



Upper Colorado River Endangered Fish Recovery Program

Summary Dated: October 1, 2015

CR/FY-14 UCRRIC
Mail Stop 65115

Memorandum

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

From: Director, Upper Colorado River Recovery Implementation Program

Subject: Final March 5, 2015, Recovery Implementation Committee Webinar Summary

Attached are the final action and assignment summary and the general summary from the March 5, 2015, Implementation Committee webinar.

Attachment

Summary
Recovery Implementation Committee Webinar – March 5, 2015

ACTIONS:

1. Approved revised October 8, 2014 conference call summary including minor revisions
2. Affirmed next Implementation Committee meeting for Thursday October 1, 2015, from 10:30 - 3:00 p.m. (in Denver near DIA).

PARTICIPANTS: See Attachment 1

MEETING SUMMARY:

CONVENE: 1:00 p.m.

1. Introductions, modify/review agenda – The Committee approved the revised October 8, 2014 meeting summary. >The Program Director’s Office (PDO) will post this to the listserver and Program website. The agenda was revised (as shown here) to incorporate a discussion of Tom Pitts’ ‘Road Map to Recovery’ memo, dated March 3, 2015, he sent to the Implementation Committee.
2. Program Director’s report – Tom Chart gave an overview of Program accomplishments, issues, and future direction by recovery element. (See PDF of PowerPoint presentation included in email). PDO staff clarified some points during the presentation. 1) Tom Czaplá told the group that Colorado pikeminnow using the Redlands Diversion were primarily young fish that had not been previously tagged and those fish were transported 30 miles upstream into the Gunnison River to promote residency there. 2) Noreen Walsh asked what are next steps regarding energy development and endangered fish. Jana Mohrman said more outreach with energy agencies and industry was identified as well as an endangered fish habitat mapping effort that will need to involve BLM and the Tribes. 3) Tom Pitts asked about the possibility for ‘must kill’ regulations to control nonnative predators in Colorado. Tom Chart reported that Colorado Parks and Wildlife’s (CPW) nonnative fish working group is discussing a ‘must kill’ pilot project and/or alternative messaging strategies. This group met in November 2014 and is scheduled to meet again on April 2, 2015. 4) Kevin McAbee clarified that the Program’s increasing efforts to combat nonnative predators is not just “more effort,” but also “smarter effort.” The Program continually strives to be more efficient in how it allocates resources by focusing more on in-river reproduction and controlling escapement of nonnative fishes from off-channel sources.
3. Personnel updates – A Public Affairs Specialist (GS 9/11 level), which is the Recovery Program’s Information and Education Coordinator vacancy was advertised today. The position is open to all current DOI employees in the local commuting area and the vacancy will be open for 7 days. A new database coordinator position will be created some time over the course of the next 18 months.
4. Memo from Tom Pitts: “Proposal - Focusing the Program on Recovery & Beyond Recovery” (Attachment 2) – Tom Pitts introduced his proposal by noting that the Recovery Program has communicated to Congress that we will recover all four listed Colorado River fish by 2023. The

delay in downlisting Colorado pikeminnow (most recently scheduled to have occurred in 2013) was a serious setback to Program progress. In his recent memo, Tom Pitts requested specific benchmarks and timelines to complete by 2023 (e.g., a more detailed description of how we legally protect flows). Tom Pitts wants a report to Congress by September 30, 2015, that will show how we'll meet the 2023 recovery deadline. Congress will ask about the status of the species and progress toward recovery and this will start discussions with Congress to gather further support after 2019. The Recovery Programs have great support through the delegations, but not with all committee members. Leslie James asked if Tom's intention was to take this report back to Congress. Tom Pitts said that was indeed the purpose. Bart Miller agreed in concept with what Tom Pitts was proposing, but asked if this 'roadmap' isn't already covered in our recovery planning documents and RIPRAP. Tom Pitts said the problem is that the RIPRAP only looks two years into the future. Tom Chart said the RIPRAP actually looks at specific actions 5 years into the future and addresses 'out year' considerations as well. Lynn Jeka also agreed with Tom Pitts' concerns and the need for detailed action plan but suggested that our focus should be on threat removal because Western's biologists are telling her that the endangered fish are in real trouble. Tom Chart agreed that we need to keep pushing on threat removal to arrest negative trends (e.g., expanding nonnative predator populations and declining pikeminnow population numbers). Mark Sturm said the nonnative threat seems bigger than we thought and asked if the proposed report to Congress could be used to secure more funding. Tom Pitts thought that could be a reasonable use of the document. Tom Pitts was concerned that development of the Colorado pikeminnow recovery plan began four years ago and isn't yet complete and development of the humpback chub recovery plan hasn't even begun yet. Lynn asked if there are some specific items that are not in the Recovery Plan. Tom Pitts said the plan gives dates but the criteria are too general; they do not provide interim checkpoints. For example, how do we legally protect flows? What are interim criteria that demonstrate effective nonnative fish control? Tom Pitts asked whether RODs are sufficient to legally protect flows. Brent offered that flow protection could entail different process in each State. Lynn asked if there was a way to include these benchmarks into the current recovery plan. Noreen Walsh cautioned that we need to include measurable and objective criteria in the recovery plans, but we also need to be careful to not be overly prescriptive considering the variability in population dynamics and the ecosystem. Ted Kowalski fully supported the concepts in Tom Pitts' memo, everyone wants to recover these fish, but he agreed with Noreen that we need to retain some flexibility so we don't set ourselves up for the next failure. We need goals with reasonable benchmarks, not benchmarks we can't meet. Brent Uilenberg thought incorporating the type of benchmarks Tom Pitts is suggesting in the recovery plan would be a mistake; those details needs to be in the RIPRAP. Steve Wolff suggested a discussion of a 'roadmap to recovery' may be better suited to the Management Committee. Tom Pitts thought that was a reasonable next step. Tom Pitts said he would like a check list to better measure our progress to recovery. Bart said there is quite a list in the Recovery Plan already and asked if Tom Pitts' request is already met if we combined what is in the Recovery Plan and RIPRAP. Noreen said she supports accountability, but also supports flexibility because we don't have perfect knowledge of the future. In the spirit of adaptive management, we need to be able to adjust as we go. Benchmarks written today may need to be adjusted in the relatively near future. Robert King said he likes the idea of a roadmap but asked if a detailed benchmark document could cause more problems with Congress when we miss those goals. Melissa reminded the committee that the Service's annual Sufficient Progress review is an important component of checking our progress to recovery. Tom Pitts felt that the focus of the sufficient progress letter is more short-term than what he is suggesting. Tom Chart proposed to take this to the Management

