



Upper Colorado River Endangered Fish Recovery Program

Dated: March 27, 2017

February 13, 2017, Final Management Committee Webinar Summary

Participants: See Attachment 1

CONVENE: 9:00 a.m.

1. D.C. Trip plans – Henry Maddux said the trip is scheduled for week of March 20th (with Monday as a travel day). They've been circulating a draft itinerary and have about half of the ~34 meetings scheduled thus far. Henry will send out the most recent itinerary today. So far, about 15 people are confirmed to attend all or part of the trip. Emily from Colorado Water Congress will be going this year. Henry anticipates they may again circulate funding support letters, but the group needs guidance on the content without a President's budget. Tom Pitts said the letters might reference "current levels of support," but it's unclear whether members would sign, so partners will inquire about that. Leslie James noted upcoming Congressional ESA hearings; Tom Pitts said the water users will be monitoring proposed amendments to the ESA to determine if they might affect the recovery programs. Leslie said CREDA's board discussed extending the Program through 2023, but has recommended a cautious approach in moving to have legislation introduced until the Administration's support for the legislation extending the Program has been made clear. Tom Pitts agreed.
2. Hydrology and instream flow update – Don Anderson provided an update on hydrological conditions and current instream flow/WAC activities (see Attachment 2). Snow conditions are shaping up to result in a great water year. Many basins are currently above 150% seasonal median snow water equivalent. Total inflow to Lake Powell is expected to be above normal, with the most likely forecast at 134% of average inflow.

The Wilson Water Group is working on flow analysis for the White River Management Plan. The next step will be developing demand scenarios. Evaluation of the 15-mile reach PBO is ongoing, with revisions underway based on reviews by environmental groups and water users, especially regarding species status and depletion accounting. CWCB expects to begin working on depletion accounting in the next month or so, as new staff becomes familiar with the topic. Green River Flow and Temperature Recommendations (Muth et al. 2000) are being re-evaluated considering new biological, hydrological, and habitat research. The group met last week and made major progress towards evaluating the existing recommendations, which should be available for the Biology and Water Acquisition committees' review by July. CREDA requested adequate review time for any flow changes, especially considering their staff availability in the summer months. Simultaneously, the Green River Water Acquisition Team (GRUWAT) is modeling water demands to support discussions of legally protecting flows in the Green River in Utah. Jana and others have been working on creating a Program-wide description of long-term flow protection and strategies for completing/maintaining those protections post-Program and post-recovery. Tom Chart reminded the Committee that the Program's Flaming Gorge spring flow request letter will be coming soon. It will follow last year's model, with Larval Trigger Study peak flows and summer base flows to support Colorado pikeminnow recruitment. The GREAT team's efforts (described earlier) likely shape the Program's 2018 letter and beyond, using a decision tree approach to prioritizing fish flow needs.

3. Updated floodplain wetland priorities for recovery of endangered fish in the Middle Green River – Dave Speas (USBR) and contributors Matt Breen (UDWR) and Tildon Jones (USFWS) recently reviewed the Recovery Program's state of science relative to floodplain wetland management in the Middle Green River. Dave Speas said he wanted to review where we've been over last 10-20 years with floodplain management. We tried less intensive management with levee breaches, but the Larval Trigger Study Plan results have shown maximum benefit when we manage water levels during spring peak, exclude large-bodied nonnative fish when wetlands fill, manage water levels and habitat quality during the summer, and eventually move razorback sucker back to the river. Thus, the white paper proposes a certain amount of hands-on management to assure that razorback survive and grow. The Biology Committee is interested in renovating some of these wetlands to allow management along those lines. On Ouray NWR, Johnson Bottom renovation is complete, and underway at Sheppard Bottom. We've been in contact with BLM regarding potential to renovate some of their sites. Tom Chart noted nonnative fish management has diverted our attention away from floodplains to some extent, and this white paper is very helpful getting us back on track by identifying the most important sites and approach to successful management. We clearly need to replicate the Stewart Lake condition at additional sites, which could impact remaining capital funds. Tom noted UDWR has found extra-Program funding in Utah to potentially modify the Matheson Preserve on the Colorado River. Henry asked what these projects typically cost. With regard to costs for structures on the Green River sites, Dave said he is working to get USBR and others onsite to begin review. Dave said it depends on the site, but something greater than \$500K/site may be a reasonable estimate. Kevin agreed with Brent that the wetland orientation and the need for moving dirt to re-contour sites will factor heavily into total project cost. For example, Johnson Bottom renovations cost ~\$250K and the Sheppard Bottom project received ~\$400K but cannot purchase all project components with that amount. Leslie James commended Dave for a really excellent report. Leslie asked if we can say which of the report's ~14 recommendations can be done within the current budget and how much would be needed to accomplish them all. Tom Chart said the report focuses on about 8 sites, some of which are in pretty good shape now, some of which would need additional work. Leslie asked if any of these sites are within salinity control areas and if there might be a funding nexus where salinity control requires fish and wildlife conservation. Dave said he understands Reclamation can be involved if there's a measurable contribution to the salinity program, for example, Reclamation is considering getting involved on the Price with enlarging a small reservoir that could help improve base flows and reduce salinity. Brent said salinity control projects usually relate more to upstream tributary riparian sites and thought it would be rare for it to overlap to improve fish floodplain habitats.

