

Biology Committee Draft Agenda
[Holiday Inn Hotel and Suites](#), 2571 Crossroads Blvd
Grand Junction, Colorado, May 6–7, 2010

Thursday, May 6

CONVENE: 12:30 p.m.

1. Review/modify agenda – (Trammell, All; 5 min)
2. Approve Biology Committee [March 10-11 meeting summary](#), review previous meeting assignments (see Attachment 1), review reports due list. (All, 30 min) *The [summary](#) was posted to the fws-coloriver listserv by March 15. Angela Kantola sent the Committee a revised reports due list on April 16.*
3. Report Review: Population status of Colorado pikeminnow in the Green River basin, Utah and Colorado, 2006-2008 (Bestgen et al) (All, 30 min) – *The report has undergone peer review and Kevin Bestgen posted a final draft to the Committee for review on April 20.*
4. Discussion of results of Kolz and Martinez resistance load tests with three VVP-15B units (See Attachment 4) (Martinez, 45 min). *Field personnel may want to phone conference in for this portion of the meeting: 888-842-7194, passcode 209309.*

BREAK – 10 min

5. Tusher Wash fish screen (PD's Office, 30 min) (See Attachment 2) – *Discussion of issues to be resolved (e.g. acceptable levels of mortality for different size classes, potential O&M costs, etc.) The PD's office will provide background to the Biology Committee and the Service in advance of the meeting.*
6. Northern pike exclusion on the Yampa River (Hebein, 30 min) – *Review of CDOW proposal and additional options to reduce pike spawning habitat on the Yampa River.*
7. Nonnative Fish Subcommittee (NNFSC) update (Speas, 20 min)
 - a. Approval of 2008 and 2009 nonnative fish workshop summaries – The [link](#) to these summaries was provided in an e-mail from Angela Kantola on 4/1/10.
8. Capital projects (All, 30 min) (See Attachment 5 for list of remaining scheduled capital projects and budget summary) – *Discussion of other potential capital projects (e.g., weirs for nonnative fish management, PIT-tag reader at Maybell Ditch to monitor entrainment, Wahweap use/hatchery building, etc.). The Committee will review the “big picture” of what still may be needed, especially with regard to floodplain management.*

ADJOURN 4:30 p.m.

Friday, May 7

CONVENE: 8:00 a.m.

9. Aspinall PBO Study Plan development (All, 1.5 hour) – The [Aspinall \(Gunnison River Basin\) PBO](#) calls for a Study Plan to evaluate the effects of the proposed operations of the Aspinall Unit and how it improves habitat and thereby contributes to recovery. (See summary in Attachment 3.) The Study Plan is to be completed by December 2010 and should focus on previously identified uncertainties related to geomorphic processes, floodplain inundation, and temperatures (see Uncertainties section of the PBO). The Study Plan also should include an evaluation of the effects of reoperation on critical habitat in the Colorado River from the Gunnison River confluence to Lake Powell. The Committee will discuss required elements of the Study Plan and a timeline/process for development. A similar [plan was developed for the Green River in 2007](#).
10. Ongoing and potential threats of oil and gas related spills to endangered fish recovery (FWS, States, 1 hour) – Briefing from FWS Ecological Service's offices and appropriate State personnel (e.g. Kim Kaal from Colorado) on ongoing and potential threats of oil and gas related spills which could impact recovery. The group will discuss unaddressed threats (e.g., existing pipelines, projects with no Federal nexus) and how we might minimize those threats. (See also 3/22/10 e-mail from Angela Kantola containing a summary of 2009 FWS contaminants activities). The relevant Management Action and tasks from the recovery goals are:

Management Action E-2.—Minimize the risk of hazardous-materials spills in critical habitat.

Task E-2.1.—Review and recommend modifications to State and Federal hazardous-materials spills emergency-response plans to ensure adequate protection for razorback sucker populations from hazardous-materials spills, including prevention and quick response to hazardous-materials spills (see section 4.5.2 for discussion of hazardous-materials spills).

Task E-2.2.—Implement State and Federal emergency-response plans that contain the necessary preventive measures (as determined under Task E-2.1) for hazardous-materials spills.

Task E-2.3.—Identify the locations of all petroleum-product pipelines within the 100-year floodplain of critical habitat and assess the need for emergency shut-off valves to minimize the potential for spills.

Task E-2.4.—Install emergency shut-off valves (as determined under Task E-2.3) on problematic petroleum-product pipelines within the 100-year floodplain of critical habitat.

Similar tasks appear in all 4 species recovery goals, but the humpback chub recovery plan has additional tasks related to the railway adjacent to Black Rocks and Westwater Canyon:

Task E-2.3.—Identify measures to minimize the risk of hazardous-materials spills in Black Rocks and Westwater Canyon from transport of materials along the adjacent railway.