Committee. Noreen suggested that the PDO review the RIPRAP and Recovery Plan to better define the type of gaps Tom Pitts is trying to fill. Tom Chart said they can do that, but they will need help. For instance, better definition of legal flow protection will rely heavily on input from State partners and the water user representative.

5. 2015 D.C. trip plans and topics – Tom Pitts started by recognizing John Shields who led the logistical planning for the DC trip in the past – a huge undertaking. He and Henry Maddux now are trying to coordinate these tasks. The trip is scheduled for the week of April 13 with all meetings completed by noon on Friday. Tom Pitts commended Melanie Fischer for the Program Highlights book and the new nonnative foldout section. He also commended the Service and Reclamation for getting the dollars into the President’s budget so that the nonfederal partners don’t have to ask for money. Bart wanted to know what it would take to reallocate funding. If requesting money above the President’s budget it would have to be through the Service or the Reclamation budget request. Brent cautioned that asking for additional appropriated dollars is hard enough. More funding for more nonnative fish control is an annual funding issue (from authorized power revenues). Leslie clarified that additional power revenues would require modification of existing legislation. Ted said Colorado has been getting increased funding for nonnative species statewide. It went from \$500K last year to \$1 million this year. Many Committee members thanked all the non-federal partners who devote so much of their time to organize and participate in this vitally important trip on behalf of our Recovery Programs.
6. Sufficient progress and nonnative fish action items update – Tom Chart reviewed 2014 sufficient progress items (see Attachment 2) (major issues were already highlighted in his presentation under agenda item #2). Instream Flows: a) develop a White River Management Plan (including endangered fish flow recommendations); b) continue to push for better flows in the 15-mile Reach during dry conditions. Nonnative Fish: a) control escapement from off-channel sources; and b) develop a consistent outreach plan to manage against the ‘worst of the worst’ nonnative predators (e.g. ‘must kill’ regulations). Habitat Development: a) reduce endangered fish entrainment at the Green River canal (Tusher Wash); and b) improve operations at the GVIC canal fish screen. Tom thanked CWCB for funding to secure a contractor to help with the flow modeling necessary to develop a White River management plan, and thanked Reclamation for their ongoing efforts to improve screen operations as GVIC. Ted said the lease of Ruedi water to assist in 15-Mile Reach flows is going through legislation. It will not likely be an option to assist with flows this April, but they could be ready to assist with summer 2015 base flow augmentation. Tom Chart briefly reviewed progress to control nonnative predator escapement from off channel sources at Elkhead, Starvation, Red Fleet, and Ridgway reservoirs. He thanked CWCB and CPW for their financial contribution to purchasing a net for the Elkhead Reservoir spillway. The State of Colorado has convened a work group to explore the nonnative fish outreach issue (next meeting tentatively scheduled for April 2, 2015) as has the Program’s Information and Education committee.

The committee briefly reviewed the 2015 sufficient progress schedule. The U.S. Fish and Wildlife Service considers the Program's assessment of progress under the RIPRAP as the Service reviews "sufficient progress" each spring, according to the following general schedule:

- *~March 31: RIPRAP assessment is completed and approved by the Program.*
- *~April 15: Program Director’s office distributes a draft of the following elements of*

the sufficient progress memo to the Service and Management Committee:

a. population status update;

b. list of accomplishments and shortcomings;

c. discussion and recommended action items; and

d. draft communications plan to accompany final sufficient progress memo (per Implementation Committee request in September 2012).

Also included are reviews of action items in the 15-Mile Reach and Gunnison (Aspinall) PBOs.

- *~April 30: Management Committee webinar to review and comment on the draft elements of the sufficient progress memo.*
- *~May 7: Service webinar to review and comment on the draft elements for sufficient progress memo. The Service considers the Management Committee comments during the review.*
- *~May 30: Program Director's office prepares final draft sufficient progress memo/determination for Service review.*
- *~June 15: Service sends Management Committee the final draft sufficient progress memo primarily for informational purposes. The Management Committee will notify the Service if members have any significant issues/concerns.*
- *~June 30: Service finalizes sufficient progress memo.*

Tom Chart acknowledged that this has been a tough schedule to meet the past two years.