Tom Pitts submitted questions on the report after the webinar; those questions and the responses are as follows:

- a) Q: Given that only a small fraction of the water flowing in the Green River will enter the floodplains and a correspondingly small fraction of larval razorback in the river will be entrained in the floodplain, do we need to augment larval populations in the floodplain with stocking and allow those to grow out in order to increase the overall number of razorback sucker released back to the river?

A: From our Hedrick et al., 2009 entrainment study we have fairly good estimates of the amount of water / # of neutrally buoyant beads / # of larvae that are swept into flow through, and to a lesser extent single-breach, floodplains. You are correct this is a relatively small percent of the Green River flow.

Larval stocking can serve a couple of purposes: 1) to assist in population recovery, i.e. management; or 2) answer specific early life history and floodplain ecology questions, i.e. research. We think larval stocking could be useful in some settings to answer specific research questions. However, the Biology Committee hasn't advocated stocking of larvae at the present time as it doesn't appear to be necessary in light of the abundance of wild-spawned larvae (and, in fact, could confound detection of wild recruitment). Therefore, our focus needs to be on flow and floodplain management to increase survival of the larvae that are entrained.

- b) Q: What are the survivability estimates for larval razorback sucker entering the floodplains? Is survivability adequate to significantly augment populations of razorback sucker in the Green River, given survivability estimates public life stages?

A: We need to address a sampling consideration as we respond to this question. Our larval sampling technique of choice (light traps) does not provide estimates of larval densities. Therefore, we are limited in understanding how many wild produced larvae are entrained into wetlands and then surviving through the summer. However, we are talking with CSU about conducting studies to help us understand light trap catch efficiency.

Hatchery personnel can provide estimates of razorback sucker hatching success, larval, and later life stage survival in controlled environments. More recently, we have estimated survival rates of late juvenile / adult razorback sucker stocked in the river (Zelasko et al 2010, 2011). More to your point, Brunson and Christopherson (2005) estimated that stocked larval razorback sucker survival (over an 88 day period) in experimental floodplain enclosures ranged from 0 – 58% in the presence of nonnative predators. We do not have survival estimates for wild-produced larvae entrained into floodplain wetlands; we assume their survival would be on the low end of the range reported by Brunson and Christopherson.

When we drafted the Larval Trigger Study Plan (LTSP), we had only a few documented reports of larval entrainment into floodplain wetlands. The fact that LTSP operations coupled with proper floodplain management can result in the release of ~ 2,000 young of the year razorback sucker back to the river is amazing. However, we do not believe that amount of production (even if realized every year) from that one site is adequate to support a self-sustaining population of razorback sucker in the Green River. As mentioned in the White Paper, while Stewart Lake can produce hundreds or thousands of YOY razorback sucker per year depending on annual in-stream production, it likely falls short of recruitment needed to maintain adult razorback sucker in the Green River at recovery levels (Valdez and Nelson 2004). Thus, the search for wetland habitats amendable to management in a fashion similar to that performed at Stewart Lake continues. We do not know how many more managed floodplains are needed to achieve recovery, but for the time being we are focused on eight sites with the most potential.

- c) Q: The description in the Management Committee agenda indicated that "2) maintenance of water levels using water control structures and external water sources;" would be needed. How would external water sources be added to the floodplains?

A: External water sources to support floodplain habitat quality are provided either by upstream inputs or pumping from the river. Upstream sources of supplemental water include Red Fleet

water provided to Stewart Lake via the Burns Bench Irrigation Canal or Pelican Lake water provided to Sheppard Bottom and Leota 10 via pipe. Floodplains without access to upstream water sources can be supported by pumping river water into the wetland, which is currently the operation for Johnson Bottom.

- d) Q: The description in the Management Committee agenda indicated that "3) capture, enumeration and release of YOY fish into the main channel Green River as the wetland is drained in the fall months" will be required. Is this envisioned to be an ongoing requirement needed to sustain populations following delisting?

