

Biology Committee Meeting Summary
October 16, 2012, Grand Junction, CO

PARTICIPANTS

Biology Committee: Harry Crockett, Melissa Trammell, Dave Speas, Dale Ryden, Krissy Wilson, Jerry Wilhite, Tom Pitts, Brandon Albrecht, and Pete Cavalli.

Others: Pat Martinez, Tom Chart, Tom Czapla, Angela Kantola, Kevin McAbee, Kevin Bestgen, Katie Creighton, Julie Howard, and Tildon Jones (via phone).

CONVENE: 8:00 a.m.

1. Review/modify agenda – The agenda was modified as it appears below.
2. Tusher Wash – Kevin McAbee provided an update on working with NRCS and McMillen to include an electric barrier in design and NEPA compliance for rehabilitation of the Tusher Wash diversion (see illustrations in Attachment 2). The goal is to coordinate Recovery Program actions with NRCS Section 7 responsibilities and the project timeline to meet both groups' responsibilities as efficiently and effectively as possible. The diversion project has the ambitious goal of construction in the fall of 2013; however, the design hasn't been finalized yet. A temporary PIT antenna (the one currently in the Maybell Diversion) would be placed in the canal and operated before and after installation of the e-barrier to determine its effectiveness (may be installed in November). Two alternatives are being considered for rehabilitating the diversion: 1) rebuilding it in place, but leveling it across the existing length to improve supply in low water years for the water users on both the east and west sides; and 2) replacing the diversion slightly downstream for improved function of both the diversion and the e-barrier. PIT antennas would be placed in notches in the re-built diversion and at the river left passage to demonstrate effectiveness of the e-barrier and document fish movement. Electricity to operate the e-barrier would cost ~\$1,300/month. With regard to who would ultimately own and operate the e-barrier, Tom Pitts said we may need to look at a different model than we've used in the Grand Valley (perhaps contracting with someone in Grand Junction or Vernal, for example). Dale noted potential debris concerns at the proposed notches and suggested that debris removal will need to be part of the maintenance. Dave Speas asked if there will be a manager overseeing the whole project and Kevin said he thinks it will be Norm Everstead (NRCS Salt Lake office). The Committee remained comfortable with this overall strategy for screening the Tusher Wash Diversion. At some point in the future, we may need to consider *how* we will make provisions to fund the additional fish exclusion options referenced in step 2b and step 3 of the recommended strategy, should they become necessary (depending on ultimate cost of the e-barrier, capital funds should be available for this). Melissa recommended determining effects of the e-barrier on growth and longer-term survival of larvae; perhaps Smith-Root would be interested in co-funding an independent study to investigate the effects of the specific fields, configurations, and duration that the larvae would be exposed to as they pass through the e-barrier. (A lab study wouldn't address long-term effects, but perhaps fish could be held long-term at Dexter.) Dale suggested perhaps including language in the biological opinion to address this concern if it's found to be a problem. Kevin Bestgen noted the importance of this reach to the overall Green River Colorado pikeminnow population and commended Kevin McAbee on this work.
3. Fish kills – Kevin McAbee showed photos of impacts of the Wolf Den fire which flushed a great deal of debris into the White River. Kevin suggested we might talk with BLM and USFS about remediation after these kinds of events, especially in low water years when the impacts can be so great. Dale agreed, saying they faced something similar with the Pine Ridge fire (although not as much debris washed in). Retardant also may be a concern, its application is restricted to >300' from drainages. Currently, most remedial efforts

are focused on terrestrial species and trout, so raising awareness would be a good place to start. Julie Howard described the fish kill in Desolation Canyon from 9-Mile Creek downstream (dead native, nonnative, and endangered fishes were observed, some of them very large). Tom Czapla and Pat Martinez said it would be helpful to collect otoliths from those fish for ageing microchemistry analysis in the future. Dave Speas distributed an article he wrote for [Reclamation's Upper Colorado Region September newsletter](#) summarizing this year's fish kills. Pete Cavalli recommended engaging BLM and USFS in advance to build a basis and relationship from which to address these issues in the future and coordinate to prevent or mitigate impacts of wildfire on endangered fishes. The SRLCC might be a good venue, but this isn't currently on their radar. >Dave Speas will invite their Science Coordinator, John Rice, to come and discuss this with the Biology Committee (or at the Researchers Meeting). The Three Species group will be another good venue to discuss this.

