



Upper Colorado River Endangered Fish Recovery Program

Dated: April 29, 2016

**August 17-18, 2015, Management Committee Final Meeting Summary
Radisson Denver Southeast, Denver, Colorado**

Participants: See Attachment 1

Monday, August 17

CONVENE: 10:30 a.m.

1. Approve July 21, 2015, draft meeting summary – Angela Kantola posted the draft summary to the fws-coloriver listserv by Angela Kantola on July 28, 2015. Melissa Trammell suggested changing “PIT” to “PIA” (passive interrogation array) wherever it occurs. Angela did that and finalized the summary.
2. Sufficient progress memo and 15-Mile Reach and Gunnison PBOs status review – Angela said Program participants reviewed and commented on the draft elements of the 2015 sufficient progress memo and the Service held their annual sufficient progress assessment webinar on August 6. A final draft sufficient progress memo and 15-Mile Reach and Gunnison PBOs status review will be sent to the Management Committee soon (primarily for informational purposes) with a request that Committee members notify the Service if they have any significant issues/concerns. The final draft memo is expected to contain a positive sufficient progress call and place emphasis on the need to accomplish the White River Management Plan. Another item mentioned in last year’s memo was Green River Canal entrainment. Construction of the diversion rehab is still a couple of years out, but we’ve made good progress (and we’re also finding that not all fish that enter the canal are permanently entrained, which is good). The memo also will discuss the progress Colorado has made in overall nonnative fish messaging. CPW is wrapping up an escapement study at Stagecoach Reservoir. Kevin McAbee said CPW has informed the PDO that for 2016 and beyond they will remove all northern pike (tagged or not) caught at Stagecoach.

Henry Maddux asked about the proposal to scale back on sufficient progress reviews / reporting by: a) drafting the traditional “full-blown” sufficient progress memo only in even years and b) by producing a “sufficient progress light” memo in odd years (proposed to begin in 2017) which could discuss any significant recovery actions falling behind schedule and some acknowledgment of progress. Tom Pitts said he supports the concept but mentioned that the water users would like the Service to continue to issue an annual finding as to whether the Program is providing ESA compliance and the depletion threshold. Tom Chart agreed those items are the crux of the memo and could be prepared in odd years. >The Program Director’s office will outline (at least in bullet format) what future odd-year “sufficient progress light” memos would contain in advance of the October 1 Implementation Committee meeting.

Tom Chart discussed concerns about limited staff in Ecological Services (ES) offices to address Colorado River consultations and related activities. Tom and Seth Willey suggested that an upcoming Ecological Service’s project leader’s meeting could be a good forum to discuss this issue. The PDO has discussed the idea of a shared position among the Grand Junction, Salt Lake City, and Cheyenne ES offices to restore some of the Colorado River Section 7 expertise that has been lost due to attrition. That position would be responsible for all Colorado River Section 7 consultation, participation in the Flaming Gorge and, Aspinall work groups, and preparation of a White River PBO. Seth Willey anticipates this conversation will move

forward over the next few months, but can't predict the outcome amidst the Service's long-term challenge of declining ES budgets / depleted work force over the last two decades and competing priorities such as sage grouse. Tom Pitts observed that without the Recovery Program, the Colorado River depletion consultation workload would be significantly greater for the Service (and others). Henry emphasized the need to maintain the Program Director's office balanced representation of all Program participants as opposed to representing the Service in the Program. Henry suggested this staffing concern be discussed at the October Implementation Committee meeting.

3. Updates

- a. Reservoir updates – Kevin McAbee complimented CPW for the great draft Elkhead lake management plan (LMP) they sent state partners and the Service on August 12 (which began the 45-day review period). The plan proposes stocking largemouth bass, black crappie, and yellow perch, with the potential to add sterile predators once the net is installed and if it were to remain long-term. The net is a little behind schedule due to contracting issues, but the Committee learned that Ray Tenney still expects installation in spring 2016. Jana Mohrman is releasing the Program's "fish water" (5,000 af) from Elkhead. Her understanding is that a total of 8,000-9,000 af will need to be released this fall to conduct some pre-net installation work. Kevin said Utah is receiving letters of support for their Red Fleet LMP and Red Fleet will be treated in mid-October if the rotenone can be secured in time. Henry said the Virgin River Program is treating Gunnison Reservoir and potentially could have some extra rotenone, so UDWR should be discussing this internally. Kevin said Ridgway has not spilled this year. CPW held a successful smallmouth bass fishing tournament there and estimates that nearly a third of the reservoir's adult smallmouth bass population was removed, with anglers removing all size classes. Kevin hopes to learn more about the tournament (number of participants, etc.) and Melanie also would like to know how many of the "Catch&Keep" cards were distributed and if more are needed. A stakeholder meeting at Ridgway will be scheduled after Labor Day. The engineers are moving forward on screen design for Starvation Reservoir and UDWR is considering how to fund that. The temporary screen operated in 2014 and 2015 (two short periods of spill occurred in 2015).

Kevin said CPW has proposed a regulation change for unlimited bag and possession of smallmouth bass on the western slope. They've also proposed changes for other waters that have more specific protective regulations (e.g. Elkhead). Tom Pitts, Geoff Blakeslee, and Kevin McAbee will attend the Commission meeting in September to voice support for those changes, which they hope will be approved in November. Only McPhee Reservoir would maintain a protective regulation, which is consistent with the 2013 nonnative fish addendum to the sufficient progress memo. [Flaming Gorge, McPhee, and Lake Powell were all considered locations where control / containment of smallmouth bass are considered intractable.] Escapement from McPhee has only been documented once in the early 90s, but smallmouth bass have been present in the Dolores ever since. There is no bag limit on smallmouth bass in the Dolores (or in any river on the western slope), but there's not much fishing pressure on the Dolores, either.

