



# Upper Colorado River Endangered Fish Recovery Program

Dated: 8/13/2019

## Water Acquisition Committee Meeting Summary

CONVENE: 1:00 p.m. Tuesday, July 23, 2019

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Attendees: Don Anderson, Julie Stahli, Kevin McAbee, Jojo La, Michelle Garrison, Ryan Christianson, Bart Miller, James Greer, Rachel Musil, Tom Pitts, Melissa Trammell, Ray Tenney

1. Introductions, review/modify agenda - The agenda was modified as read below.
2. Edits and approval of March 28, 2019 Meeting Notes - Don did not receive comments on the meeting summary he distributed in April. The Committee approved the summary.
3. Program Work Plan FY 2020-2021

Julie provided a general overview of the biannual Program work planning process. She described discussions held July 8-9 with the Biology Committee, which included extensive discussion of overall projected Program activity costs, as they collectively exceed funds expected to be available by hundreds of thousands of dollars in FY2020 and 2021. As a result, strategies are under discussion to bring those budgets more into line with anticipated funding. Julie described the PDO's suggested approach that each Program partner reduce their overall expenditures by 4.35%, but allowing the partners to determine themselves how to allocate those cost reductions. Jojo asked what the source of the budget increases were. Julie indicated it's a combination of added/new projects and expansions in the scopes of existing project budgets. Julie said that after the PDO gets feedback from this committee and incorporates input from Program partners to reduce the budget, it will bring a modified Work Plan to the MC for review & approval at their next meeting.

Don described each of the scopes of work and how they have changed from previous years.

- a. 8 - funds provided to the USGS to support gaging stations across the basin. Don added substantial justifications for each of the gages to provide context and information about partnership shares. Wyoming contributes more than \$29,000 to the O&M costs for 3 gages in the Yampa River basin, which is not reflected as a Program cost in the current table. In addition, USGS inflation is less than anticipated. Don said the Program will look for opportunities in the future for additional partnerships to reduce these costs. Tom asked where the WY contributions are noted. >Julie will figure out where best to include those contributions. Don will remove CWCB as a funding partner on this scope. Jojo cannot find any records indicating that CWCB is responsible for any gage costs, although Don was under the impression CWCB had shared some of these costs in the past. Tom recommended looking to the San Juan tables for guidance on how we might break out funding

sources.

- b. 19 - This scope funds hydrology support and management across the basin. It covers the Instream Flow Coordinator's salary, benefits, and travel as well as costs associated with servicing the Program's temperature monitoring sites across the basin. Two Gunnison River sites were dropped last year after determining they provided sufficient data to serve their original purpose. The scope is slightly higher than Program Guidance primarily to account for more travel than had been assumed in past scopes.
- c. C-9 - Program O&M costs for Elkhead are prorated based on our allocated share of storage in the reservoir. The costs shown here only include 'routine' maintenance needs and not any capital improvement or 'extraordinary maintenance' needs that could arise. Don asked if a contingency budget was recommended as cost for the next few years are lower than what the Program Guidance projections were. Tom Pitts recommended not adding a contingency but instead relying on NFWF funds if needed. Kevin said that could easily be our strategy at the moment, but probably not over the long term. Kevin recommended that the Program consider an "umbrella account" for all of the O&M projects that could cover unforeseen O&M expenses in Post-2023 conversations.
- d. C-9 Add - The Program currently has the ability to lease 2,000 acft for \$50/acft from Elkhead Reservoir when conditions warrant. Statistically, we only need to lease that water about every 4 years, which averages out to \$25,000 a year. The PDO originally had a placeholder of \$25,000 to be carried over for necessary years. Kevin recommended using the NFWF funds for these costs if necessary, and deleting the \$25K from the annual work planning table. Tom Pitts asked if water leasing would be an annual cost or a capital fund cost. Kevin said it would be an annual cost. Don said the Yampa River Fund also may be a resource to help pay for these water leases. Jojo confirmed that these flows are one of the designated priority spending possibilities for the soon-to-be-established Yampa River Fund. In addition, CWCB provided \$30,000 to the Colorado Water Trust in 2018 from severance tax funds to support leasing of water from Elkhead or Stagecoach Reservoir; these funds remain unspent and can be used at any point in the future. Don thanked Jojo for her work in getting these funds conveyed to the Water Trust. Tom Pitts recommended the Post-Program funding level be \$25,000, Program Guidance should be set to \$25K per year and Post-Program should be Post-2023.
- e. CROS - Jojo took the lead to update a scope to document the annual CROS implementation. Don said there is still a placeholder to reimburse \$5000 to USBR for their participation in those operations, should USBR confirm that such reimbursement agreements exist.
- f. C-34 - O&M costs associated with the efficiency improvements at OMID. There are various costs associated with 33 check structures, the re-regulating reservoir, the SCADA system, and other system elements. Ryan provided those cost estimates and clarified that they reimburse these funds on a quarterly basis. Tom Pitts asked if the improvements were complete and whether we were able to document increased flows in the 15-MR. Don said the estimate was approximately 17,000 ac-ft in savings. Jojo asked how that was calculated. Tom said there was a report completed before those improvements were approved. >The PDO will work with USBR find the original report and distribute. [Note: Tom Pitts subsequently found and provided a copy]. Tom Pitts requested the water savings be determined. Tom noted the