4. PIT tag database management – Increased use of remote antennas in the basin has drawn our attention to the need for a dedicated person to maintain a database to quickly provide information from the antennas to histories of tagged fish. Tom Czapla said the database is already very complicated and the addition of so much new PIT tag information (which people often want turned around very quickly) suggests we may need to designate someone to manage the data (perhaps shared with the San Juan Program). Tom Pitts asked if we can hire a programmer to automate input of the data when it comes in. Dale said programs have been written for this and some of the data can be handled this way, but both Travis and Scott Durst have found that a live person eventually has to sort part of the data. Pete Cavalli suggested creating a unified database where folks submit data directly. Kevin McAbee suggested the cutthroat trout model might be applicable (Shannon Albeke, UW). Brandon thought it would be helpful if someone not only managed the data, but also annually presented trends. However, this may be a two-tiered activity, with someone designing and developing the system and someone else managing and implementing it. >The Program Director's office will work to define the overall problem, describe the need, draft an overall schedule, and bring that back to the Committee in advance of the December meeting for discussion. Tom Czapla recommended that field offices begin scanning their raw data sheets and submit that as a backup to catastrophic loss.

5. Report reviews

- a. Razorback monitoring report – Kevin Bestgen reviewed the results and related conclusions in this report. Razorback suckers are now observed often enough to begin more comprehensive monitoring. Colorado River larval sampling is all done by seining; in light of the razorback sucker reproduction discovered in Maggio Pond, Tom Chart asked if we should be using light traps to look spawning in some low-velocity areas (e.g. gravel pits ponds) in the Colorado River; Kevin agreed and will add this to the recommendations. Melissa recommended clarifying that the study area only extended down to Moab, but future data collection may expand downstream. Melissa noted there isn't a clear recommendation to continue the lower Green/lower Colorado river pikeminnow seining which also captured razorback suckers; Kevin will clarify that ISMP sampling should be continued to enhance understanding of razorback sucker recruitment. Dave noted that the original goals and objectives of the study weren't clearly stated in the report; Kevin will reference objective #2 of the original scope of work. In the methods section, Dave would like to see more background about what went into this (thought process, evolution, how the report was written and what went into it). In his review, Brandon drew a line between monitoring and research, and he thinks research is really what will be needed at the Lake Powell inflow. Melissa will send Kevin some minor technical edits. With regard to taking high quality and close-up digital photographs, Melissa emphasized that there should be a waterproof camera on every trip; Kevin agreed and suggested preserving more specimens also would be wise. Committee members will provide any additional comments by October 19. >Kevin will make the modifications discussed and finalize the report by November 1. >Tom Czapla will provide protocol for the scope of work format (or other appropriate venue) for how Program PIs will document significant fish captures

with photos, etc. Krissy suggested the protocol also should include checking for ripeness and noting if fish are tuberculated.

- b. Elkhead Reservoir smallmouth bass escapement – Kevin Bestgen reviewed conclusions; emphasizing the methods they used to be conservative in their escapement estimates. Tom Pitts asked if the conclusion regarding fecundity (“Fecundity potential of escaped translocated bass is likely sufficient to restart a population in the Yampa River even if removal efforts were 100% efficient”) is documented by an analysis in the report; Kevin said they refer to literature which has established this. Pat Martinez said he thought the responses to the extensive comments were very thorough. With regard to Harry’s comment about when the dam was notched, Melissa said it was definitely before February 2005 (before much translocation took place) and the screen failed on April 20 (note: this doesn’t change the analysis). Tom Pitts noted Colorado has a Program-approved Lake Management plan for Elkhead that specifies the acceptable escapement rate; Tom suggested this plan be referenced in the report. Tom Chart said he’d like it captured that the Program considers the existing rate of escapement unacceptable and suggested it might be appropriate to include language regarding propagule pressure in that context. Kevin said he could mention the LMP in the introduction, and in the discussion of escapement rates, could add a parenthetical that these are higher than recommended in the LMP. The group agreed. Tom Pitts suggested the statement at the end of the Executive Summary may be a stretch: “Additionally, reducing escapement of all bass (and other taxa) from Elkhead Reservoir and other water bodies that support resident non-native fishes seems justified.” Tom is concerned this could thwart future fishery management options; however, others pointed out that it just says “*reducing* escapement ... seems justified.” Kevin will add to the conclusions or recommendations a parenthetical that translocation was ceased in 2011. Harry said the River District would like to know if eradicating smallmouth from Elkhead will have an impact on the Yampa population (this will be addressed by André’s other report). >Kevin will send the Committee revised verbiage related to the lake management plan, get that approved, and revise the report, also addressing other comments discussed above.

6. Schedule next meeting - December 7 from 8 a.m. to 3 p.m. (adjourning earlier, if possible). Agenda items will include: Database management, Tusher Wash update, nonnative fish update and workshop follow-up, Lake Powell update; discussion of 5-year budget requirements in FY14-15 scopes of work, designation of 2013 BC chair (Jerry Wilhite) and vice-chair.