Tom Pitts asked for a tabular summary of nonnative fish control actions basin-by-basin; Henry Maddux suggested it also include actions still pending. >Kevin McAbee will work on this.

- b. Section 7 funds update – Angela Kantola reviewed fund status and proposed projects. Through June 30, 2015, ~\$618K was available in the NFWF-managed Section 7 funds account with ~\$235K of that amount now spent or obligated (recovery goals technical assistance, Red Fleet rotenone, Walton Creek channel modification feasibility study, and continued standardization of the electrofishing fleet). This leaves a balance of ~\$383K for potential new expenditures such as:

- Contract to complete CFOPs report
- Colorado pikeminnow PVA and razorback sucker SSA
- Assistance to Colorado and Utah for reservoir reclamation (rotenone)

Kevin noted that most of the new deposits coming into the S7 account are fairly small and no new large depletions are on the near horizon. Tom Pitts suggested perhaps the San Juan Program could share expenses on the PVA and SSA. Henry Maddux said Utah will also consider contributing to these.

4. Drought contingency update – Beverley Heffernan provided an updated on the DOI drought contingency project, focusing on Lake Powell and Flaming Gorge (see Attachment 3). Steve Wolff said recovering reservoir storage has been a big issue for Wyoming. Robert Wigington asked if releases would tend to be at the bottom end of the flow targets during storage recovery. Beverley said that hydrology would dictate the targets, which is consistent with the ROD. Robert also asked if Reclamation is considering constraints on the infrequent, but severe drawdowns at Flaming Gorge. Beverley said some operational constraints would likely come into play. Steve noted that the States haven't met on this since last spring and questions whether an MOA could be signed by the end of this year. Tom Chart reiterated his concern that reservoir / release water quality during extreme drawdowns could exacerbate the release of nonnative predators (e.g. smallmouth bass and burbot) into the Green River.

5. Technical Committee Reports

- a. Information and Education Committee – Melanie Fischer reviewed Program outreach at water user events, Endangered Species Day at the Denver Aquarium (>500 students), and through social media outreach (926 people reached on Facebook last week). Our social media reach is expanded as people sharing our posts – so please do! Several of our State and Federal partners do classroom and related outreach and we support that with a variety of educational materials. This year's *Program Highlights* contained a centerfold highlighting the nonnative fish threat. The recent *Swimming Upstream* newsletter also featured the nonnative fish challenge. Melanie continues to produce digital versions of these publications (available on the Program website) in color with additional interactive features and videos. This year, Melanie also has created a standalone nonnative fish brochure, as well as a "Catch&Keep" logo and card for the Ridgway Reservoir fishing tournament. In the works for 2016 are news spots on the '55 Country' radio station that reaches the western slope of Colorado, eastern Utah, and parts of Wyoming (13 mentions per month at prime times for \$400). Melanie's also reviewing options for new educational materials (non-paper) that field staff can share with people they meet on the river. One option is a "Lil Sucker disk" product that holds a water bottle or can of pop on a boat. The Service's Ryan Moehring is discussing filming for a short video with NatGeo with Tildon Jones' (USFWS-Vernal) crew. Some of Tom Pitts' constituents may include educational inserts in water bills. Melanie also is investigating the potential for billboards in Craig, CO. Melanie and Melissa both suggested the Program needs a friends group. Beverley and Melissa noted that the stickers and magnets remain popular.

- b. Biology Committee - Melissa Trammell provided an update on recent Committee activities

- 1) PIA data - At the last Management Committee meeting, Tom Pitts asked how we might incorporate this new data coming in from the remote PIT antennae (often referred to as Passive Interrogation Array, or PIA) into our population estimates of endangered fish. The Biology Committee and PIs have a great deal of interest in this as well. Independently, Reclamation is planning to fund a joint study to do that, working with Drs. Phaedra Budy and Mary Connor at USU. We don't know how using these data may affect the population estimates in terms of numbers of fish – but they will likely improve the precision and accuracy, leading to smaller confidence intervals, and also improve our estimates of adult survival rates, all of which will be helpful during the PVA process.

2) Larval Trigger Study Plan (LTSP) operations

a. Stewart Lake –Larval razorback suckers appeared earlier this year than previously observed. Stewart was filled between May 9 and 28, and supplemental water was provided starting in June. Cracks have developed in the rubber gasket at the base of the inlet gate, resulting in a small leak; repair of this gate following draining this fall would be desirable. A high density of aquatic vegetation made seining less effective than last year, but fyke netting has produced several Age-0 razorbacks (58-70 mm TL), and 3 Age-1 razorbacks. At present, UDWR expects to be able to retain water in the wetland through August, commencing draining on ~ September 1. As last year, razorbacks remaining in the wetland will be captured in the outflow and returned to the river. The outlet gate will be replaced later this year.

b. Johnson Bottom – During the recent Biology Committee meeting, USFWS biologist Chris Smith reported that they sampled Johnson the week of July 13 using fyke nets and seines and found 115 razorbacks 32-70 mm TL (mean = 52 mm); the fish had been in the wetland only 6-7 weeks. Growth rates were similar to Stewart Lake. They also found one 68 mm (Age-1) pikeminnow, 4 bonytail adults (from the Ouray hatchery), some nonnative cyprinids, a few bullheads, and some carp. They'll discuss with the Refuge when and if to drain Johnson (the Refuge wants to maintain shorebird habitat). Kevin McAbee said the Recovery Program's original goal was to operate this like Stewart Lake and not over-winter fish, but it's likely that we will over-winter fish in some years. This year it probably would be preferable to drain the wetland to reset it and not over-winter the larger bodied nonnative fish that managed to get into the wetland via holes in the nets placed across the breach.

