help scope those efforts. Tom Pitts emphasized that both programs initially tried to operate with low level staffing in the past, which didn't work very well and just work onto the participants in the programs. He stressed the need to staff the programs moving forward. Bart reflected on the tremendous amount of collaboration that has occurred over the last 30 years and noted that the meeting reinforced the need for continued management actions into the future to maintain/support recovery. Bart felt the Joint Committee meeting really brought everyone together around the importance of continued commitments to action in the future. Bart acknowledged the importance of outlining the actions and costs to ensure management is sufficient. Tom Pitts noted these discussions are likely to be iterative moving forward.

7. Program Director's report on the Recovery Program and status of the fish – Tom Chart praised the continued dedication of our partners not only to recovery, but also to science-based, collaborative actions. Tom reviewed the geographic scope, mission, partners, and species covered by the Program. He noted the 2,169 water projects currently provided with ESA compliance by the Program.

Tom reviewed the status of each of the four fish species. Humpback chub is proposed for downlisting based on five extant populations, including a large population in the Grand Canyon and four smaller but persistent populations in the upper basin. Populations in the upper basin are stable, with recent increases in population. Tom reviewed the resiliency, redundancy, and representation

(3R's) for humpback chub and how the SSA examines these for potential future scenarios. Razorback sucker is proposed for downlisting based on seven populations across the species' range that are expanding, migrating, and reproducing naturally. Hatchery-stocked fish are accumulating across the landscape and the first signs of natural recruitment to the young-of-year life stage have been seen, supporting the downlisting action. Tom reviewed the 3R's for razorback sucker and the future scenarios examined in the SSA. Importantly, the worst future case scenario for both humpback chub and razorback sucker hinges on a failure to adequately maintain our collective commitment to the Upper Colorado and San Juan recovery programs post 2023. Tom said the status of the Green River population of adult Colorado pikeminnow, which has declined from about 4000 fish to less than 1000 fish today, is concerning everyone in the Program. The Program has prioritized four actions: baseflow management through the summer, continued nonnative control, evaluation of the fish barrier in the Green River Canal and developing a genetically robust broodstock to support stocking if needed. Bonytail continues to show low survival and stocking efforts continue.

Don Anderson acknowledged the great FY19 snow year which recharged soil moisture and filled reservoirs, with April-July spring runoff from 120-181% of normal, depending on the subbasin, and with similar peak flow magnitudes. Don said high peak flows have important habitat and biological impacts on the river systems. Peak flows on the Colorado River were coordinated to maximize the duration of the high flows in that system while avoiding flooding. Mean daily flows in the Green River 'Reach 2' exceeded 18,600 cfs (approximate bankfull) for about 9 days and pushed larval razorback sucker into multiple floodplain wetlands. Reclamation also managed Flaming Gorge releases to support higher baseflows for Colorado pikeminnow along the Green River. Baseflows were easily sustained in the Colorado, Gunnison and Yampa rivers through July, with supplemental Program releases from reservoir storage allocated for endangered fish flows held back until late summer. The snowpack was not coupled with monsoonal rains late in the system, despite Climate Center predictions. By mid-July, conditions became hot and dry across the upper basin and those conditions persist today. Baseflows in August and September dropped quickly and the Program released water to enhance flows through the end of the water year. Don thanked Colorado Water Conservation Board, the Ute Water Conservancy District, Colorado River District, The Nature Conservancy (TNC), and Colorado Water Trust for all of their efforts to help augment instream flows across much of the upper basin. Specifically, Colorado Water Trust is a new partner actively raising funds to support flows through the 15-Mile Reach. In FY19, the Trust provided 328 acre-feet which proved the concept that these releases can be successfully delivered via the new contract mechanism with Reclamation for delivery to uses in the Grand Valley including the Grand Valley Power Plant. In addition, TNC has been the lead in developing an endowment fund for the Yampa River which will help support instream flows in that basin. A number of other possible partnerships are currently being explored. Tom Pitts asked where Colorado Water Trust got the water. Don said CWT leased the water from the Colorado River District out of Ruedi Reservoir.

Tildon summarized that habitat management includes fish passages, fish screens, wetland sites, water temperature, and contaminants. The Green River Canal screen was finished in the spring of 2019 and is located downstream of both humpback chub habitat and Colorado pikeminnow and razorback sucker spawning grounds. No fish have been detected in the canal since installation. A gate and screen were installed at Matheson wetland preserve by TNC (the first such managed floodplain wetland site on the Colorado River) which will be operated similarly to the Green River sites in coming years. Brian Sadler asked how bonytail management is incorporated into wetland sites. Tildon said bonytail management is being considered at all the wetland sites based on the unique dynamics of each location. In 2019, all sites started dry after the low water year in 2018, which provided the benefit of ensuring no over-winter survival of non-native fish. Wild juvenile razorback sucker have been detected in six wetlands, which has never occurred before. Noreen asked if the fish will be marked when the wetlands are drained. Tildon said PIT tags will be inserted upon draining, which started Monday at Stewart Lake, Johnson Bottom, and Old Charley and will continue through the month of October. Derek Fryer asked how long fish needed to remain in the wetlands to grow to sufficient length. Tildon said increased durations create larger fish and we believe that maximizing length provides the best chance for survival in the wild, so they hold the fish as long as they can keep sufficient water quality conditions.