7. Review and approval of RIPRAP revisions/assessment and FY16-17 Program guidance – In keeping with past practice and to maintain the schedule for the Service's SP determination, the Management Committee recommends that the Implementation Committee delegate review and approval of RIPRAP revisions/assessment to the Management Committee (meeting March 24 in Salt Lake City). The committee delegated review and approval of the RIPRAP revisions / assessment to the Management Committee.
8. Capital projects update – Brent reported that Reclamation should award a contract for a regulating reservoir as part of Orchard Mesa Irrigation District efficiency project by this fall/winter. They are planning to construct a weir wall in the Green River Canal, patterned after the one built in the Hogback Diversion on the San Juan River, and are moving ahead with hopes of contracting that work 2016/2017. Reclamation is proceeding with replacement of a water control gate at the Stewart Lake floodplain along the Green River with the intention of having that gate replaced before spring runoff 2015. Reclamation also is participating with partners in Utah to repair a rock revetment wall in Wahweap Wash that protects the State hatchery that was damaged during a flash flood last summer. Krissy Wilson thanked Reclamation for their assistance.
9. Recovery plans update - Tom Czapla said a draft revised Colorado Pikeminnow Recovery Plan developed with advice from a Recovery Team was shared with recovery program stakeholders in December 2014. The Management Committee asked the Service to brief them on revised plan content, how it differs from the 2002 Recovery Goals for the species, and how and when the Service would be accepting their written comments. Tom Czapla asked Management Committee members to keep Tom Pitts' Roadmap to Recovery request in mind as they review the threat removal criteria included in the revised recovery plan. A webinar briefing (and discussion) with the

Management Committee and the San Juan Coordination Committee is scheduled for April 7 (8 a.m. - noon). The focus of Program review will be on implementation, making the Management Committee the main point of contact. Letters of appointment for the Humpback Chub Recovery Team are being prepared for Regional Director's signature.

10. Regional Director's 2015 Program priorities - Noreen Walsh reviewed Region 6's FY15 priorities as they relate to the Upper Colorado River Endangered Fish Recovery Program:

Colorado River Basin Fiscal Year 2015 Actions:

- Continue working with state partners to implement the Upper Colorado River Basin nonnative and Invasive Aquatic Species Prevention and Control Strategy.
 - Publish a draft Colorado Pikeminnow Recovery Plan.
 - Convene a recovery team to begin revision of the Humpback Chub Recovery Plan.
 - Increase recruitment of razorback sucker at Johnson Bottom on Ouray National Wildlife Refuge. Noreen said this is a Cooperative Recovery Initiative project for which Service personnel (Refuges and Fishery / Aquatic Conservation) successfully competed.
 - Monitor endangered fishes in order to assess effectiveness of and focus conservation delivery efforts for recovery.
11. Update on Upper Basin Drought Contingency Planning – Ted Kowalski referenced the current 15-year drought in the Colorado River Basin. To protect Lake Powell and the Lower Basin, the three Lower Basin States and Reclamation signed an MOU in Dec 2014. Also underway is an effort to model Upper Basin reservoirs to determine if we can deliver water (via “extended operations”) to protect critical hydropower generation levels in Lake Powell. Drought Contingency Planning also will explore demand management and weather modification (cloud seeding).
 12. Glen Canyon Dam Long-Term Experimental and Management Plan (LTEMP) update – Beverley Heffernan reported that Reclamation has been working on completing modeling. The next step will be to assemble an administrative EIS, which they expect to receive from their contractor (Argonne National Laboratory) in a couple of weeks with hope to publish a draft for public review in June.
 13. Southern Rockies LCC update - Tom Chart said he serves on the Oversight Team for the Green River Landscape Design Project that is intended to review available information, identify data gaps and recommend future work to conserve high priority aquatic, riparian and upland resources as determined by stakeholders. Kevin Johnson, the SRLCC Coordinator, is working with Dr. David Theobald at CSU and the Oversight Team to start this planning project. The focus at this point is to develop a proposal / scope of work that builds on existing information (e.g., our Recovery Program) to find the best added value to ongoing and related landscape planning exercises.
 14. The Next IC is scheduled for Thursday October 1, 2015, from 10:30-3:00 p.m. (in Denver near DIA). Agenda items will include ratifying the FY16-17 work plan, update on recovery plans, 2015 Congressional briefing trip, and more.

ADJOURN 4:00 p.m.

Attachment 1 - Participants

IMPLEMENTATION COMMITTEE MEMBERS:

Noreen Walsh, U.S. Fish and Wildlife Service (Chair)
Ed Warner, U.S. Bureau of Reclamation
Mark Sturm, National Park Service
Bart Miller, Environmental Groups (Western Resource Advocates)
Leslie James, Colorado River Energy Distributors Association
Philip Stuckert, Wyoming State Engineer's Office
Ted Kowalski, Colorado Water Conservation Board
Lynn Jeka, Western Area Power Administration
Tom Pitts, Upper Basin Water Users
Mike Styler, Utah Department of Natural Resources
Program Director Tom Chart, U.S. Fish and Wildlife Service (nonvoting)

OTHERS:

Steve Wolff, Wyoming State Engineers Office
Brent Uilenberg, U.S. Bureau of Reclamation
Beverley Heffernan, U.S. Bureau of Reclamation
David Speas, U.S. Bureau of Reclamation
Bridget Fahey, U. S. Fish and Wildlife Service
Kevin McAbee, U. S. Fish and Wildlife Service, Recovery Program
Tom Czaplá, U. S. Fish and Wildlife Service, Recovery Program
Jana Mohrman, U. S. Fish and Wildlife Service
Melissa Trammell, National Park Service
Robert King, Utah Department of Natural Resources
Krissy Wilson, Utah Division of Wildlife Resources (Biology Committee Chair)
Brian Sadler, Western Area Power Administration



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To: Implementation Committee, Upper Colorado River Endangered Fish Recovery Program
cc: Management Committee, Tom Chart, Angela Kantola

From: Tom Pitts, Upper Basin Water Users Representative

Subject: 1. Proposal – Focusing the Program on Recovery. 2. Beyond Recovery.