3) 2015 hydrology – Spring hydrology was very unusual. Crews encountered higher flows than usual when sampling due to late spring rains, which generally caused lower than expected catch rates of target nonnative fish species. Most rivers peaked twice, once early in May and again in early June. Temperatures stayed low through mid-June. Crews were able to stay on the river for longer (more trips) but overall catch efficiency was down.

4) Work planning process - The Biology Committee was impressed with the quality of draft SOWs from PIs, which made technical review of the SOWs efficient. The Committee was prepared to discuss drastic budget cuts due to the projected budget shortfall, but the Program Director's office made this unnecessary by covering the deficit with carry-over funds in the Service. The Committee was able to spend more time discussing the technical merits of the SOWs. Many of the projects are ongoing, and annual refinements to the SOWs have resulted in well-written, clear proposals with budgets that meet Reclamation's needs. Most of the Committee's time was spent discussing new projects.

5) HBC spawned in Grand Valley ponds – Some of the wild humpback chub (and potentially a few roundtail chub) from Black Rocks taken into the Service's Horsethief facility in fall 2014 spawned in the pond this spring. Age-0 fish were observed in the pond and identified as chubs. There is a small chance that roundtail chub contributed to the spawning. On August 13, the Biology Committee discussed what to do with these Age-0 fish. Tom Czapla provided a list of alternatives ranging from disposal, to keeping them in the hatchery as broodstock, to repatriation to the river. Wade Wilson from SNARRC expressed some concerns about brood stock or repatriation without genotyping to be sure the fish: a) are humpback chub; and b) represent sufficient genetic variation compared to the wild population. The Committee recommended: a) keeping the fish overwinter; b) genotyping the potential parental stock and a subsample of the young; and c) deciding what to do with the remainder of the fish when those results are available, by next February. Wade and Dale said they could absorb the additional costs with existing funds. Humpback chub spawning naturally in a hatchery setting is encouraging evidence that broodstock development will be possible.

c. Water Acquisition Committee

- White River Management Plan contracting status – Michelle Garrison met with CWCB contracting to review the schedule and they asked for more detail, which Michelle and Jana will develop. Michelle anticipates an RFP with folks from the Program on the review panel.
- CWCB lease of Ruedi water from Ute Water Conservancy District – Michelle said that on August 12 the Ute WCD Board approved the proposed contract for leasing their contract water in Ruedi Reservoir to the CWCB for release to the 15-Mile Reach. CWCB will submit the signed copies to contracting, and then it will go to the state controller for signature. The contract will be in effect when the state controller signs it (hopefully by the end of August). CWCB will notify the Program when the contract has been signed. Tom Pitts expressed appreciation to Ute Water and CWCB for this. >Jana plans to prepare letters of appreciation to be signed by the Service’s Regional Director and will copy the Management Committee.
- Hydrology – Green River peaks were lower than average; Colorado River were above average. Baseflows mostly higher than average, though they’re beginning to drop now and Jana’s starting to call for water. Michelle said surplus has been discussed on the HUP call and those releases could begin soon (perhaps next week). Granby and Williams Fork are releasing discretionary water now.

Sites	2015 Peak	% of Avg
Price R. at Woodside	805	20%
Duchesne R. at Randlett	2,040	52%
San Juan R. at Bluff	8,120	53%
Green R. at Green River	15,900	57%
White R. at Watson	2,540	66%
Yampa R. at Maybell	7,540	72%
Green R. at Jensen	14,900	77%
Gunnison R. at G.J.	10,600	82%
Colorado R. at Palisade	18,900	110%
Colorado R. at Stateline	30,400	114%

Baseflows	July & Aug Avg	% of Avg	Summer Min (as of 8/13/15)
Duchesne R. at Randlett	101	29%	29
Price R. at Woodside	61	64%	0
Yampa R. at Maybell	740	85%	186
Green R. at Jensen	2,901	85%	2140
San Juan R. at Bluff	2,098	105%	760
Green R. at Green River	3,736	110%	2420
White R. at Watson	641	110%	337
Gunnison R. at G.J.	2,480	128%	1370
Colorado R. at Stateline	7,627	133%	3470
Colorado R. at Palisade	3,795	144%	888

- OMID – Brent Uilenberg said Reclamation is working to get the regulating reservoir construction contract awarded (bids were due August 17). Check structures are installed in both canals. A number of miscellaneous small control structures also have been installed. Once the regulating reservoir is awarded and operational, ~75% of the expenditures on this project will be complete.

Tom Pitts asked if benefits are accruing yet; Brent said they haven't benchmarked that yet, but need to as part of the O&M agreement.