A: Long-term, intensive management of floodplain wetland habitats is expected to be required post-delisting. However, the intensity of management actions is unknown. For example, if wetlands are producing razorback sucker at appropriate levels, then enumeration of fish that enter the river may not be needed. That is, a wetland gate may be opened and all fish drained to the river without monitoring. However, if future research indicates that nonnative fish reared in wetlands must be eliminated before returning to the river, or if research indicates that monitoring razorback production at individual wetlands is warranted, then enumeration of fish released from each wetland may be required long-term. This monitoring component is a substantial uncertainty at this time because the new wetland management process is still in development, especially at a landscape scale.

4. Capital projects update – Brent Uilenberg said negotiations are stalled on the Green River Canal fish barrier installation. The Green River Canal Board composition and management have changed within the last month and the new board has yet to establish dialogue. Bob Norman is attempting to lead a group of Management Committee members and PDO staff to negotiate installation and an O&M contract, but has been unable to schedule a meeting. >Henry will see if there's a way the State can help out. The GRCC has asked for up to ~\$2M of additional facilities (in addition to an estimated ~\$3.5M for the fish barrier) that Reclamation doesn't necessarily believe is needed for effective operation of the fish barrier. Tom Chart noted we have data indicating substantial fish entrainment at the facility (Stahli presentation at Researchers Meeting). Tom Pitts asked if another NRCS grant might be a possibility (Brent noted matching funds could not be Federal). From discussion with NRCS, Tom Chart said their focus is on irrigation improvements, and the 8-gate structure might not fit with that.

On OMID canal automation, mild weather has allowed them to complete earth work and the regulating reservoir should be operational in June.

Good progress is being made on the Starvation escapement project (Provo USBR will do) and Reclamation anticipates it will go in this summer. Brent said they've concluded they'll do a Federal contract for a net on Ridgway. Therefore, the stakeholder group is proceeding consistently towards a solution at Ridgway with likely installation in 2019.

5. Recovery planning update – Tom Czaplá said a webinar will be held next week to review specific management scenarios for the Colorado pikeminnow population viability analysis. Rich Valdez received the last set of comments on the humpback chub species status assessment (SSA) about a week and a half ago is working on a revision for team review. The razorback sucker SSA is essentially complete but we are working through the peer review process with FWS Region 2. Tom Pitts has expressed concern about inability to predict long-term viability. He doesn't see a biological basis for the short (30-year) and long-

term (30-100 year) viability. Tom Chart said they hope to discuss this further with Tom Pitts this week. Tom Chart noted we have much more information available on humpback chub (self-sustaining populations) than we have for razorback sucker (repatriated populations in the Upper Basin), making for different approaches / analysis in the respective SSA's.