Introduction: The recovery goals for all for endangered fish species call for delisting in 2023. Downlisting for the Colorado pikeminnow was recently delayed from 2013 to 2018. Downlisting for the other three species is scheduled for 2019. Since 2002, the Recovery Program has told Congress that species will be delisted in 2023.

Given the commitment regarding the downlisting and delisting dates, and the need to assure achievement of those dates, I am proposing that the Recovery Program establish a roadmap to recovery that includes specific interim benchmarks for each of the endangered fish that need to be achieved to assure that downlisting and delisting dates are met on schedule. I am requesting that the Implementation Committee direct Recovery Program staff and committees to establish those benchmarks in FY 2015, and monitor and report on progress in achieving those benchmarks on a regular basis.

I am also proposing that the Recovery Program develop a description of activities that support delisting that will be carried on beyond recovery of the species. The purpose is so that Recovery Program participants and U.S. Congress will know what to expect beyond recovery.

Background: In establishing the Recovery Program, the participants agreed not just to meet the requirements of Section 7 of the Endangered Species Act, but to achieve the ultimate goal of the Act: recovery of the endangered fish species. Various participants had varied motives for supporting the goal of recovery. For the water users, it provides the ultimate regulatory certainty. Otherwise, the fish would forever be in a permanent state of endangerment, and water users would be faced with unending Section 7 consultations with uncertain outcomes, depending on the status of the species.

Another critical facet of adopting the goal of recovery is that it provides an endpoint to the Recovery Program. This has been – and is – a chief selling point with program participants and the U.S. Congress. Congress fully understands at this point that the goal of the Recovery Program – and the San Juan Recovery Program – is recovery of the species. Each year, when the nonfederal participants brief the congressional delegations from the four upper basin states, congressional

committees and subcommittees, and the administration, direct and pointed questions are asked about the status of the species and progress towards recovery.

The Upper Colorado River Program was established in 1988 and will have been in existence for 35 years in 2023. The San Juan Recovery Program establish 1992 and will have been in existence for 31 years in 2023.

Through FY 2015, the projected total cost for the Upper Colorado River Recovery Program is \$350,143,400. The projected total cost for the San Juan Recovery Program is \$66,109,340. The projected total cost for both programs through FY 2015 is \$416,252,740.

Current authorizing legislation for capital projects was extended to 2023 based on the commitment to recover the species by 2023. In 2016, the nonfederal parties to the programs will begin work with Congress to extend authorization of annual funding with Colorado River Storage Project revenues from 2019 to 2023. When discussing this extension with congressional authorizing subcommittees in 2015, the participants were advised that the programs would be subject to increased scrutiny during the authorization process.

Roadmap to Recovery: Both recovery programs have done an excellent job in identifying near-term tasks that need to be accomplished to support recovery of the species. These tasks are laid out in the Recovery Action Plan for the Upper Colorado Program and the Long Range Plan for the San Juan Recovery Program.

To maintain credibility with Congress and Program participants, a specific roadmap to recovery is needed that will assure achievement of downlisting and delisting of the four species in accordance with the recovery goals. The roadmap would include specific interim benchmarks for elimination of threats to the species identified in the recovery goals and the timelines for achieving those benchmarks that will result in downlisting and delisting of species.

The benchmarks and timelines would extend through 2023, going beyond the current Recovery Action Plan focus on the next two years. The benchmarks could help focus and prioritize activities to be included in the Recovery Action Plan to assure achievement of downlisting and delisting on schedule.

The benchmarks would be established for each segment of critical habitat. The benchmarks would include not only achievement of population criteria, but address elimination of specific threats such as non-native fish and lack of habitat, identify legal protection of flows needed for delisting, etc. The recovery goals will provide the framework for the benchmarks, with details to be added for each segment. In essence, the benchmarks become a checklist of actions needed to be achieved for downlisting and delisting of the species, as well as the timelines for achievement of those benchmarks. The status of achievements of the benchmarks be reported to the Implementation Committee at each meeting

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Pitts to Implementation Committee

March 3, 2015

Recommendation: The Implementation Committee should direct Program staff and the Program committees to develop benchmarks and timelines by the end of FY 2015.

Beyond Recovery: As a condition of delisting, the elements that allow achievement of recovery goals and elimination of threats must be maintained. This means, among other things, that fish screens, fish passages, habitat and flows will have to be maintained and continued following recovery. Per the ESA, conservation agreements will have to be developed among the states and the service. Funding will be necessary to maintain facilities and habitat. Reclamation projects will continue to be operated to benefit the species. The Recovery Program will continue to own and be responsible for operation and maintenance of its share of Elkhead Reservoir. Water users and Reclamation will continue to cooperate to provide flows for endangered fish in the 15 mile reach of the Colorado River in the spring and late summer. It is likely that numerous other activities will have to be continued.