6. Green River Landscape Conservation Design (LCD) project direction/goals (Project Leader Dave Theobald, Conservation Science Partners and Kevin Johnson, Southern Rockies LCC Coordinator) (see Attachment 4) – Kevin Johnson said LCC staff heard from partners that certain geographies (Green River basin, upper Rio Grande, and Four Corners area) have numerous activities with common resources and stressors and indicated it would be useful to have a process or venue to bring the partners together to consider shared targets, where data could inform conservation management actions, and where collaboration could occur. The Steering Committee selected the Green River basin as the place to start a collaborative project. Kevin described how LCD will involve folks working on the landscape to collectively identify targets/objectives, resources, stressors, etc. The goal is to analyze existing data to describe current conditions and then determine future desired conditions and the gaps between current and desired conditions. They won't duplicate existing efforts (like the Recovery Program), but, rather, inform and link the various efforts across the landscape. For example, the Service has three national wildlife refuges in the Green River Basin that want to produce comprehensive conservation plans and understand how those affect other activities on the landscape and vice-versa. Dave Theobald said they are eager to hear from the Program how they can be of help and add value to our activities. They've identified two broad classes of conservation targets: riverine and sage brush/steppe. Now they're developing analytical frameworks and available data for synthesis. Kevin said an LCD is both a process and a product, with the expected end product being a spatial display that identifies where conservation delivery can occur in terms of management actions of protection, restoration, or manipulation. Henry asked about information scale and how they will deal with discrepancies in scale among datasets. Dave said the main datasets might have 30 meter resolution, but at the watershed level, they plan to have 10 meter resolution. They would like to hear about data and analyses gaps that Program participants want to see addressed. The Committee asked questions about the kind of syntheses that can be done. Henry gave an example of oil and gas threats and asked if the LCD can bring together data on existing and potential development, sensitive species areas, etc. and provide risk analysis. Kevin said yes, but they'll need to know what to measure the stressor against. Tom Chart said he thinks Henry's suggestion could really benefit the Program. Tom and Melissa are on the LCD oversight team and others would be welcome, also. Kevin said they're considering a workshop to bring managers and researchers together. Dave said they're interviewing members of the oversight team and could also interview this Committee or its members. They've also established a website for the LCD to keep people informed: <https://sites.google.com/site/grblcdwiki/home>. They will stay in touch with the Management Committee and the Program as they proceed.
7. FY16-17 Work Plan Review – Angela Kantola said the Program Director's draft FY16-17 Work Plan was sent to the technical committees on 6/19/15. Draft FY16-17 scopes of work are posted at <http://www.coloradoriverrecovery.org/documents-publications/work-plan-documents/project-scopes-of-work.html>, though the website has been down due to a Fish and Wildlife Service-wide outage. The technical committees reviewed the draft work plan and scopes of work in July and made minor modifications. Technical committee annotations appear in green (Biology Committee), blue (Water Acquisition Committee) and pink (Information & Education Committee) text in the comments columns of the draft FY 16-17 Work Plan budget spreadsheet (sent to the Committee on August 6 and again August 14, 2015). Significant budget shortfalls were predicted for FY 16 and 17; however, the Program Director's office has identified carry-over funds within the Service that will cover these shortfalls.

Program Management scopes of work are reviewed by the Management Committee. **These were sent to the Committee on August 14 (and will be posted on the website with the rest of the scopes of work** at <http://www.coloradoriverrecovery.org/documents-publications/work-plan-documents/project-scopes-of-work.html#VII>.

Henry asked if there would be a presentation at the researchers meeting on overall nonnative fish management efforts; Kevin said he hasn't planned that, but will consider doing so.

ADJOURN: 4:30 p.m.

BBQ and Evening Social Event: The Committee enjoyed a barbecue at Cherry Creek State Park.

Tuesday, August 18

CONVENE: 9:30 a.m.

FY16-17 Work Plan Review, continued

Henry said UDWR hasn't yet determined what they want to do about the retaining wall that may need to be repaired at Wahweap. Henry asked if a location has been determined for a back-up bonytail broodstock; Tom Czaplak said SNARRC is still considering this and will make a decision before next spring. Melissa noted that we're looking for lower-velocity habitats for stocking bonytail, but they aren't always easy to find.

Henry and Tom Pitts asked questions about the STReAMS database; the Colorado Natural Heritage Program (CNHP) will maintain the server (O&M costs to be determined); it includes all historical data and it includes the San Juan data (the upper basin program database manager will be responsible for upper basin data, Scott Durst will be responsible for San Juan data). Kevin McAbee will find out how the data will be backed up. (CNHP reported they currently do: 1) daily incremental backups kept for a month; 2) weekly full backups kept for three months; and 3) a monthly backup from each month that is kept for duration of the project. They keep back-ups on-site at CNHP and off-site at the Engineering building at CSU. They also are happy to consider sending back-ups once or twice a year to someone in the Recovery Program [or maybe to Dave Speas, out of state], just in case something catastrophic happens in Colorado.) The States also will be entering all their 3-species PIT tag data. Tom Pitts asked about QA/QC; Kevin said PIs will upload data and QA/QC will be automated as part of that. If problems are encountered, then the database manager will help. Historic data may require more clean-up. Robert asked about location data and Kevin said the database can take GIS point locations and translate it to river miles and vice-versa (Kevin said he was not aware of any locations specified by HUC). Dave said nonnative data may be entered, also.

Tom Chart alerted the Management Committee that the technical committees are discussing reinstating larval Colorado pikeminnow sampling in the lower Green as proposed in the draft FR-Backwater Synthesis report. The Biology Committee however has postponed further discussion until the report has been finalized. Henry asked if the additional pikeminnow larval drift would be for research or monitoring purposes and if/when the work is resumed, how the information will be used. Tom recognized those as good questions and offered that because FR-BW Synth is a flow-related project, the Management Committee will be able to review the rationale for this recommendation as part of the Recovery Program report review process.

The Committee reviewed and tentatively approved the FY 16-17 Work Plan, subject to ratification by the Implementation Committee on October 1.