Monitoring for adults is currently occurring for Colorado pikeminnow and razorback sucker along the Colorado River and for humpback chub in Desolation and Cataract canyons. Preliminary results on the Colorado River indicate that the 2015 year class of Colorado pikeminnow are recruiting into juvenile and sub-adult sizes and adult captures are similar to previous years. Razorback sucker captures seem similar to other years and wild juveniles have been captured in the lower Colorado River. Early life stage and passive monitoring are continuing across the basin. Two genetic reports have recently been published for humpback chub and Colorado pikeminnow. For humpback chub, the genetic diversity in the upper basin is equal to or greater than in the lower basin. Three management units are recommended (the Colorado, Green and lower basin); lower basin genetics were not recommended to supplement upper basin populations. Humpback chub are localized in distribution and unique genetic characteristics are present in each management unit. Brian asked if the division into three management units affects recovery plans. Tildon clarified that these were meant to recommend “genetic management units.” Tildon said managing for genetic diversity should occur in these three locations and such diversity provides a strong foundation for “representation” in the context of the 3R’s. The genetics report on Colorado pikeminnow indicated that the current broodstock at Southwestern Native ARRC does not represent the wild population in either the Green or Colorado rivers. Efforts are currently underway to create broodstocks specific to the Green River and the Colorado River using collections of wild fish. Tom Pitts asked how these results impact our ability to recover the species in the San Juan system. Tildon said we don’t know how the genetic results translate into survival in the wild. Tom Chart said the pikeminnow in the San Juan do contribute to recovery, but adding genetic diversity to that population is essential moving forward. Tom Pitts asked if adult collections might make more sense. Tildon said the program has explored

all options for collection and young-of-year collections optimize survival of the fish and maximize the ability to capture diversity. All collected individuals will be genetically tested.

Tildon reviewed the primary nonnative fish species of concern: northern pike, smallmouth bass, and walleye and noted the program focuses on spawning disruption in rivers and screening or elimination of reservoir source locations for those species. High flows likely suppressed smallmouth bass spawning in 2019 throughout the basin. A study is underway to determine the effects of gill-netting northern pike on the Yampa River. Jojo asked if the strong smallmouth bass year class in 2018 was affected by high flows in 2019. Tildon said strong year classes typically last about 4 years in the river, and high flows mostly influence reproduction in that year. The Ridgway Reservoir screen is slated for construction in 2020. Tri-County Water Conservancy District has avoided spilling since 2014, an invaluable accomplishment which was commended by Noreen in a letter to the District. Tom Pitts thanked Noreen for that letter. Red Fleet Reservoir did spill in 2019, but with only inches of water spilling over the dam. The Red Fleet screen is scheduled for completion in spring of 2020. Two additional screens are needed at Catamount and Starvation reservoirs. Tildon said species continue to appear in new areas, which constantly stresses budgets allocated for nonnative fish management. Tom Pitts noted that 13,000 northern pike have been removed from Catamount to establish a trout fishery. Tom Pitts praised CPW for those efforts. Tom Pitts asked what could be done about nonnative fish recently found in Kenney Reservoir. Tildon said the problem is still being explored, but the primary concern is abundant spawning habitat in the upper reaches of the reservoir. Jojo said field crews were diverted to remove northern pike from Kenney Reservoir throughout the 2019 season. In addition, harvest incentives are currently in place (thanks to CWCB and CPW) to catch and submit northern pike captured in Kenney or along the White River.

Melanie Fischer serves as I&E coordinator for both the Upper Basin and San Juan programs. Melanie helps to develop educational programs, like Kiss a Sucker and visits to 4th grade classrooms and supports traditional outreach efforts like news articles which have been increasing in recent years. The hatchery at Palisade High School is garnering wide-spread monetary and public support. The hatchery has received donations from local nonprofits to continue to purchase equipment and is being incorporated into high school science classes. Partner fishing tournaments provide a unique opportunity to reach anglers in the basin about recovery of the endangered fish. In addition, there are a number of live fish exhibits available for viewing in both Grand Junction and Vernal, UT. Melanie also produces a variety of printed publications and outreach materials every year.

Cheyenne Owens said four hatcheries currently raise bonytail and razorback sucker for distribution across the basin. Bonytail have high levels of mesentery fat and fatty livers. Cheyenne organized a study to evaluate different food types to reduce the fatty condition prior to stocking. A preliminary study completed at Wahweap showed faster growth in both length and weight and lower levels of fat to the young-of-year life stage using a different food. The CPW Mumma hatchery began a similar study but has not seen high success in bonytail adoption of a new food source. Additional studies

will be completed by the Bozeman Health Tech Center this fall with additional diets specific to bonytail. She is using both roundtail chub and Rio Grande chub as surrogates for bonytail to see if the fatty condition is “normal” for chub species.