Recommendation: In order to ensure that program participants and Congress understand what will be needed in terms of institutional commitments and potential funding following recovery and delisting in 2023, I request that the Implementation Committee direct Program staff and the Program committees to begin developing a description of proposed recovery actions that will be needed to support delisting and that the initial draft be prepared for Implementation Committee review by March, 2016.

Conclusion: I have requested that these items be placed on the agenda for the March 5 Implementation Committee meeting. I look forward to the discussion with the Implementation Committee. I appreciate your consideration of these recommendations.

ATTACHMENT 3

March 6, 2015

#	Recommended Action Items	Lead	Due Date	Status
General – Upper Basin-wide				
1	Fully implement the <i>Basinwide Nonnative Strategy</i> and continue work with the States to implement the specific, tangible actions added to the RIPRAP in 2013 (Table 2a).	States, PDO, FWS		See Table 2a for this and other nonnative fish management actions.
2	Complete revised <i>Integrated Stocking Plan</i> .	PDO	3/31/15	Revised draft sent for Biology Committee review July 31, 2014; PDO revising & will send back to States by 2/6/15.
3	Complete recommendations for and implement humpback chub broodstock development.	PDO/BC		Ad hoc group working on developing action plan; genetic analysis of upper basin chubs to be completed ~ January 2016. Conference call with hatchery managers 2/4 and subsequent meeting at Dexter to discuss backup broodstock.
4	Develop scope of work to investigate age-0 and age-1 humpback chub mortality (especially in Black Rocks/Westwater and Desolation canyons) as recommended in the Research Framework).			In FY16-17 guidance, will include work to incorporating a young of year component back into the adult sampling; won't fully address, but help track the young life stages.
5	Support research and coordinate with the San Juan Program to determine contaminant dose response information related specifically to the endangered Colorado River fish as well as necessary remediation. Service will consult with EPA on proposed revised fish tissue-based criteria for selenium with respect to impacts on the endangered fish.			San Juan River Recovery Implementation Program is conducting a population viability analysis for Colorado pikeminnow to determine how impaired reproduction, (linked to elevated levels of heavy metals or selenium) would affect population dynamics. 1. >PDO will share San Juan's Colorado pikeminnow PVA analysis with Biology and Management committees as soon as possible (and provide timeframe if it's not available). Also selenium sampling on Gunnison. Evaluation of selenium in wild razorback sucker fish tissues from Stewart Lake.
Green River				
6	Track concerns about baseflows (e.g., in 2013, 104 days were below 1,500 cfs and 47 days were below 1,300 cfs minimum summer baseflow targets at Green River, Utah) as Green River flow recommendations evaluated.	PDO		Draft backwater synthesis report (biological portion) out for review by Biology Committee that will help us understand baseflow needs. Initiate Green River flow recommendations evaluation in spring 2015 (Kickoff meeting February 24.)
7	Complete modeling work and maintain revised schedule to implement flow Green River protection in FY 16-17.	Utah/USBR		Modeling completed and on way to State policy review (Robert King lead). GRUWAT drafting a white paper on findings from modeling.
8	Complete backwater synthesis draft final report (anticipated summer, 2014) and launch evaluation of Green River flow recommendations (scope of work for evaluating the recommendations in review; scope for conducting experiment to disadvantage smallmouth bass anticipated later in summer 2014).			Biological portion of report in peer/BC/WAC review. Physical habitat portion draft anticipated to go to PD by 1/31/15. Synthesis report to follow.

#	Recommended Action Items	Lead	Due Date	Status
9	Continue government-to-government consultation with Northern Ute Tribe and request that the Old Charlie Wash lease be renewed.	USFWS		Ouray NWR manager working to meet with Tribe (no success yet). FWS Utah's ES office also trying to work with Tribe (and new Business Committee) on this.
10	Implement entrainment solution at Tusher Wash.	USBR		The Program is planning a fish exclusion system for the canal. NRCS rebuild of diversion structure scheduled to begin in fall 2015, pending signature of a ROD by NRCS. NRCS will incorporate fish passage into this structure. USBR pursuing a fish exclusion system through a separate process, will begin design of weir wall similar to the one recently installed at Hogback Diversion on the San Juan.
Yampa River				
11	Provide: accounting of past depletions for the Yampa River (due in 2010); back-casted baseline of current depletions; and a recommendation and justification addressing projected future depletions and whether or not additional instream flow filings or other flow protections mechanisms should be considered.	CWCB		CWCB is scheduled to complete accounting of past depletions using the StateCU model (Due date from YPBO - 1 st report July 1, 2010; 2 nd report July 1, 2015). The depletion accounting report will include a discussion of the need for flow protection (which would require a peak flow recommendation). A contract for the irrigated acreage assessment was awarded in February 2013. Another contract still needs to be awarded to update the dataset. The models will be updated through 2010 or 2011. Colorado has given high priority to the Yampa and Colorado river basins portion of this work. 2/3/15: Michelle said CWCB still working on updating models and has someone contracted to update all the west slope models (will share timeline as soon as available), then next step will be depletion accounting. Don't anticipate a lot of changes in consumptive use, but corrections as to where depletions occur, etc.
White River				
12	Develop White River Management Plan	CWCB/PDO		CWCB is working on contracting and the Program Director's office will continue to track progress over the next year. Previously established due dates were: model completion fall 2014; plan completion winter 2015; and PBO summer 2015. CWCB will submit a draft scope of work to contracting by 2/6/14. After 1 week-2 month review process, will go out for bid (10 days to 2 weeks), followed by interviews, and selection of a contractor.
Colorado River				
13	Improve achievement of flow targets, especially in drought years.			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. FWS and Reclamation are exploring opportunities (and would include Colorado and the River District in these discussions) to continue delivering Ruedi water (or a portion thereof) to replace the release of 10,825 acre-feet of Ruedi Reservoir water that concluded in 2012. In addition, the OMID Canal Automation Project is expected to provide about 17,000 af of water in most years. The check structures in the OMID project are complete and will result in partial water savings beginning in the 2014 (current) irrigation season. The project will be fully implemented in 2016. 15-Mile Reach PBO requires review of progress to implement flow protection / effects on endangered fishes in 2015. PDO anticipates limited staff availability from FWS-ES-Grand Junction to help with this review. CWCB is exploring possibilities for at least short-term flow augmentation in the 15-Mile Reach.