7. Nonnative Fish update

- a. Steamboat meeting – Recognizing the serious impacts of nonnative fish to the status of the endangered fish, the difficulty of the nonnative fish issue, and the significance of this issue in the Yampa River, in mid-September, Tom Pitts and others convened local interests (from Steamboat, Craig, Yampa Valley Bassmasters, Yampa Valley Fly Fishers Trout Unlimited Chapter, Upper Yampa Conservancy, Colorado River Water Conservation District, Colorado Parks and Wildlife, and the Program Director’s office). The goal was to discuss ideas to: 1) protect endangered fish; 2) enhance native fish; and 3) find compatible sportfish opportunities (e.g., in Stagecoach, Elkhead, Catamount). The meeting was very productive and another meeting will be scheduled in November or December to continue the conversation. The Committee expressed their appreciation for the water users’ leadership on this.
- b. Basinwide Strategy – Rather than formally acknowledging “nonnative fish as our current greatest challenge,” the Management Committee endorsed the need to shift our nonnative fish management strategy to prevention and recommended finalizing the basinwide strategy much sooner than the previously-discussed date of July 2013 so that elements can be incorporated into the 2013 RIPRAP revision. The Management Committee recommended either streamlining the strategy or producing a more action-oriented document to make this possible. The Strategy needs to: 1) build on recent efforts

to shift focus from control in rivers to containment at sources and prevention of a next invasive; and 2) incorporate a more robust approach (using more tools). Pat is working to develop elements by the end of January that can be put into the RIPRAP process. Tom Chart outlined this new schedule for the States' fishery chiefs at the Fish and Wildlife Council meeting in Steamboat and invited them to participate in the Management Committee conversation about this.

- c. Potential reservoir projects (Paonia [northern pike], Miramonte [smallmouth bass], Red Fleet [walleye], Elkhead [smallmouth bass and northern pike] – Harry Crockett said Paonia Reservoir (which has northern pike which, by way of a couple of tributaries has connection to the Gunnison River just above critical habitat) has been drained to deadpool. CPW plans to rotenone Paonia at the end of October, but it will be difficult logistically due to the very fine sediment and narrow window of opportunity. Also, CPW discovered pike a fair way up Muddy Creek (one of the streams that feeds into the reservoir), and is still determining if pike are present too far upstream to complete the project this month. CPW plans to rotenone Miramonte in 2013. The Program has offered to cover half the cost of the rotenone for Paonia and Miramonte, if needed (Reclamation may have available funds). The Management Committee agreed to fund up to half the cost of the rotenone for Miramonte treatment with Section 7 funds). Pat Martinez said Utah had mentioned using rotenone to address the illegally-introduced walleye in Red Fleet, but the rotenone would cost ~\$300K. Krissy thought this was something that could be accomplished in a half a year or so if funds were available, but we should discuss the priority. Tildon said that since the earlier discussion, he has confirmed with Utah's regional office that smallmouth bass are present in Red Fleet, also. Krissy learned from Trina that Red Fleet is very low and Trina estimates it could be treated for ~\$70K if they do it now. Tom Chart encouraged Utah to proceed and the Program would cover half the cost (~\$35K) of the rotenone.
 - d. Little Snake River (LSR) – Pat Martinez said that the Little Snake River Conservation District (LSRCD) wants to remove an old diversion near Baggs, WY, which may have been a barrier to upstream movement by fish, and begin using a new diversion with fish passage for warmwater native fishes and trout. However, this would give northern pike access to restored wetland habitat upstream where they could reproduce and become a new problematic source of pike to move downstream into endangered fish critical habitat. Wyoming Game and Fish (WGF) proposed installing another barrier downstream of the new diversion/passage (near the CO/WY state-line) that pike can't pass, but would be unable to do so before the Conservancy District removes the old diversion in early October of this year. The Recovery Program sent a letter to Wyoming Game and Fish expressing concern that pike abundance could increase if they access wetland habitat upstream and become an invasive source of additional pike downstream in critical habitat. The letter encouraged multi-agency cooperation and offered assistance to further assess local northern pike abundance and distribution in the LSR and to remove northern pike. WGF, LSRCD and Larval Fish Lab personnel participated in a joint effort sample and remove northern pike in several pools of the LSR located on both sides of the state-line near Baggs in late September and confirmed the presence of adult pike in the system (seven pike detected). Pike may have already moved upstream of the old barrier. Wyoming will keep the Committee informed about this topic.
8. Lake Powell –The San Juan Program has sampled in Lake Powell for the past two years and collected many (n>70 individuals; each year) tagged and untagged adult sized razorback sucker and small numbers of larvae. Reclamation has additional funds available early in FY13 to continue this work, expand to the Upper Colorado River arm of Lake Powell, or both, but require matching dollars. Upper Colorado River Recovery Program funds are almost completely committed for FY13, and thus, unavailable for a match. Razorback can complete their life cycle in the Colorado River and its tributaries above Lake Powell; therefore, the Fish and Wildlife Service needs to discuss how Lake Powell fits into recovery for this species. Regions 6 and 2 will meet November 27-28, 2012 in Denver to discuss the role/importance of Lake Powell in razorback sucker recovery efforts and the direction of any future work on Lake Powell. (For additional

information, see notes from September 4, 2012, conference call in Attachment 3). Dale doesn't know if decisions could be made quickly enough to hire staff in time to conduct work in either arm of Lake Powell in 2013. For the November meeting, Tom Czapla recommended Dale have a draft scope of work along the lines of the work done in the San Juan in past years. The Upper Basin Program can decline this opportunity and the funds would still be available to the San Juan Program. Tom Czapla noted ~20K excess razorback were produced at Ouray NFH this year; however, since we don't want untagged fish in the system (these are too small to PIT tag), he's recommended sticking with our fish disposition policy rather than stocking them in Lake Powell; the Committee agreed.