efficiency estimates on the Grand Valley Canal were severely underestimated.

- g. 85f - This scope funds David Topping's sediment balance work in the Jensen-to-Ouray reach of the Green River, complementary to similar work being done for NPS at Dinosaur and Canyonlands. The cost is slightly less than anticipated because of lower inflation. 2020 is the last year the Program has committed to funding, but additional years of data may be desired. There is a placeholder for continued monitoring Post-2023.
- h. NEW - NPS base flow monitoring - This scope is a new effort to document the impacts of experimental flows on Green River channel habitat. Melissa clarified that the project has two parts, on-the-ground site monitoring and remote sensing using drones or satellites, the latter conducted by USGS. The amounts change from FY20-21 because USBR will fund the field survey effort in FY19 and FY20. The Program is being asked to fund NPS in FY21 and USGS in both FY20 and FY21. Thanks to Dave Speas for finding those non-Program funds for FY20. Tom Pitts asked if we would need to account for additional other monitoring required for implementing the recommended flows in the GREAT report. Melissa said many of the costs we have identified are included in other specific scopes.

> **Work Plan tables follow-up needed by PDO:**

- Clarify how we are tracking and accounting for Wyoming's share of gage O&M costs
- Clarify the Program's Elkhead water leasing funding plans, pre- and post-2023
- Clarify whether or not \$5,000 in Program funding needs to be budgeted annually for USBR's participation in CROS operations
- Firm up the Program's estimate of water savings associated with OMID efficiency improvements

4. Updates

- Yampa River Fund - Jojo said the concept of a water fund was started in 2017 and brought to the Yampa River stakeholders by The Nature Conservancy. There are other similar water funds across the nation (e.g., Rio Grande Fund) that allow private donors to support agricultural, recreational or environmental projects in a particular basin. The Yampa Fund structure could allow private donations to serve as match for CWCB funds. The stakeholders identified the importance of the Recovery Program and the Elkhead leases and held them in high priority. Water leases in the basin are eligible to receive funds based on an application process. CWCB has been involved in structuring the Fund in support of the local stakeholders. CWCB CPW, and the U.S. Fish and Wildlife Service have been identified in the MOU as non-voting advisory participants. Tom Chart and Don are considering the role of the Recovery Program. TNC already has raised \$1.75M for the Fund. An additional \$1M is available as a matching fund challenge. A grading criteria will be used to assess project proposals starting after September 2019. There is a lot of excitement around how quickly this effort has come together. Jojo clarified that the \$2.75M will be set up as an endowment, but both the core funds and the proceeds from those funds can

be distributed. Jojo has heard of additional commitments to grow that endowment. All major water players in the basin have signed on to the Fund including cities, NGS, agricultural entities etc. Jojo will send out the Feasibility Report which explains how the Fund may be set up (Jojo sent after the meeting). Final guidance documents are still being developed but should be ready by September. Bart asked how it overlaps with the Yampa River Basin Roundtable. The priorities listed in the Yampa River Fund agreements state that projects must comply with the Basin Roundtable goals to be considered. Basin Roundtable representatives will also effectively get a 'vote' in which efforts are funded, and Jojo anticipates close coordination between those entities. Kevin asked if we could suggest that members of the public interested in supporting species recovery could donate to this fund. Jojo said that donations can be accepted from the public and designated to support specific efforts.