#	Recommended Action Items	Lead	Due Date	Status
14	Maintain ability to meet April flow targets (prevent future "April Hole")			Grand Valley Water Users cut back their irrigation diversions during the 'April Hole' by >800 cfs. CWCB has reviewed hydrology and characterizes 'April Holes' of the magnitude seen in 2013 as very rare. In the future, water users and the Service will address the potential for this situation to recur as part of the normal HUP calls regarding water management for the 15 Mile Reach and determine what measures if any should be taken based on current conditions. This should avoid a repeat of the extreme low flows in the spring. The Service and water users will formalize specific recommendations prior to the 2015 irrigation season to deal with the situation should it recur in the future and implement those recommendations as needed to avoid or mitigate April low flows. CWCB is exploring possibilities for at least short-term flow augmentation in the 15-Mile Reach. Everyone has agreed to watch flows closely as April approaches.
15	Provide the depletion accounting report that was due July 1, 2010.			See first item under Yampa River: CWCB is scheduled to complete accounting of past depletions using the StateCU model (Due date from YPBO - 1 st report July 1, 2010; 2 nd report July 1, 2015). The depletion accounting report will include a discussion of the need for flow protection (which would require a peak flow recommendation). A contract for the irrigated acreage assessment was awarded in February 2013. Another contract still needs to be awarded to update the dataset. The models will be updated through 2010 or 2011. Colorado has given high priority to the Yampa and Colorado river basins portion of this work. Michelle said CWCB still working on updating models and has someone contracted to update all the west slope models (will share timeline as soon as available), then next step will be depletion accounting. Don't anticipate a lot of changes in consumptive use, but corrections as to where depletions occur, etc.
16	Complete CFOPs report (evaluation of options for providing and protecting additional peak flows to the 15-Mile Reach).			CFOPS Phase III (a due date of Sept 30, 2010 was identified in the 2010 RIPRAP) draft report distributed April 2. Tom Pitts proposes meeting with PDO to explore completion via contract with Section 7 funds.
17	Increase operation of fish screens.			HUP call participants will continue to discuss screen operation with the goal of more frequent operation at the GVIC canal (recognized as the oldest and most problematic design). The Program will continue to evaluate ways to improve screening operations and methods, and to fund salvage operations of fish remaining in the canals at the end of the irrigation season.

Table 2.a.

Upper Colorado River Endangered Fish Recovery Program
 Nonnative Fish Management Actions: an Addendum to the Recovery Action Plan
 January 2015 Update on Progress

River / Action	Responsible Entity(s)	New RIPRAP #	2013	2014	2015	Out years	PDO/MC update 2/2015
General (in addition to ongoing projects / actions)							
Finalize the UCR Basin Nonnative and Invasive Aquatic Species Prevention and Control Strategy (Basinwide Strategy).	Program Director's Office (PDO)	III.D.	X				<i>Complete; Feb, 2014.</i>
Cease translocation of all nonnative predators to any fishery within the UCR.	States / Program	III.E.		X	X	X	<i>Implemented 2014 field season.</i>

River / Action	Responsible Entity(s)	New RIPRAP #	2013	2014	2015	Out years	PDO/MC update 2/2015	
The States will commit to remove northern pike and / or replace them with a Compatible (compatible with recovery) species (as identified in the Basinwide Strategy) throughout the UCR Basin. Specific waters will be targeted based on risk of escapement, opportunity and available resources.	States / Program	III.F.	States will convey this message in their Fishing Brochure / Guidebook starting in 2014					CPW treated Paonia Resv. and held must kill fishing derby at Stagecoach. CPW began removing pike from Crawford in 2014 (~74% of the adult population removed). UDWR treated Stewart prior to inundation. Yampa pike removal expanded up to Steamboat in 2014. CSU programmatic synthesis of northern pike removal efforts (January 2015) demonstrated that current removal efforts are inadequate to permanently reduce pike abundance in the Yampa River.
Implement 'must kill' regulations for northern pike throughout the UCR basin (exceptions may include waters where northern pike are being replaced by tiger muskie).	WY and UT	III.F.1.		X	X	X	Done in WY (must-kill and nongame fish designation). Done in UT.	
Continue discussions concerning "must kill" regulations on northern pike throughout the UCR Basin to develop a proposal supported by law enforcement for regulatory consideration.	CO	III.F.2.	X	X	X	X	If Colorado is unwilling to pursue must-kill regulations throughout the UCR basin in Colorado, then State is urged to pursue a comprehensive suite of alternative actions, in concert with Program partners, to achieve the necessary biological outcome. CPW convened a group of Program stakeholders to develop new nonnative fish management actions -first meeting held 11/04/14.	
Remove smallmouth bass and / or replace them with a Compatible species (as identified in the Basinwide Strategy) everywhere they occur throughout the UCRB (exceptions = McPhee Res., Lake Powell Res., and upstream of Flaming Gorge Dam; and 'containment' may prove to be a viable management option for smallmouth bass at Starvation Res.). Specific waters will be targeted based on risk of escapement, opportunity and available resources.	States / Program	III.G.	States will convey this message in their Fishing Brochure / Guidebook starting in 2014					CPW treated Miramonte. Progress being made to address Elkhead; CPW recommends screening first. Program Partners are working on a response to smallmouth at Ridgway. Tri-County operating reservoir to prevent spilling, CPW considering regulations, screening, chemical reclamation, and harvest incentives.