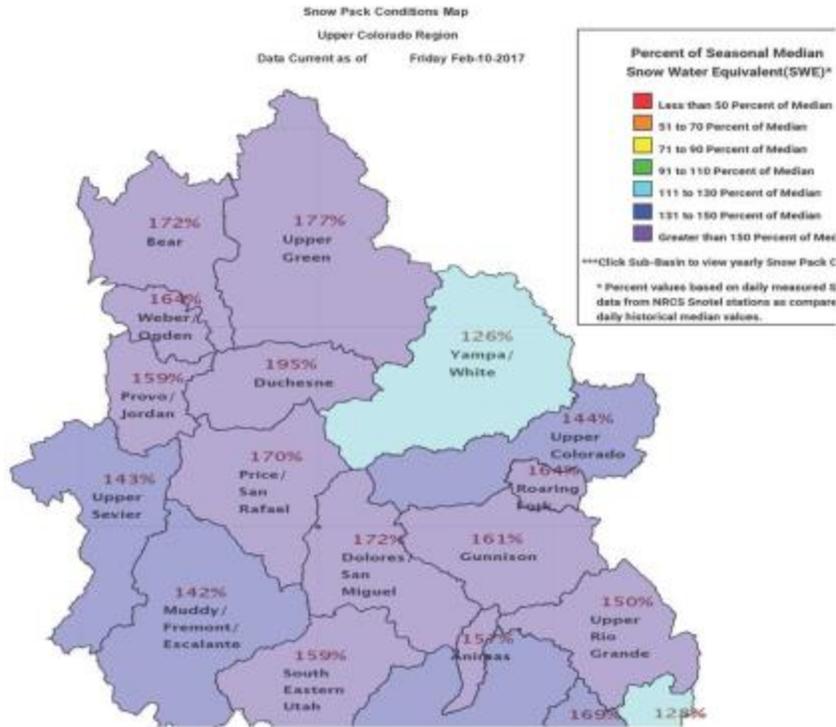
6. Review of status of items highlighted in the Service's 2015 sufficient progress memo - See Attachment 4.
7. RIPRAP and 2023 and beyond – Angela Kantola said columns have been added to the draft 2017 RIPRAP tables to address post-2023 activities to identify and describe anticipated post-program activities (see RIPRAP materials be posted to listserver last week). The PDO welcomes comments and suggestions. This change has not yet been addressed in the RIPRAP text. The Biology Committee will review the RIPRAP at their March meeting and the Information and Education and Water Acquisition committees are expected to have webinars to review it in that same timeframe. Their comments will be forwarded to the Management Committee, which is scheduled to review and approve the RIPRAP on March 27th. Angela will provide new drafts of the text and tables from the technical committees after those meetings wrap up. Henry urged committee members to start their review and provide questions or comments to PDO in advance of the March 27 meeting.
8. Review previous meeting assignments – See Attachment 2.
9. Approve draft meeting summaries – The Committee approved the following summaries as final and Julie Stahl subsequently distributed them to the listserver and posted them to the web.
 - November 28, 2016, conference call summary (no comments received);
 - September 8, 2016, conference call summary (comments received from Tom Pitts and Brent Uilenberg)
 - September 1-2, 2016 meeting (no comments received).
10. Schedule next meeting, webinar, or conference call – The Committee will meet from 9 a.m. to 3 p.m. on March 27 in Salt Lake City at the Utah Department of Natural Resources. A working lunch will be arranged. Patrick McCarthy is not available on March 27, but Robert Wigington will stand in via phone. Tom Pitts also will be attending by phone. The major agenda items for the March meeting will be review/approval of draft RIPRAP revisions and assessment (which supports the sufficient progress assessment) and review/approval of draft FY 18-19 Program Guidance. Other agenda items will include follow-up on the previous week's Washington, D.C. briefing trip, update on reservoir screening and 2016 sufficient progress action items, including "Appendix 2" nonnative fish actions.

ADJOURN: 10:45 a.m.

Attachment 1: Participants
Colorado River Management Webinar, February 13, 2017

<u>Management Committee Voting Members:</u>	
Brent Uilenberg	Bureau of Reclamation
Michelle Garrison	State of Colorado
Tom Pitts	Upper Basin Water Users
Steve Wolff	State of Wyoming
Marj Nelson	U.S. Fish and Wildlife Service
Melissa Trammell	National Park Service
Patrick McCarthy	The Nature Conservancy
Shane Capron	Western Area Power Administration
Leslie James	Colorado River Energy Distributors Association
Henry Maddux	State of Utah
<u>Nonvoting Member:</u>	
Tom Chart	Recovery Program Director, U.S. Fish and Wildlife Service
<u>Recovery Program Staff:</u>	
Kevin McAbee	U.S. Fish and Wildlife Service
Angela Kantola	U.S. Fish and Wildlife Service
Julie Stahl	U.S. Fish and Wildlife Service
Tom Czapla	U.S. Fish and Wildlife Service
Don Anderson	U.S. Fish and Wildlife Service
<u>Others</u>	
Harry Crockett	Colorado Parks and Wildlife
Dave Speas	Bureau of Reclamation
Robert King	Utah Division of Water Resources