- Yampa River Basin & 15-MR draft depletion reports

Don described how Appendix D of the 2005 Yampa River PBO defines the protocols to be used to account and report on changes in depletions in the Yampa River basin every five years beginning in 2010 (most recent reporting period needed, 2011-2015). Purpose is to account for when "new" depletions approach an average of 30,000 af/year in Colorado and 23,000 af/yr in Wyoming, the limit of what's covered under the PBO. Both Colorado and Wyoming have now provided draft analyses of their respective Yampa Basin depletions for the 2006-2010 and 2011-2015 periods, but both have adopted methodologies that differ from what is prescribed in the PBO. >Don will arrange a separate conference call to review those draft reports in more detail and discuss whether the WAC considers the alternative methodologies to be satisfactory substitutes for what was established in the PBO.

- **Colorado** - Status and methodology - Jojo said this departure was discussed and approved at a meeting in 2008. Jojo said the changes were prompted by newer methods of calculation that are more accurate and a better match for current technology. The new report will include 2 reporting periods, essentially covering 2006-2015. Jojo said that depletion accounting is very complex and the experts working on the effort have changed over time, which has made the effort more difficult. The models have been newly developed, independently verifying that depletions have not increased. The report was sent outside of CWCB for peer review (by both Wilson Water Group and Don Anderson). Don said CWCB has done a great job of providing a robust description of current depletions. Don will send this report out to the group when both the CO and WY portions can be considered. Tom Pitts asked if the report describes the differences in methods; Jojo said that information is provided in an appendix. >Tom requested that the Service provide written documentation of the acceptability of the new methods. Michelle elaborated

that Colorado has changed the way crop consumptive use has been calculated - typically causing an increase estimated agricultural consumptive use. As a result the agricultural use estimates are not directly comparable to previous reports.

- Don confirmed that this method use of high-elevation crop coefficients was accepted in 2008 by a technical workgroup as satisfactory for the 2001 - 2005 15-Mile Reach PBO depletion accounting (meeting notes available). Also that Colorado's analysis identifies no noticeable trend of increasing depletions over the 1998-2015 timeframe using this methodology.
- Jojo added that, once the methodology and estimates for Yampa Basin depletions was suitably vetted, Colorado proceeded with applying a similar report format to update and complete the 15-Mile-Reach depletions accounting report. That report is now nearly complete, and undergoing a final review and cleanup before being provided to the Program office.
- **Wyoming** - Status and methodology - Don said Wyoming is developing their own report instead of sending their information to Colorado for inclusion in their Yampa River report. The first draft has been submitted, which Don commented on. Wyoming has a large departure in methodology, summarized below. Don is seeking a conversation with committee members to verify the methods and assess the conclusions. Don is unclear as to the ability to compare the new methods to the corresponding 2005 depletion estimates. A second draft is currently under development in Wyoming; Don will share that report when ripe for a wider review. Don said the report covers the 2011-2015 period. Tom Pitts asked about the 2006-2010 period and Don stated that this was earlier provided by Wyoming. Tom Pitts asked Don to send out the Colorado report as soon as feasible to allow for additional review time; don't necessarily wait for Wyoming.
  - The bulk of consumptive use is from irrigated agriculture.
  - The method used to estimate CU from agricultural lands is to first estimate irrigated acreage from LandSAT satellite imagery, using a Normalized Difference Vegetation Index (NDVI) technique. Total evapotranspiration from those lands is then estimated directly using a surface energy balance model known as METRIC (developed at Univ of Idaho). Factors like water shortages, growing conditions, crop coefficients and irrigation practices do not need to be individually assessed, because their effects are already captured in the direct ET measurements.
  - Estimated total depletion from all water uses in draft report is nearly 6,000 AF less than the "current depletions" estimated in the 2005