9. Management Committee clarification of flow recommendation approval process – Tom Chart said the Program Director's office and Robert Wigington drafted a document to clarify the Recovery Program's process for approving flow recommendations for the endangered fishes. This draft is in Management Committee review and will be discussed in the November 5 webinar. Tom Pitts provided comments on the draft and in the process, remembered that he had committed to draft a uniform recommended review process applicable to all technical reports submitted to the Recovery Program. The Program Director's office reviewed Tom Pitts' comments and draft uniform review process and Tom Pitts will send a revised draft flow recommendations approval process out to the Management Committee and the draft uniform report review policy to the BC, WAC, and MC (technical committee members should discuss any concerns with their Management Committee representative).
10. DOI/Reclamation Scientific Integrity Policy (Kantola, Speas, 5 min) (Attachment 4) – The Implementation Committee approved a resolution on September 19 adopting the [DOI Scientific Integrity policy](#). Principal investigators can expect to see this policy referenced in biennial Program Guidance as well as in their funding agreements from the Bureau of Reclamation.
11. Update on Reclamation Reporting and Scope of Work requirements – A recent thorough audit of Reclamation's funding agreements in the Recovery Programs found no substantive issues; however, it did reveal a need to improve compliance with Reclamation reporting and scope of work requirements. These include detailed 5-year budgets in scopes of work and some form of annual report for each funding agreement.

Scopes of work: The Upper Basin Recovery Program will begin requiring 5-year budgets with its FY14-15 scopes of work (drafts due to the Recovery Program office in April 2013). However, projects with funding agreements which expired in FY12 (thus requiring new agreements for FY13), require 5-year budgets for FY13. A number of Service project agreements and a couple of Colorado project agreements expired in FY12, and the Service and the Program Director's office provided Reclamation with 5-year budget addendums to each of those scopes of work. Angela Kantola, Dave Speas, and Melynda Roberts are scheduled to review Reclamation requirements in early November to determine any additional steps needed to assure compliance in Program scopes of work.

Annual reports: With regard to annual reports, the situation is a little more complicated. Reclamation requires an annual report ("Program Progress Report" or PPR) from each entity receiving Reclamation funds for a project. In addition, from non-Federal fund recipients (e.g., States, LFL), Reclamation also requires a Federal Financial Report, SF-425. Both are due September 30 of each year. A 90-day grace period allows Recovery Program annual reports that are submitted to the Program Office in mid-November (**due this year on Wednesday, November 14**) to serve as the PPR to Reclamation. For projects that have more than one entity receiving funds, PIs will prepare the usual combined report, but with addendums of 1-page PPR's from each entity which fulfills the PPR requirements (format in the Program's annual request for annual reports). For Federal Financial Reports (SF-425s), non-Federal recipients of funds from Reclamation should submit these directly to Reclamation. In the annual report, for the Reclamation

agreement number, use the one for the FY being reported on; and for the start and end date, use the agreement start and end date.

The Committee discussed the crisis created by late agreements in FY12 and the dire need to get funds transferred to agencies as quickly as possible.

12. Review reports due list – Angela Kantola e-mailed the Committee an updated reports list in advance of the meeting. The Program Director’s office will get revised dates on the cyprinid key, backwater synthesis, and population dynamics modeling (see revised reports due list).
13. Review previous meeting assignments (see Attachment 1) – Dave Speas noted that they took PIT tag detection equipment on a recent Black Rocks trip and detected at least a couple of dozen fish that weren’t captured (they hope to provide a presentation at the Researchers Meeting). Pat Martinez reviewed the names of the 21 people signed up so far for the electrofishing course and the Committee discussed other candidates. Melissa asked that assignments begin with a subject. Flaming Gorge Technical Work Group meeting summaries can be found at <http://www.usbr.gov/uc/water/crsp/wg/fg/twg/twgSummaries.html>
14. Consent Item: Review and approve July 12-13, 2012 Biology Committee webinar summary (revised summary sent with this agenda [Dave Speas and Aaron Webber had provided minor corrections]).
Approved.

Attachment 1: Assignments

Note: the order of some assignments has been changed to group similar items together.
For earlier history of items preceded by an ampersand "&", please see [previous meeting summaries](#).