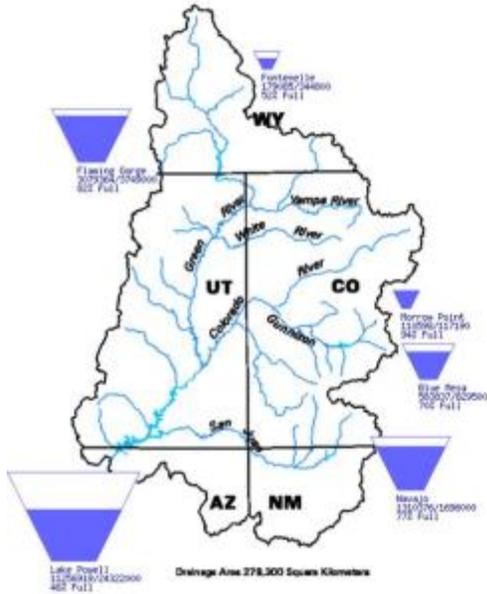
Attachment 2: Hydrology Update



CRSP Reservoirs

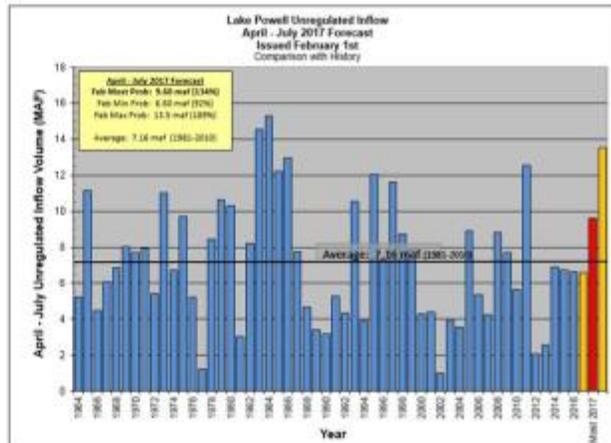
Data Current as of: 02/09/2017

Upper Colorado River Drainage Basin



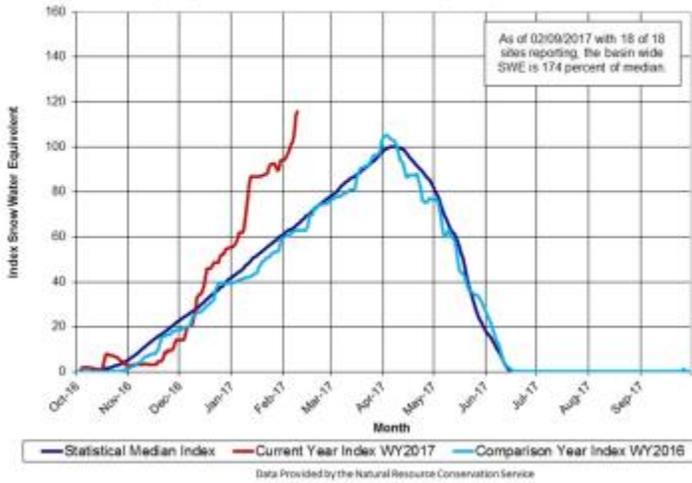
At the beginning of WY2017, total system storage in the Upper Colorado River Basin was 30.7 maf (51 percent of capacity).

Lake Powell unregulated inflow in Apr-Jul 2017 is forecast to be between 92% and 189% of historic, with 9.6 maf (134%) as the "most probable" inflow.



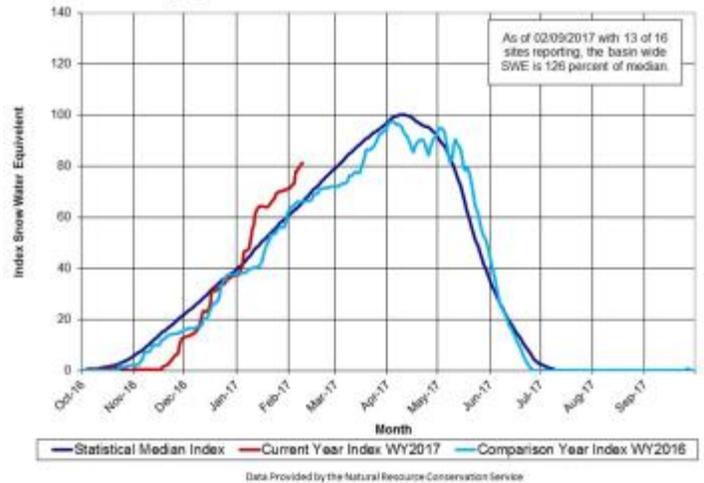
Upper Green River Basin

Upper Green River Basin Snotel Tracking
Aggregate of 18 Snotel Sites above Flaming Gorge Reservoir



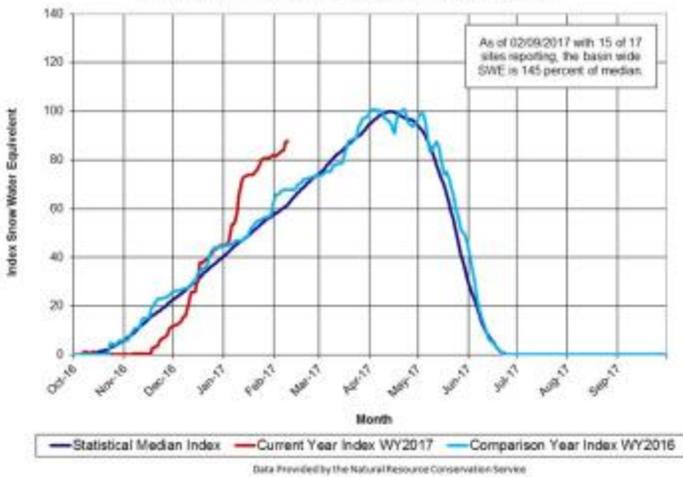
Yampa/White

Upper Yampa River Basin Snotel Tracking
Aggregate of 16 Snotel Sites above Green River Confluence