8. Recovery planning updates

- Colorado pikeminnow PVA scope of work (relates to the downlisting criteria in the draft Colorado pikeminnow recovery plan) – Tom Czapla said the draft scope of work to look at the probability of persistence of Colorado pikeminnow (PVA) is in review. The hope is to work with Phil Miller, who prepared the PVA for the Colorado pikeminnow in the San Juan. Tom Chart said Harry suggested considering Bayesian approaches (which help allow for uncertainties); Tom said those approaches may be better suited to the razorback SSA at this point, but that a traditional PVA better fits the pikeminnow data. Seth and Dave Speas provided comments, also, and Tom Pitts has asked for a better description of methodology and schedule. Tom Pitts said the water users have suggested that the Service, as opposed to a ‘PVA team’, to define “near-term” risk of extinction. Seth said having extinction probabilities over a series of timeframes will be helpful to decision-makers. Seth said there’s a Solicitor’s opinion about the meaning of “foreseeable future” (which varies by threats and species). Seth described the “foreseeable” timeframe as described for Preble’s meadow jumping mouse and grizzly bear based on threats of population growth and climate change, respectively. Robert asked how that timeframe might be determined in light of the nonnative fish threat. For delisting, Seth said that the big question is providing confidence that recovery actions will be maintained. Tom Chart said Phil Miller is not available until February, so we’re looking at what can be done to jump-start the process before Phil begins. Robert asked if defining timeframes could be done in advance. Tom Chart said Rich Valdez and the Program Director’s office have scheduled a call with Phil tomorrow. They will raise Robert’s question during that call and >then will let the Committee know when they’ll send out a revised scope of work.
 - Status update: Razorback sucker status assessment (SSA) – Tom Czapla will provide a draft scope of work to Brandon tomorrow and then Brandon will respond to the budget portion. >Tom Czapla will send the Service’s SSA document and the project plan to the Management Committee.
 - Humpback chub recovery plan – November 18 appears to be the best day for the kick-off meeting (near DIA, with a webinar option, if needed). Leslie James asked for a later start time that day, if possible.
9. Identifying gaps in achieving recovery/delisting by 2023 (see August 12 e-mail from Tom Pitts) - From March 24, 2015 Management Committee Meeting Summary: “7. Implementation Committee follow-up – Tom Chart said the Committee discussed Tom Pitts’ memo related to roadmap/benchmarks to recovery at some length. The Program Director’s office agreed to review links among the recovery goals, draft recovery plan, and RIPRAP for any gaps and how those might be addressed. Tom Chart said he thinks the time to begin this will be after the April 7 webinar.”

Tom Pitts said the non-Federal Program participants have been telling Congress the Program will conclude in 2023 since 2002. Therefore, need to define a clear path that will get us to recovery of all four species by 2023. Tom Chart said he hasn’t begun a crosswalk between the recovery goals, draft recovery plan, and RIPRAP, though these concepts are in mind as we review the RIPRAP each year. With regard to the greatest threat to the species, Tom thinks that while we don’t yet have the nonnative fish threat conquered, he believes we’re doing all the right things. Robert agreed, adding he thinks the Program has expanded nonnative work appropriately, and spent Program funds in the right way. Robert believes we not only need a *clear*, but also a *credible* path to recovery. Things like the PVA and SSA offer credibility (whether they indicate we can achieve recovery and delisting by 2023 or not). Steve observed that there are two kinds of credibility: biological and political. To maintain political credibility, we have to show some progress by 2023. Melissa Trammell said she doesn’t think it’s possible to achieve recovery for all four species by 2023, particularly for bonytail which has not responded to recovery actions as the other species have. Tom

Chart said he thinks we can begin to have the conversation about downlisting for Colorado pikeminnow and razorback sucker, which we are doing, and he's hopeful that will bring about the necessary political credibility. Henry says he thinks a lot boils down to whether we can do nonnative fish control faster. Tom Chart said he sees partners bringing as much to bear on the problem as possible (e.g., CWCB bringing SCTF funds to an Elkhead net, etc.). Tom Chart said he thinks we've expanded and refined in-river control and now we need to continue to focus on controlling nonnative fish at their sources. Robert suggested we translate that into the threats assessment in the PVA. Henry thinks the message the partners will take to Congress this coming spring will be something along the lines that we're doing the PVA and SSA in hopes it will lead to downlisting. Seth said downlisting typically takes 2-3 years to get to a final rule. An SSA *may* help expedite the timeline somewhat (the goal for the SSA is to be the robust scientific document that would then be supported by a more streamlined regulatory document). Brent pointed out that we're entering FY16, thus 3 years out is FY19 when the funding authorization expires. Tom Pitts and Leslie James emphasized the difficulty of getting anything ESA-related through Congress. Henry said this is why we need to focus our efforts on the PVA and SSA. Robert said we need to deliver a stronger, different message to Congress. Leslie said she thinks this and similar programs also need to look for additional, creative funding sources (e.g., if funds are available for LCD, then there ought to be funds for the kind of on-the-ground recovery actions this Program implements). Leslie suggested Lynn Jeka's basin fund presentation to the AMWG on August 27 would be worthwhile for Program participants to see (and she later sent information to the Committee). Tom Chart said he'd be happy to schedule a short monthly call with the Committee (or a subset) to track the SSA and PVA; Tom suggested 9a.m.-10a.m. on the second Tuesday of every month and the Committee agreed. Melanie asked if there's anything we can do differently or add to the briefing book to better deliver our message to Congress. An example might be a centerfold showing how well razorback sucker are doing. Perhaps some sort of infographic would be helpful. Melanie and the Committee will continue to discuss this