1. & White River report: 3/6/12 **Jana Mohrman** will provide a revised report to BC and WAC by December 31, 2012.
2. & Tusher Wash Screening: 1/26/12: **Tom Czapl**, **Dave Speas** and **Kevin McAbee** will draft a Tusher Wash mortality study and literature review RFP (or similar) for review by folks who would not be submitting a proposal. 7/12/12: *no proposals were submitted in response to the RFP, >the ad hoc committee will work on completing the literature search portion of the mortality study.*
 - 6/26/12: **Reclamation** is developing a cost estimate for a coffer dam that would allow installation of an electrical barrier.
 - Tom Pitts suggested **Reclamation** work with **Smith-Root** to put all the Tusher Wash electrical barrier installation costs (barrier, coffer dam, construction, etc.) in a report for the Committee's review. **Tom Czapl** will work with Smith-Root and Reclamation to produce that. 8/21/12: *Recommended strategy sent to Biology Committee and approved via e-mail.*
 - When the final engineering designs are provided (**Kevin McAbee** will send the Biology Committee any plans he receives), **key Committee members** should make another site visit.
3. & Revise the Integrated Stocking Plan (ISP) and related issues. **Tom Czapl** is convening a group to revise the ISP.
 - 5/13/11: *Cost-benefit analyses should be included in the revised ISP; Tom Chart said he thinks the Program Director's office can initiate this analysis. Results of the health condition profile meeting held at Dexter in March should be incorporated into the revised stocking plan.*
 - 9/27/12: *Revised draft ISP sent to ad hoc group by 9/27/12; comments will be due by the end of October.*

Humpback Chub (population estimates)

- 5/13/11: *Black Rocks and Westwater data have been transferred to Gary White; Program Director's office will check to make sure we've got this analysis covered. 3/6/12: Done and 131 SOW revised accordingly (\$20K provided to LFL in FY12); report due in 2013.*
- After the ad hoc group meets, Melissa Trammell will draft an Environmental Assessment of the impacts of the humpback chub captivity management plan (also addresses how to deal with captured roundtail chub); **Krissy Wilson** will work with **Melissa** on the EA. **Melissa Trammell** will review Dexter's new plan to see if it may impact this (also will talk to Tom Czapl). 3/6/12: *This is on hold (if even necessary) until the humpback chub ad hoc committee finishes their plan. If fish are not removed from the Yampa River, an EA won't be needed.*

Humpback Chub (broodstock development / genetics)

- 11/22/11: *Conference call to discuss humpback genetics and potential refugia/propagation held 11/2/11; draft action plan materials sent to group from Tom Czapl.*
- 3/6/12: **Tom Czapl** will remind the humpback chub genetics ad hoc group to submit comments (7/13/12 comments still pending).
- As identified in the sufficient progress assessment and requested by the Management Committee, the **Program** will develop an action plan for establishing refugia for humpback chub (avoiding getting bogged down in genetic analysis). Mike Roberts has recommended building in limiting factor/life history studies to better understand what's going on in the system that's affecting humpback chub populations.
- 10/16/12: *Age-0 Gila from Westwater were going to be brought to the Horsethief Canyon ponds this fall, but*

river conditions won't allow safe transport until spring. Tissue samples from those humpback and fin clips collected from humpback in the field in 2012 will be analyzed by Wade Wilson to provide information needed to determine if we can use local humpback chub for broodstock development, if needed, or if we will need to incorporate fish from the backup broodstock at Dexter NFH (from the Grand Canyon).

Razorback Sucker

& Dale Ryden and Dave Schnoor will summarize Ouray hatchery needs (water source for Randlett and generator for Grand Valley) and submit it to the Program via Tom Czapla. **Dale** also will seek Service funding. The report will include a discussion the relative risks of power outages at Grand Valley. Melissa suggested that for the long-term, we need a feasibility study for alternative water sources for Randlett.