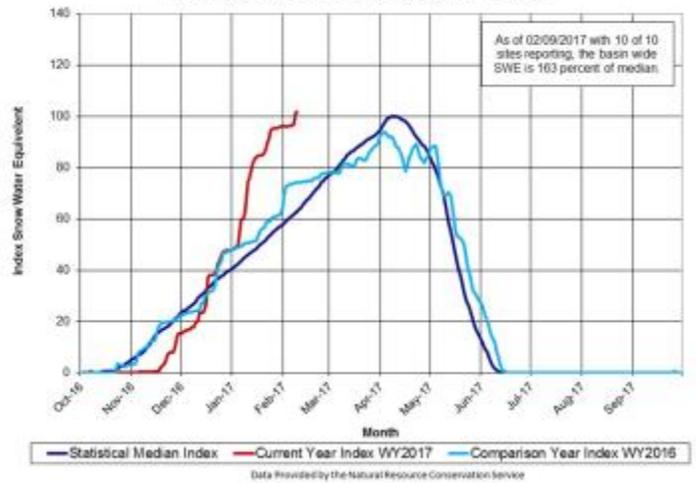
Upper Colorado

Upper Colorado River Headwater Basin Snotel Tracking
Aggregate of 17 Snotel Sites in the Upper Colorado Basin



Gunnison

Upper Gunnison River Basin Snotel Tracking
Aggregate of 10 Snotel Sites above Crystal Reservoir



Attachment 3

Previous Meeting Assignments

Items preceded by an asterisk are also addressed in the agenda.

1. **Tom Pitts** will work with **Clayton Palmer and Brent Uilenberg** and provide a list of additional Program contributions to be added to the Program's budget pie chart that appears in each year's briefing book. *In process.*
 - **Power revenues: Western** contracted with Argonne to model and report actual Flaming Gorge power replacement costs going back to 2001. Subsequently, **Western** will provide annual power replacement cost for the previous year each January for inclusion in the *Program Highlights* pie charts. Those pie charts will include a footnote explaining the calculation and assumptions. For the 2012 & 2013 *Program Highlights*, we used the \$37.4M annualized estimate of power revenues. *A Cost Subcommittee met several times via conference call to review the proposal for and results of the power replacement costs analysis. 1/29/14: Power revenue replacement costs "placeholder" from previous years retained until Argonne report finalized and approved (currently in revision). 5/27/15: Clayton Palmer said Argonne's work had been delayed by their involvement in the LTEMP EIS, but they recently had a conference call on completing work on power replacement costs and hope to have draft to share with the subcommittee soon. 7/21/15: Clayton has a conference call with Argonne next week and will provide an update for Angela to send to the Committee. 4/29/16: Shane Capron said Western expects something in July.*
 - **San Juan: Tom Chart** will ask **Dave Campbell** to work with the SJCC to determine their additional costs not currently reported (e.g., Southern Ute expenditures on population model). Also, **Patrick McCarthy** will provide information on TNC's capital contributions in the San Juan Program (*done*).
 - **Water users/Colorado: Program participants** will identify other significant costs that have not previously reported (e.g., the Granby component of 10,825 which is estimated at \$16M, \$1.25M contributed by Colorado for GVWM and \$1.5M for OMID, CRWCD contributed property for OMID, etc.) (*Done*). *1/29/14: Water user and Colorado additional costs added and documented in Kantola's Briefing Book Pie Chart Data spreadsheet. 3/20: Tom Pitts said that a few adjustments on water user contributions will need to be made, but we seem to have the totals and process for updating pretty much squared away. Tom Pitts will work with the water users to develop an annual report on O&M and contract costs on the 10,825 water. >Angela Kantola will provide Tom Pitts a list of scopes of work needed to document water user contributions to the Program (as outlined in the water user contribution table that is part of the pie chart calculation). 7/18/15: Pending.*
2. **Tom Pitts** will work with **Henry Maddux, Bridget Fahey, and Brent Uilenberg** to frame a discussion about what will recovery look like (post-delisting) as it relates to flows, ongoing operation & maintenance, continued monitoring, and responding to nonnative fish concerns. They will then bring it back to the Management Committee at a later date. *2/3/15: Henry Maddux said this may be part of comments on the Recovery Plan and become part of the recovery plans. 5/27/15: Tom Pitts suggested this will need to outline commitments necessary to maintain the Program's accomplishments. Tom Chart said perhaps this is something that can be outlined before next year's briefing trip. 7/21/15: Tom Chart thinks the discussion might be framed in a one-pager that folks could have if needed during next year's briefing trip. March 2016: Melanie Fischer created the ["Path to Recovery" document](#).*