- a. **Review of FY20-21 Work Plan and Funded Activities** - Tom Chart reviewed the completion of the biennial work plan in which the Management Committee approved funding of \$8.0 million for the FY20 annual work plan. Nonnative fish management makes up the biggest portion of the spending at over 25%, followed by hatchery production and program management. The \$8.0M was possible using approximately \$500K in carryover funds currently available from FWS.
- b. **Proposal for streamlined RIPRAP process** - In light of an increasing workload, Tom Chart requested that the Implementation Committee approve a streamlined approach to the RIPRAP in FY2020. The plan is for the PDO to write and review the RIPRAP table as usual, but instead of reviewing the tables in depth with each committee, the PDO will send it out to all Program partners at once for comment. Those comments will be incorporated and then the table will be used to produce the sufficient progress memo as usual. The MC supported the approach during the previous meeting. Tom Pitts reiterated the importance of completing the sufficient progress memo each year. Noreen supported the approach and noted that the sufficient progress memo would continue to be a priority. The committee approved the streamlined process for FY20.

8. Capital projects update – Ryan Christianson updated the committee on all currently scheduled capital projects. Ryan is currently working with Green River Canal Company on their workplan and to receive reimbursement for the costs incurred for operation and maintenance of the Green River Canal fish screen and passage. Tom Chart praised both Ryan and Bob Norman for their efforts in implementing that project and agreement. Bob has officially retired but has made himself available if needed to support endangered fish recovery. Tom Pitts said the structure would likely not have been built without the efforts of Bob Norman and thanked him for his service. Ridgway screen will be built in late 2020 and the O&M contract is drafted and shared with the parties for comment. Red Fleet is scheduled for April-June 2020. Starvation is hitting a funding bottleneck because so many projects have come to planning completion all at the same time, but is likely in 2021 or later. Ryan will try to manage these efforts as best as possible using carryover funds. Stirrup is the next managed wetland with construction scheduled for summer 2020, which will miss the spring runoff in 2020. The MOU is still being negotiated to allow for right of way on BLM land. The funding is in place to revamp the Grand Valley Power Plant, but concerns around the design remain. Tom Pitts asked about the status of the Grand Valley Irrigation Company (GVIC) diversion dam rebuild. Ryan said they have run preliminary models to drive design, but Reclamation is waiting on the report. The GVIC screen operated effectively for most of this year likely because of high flows through the

Grand Valley. Ryan called the Committee's attention to a new contact at Redlands Canal, Kathleen Curry, who is willing to discuss potential improvements in canal operations.

9. Schedule the next IC meeting – The committee will meet again on April 15, 2020 from 1-5pm using a phone/webinar. Julie sent calendar invitations to all interested parties.

Noreen closed the meeting by noting that she was encouraged by the news of wild juvenile razorback sucker in six wetlands along the Green River. She acknowledged that we have challenges to overcome as we approach 2023, but praised the commitment of all the partners at the table and had confidence in the efforts of this group. She committed to pushing our HQ offices to move the two downlistings as quickly as possible to the Federal Register. Noreen thanked WAPA for their continued commitment to the program. Noreen also thanked Tom Pitts for his many years, hours and miles of service in dedication to this program. Noreen thanked Tom Chart and his small and mighty staff for all of the efforts of the Program Director's Office.

**ADJOURNED: 2:50 p.m.**

## Attachment 1 - Participants

### IMPLEMENTATION COMMITTEE MEMBERS:

Noreen Walsh, U.S. Fish and Wildlife Service (Chair)  
Kathy Callister for Ed Warner, U.S. Bureau of Reclamation  
Rob Billerbeck, National Park Service  
Bart Miller, Environmental Groups (Western Resource Advocates)  
Amy Moyer, State of Colorado  
Tom Pitts, Upper Basin Water Users  
Ronald Bailey for Steve Johnson, Western Area Power Administration  
State of Utah - Absent; Paul Badame, Biology Committee representative for Utah (via phone)  
Leslie James, Colorado River Energy Distributors Association  
Steve Wolff, State of Wyoming  
Tom Chart, Program Director, U.S. Fish and Wildlife Service (nonvoting)

### OTHERS:

Ryan Christianson, U.S. Bureau of Reclamation  
Jojo La, Colorado Water Conservation Board  
Brian Sadler, Western Area Power Administration  
Rachel Bryant, Western Area Power Administration  
Marj Nelson, U.S. Fish and Wildlife Service  
Derek Fryer, Western Area Power Administration  
Dave Speas, US Bureau of Reclamation (via phone)  
Michelle Garrison, Colorado Water Conservation Board  
Patrick McCarthy, The Nature Conservancy (via phone)  
Julie Stahli, Recovery Program  
Tildon Jones, Recovery Program  
Don Anderson, Recovery Program  
Melanie Fischer, Recovery Program  
Cheyenne Owens, Recovery Program