River / Action	Responsible Entity(s)	New RIPRAP #	2013	2014	2015	Out years	PDO/MC update 2/2015
Implement 'must kill' regulations for smallmouth bass throughout the UCR basin (see exceptions above).	WY and UT	III.G.1.		X	X	X	<i>UT implemented in the Green River downstream of Flaming Gorge Dam. All WY bass populations currently above Flaming Gorge Dam; will add regulations if show up elsewhere.</i>
Continue discussions concerning "must kill" regulations on smallmouth bass throughout the UCR Basin to develop a proposal supported by law enforcement for regulatory consideration.	CO	III.G.2.	X	X	X	X	<i>If Colorado is unwilling to pursue must-kill regulations throughout the UCR basin in Colorado, then State is urged to pursue a comprehensive suite of alternative actions, in concert with Program partners, to achieve the necessary biological outcome. CPW convened a group of Program stakeholders to develop new nonnative fish management actions -first meeting held 11/04/14.</i>
The States are dedicated to reducing burbot numbers through all means practicable (including targeted removal) throughout the UCR Basin. Current management practices (e.g., 'must kill' regulations; fishing derbies at Flaming Gorge) considered adequate.	States / USFWS	III.H.	States will convey this message in their Fishing Brochure / Guidebook starting in 2014				
Implement 'must kill' regulations for burbot throughout the UCR basin. Done in WY and UT. Wyoming and Utah implementing burbot bash; WY research projects.	WY and UT	III.H.1.	X	X	X	X	<i>Done in WY and UT. WY and UT implementing burbot bash; WY research projects.</i>
Continue discussions concerning "must kill" regulations on burbot (as a preemptive measure) throughout the UCR Basin to develop a proposal supported by law enforcement for regulatory consideration.	CO	III.H.2.	X	X	X	X	<i>If Colorado is unwilling to pursue must-kill regulations throughout the UCR basin in Colorado, then State is urged to pursue a comprehensive suite of alternative actions, in concert with Program partners, to achieve the necessary biological outcome. CPW convened a group of Program stakeholders to develop new nonnative fish management actions -first meeting held 11/04/14.</i>
Promote increased production of sterile gamefish (e.g., hybrids, triploids), as Compatible sport fish.	Service / States / Program	III.I.	X	X	X	X	<i>In discussions in WY,UT&CO.</i>
Work with State Wildlife agencies and water user groups to increase awareness amongst States' legislatures and the courts of the ecological and financial ramifications of illicit introductions.	States and PDO via the Implementation Committee	III.J.	X	X	X	X	<i>Ongoing in all states. (WY reg changes (leg)); PDO spoke to Judicial College in Reno; raised at IC meeting Sep 2013.</i>

River / Action	Responsible Entity(s)	New RIPRAP #	2013	2014	2015	Out years	PDO/MC update 2/2015
Yampa River (in addition to ongoing projects)							
Elkhead Reservoir – establish a compatible sport fishery		III.B.1.a.(2)(a)					<i>Ongoing – justifiably delayed 1yr; Sherm Hebein working with Ray Tenney on “Elkhead Reservoir Fishery Reclamation Plan.” CPW and PDO recommend screening first; CO will cover \$500K toward screen from SCF.</i>
Coordinate / schedule drawdown with Colorado River Water Conservation District (CRWCD)	CPW / Program / CRWCD	III.B.1.a.(2)(a)(i)	X				<i>Likely to be deferred in favor of screening first.</i>
Develop / Implement Communications Plan	CPW / Program	III.B.1.a.(2)(a)(ii)	X				<i>Implementing. Working group met with stakeholders in September, local government in December and will hold public meeting in February.</i>
Complete necessary environmental compliance	CPW / CRWCD	III.B.1.a.(2)(a)(iii)	X	X			
Identify and secure sources of replacement compatible sport fish.	CPW	III.B.1.a.(2)(a)(iv)	X	X			<i>Likely to be deferred in favor of screening first.</i>
Treat reservoir and necessary habitats in the upper Elkhead Creek drainage.	CPW / Program / CRWCD	III.B.1.a.(2)(a)(v)		X			<i>Likely to be deferred in favor of screening first.</i>
Stock compatible sport fish	CPW	III.B.1.a.(2)(a)(vi)			X		<i>Likely to be deferred in favor of screening first.</i>
Evaluate / retreat if necessary	CPW / Program / CRWCD	III.B.1.a.(2)(a)(vii)				X	<i>Likely to be deferred in favor of screening first.</i>
Walton Creek confluence area							
Evaluate feasibility of habitat modification to eliminate / reduce northern pike spawning habitat.	CPW / Program / BOR	III.B.1.d.(1)(b)(i)	X	X			<i>\$500K secured for modification from SCF; but will go to Elkhead screen and replacement funds sought from SCF for Walton rehab. Funds being requested again in 2015. Program contributed \$30K Section 7 funds to feasibility / design.</i>
Modify habitat as indicated through feasibility investigations.	CPW / Program / BOR	III.B.1.d.(1)(b)(ii)		X	X	?	<i>Very encouraging – TNC may have been a major player in making this happen.</i>
Upper River (upstream of Hayden, CO)							
Increase mechanical removal of northern pike in main channel and floodplain habitats as directed by Colorado Parks and Wildlife.	CPW / Program	III.B.2.d.(1)		X	X	X	<i>CPW and CSU reinitiated removal in this reach in 2014. Flows made work difficult to complete. Scheduled for 2015.</i>
Stagecoach Reservoir.							