3. **Michelle Garrison** and **Jana Mohrman** will add appropriate detail to the White River Management Plan scope of work for the in early November (*done*) and Colorado will issue an RFP (*in process*). **Michelle** will share the updated White River Management Plan SOW with the Management Committee when it goes out for bid and discuss who may want to be on the review panel. *9/2/16: Michelle will share the SOW from the roundtables, and also the SOWs for the remaining portions. 2/13/17: Michelle said they're working on the modeling contract SOW now and will provide that to the Committee this week. The remainder of the work will be covered in a separate SOW.*
4. **The Management Committee** will review the reservoir screening table as a standing agenda item (perhaps on the Biology Committee's agendas, as well). Kevin McAbee will continue updating the table for the Committee (and will add Brent Uilenberg's capital cost estimates). *This will next appear on the Management Committee agenda in March 2017.*
5. The **Program Director's office** will finalize the RIPRAP for 2016 and then begin working on addressing 2023 (identifying actions to be completed or carried on beyond 2023). *Done; on web.*
6. **Henry Maddux** will provide Angela the amount that Utah funded for The Nature Conservancy to provide habitat for razorback sucker (and hopefully bonytail) at the Matheson Wetland Preserve so Angela can credit it as an additional Utah contribution to the Recovery Program. *Done 2/13/17.*
7. **Tom Chart** will talk with Partners program (Bill Noonan) about funding for an automated gate to return Elkhead fish releases at Maybell Ditch. **Tom Pitts** will inform Mike Camblin of Maybell and **Tom Chart and Angela Kantola** will contact Mike to make the funding arrangements. *Done.*
8. ***Reclamation** will bring the terms of an O&M agreement for Tusher Wash East Side fish passage & screens intake back to the Committee before finalizing.
 - **Reclamation, Henry Maddux, Program Director's Office (Tom Chart and Kevin McAbee), and Tom Pitts** will explore options with GRCC and develop a set of recommendations for Management Committee consideration.
 - **Bob Norman** will ask GRCC to prepare a proposal for rebuilding the 8-gate structure under their supervision (and canal and siphon).
 - **Henry Maddux** will see if the State can help renew negotiations with the Green River Canal Company board.

Attachment 4: Status of Action Items from the 2016 Sufficient Progress Letter
(only those items not being tracked elsewhere)
February 13, 2017

#	Recommended Action Items	Lead	Due Date	Status
General – Upper Basin-wide				
	Fully implement the comprehensive <i>Upper Colorado River Basin Nonnative and Invasive Aquatic Species Prevention and Control Strategy</i> and continue work with the States to implement the specific, tangible actions added to the RIPRAP in 2013.			Tracked in separate appendix table. Next MC review in March 2017.
1	Develop and implement a specific, prioritized plan for humpback chub broodstock development.	PDO/BC	In progress	Ad hoc group developing action plan; recent draft genetics report indicates historical hybridization (not anthropogenic) occurred between humpback and roundtail chub in Black Rocks. Authors identified two management units in the upper basin: Deso-Cataract and Black Rocks-West Water, but recommended both units be represented in a single Upper Basin broodstock. FWS continues to bring young humpback into the hatchery for backup broodstock. 18 Black Rocks humpback chub are held at Horsethief Canyon Native Fish Facility; 11 Desolation Canyon humpback chub are held at Ouray NFH. New genetic information may affect how we develop broodstock. Some additional analysis is underway on fish from Black Rocks.
2	Determine how to investigate age-0 and age-1 humpback chub mortality (especially in Black Rocks/Westwater and Desolation canyons). PI's agree that reinitiating an age-0 monitoring component is advisable and a pilot effort was begun in 2016.	USFWS	Ongoing	Baited hoop nets were deployed at Black Rocks in 2016 captured 87 adult, 10 juveniles HBC; 12 age-1+ and 85 age-0 <i>Gila</i> spp. UDWR researchers recommend an additional sampling pass in Westwater in 2017 to experiment with hoop nets instead of trammel nets, which may reduce handling stress.
Green River				
3	Continue government-to-government consultation with Northern Ute Tribe to renew Old Charlie Wash lease	USFWS	N/A	Service continues to negotiate with Tribe on lease renewal and options to resume sampling at Old Charlie. Sonja J. is working on a 3-year lease to give access to Old Charlie and Wyasket Lake and potentially allow nonnative fish management on the Duchesne River.
Yampa River				
4	Complete accounting of past depletions using the StateCU model (Due date from YPBO - 1st report July 1, 2010; 2nd report July 1, 2015). Report to include discussion of the need for flow protection (which would require a peak flow recommendation).	CWCB	2017?	The irrigated acreage assessment was completed (agricultural consumptive use does not appear to be increasing). Other depletions (M&E, transbasin exports, etc.) are still being estimated. Another contract was awarded to update the dataset. The models will be updated through at least 2012. Colorado has placed a high priority on the Yampa and Colorado river basins portion of this work, but work was delayed due to staff shortages. Wilson Water Group (WWG) has been contracted by CWCB to provide updated depletion accounting in the Yampa River after the Colorado River accounting is completed.