10. Post-Program conservation – The Committee deferred discussion components of a 1-page briefing paper for next year's D.C. briefings next year to outline commitments necessary to maintain the Program's accomplishments (flow protection, ongoing operation & maintenance, continued monitoring, and response to nonnative fish concerns). See also assignment #2.
11. PIA data analysis – Dave Speas said the passive interrogation arrays (PIA) throughout the basin are generating a great deal of data (and interest). At their January meeting, researchers discussed how these data will be incorporated into analyses. Reclamation found end-of-year funding for USU (Connor and Budy) to begin some cursory analysis of the types of information that can be gleaned from the PIA data. Kevin Bestgen has been working on similar questions with the razorback data. Dave doesn't think PIA data can replace electrofishing, but perhaps potentially refine or reduce it. Dave noted that Reclamation also found funding for a third year of work on razorback in the Colorado River arm of Lake Powell.
12. Member updates – Henry mentioned that Utah's funding comes through an earmark on a sales tax which is under some fire right now; he'll keep everyone informed.
13. Development of October 1, 2015, Implementation Committee webinar agenda - Agenda items for the Implementation Committee meeting scheduled from 10:30 a.m. to 3:00 p.m. near DIA will include:
 - Approve March 5, 2015, webinar summary
 - Program Director's update (including nonnative fish management updates)
 - Sufficient progress and nonnative fish action item review
 - Proposal for the Service to typically do a full sufficient progress memo only in even years and "sufficient progress light" in odd years, beginning in 2017.
 - Service ES office staffing for Colorado River consultation and related work

- April 2015 D.C. trip update
- Recovery plans update (HBC, CPM PVA, RBS SSA)
- Annual funding legislation discussion (timing, etc.)
- Characterizing progress toward recovery
- Capital projects update
- Ratify FY 2016-2017 Work Plan
- Southern Rockies LCC update – perhaps this should focus on something more specific, for example, how they might provide an assessment of oil and gas risks. Seth recommended that the Recovery Program seek to steer the LCC ship by letting them know our very specific need(s), since LCCs are a clear priority of the Regional Directorate and the Directorate.

14. Review previous meeting assignments – See Attachment 1.

15. Schedule next meeting, webinar, or conference call – The Committee scheduled a webinar between from 9 a.m. to noon on Monday, November 2.

ADJOURN: 12:25 p.m.

Attachment 1: Attendees
Colorado River Management Committee Meeting, August 17-18, 2015

Management Committee Voting Members:

Brent Uilenberg	Bureau of Reclamation
Michelle Garrison	State of Colorado
Tom Pitts	Upper Basin Water Users
Steve Wolff	State of Wyoming
Seth Willey	U.S. Fish and Wildlife Service
Melissa Trammell	National Park Service
Robert Wigington for Patrick McCarthy	The Nature Conservancy
Leslie James	Colorado River Energy Distributors Association
Henry Maddux	State of Utah
Via phone: Clayton Palmer	Western Area Power Administration

Nonvoting Member:

Tom Chart	Recovery Program Director, U.S. Fish and Wildlife Service
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Recovery Program Staff:

Melanie Fischer	U.S. Fish and Wildlife Service
Tom Czapla	U.S. Fish and Wildlife Service
Kevin McAbee	U.S. Fish and Wildlife Service
Angela Kantola	U.S. Fish and Wildlife Service

Others

Beverly Heffernan	U.S. Bureau of Reclamation
Jana Mohrman	U.S. Fish and Wildlife Service
Harry Crockett	Colorado Parks and Wildlife
Dave Speas (via phone)	U.S. Bureau of Reclamation
Dave Theobald	Conservation Science Partners
Kevin Johnson	U.S. Fish and Wildlife Service, Southern Rockies LCC Coordinator
Lisa Reynolds	State of Colorado, Attorney General's Office

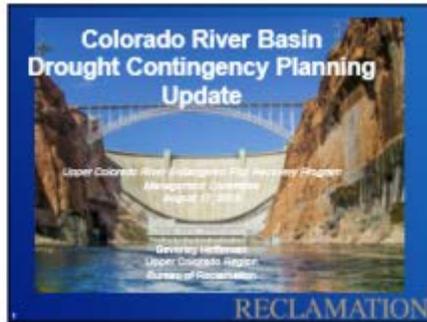
Attachment 2: Meeting Assignments

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.* For the 2012 & 2013 *Program Highlights*, we used the \$37.4M annualized estimate. **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. **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*). **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. *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: Water user and Colorado additional costs added and documented in Kantola's Briefing Book Pie Chart Data spreadsheet. Power revenue replacement costs "placeholder" from previous years retained until Argonne report finalized and approved (currently in revision). 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. 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. >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 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. Agenda item #11.*
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.
4. The **Program Director's office** will share Elkhead net design documents with the Biology and Management committees and ask anyone with concerns to respond within a week of that e-mail. *Pending.*
5. The draft revised compatible/non-compatible species list for reservoir stocking has been sent to the Biology Committee for approval (and then will come to the Management Committee; *7/31/15: sent to the Committee*). Yellow bullhead and blue catfish should be added to the list of non-compatible species. The footnote that smallmouth bass may be stocked in waters above Flaming Gorge Reservoir should say "in waters above Flaming Gorge Dam." The **Management Committee** had until April 7 (*deadline extended to*

April 24) to submit comments on the draft memo regarding a priority system and cost share structure for reservoir screening to Kevin McAbee and Tom Chart, and then the **Program Director's office** will finalize the draft memo for Committee approval. *Done; 7/21/1 – Kevin McAbee will send out for Management Committee review.* **The Management Committee** will review the reservoir screening table (once finalized) as a standing agenda item (perhaps on the Biology Committee's agendas, as well).