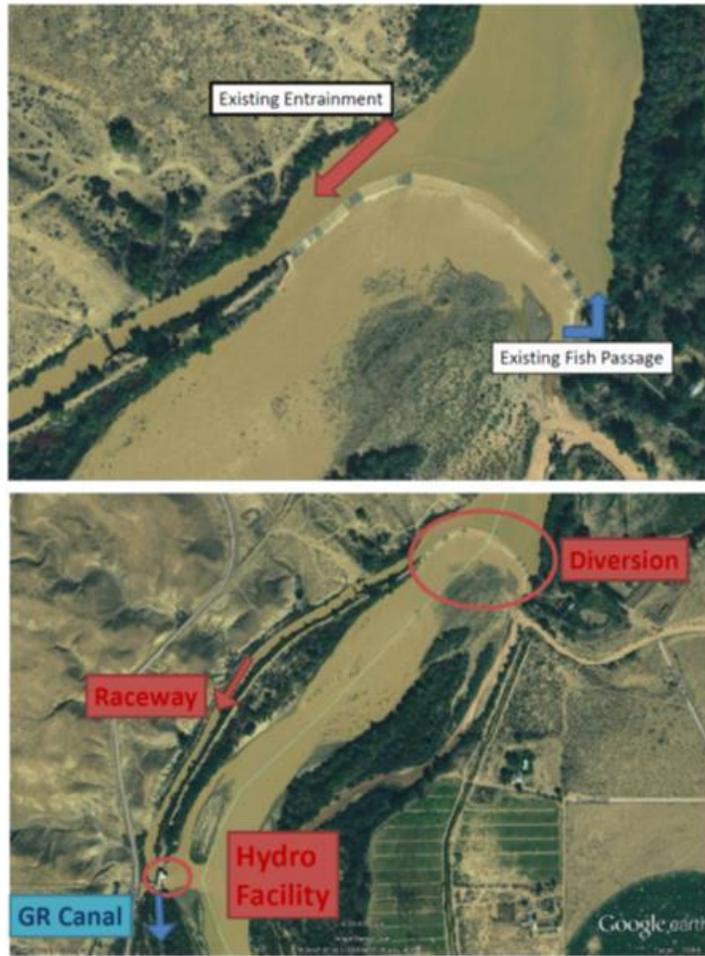
- *5/13/11: Dale said Reclamation says alternative water sources would have a \$10M price tag. The Service has been discussing the manganese problem and will convene a group to discuss (Program Director's office, hatchery folks, Reclamation, etc.).*
- *9/30/11: Proposal for **contractor** review of alternatives for remediating manganese approved by Management Comm. 5/4/12: Contractor has recommended two options in a preliminary report; likely the selected option will be to install one more bank of filters/BIRM. 6/27/12: contractor made recommendations and Ouray ordered the filter bank and has been replumbing the facility. Contractor may provide report after the install and recheck. 7/13/12: Some additional well electrical problems at Ouray are being worked on.*
- **Tom Czapla** said Dave Schnoor is working on creating back-up broodstock for Wahweap from some of the excess razorback at Ouray.

Bonytail

- **Dave Schnoor** will write up his thoughts on bonytail stocking and temperature (*3/6/12: draft provided to Tom Czapla, Dave Schnoor revising and will send to BC*). The **Mumma and Wahweap hatcheries** will compile their records of stocking temperatures and provide that to **Tom Czapla** for consideration as part of the integrated stocking plan. *Done; Tom Czapla included Dave's recommendations in the draft ISP. Krissy attempted to get river temperature at stocking prior to 2008; but this information was not on the data sheets. 10/16/12: Zane stocked ~6,000 bonytail last week. Krissy said Julie captured 8 bonytail only 2 of which had PIT-tagged; Tildon reported catching an untagged bonytail, also.*
4. Hybrid suckers: The **Program Director's office** will follow up on establishing a process to track percentages of hybrid suckers using standardized protocol for identification of hybridization at fish ladders and in monitoring reaches. *Pending. 1/11/12: Discussed on 1/5/12 NNFSC call; process pending from **Pat Martinez** (lower priority). 10/16/12: Pat will check with LFL about offering a course on sucker identification.*
 5. & Flaming Gorge/Green R burbot: **Melissa Trammell and Pat Martinez and Krissy Wilson and Jerry Wilhite** will work on a Flaming Gorge burbot risk assessment. *10/16/12: They held a conference call August 30 and October 15; will have another call November 20, and Melissa will present something to the nonnative fish workshop and provide a draft by January 2013. UDWR is funding two studies (food web and early life history). Late this season, Tildon tried baited hoop nets and other methods in the Green River and did not capture any burbot.*
 6. Sediment monitoring: **Tom Chart and Jana Mohrman and Kirk LaGory** will convene fish biologists involved in developing flow recommendations and geomorphologists (e.g., John Pitlick and Cory Williams) to identify logical next-steps (e.g., is MD-SWMS modeling the best way to proceed) to evaluate flow recommendations, particularly on (but not limited to) the Gunnison where sediment transport is so important. *Pending.*

7. Nonnative fish management follow-up: 10/16/12: **Dave Speas** convened a conference call in August to discuss reconnaissance for future nonnative fish work on the Dolores River and decided against it due to access and other difficulties. Jim White is collecting otoliths and will provide them to Kevin Bestgen. Dave said Peter MacKinnon and Jim White have been working on a PIT-tag antenna at Disappointment Creek and also have identified a site on the lower river (Rio Mesa Center). 10/16/12: Colorado conducted additional northern pike removal passes on the Colorado River this year. **Harry** asked CPW Regional and Aquatic staff if Colorado's view regarding a smallmouth bass bounty on the White River might be different if Colorado weren't responsible for the bounty dollars/management. If someone has a proposal to administer a smallmouth bass bounty on the White River, Colorado would consider it.
8. Fire impacts: **Dave Speas** will invite the SRLCC Science Coordinator, John Rice, to come and discuss this with the Biology Committee (or at the Researchers Meeting) ways agencies might coordinate to prevent or mitigate impacts of wildfire on endangered fishes.
9. Database Management: The **Program Director's office** will work to define the overall problem/need to improve data management in light of the increased PIT antenna data, draft an overall schedule, and bring that back to the Committee in advance of the December meeting for discussion.
10. Reports: **Kevin Bestgen** will make the modifications discussed and finalize the razorback monitoring report by November 1. For the Elkhead escapement report, **Kevin Bestgen** will send the Committee revised verbiage related to the lake management plan, get that approved, and revise the report, also addressing other comments discussed above.
11. Protocol for documenting fish captures: **Tom Czapla** will provide protocol for the scope of work format (or other appropriate venue) for how Program PIs will document significant fish captures with photos, etc. Krissy suggested the protocol also should include checking for ripeness and noting if fish are tuberculated.