Duchesne River				
5	The Service will continue to pursue government-to-government consultation with Northern Ute Tribe so that in-river removal of nonnative fish can be resumed in the Duchesne River	FWS/Northern Ute Tribe	N/A	Program is coordinating with the Ute Tribe to reinstate collaborative fish community investigations / nonnative predator control in the Duchesne River. Tribe has indicated interest to conduct nonnative fish removal in 2017. Sonja is working on a 3-year lease (see #3 above).
White River				
6	Maintain White River management plan schedule. Develop contract to convert Utah water rights to StateMod and on an RFP for the remaining work on the project.	CWCB/Contractor, USFWS CWCB	2018	Detailed SOW & coordination activities developed by PDO, TNC, the States of Colorado and Utah, and White River Water users in 2016. White River Management Plan and a White River PBO currently scheduled for completion by summer 2018. PDO and the State of Utah continue to reach out to engage Ute Tribe as a partner in this process.
Colorado River				
7	Improve achievement of flow targets, especially in drought years.	Program	Ongoing	<p>The Program is working to improve the overall strategy for flow augmentation in the 15-Mile Reach to be considered each spring and adjusted as the year progresses, addressing all possible sources of water, priorities, antecedent conditions, projected flows and supplies, including OMID, Grand Valley Project, CFOPS, etc. In 2015,</p> <p>Ute Water Conservancy District proposed leasing up to 12,000 af of water to CWCB for an instream flow and CWCB leased 9,000 af of water that year and 12,000 af in 2016.</p> <p>The OMID Canal Automation Project is expected to provide about 17,000 af of water in most years. Check structures in the OMID project are complete (partial water savings became available in the 2014 irrigation season) and the reregulating reservoir is under construction. The project will be fully implemented in 2019 (regulating reservoir will be completed in 2017; however, the final completion of all OMID Canal Automation Project components likely deferred to 2019 as a result of the priority for Program's cost-share of \$1.5 million for Grand Valley Power Plant rehabilitation).</p>
8	CWCB to provide the depletion accounting report that was due July 1, 2010.	CWCB/Contractor	2017	<p>Still overdue; however, in 2016 Wilson Water Group (WWG) was contracted by CWCB to provide depletion accounting in the Colorado and then Yampa Rivers. Concern has been expressed about a change in the methodology used for crop consumption/evapotranspiration regarding initial vs. current depletions. PDO working with WWG to confirm depletions included in the historic accounting...</p> <p>Initial estimate of agricultural consumptive use (CU) was been completed and, at first glance, do not appear to be increasing: Average Annual Ag CU, AF, Colorado River 15-Mile Reach: 1975–1995 = 473,274 1996–2012 = 445,524 Other depletions (M&E, transbasin exports, etc.) are still being estimated. The models will be updated through at least 2012. Colorado has prioritized the Yampa and</p>

				Colorado river basins portion of this work. See also first item under Yampa River.
9	Complete CFOPs report (evaluation of options for providing and protecting additional peak flows to the 15-Mile Reach).	Water Users	2017	CFOPS Phase III draft report distributed April 2, 2014 and comments received; the next draft will identify the Service's "fish pools" and which ones are subject to exchange (base to peak flows) (will require State Engineer legal review). The CFOPS report should be included in the 2015 review of the 15-Mile Reach PBO. Several parties have reviewed the latest draft and it is very close to going to the WAC for review (likely in May)
10	Address gizzard shad concerns in Highline Reservoir, which may now be an additional source of gizzard shad for illegal transport (intentional or live bait).	CPW/Program	2017?	CPW and Program to develop appropriate response.