6. The **Program Director's office** will work with **CPW** to develop a plan to inventory reclaimed gravel pit ponds permitted with notches (Colorado Mine Reclamation Board), identify how many have nonnative fish, and how to address the problem. *7/21/15 Kevin McAbee said he and Lori Martin will discuss this after her field season.*
7. **Jana Mohrman** and **Tom Pitts** will draft a scope for Program review and approval for a contractor to complete the CFOPs report by the end of this year. *7/21/15 – Tom Pitts will return a revised draft scope of work to Jana by the first week of August. 8/17/15: Done; review & discussion pending.*
8. The **Program Director's office** (Angela Kantola) will outline (at least in bullet format) what future odd-year "sufficient progress light" memos would contain in advance of the October 1 Implementation Committee meeting.
9. **Kevin McAbee** will work on a tabular summary of nonnative fish control actions basin-by-basin; Henry Maddux suggested it also include actions still pending.
10. **Jana Mohrman** will prepare letters of appreciation (to CWCB and Ute Water District to be signed by the Service's Regional Director and copied to the Management Committee) for the CWCB lease of Ruedi water from Ute Water Conservancy
11. **Tom Czapla** will send the Service's SSA document and the project plan to the Management Committee.

Attachment 3: Drought Contingency Planning Update



Background

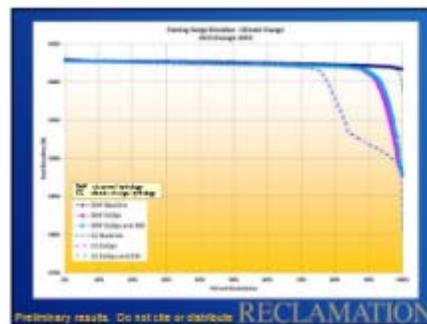
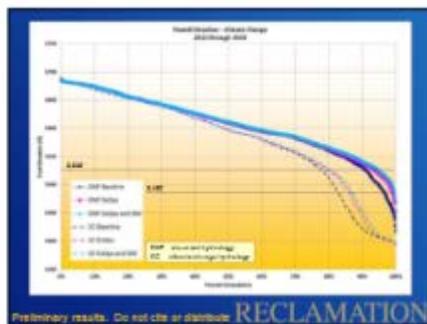
- Basin States tasked by Secretary of the Interior to develop drought contingency plans in 2013.
- Three components: Extended operations of CRSP Reservoirs (our focus today); voluntary demand management; augmentation (weather modification).
- Goal is to avoid minimum power pool at Powell.
- Operation within existing RODs and other relevant guidelines at CRSP dams.

Drought Contingency Planning Modeling Assumptions

- Extended Operations
 - Implementing UB reservoir extended operations (i.e. release additional water) when Powell forecasted to be below 3,525' the following March
 - Evaluated 1,468' in previous model runs
 - If April projected Powell elevation for following March (11 months later), is below 3,525' move water during spring season
 - If August projected Powell elevation for following March (7 months later), is below 3,525' move water during fall / winter season

Drought Contingency Planning Modeling Assumptions

- Upper Basin Demand Management
 - Voluntary demand management
 - If August projection of the following March indicates Powell will be below 3,525', the following year (Jan-Dec) will implement 200kaf of conservation.
 - The conserved water is modeled in CRSS "entering" the system directly above Lake Powell.
 - This assumes (1) all conserved water makes it downstream to Powell and (2) the particular location(s) of the demand management is not assigned at this time.

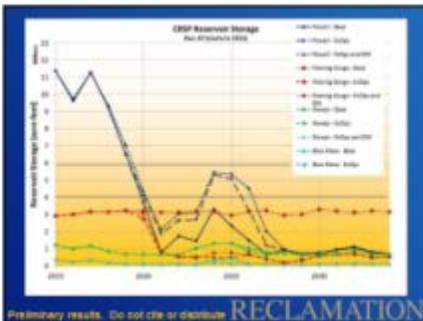




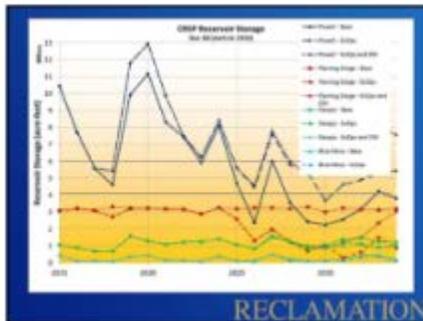
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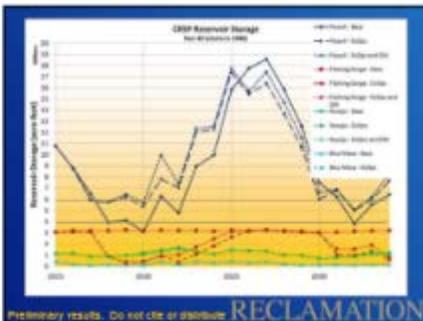
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Conclusions

- Extended Operations of CRSP reservoirs can help reduce risk of Powell dropping below minimum power pool
- Additional efforts (demand management in Upper and Lower basin) may further improve ability to improve conditions at Lake Powell
- MOA and implementation plan being drafted with a target signature date at the end of the year
- Resource concerns heard: water quality, non-native fish entrainment and recovery of reservoir storage