River / Action	Responsible Entity(s)	New RIPRAP #	2013	2014	2015	Out years	PDO/MC update 2/2015
Convert and extend the ongoing northern pike escapement study to a removal effort (will require an addendum to existing FERC Biological Opinion).	CPW / potentially Program in outyears	III.B.1.f.		X	X	X	<p>Stakeholders agreed to modify tagging study to removal effort. FWS writing FERC to communicate this change, which is acceptable under the existing BO. CPW likely open to removal, but doesn't have resources to implement (removal from Catamount being the higher priority).</p> <p>CPW continues to remove pike from Catamount and also has plans to eradicate the illegally established population of northern pike in Chapman Res.</p>
White River							
Determine and implement an adequate level of mechanical removal to reduce smallmouth bass.	CPW / Program	III.B.2.a.	X	X	X	X	<p>Program implementing as much mechanical removal as possible below Kenney; new techniques in discussion. Recovery Program continues to support and encourage a multi-agency effort to designate White River as a native fish conservation area. Utah continues to discuss.</p>
Develop a measure of successful suppression of SMB	Program	General: III.B.2.a. (1)		X			<p>Pending. Sampling crews continue to remove as many fish as possible.</p>
Green River (in addition to ongoing projects)							

River / Action	Responsible Entity(s)	New RIPRAP #	2013	2014	2015	Out years	PDO/MC update 2/2015
Direct new (or shift existing) nonnative fish removal efforts to address increasing numbers of walleye.	Program	III.A.4.d.	X	X	X	X	<p><i>Walleye captures have increased in upper and lower Green River; gizzard shad have been found in lower GR backwaters since 2007 and increased markedly over the past few years in lower Colo. River backwaters. Gizzard shad could significantly affect food web ecology in backwaters and mainstem. Illegal population of walleye in Red Fleet Reservoir is problematic source. UDWR is convening a Red Fleet user group and developing a Mgmt. Plan in order for reclamation to occur (rotenone). UDWR plans to rotenone in October 2015 and then develop a compatible sportfishery and install a screen.</i></p> <p><i>UDWR adjusted work to add spring and fall passes for walleye and gizzard shad removal in lower Green River in years when pikeminnow population estimates not conducted. 4 sampling trips in lower Green during Spring 2014 yielded 149 walleye. UDWR added one spring pass for walleye in the middle Green as well. Work planned to continue in 2015 (deferring humpback chub population estimates by one year to better time those estimates in the future and also provide additional capacity to focus on walleye in 2015).</i></p>

River / Action	Responsible Entity(s)	New RIPRAP #	2013	2014	2015	Out years	PDO/MC update 2/2015
Develop a management strategy to address escapement of walleye (and smallmouth bass) from Starvation Reservoir.	UDWR	III.A.4.e.	Dec., 2013				UDWR produced a timely feasibility report; installed a temporary screen in spill channel during spring 2014 runoff; will install more robust temporary screen in 2015 and is pursuing a permanent solution (but expected to seek funding assistance from Program). USBR may be able to complete installation and construction of the permanent screen in October 2015.
Implement recommendations from the management strategy.	UDWR / Program	III.A.4.e. (1)		X	X	X	Pending.
Colorado River (in addition to ongoing projects)							
Upstream of Grand Valley Project dam: Determine and implement an adequate level of mechanical removal in the main channel. More importantly, use all techniques available to eradicate northern pike (and other nonnative species of concern) from floodplain habitats.	CPW / Program	III.A.9.	X	X	X	X	CPW: a) implemented significant mechanical removal; b) coordinating with USBR on future levee work at LaFarge Pond.
Develop a measure(s) of successful suppressions of northern pike (and other nonnative species of concern).	Program			X			Pending.
Direct new (or shift existing) nonnative fish removal efforts to address increasing numbers of walleye in the lower river.	Program	III.A.8.	X	X	X	X	2 additional passes added from Cisco to Dewey Bridge and one pass was added from Dewey Bridge to Potash in 2013. Service added 2014 fall passes to remove walleye in lower Colorado reaches (Cisco to Potash) and UDWR added removal passes for the Lower Green. FWS removed 109 walleye (346 - 600 mm TL,) during 2014 CPM pop estimate trips from RM 108 (just downstream of Cisco) to RM 3.5 (just above the confluence). With regard to escapement of fish from Lake Powell, a management plan is being developed and upper basin will be involved in review (Dale Ryden representing).