Attachment 2: Tusher Wash Diversion Rehabilitation / E-Barrier Proposal



Alternative 1

Alternative 2



Attachment 3: **Lake Powell Razorback Sucker Survey**

Final notes from the 4 September 2012 conference call

Participating on the conference call:

Mark Buettner – Utah Division of Wildlife Resources
Dave Campbell – San Juan River Basin Recovery Implementation Program (Program Director)
Harry Crockett – Colorado Parks & Wildlife (UCREFRP Chair)
Tom Czaplá – Upper Colorado River Endangered Fish Recovery Program
Scott Durst – San Juan River Basin Recovery Implementation Program
Travis Francis – US Fish & Wildlife Service
Mark McKinstry – Bureau of Reclamation
Bill Miller – Miller Ecological Consultants (SJRBRIP Chair)
Dale Ryden – US Fish & Wildlife Service
Ben Schleicher – US Fish & Wildlife Service
Dave Speas – Bureau of Reclamation
Melissa Trammell – National Park Service
Sharon Whitmore – San Juan River Basin Recovery Implementation Program
Krissy Wilson – Utah Division of Wildlife Resources

Comments to draft meeting minutes submitted by: (all comments received were incorporated)

Dave Campbell – San Juan River Basin Recovery Implementation Program (Program Director)
Scott Durst – San Juan River Basin Recovery Implementation Program
Sharon Whitmore – San Juan River Basin Recovery Implementation Program

General discussion points:

- 1) The Bureau of Reclamation reiterated that they are willing to fund up to \$250,000 worth of work in Lake Powell for FY-2013 under the following conditions
 - a. There is a legitimate interest (as identified by the USFWS and the Biology Committees of the Recovery Programs) to perform such work
 - b. There are Recovery Program approved, , scientifically-justifiable scopes-of-work (SOW) in place to guide distinct parts of the work
 - c. At this point, the money is available for one fiscal year only (FY-2013)
 - d. The money will be used in a 50/50 split between the two Recovery Programs
 - e. The Bureau expects/needs a match (ideally a 50/50 match, but this may be negotiable) in funds from the Recovery Programs in order to release money to fund work in FY-2013
 - f. The Bureau won't fund work in Lake Powell exclusively (i.e., without matching funding from the Recovery Programs)
 - g. The money the Bureau is offering up will be available for a few months in FY-2013, but if a decision regarding the need to perform work in Lake Powell is put off until later in FY-2013, the money will likely be obligated for other uses
- 2) Several individuals were concerned because it seemed like the possibility of getting funding from the Bureau of Reclamation was driving the decision to perform research in Lake Powell in FY-2013 (i.e., we have money so let's find something to do with it)
 - a. The San Juan River Basin Recovery Implementation Program's Biology Committee had already decided to take a hiatus from performing field work in the San Juan River arm of Lake Powell in FY-2013 and:

- i. Instead would pursue scale aging and scale laser ablation analysis to help determine
 - 1. Origin of untagged razorback sucker being collected (are these fish that were stocked without PIT tags in the San Juan River that have just found their way down to the lake?)
 - 2. Are these perhaps fish that were wild-spawned in Lake Powell, that have recruited there?
- 3) National Park Service offered the following as potential in-kind services to any work that might occur in Lake Powell
 - a. Big Park Service boat for resupply efforts
 - b. Housing at the Hite Marina
- 4) There are some data gaps about the endangered fish in Lake Powell and the role of Lake Powell in the recovery of the San Juan and UC river system populations; for example:
 - a. Are the razorback sucker that are found in the San Juan River arm of Lake Powell potentially intermixing with any razorback sucker that may be found in the Colorado River arm of the lake?
 - i. Data from Lake Mead shows that razorback sucker make long-distance movements within that lake between inflow areas. They have also demonstrated movement upstream out of the Colorado River inflow area of that lake into the lower Grand Canyon
 - ii. Data from the San Juan River arm of Lake Powell shows
 - 1. Movement of razorback sucker upstream out of Lake Powell and into the San Juan River during a brief period when the waterfall was inundated (making them one functional population for Recovery?)
 - 2. Movement of one sonic-tagged razorback sucker downstream out of Critical Habitat, moving towards the confluence of the two arms of Lake Powell.
 - b. We have essentially no knowledge about endangered fish in the Colorado River arm of Lake Powell
 - i. This includes razorback sucker and potentially Colorado pikeminnow and bonytail
 - ii. The feeling among several individuals on the call was that there ARE razorback sucker in the Colorado River arm of the lake
 - 1. Just don't know how many or what the population looks like until you actually go out and look
 - 2. Dale Ryden pointed out that by trying to obtain basic information (presence/absence, abundance, distribution, can you find fish in spawning condition, etc.), you can actually learn many peripheral pieces of valuable information
 - a. Ascertain movement patterns
 - b. Determine numbers of tagged versus untagged fish
 - c. Ability to collect scales for aging
 - d. Chance to do larval sampling
 - e. Chance to do contaminants sampling
 - iii. Dave Speas and Dale Ryden both felt that if any work were done in the Colorado River arm of Lake Powell, the first attempt to do such work should be some kind of generalized survey-type approach
 - 1. Something akin to what was done in the San Juan River arm of Lake Powell
 - iv. Melissa Trammell suggested that drawing on the knowledge gained from the San Juan arm studies, it may be possible to narrow the window of time that crews are in the field, thus reducing costs of any potential scope-of-work (SOW)