PBO. Don said it remains unclear to him at this time as to whether this represents:

- An actual reduction in consumptive water uses since 2005?
- A fluke associated with this time period?, or
- An artifact of the change in ET estimation methodology?
- If the latter, this could raise some questions about the accuracy of the 2005 ‘current depletions’ baseline we’re using and whether we’re properly characterizing change relative to the 2005 baseline.
- > Don will schedule a WAC call to review and discuss these draft reports. He will distribute in advance:
  - The draft depletions reports.
  - Appendix D of the Yampa PBO.
  - The writeup documenting the 2008 technical team discussion of acceptable alternative depletion accounting approaches.
- 15MR Depletion Accounting
  - Jojo says CWCB started with the Yampa to try to work out the kinks on a relatively simple system. After WWG reviewed the Yampa product, CWCB started on the 15MR. CWCB has finished the modeling, which was sent to WWG for technical vetting. WWG have finished their review and the report should be returned to CWCB this week with minimal recommended changes. Don requested that she send the report to Don before distributing it to the group. Jojo will address WWG comments and send to Don as the report becomes available. Tom Pitts thanked Jojo and Michelle for their persistent efforts to get these reports completed.
- White River Management Plan & PBO (Anderson, La)
  - Next steps:
    - Select contractor to write White River Management Plan. Tentative schedule:
      - Proposals due Aug 6
      - Selection by Sept 14
      - Project start Oct 1
    - White River Planning Team will be working on identifying future water development scenario to be evaluated in the Management Plan
    - USFWS will be working on finalizing the draft flow recommendations document.
    - Jojo thanked everyone involved in that process for all of their efforts
- GREAT Report (Anderson)
  - Program has received comments from the two technical peer reviewers: Dr. Robert Muth (Director, Bozeman Fish Technology Center co-author of 2000

flow recommendations) and Dr. Charles Yackulic (USGS Research Statistician, Southwest Biological Science Center, does a lot of work with fisheries in the Grand Canyon reach of Colorado River). Muth: “thorough, sound synthesis” of information which supports the suggested revised flow recommendations; “accept with minor revisions” (2 pages of specific comments provided). Yackulic: “report is well-done and does an admirable job of synthesizing a large body of literature”, is “scientifically sound”; “accept with minor revisions” (4 pages of general and specific comments)

- Both technical reviewers cited certain topic discussions that are redundant and some discussions that may be overly-long (e.g., overviews of fish biology and life trajectories)
  - Additional comments on GREAT Report received from Jojo La and Bart Miller
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- Wyoming Green River modeling (Greer)

James said updates to Utah’s modeling is needed to incorporate the effects of the two new USBR Flaming Gorge contracts (Green River Block exchange and Lake Powell Pipeline) to adequately evaluate the effects of future development on Green River flows. He has an employee assigned to that task, and expects the effort to be complete by July 2020. USBR’s model currently evaluates impacts based on those exchange contracts for Reaches 1 and 2, but it does not model impacts to Reach 3. James also would like to meet with Larry Crist and George Weekley (USFWS-Utah) to determine what “legal protection” means in the current context of these new contracts, as that remains unresolved. James asked if others would like to be involved in future conversations on that topic. Don said both he and Tom Chart would like to be on that call. James will email the group in coming weeks. Tom Pitts asked for clarification on the contracts. James said one contract, already signed, is for water to be used along the mainstem Green River. A lawsuit has been filed on that contract. There is a second contract for delivery to Lake Powell for the Lake Powell pipeline (~82KAF annually) that will likely be signed after the EIS is complete. Water released under that contract could be used to fulfill endangered fish flows and then used again out of Lake Powell at St George. Tom Pitts said he thinks this could be a huge step forward in legal protection of flows in the Green River.
  - Post-2023 planning - Julie reminded everyone the selection tables are currently out for evaluation, and she asked that everyone interested submit their selections by next Thursday, August 1st.

Next meeting, webinar, or conference call: Don will send out a doodle poll when the depletion accounting reports are ripe for discussion.

ADJOURNED: 3:40 p.m.