RECLAMATION

Green River Basin Landscape Conservation Design

A collaborative effort to meet mutual goals

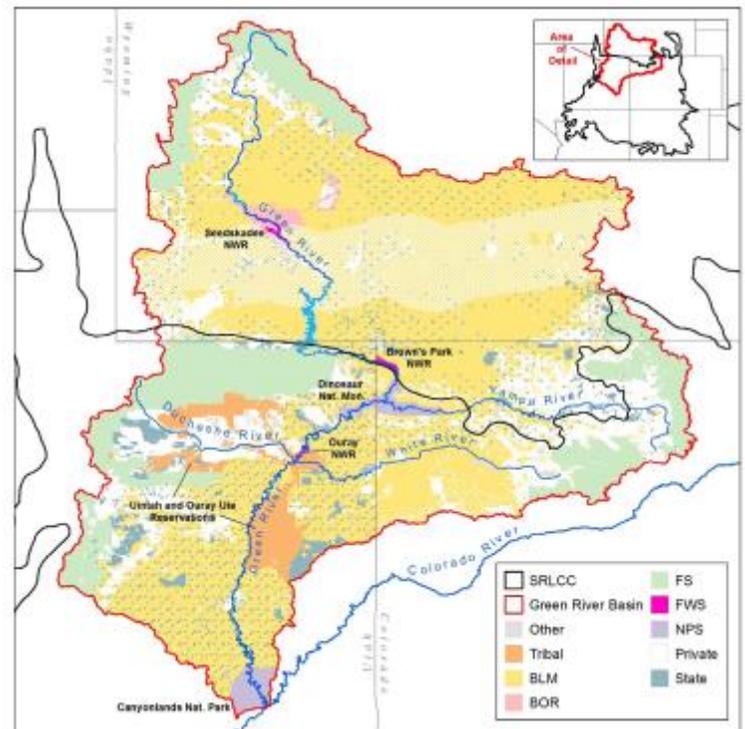
July 2015

The Green River Basin Landscape Conservation Design project (GRB LCD) is an opportunity to think, plan, and act across boundaries and jurisdictions to meet mutual goals for agreed upon conservation targets in the ecosystems of the Green River Basin. This effort is not intended to replace existing science or plans, and is not intended to undermine current management. Rather, through a collaborative process, the project will complement existing projects and partnerships by synthesizing and developing spatial data and information that is consistent and comprehensive across the Basin to provide the landscape-scale context.

Why the Green River Basin?

The list below provides some prominent reasons why Green River Basin ecosystems have become the focus of this effort:

- The Green River Basin was identified by the Southern Rockies Landscape Conservation Cooperative (SRLCC) Steering Committee as one of several geographies where partners have requested data integration and analysis to better plan for landscape changes.
- The US Fish & Wildlife Service (USFWS) Region 6 National Wildlife Refuge Program (NWR) identified a need for more integrated landscape information on focal resources for use in upcoming NWR Comprehensive Conservation Plans.
- The Bureau of Reclamation recognizes the Green River as a major water source with water storage and delivery needs as well as natural resource conservation opportunities.
- The Colorado River Endangered Fish Recovery Program has invested heavily in the Green River Basin with an emphasis on balancing water use and delivery with native fish conservation.



The Green River Basin Landscape Conservation Design project area encompasses diverse landownership in portions of Wyoming, Utah, and Colorado.

- The Mule Deer Foundation recognizes the Colorado Plateau and Green River Basin sage-steppe ecosystem as an important geography for ungulate populations.
- The USFWS is currently reviewing the status of the greater sage-grouse, for which the Green River Basin includes substantial and important habitat.
- The Bureau of Land Management, state natural resource agencies, and local counties and communities are facing unprecedented pressure for oil and gas extraction while trying to achieve a balance for robust economies and sustainable natural resources to support future generations.

- The National Park Service and US Forest Service have significant resources they are managing in the Green River Basin and are looking towards an integrated, landscape-scale approach for long-term sustainability.
- The Wyoming Landscape Conservation Initiative has a framework for collaborative conservation planning in the Wyoming portion of the Green River Basin, and the opportunity exists through a LCD to connect these efforts across the Basin.
- Tribal and ancestral lands of the Northern Ute Indian Tribe are an important component of the Green River Basin landscape, thus indigenous ecological knowledge is a valuable source of information.

What is Landscape Conservation Design?

Landscape Conservation Design is a formalized term for a process of collaborative data integration and analysis on agreed upon conservation targets that results in geo-spatially explicit maps of existing and forecast land use/change scenarios. The products, maps, and projections can be used in a collaborative construct to achieve agreed upon management outcomes. Here are resources to better understand LCD as both a process and an outcome:

- Columbia Plateau LCD: <http://bit.ly/1JOThIB>
- White paper on LCD: <http://bit.ly/1G6TWHj>
- Griffin Groups LCD community: <http://bit.ly/1NSuz2h>

How will the GRB LCD be conducted?

The SRLCC, with support from the Great Northern LCC (GNLCC), has convened an Oversight Team of partners with resource conservation interests in the GRB LCD project area. The Oversight Team will guide the project focus, scope, and process, and provide

feedback as to direction and application of information. The project will engage relevant stakeholders across the Basin using a collaborative framework to integrate stakeholder interests into data development, and will offer participants the opportunity to interact with data products through workshops in order to build understanding, explore scenarios, and guide the LCD towards relevant products. The SRLCC has contracted with Conservation Science Partners to coordinate the project.

Who is participating in the GRBLCD?

A number of partners have interests in the Green River Basin. These invited partners to the GRB LCD include: states of Colorado, Utah, and Wyoming, US Fish and Wildlife Service, National Park Service, Bureau of Land Management, Bureau of Reclamation, US Geological Survey, US Forest Service, Northern Ute Indian Tribe, Wyoming Landscape Conservation Initiative, Colorado River Recovery Program, and Mule Deer Foundation. Through a concerted outreach effort, others will be joining as the project progresses.

For more information, please contact:

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Images: Front - Green River landscape/USFWS; Above - Burrowing owl/L Karney; Colorado cutthroat trout/Fish Guy Photography; Mule deer/S Torbit