- 5) Dale Ryden stressed that in order to make any field work happen in FY-2013 (if it is decided that such work should happen), the agencies/individuals that may be involved in that work need to know sooner rather than later
 - a. Hiring of seasonal staff for government agencies usually begins in December
 - b. Need 6-8 months to
 - i. Hire seasonal staff
 - ii. Acquire appropriate collecting/access permits
 - iii. Write SOWs and get them approved through the committee process
 - iv. Set up logistics
 - v. Obtain, repair, replace equipment
 - vi. Coordinate with other agencies and the Recovery Programs
- 6) There was some discussion that the San Juan Recovery Program may have some funds available in their 2013 budget to contribute to a limited amount of work in Lake Powell; UCR has no funds for cost-share
 - a. Dave Campbell expressed that both Programs should take the view that work in Lake Powell should be done as a cooperative effort between both recovery Programs (i.e., a "Joint Project")
 - b. Dave Campbell also suggested that a comprehensive study be developed (by both Programs) with clearly articulated objectives and hypotheses that drive the study effort
 - c. the San Juan Recovery Program would be willing to contribute to work in the SJR and UCR in Lake Powell for FY-2013 as a joint program if it is important for recovery
 - i. Bill Miller brought up the point that if this scenario were to occur, that the SJ Coordination Committee would need to concur.

Decision points &/or action items:

- 1) No SOW will be developed for Lake Powell yet
- 2) USFWS – Grand Junction will provide the following to Biology Committee members of the two Recovery Programs
 - a. Notes from conference call
 - b. List of bullet points regarding important findings from first two years work in the San Juan river arm of Lake Powell
 - c. List of bullet points regarding what they see as outstanding data needs/gaps in either arm of Lake Powell
- 3) Sometime this fall, there will be a meeting between staff from both Recovery Program offices and/or representatives from Regions 6 and 2 of the USFWS to determine:
 - a. What do the findings in the San Juan River arm of Lake Powell to date mean for recovery of razorback sucker?
 - b. Is more work in either arm of Lake Powell necessary?
 - c. If more work is needed, what level of work is desired/needed, when does it occur (FY-2013?), who would perform said work, etc.?
 - d. The decisions from this meeting will be presented to the members of the Biology Committees for both Recovery Programs during subsequent BC meetings
 - e. This meeting will be set up by staff from the two Recovery Program offices
 - i. Scott Durst initiated this effort on 11 September 2012 via Doodle poll
 - ii. The meeting has been scheduled for 27-28 November 2012 in Denver, CO

Attachment 4

Approved by the Implementation Committee on September 19, 2012

**Resolution of the Implementation Committee of the Upper Colorado River
Endangered Fish Recovery Program on
Adherence to Department of Interior Scientific Integrity Policy**

WHEREAS, the U.S. Department of Interior (DOI) has established a policy entitled “[Integrity of Scientific and Scholarly Activities](#)” (Jan. 28, 2011) to ensure and maintain scientific and scholarly ethical standards in Departmental decision-making, and

WHEREAS, the aforementioned policy applies to all DOI employees and all contractors, cooperators, partners, permittees, and volunteers who assist with developing or applying the results of scientific and scholarly activities, and

WHEREAS, the majority of Recovery Program projects are carried out using power revenues administered by DOI’s Bureau of Reclamation (Reclamation), and

WHEREAS, Reclamation formally adopted the aforementioned policy on March 6, 2012 in the [Reclamation Manual](#), and

WHEREAS, the Upper Colorado River Endangered Fish Recovery Program (Recovery Program), desires to adhere to the highest standards of scientific integrity in all of its scientific endeavors;

NOW THEREFORE BE IT RESOLVED by the Implementation Committee of the Recovery Program that the Recovery Program operates in accordance with the U.S. Department of Interior policy entitled “[Integrity of Scientific and Scholarly Activities](#)” (Jan. 28, 2011), including future updates of this policy.