Task E-2.4.—Implement measures (as determined under Task E-2.3) to minimize the risk of hazardous-materials spills in Black Rocks and Westwater Canyon from transport of materials along the adjacent railway.

BREAK -10 min

11. Discuss purpose and schedule for floodplain review/site tour (All, 30 min) – *The Committee would like to schedule visits to Program floodplain sites with Ryan Mollnow, Ouray NWR; likely this now won't occur until fall. Topics for the review and site tour likely will include: review of management plans for the [Green](#) and [Colorado](#) river basins; discussion of options for Baeser Bend and Old Charley Wash (Modde's rotational floodplain management plan); Reclamation's work to implement recommendations from [Heitmeyer and Fredrickson 2005](#); recommendations from the floodplain synthesis report (PD's office received a preliminary draft 4/1); and continued work to monitor floodplain sites under C-6 Hydro.*

12. Schedule next meeting (All, 5 min)

ADJOURN by 12:30 p.m.

Attachment 1: Assignments

1. Tom Nesler will check on the status of revision of the Yampa River Aquatic Management Plan. 1/15: To be completed by 5/1/09. 7/8: In CDOW review/revision with commitment to MC to provide by early July. 7/13: Draft will be available for internal review by mid-July. CDOW will send the draft out the States and Service (NNFSP) prior to Greg Gerlich's final approval. 9/21: The draft final will be distributed to the Recovery Program office and the NNFSP Agreement signatories as a courtesy copy for review and comment. Pending comments received and further revision, Greg Gerlich and Tom Nesler will approve the plan. 10/6: The plan has been sent to the Program Director's office and the signatories to the NNFSP for courtesy review (comments due by the end of October). 1/15/10: FWS provided comments in early November. Tom Nesler will check with Sherm to see if Wyoming provided any comments; CDOW will respond to comments and copy the Biology Committee. 3/10: **Sherm Hebein** said he **and Tom Nesler** hope to finalize this by March 19. 4/7: Sherm and Tom Nesler reviewed 4/6; Sherm is incorporating changes, reviewing suggested changes that are policy-related within CDOW, and responding to suggested revisions they to which they can't respond. Tom says they expect it will be ready for signature by the end of April 2010 (the 98a synthesis report also will be completed by the end of April).
2. *The Program Director's office will work with CDOW and Aaron Webber on the potential for designing a permeable, hydrologically-stable (gravel?) berm to prevent northern pike access to the oxbow slough at RM 151 on the Yampa, and then clean it out once and for all. 10/30 CDOW has contacted the property owners of the RM 151 backwater, but hasn't been able to meet with them yet. Mark Wernke from Reclamation is willing to take a look at the property with CDOW. A fairly long berm would be required (>3,000') and we'll need to determine the best type (more permanent configurations could be very expensive). The funding source would need to be determined, with Partners for Fish and Wildlife, lottery funds, grant funds, etc. as possible sources to be explored. 1/15: Tom Nesler said they plan to get engineers develop specs/estimates this spring for something like a 10-year berm structure; the next step will be to find funding (perhaps as a habitat project through GOCO). This would be the first of three or four such projects. Tom Pitts suggested that if the Program provides some matching funds (annual or capital), it might improve the probability of getting GOCO money. Tom also suggested that if we have a project in the hopper, we might be able to compete for end-of-year Reclamation funds. 2/10: The PD's office considers this a high priority and will contribute funds, if available (see revised FY09 budget). 2/20: Recovery Program funds likely available; CDOW working to get engineers on the ground; Nesler considering different approaches (berm, fill the oxbow, etc.). 4/20: Tom Nesler said they've met with the landowner and Reclamation engineers will do an onsite survey as soon as the snow melts. 1/5/10: Project deferred indefinitely; Reclamation cautions that the lesson from the Butch Craig floodplain site is to be very cautious before considering modifying habitats. Based on the channel dynamics in this area of the Yampa River, it would be unwise to construct an impervious dike at the mouth of this backwater. 1/14/10: The Committee discussed other options to eliminate spawning in this area; the >PD's office will provide Mark's trip report to the BC and work with CDOW to outline options for Committee discussion at the next meeting (options could include: make the entrance too shallow for adults; a dike set back instead of right at the river; direct removal/net sets; piscicides, etc.) 2/22: PD's office provided Mark's report. 3/10: **CDOW** will work with Reclamation to flesh out their gravel proposal and also will review additional

options (e.g., plant eradication, barriers, etc.). This will be on the May 6-7 Committee agenda.

3. Within the next month, >the **Service and Program Director's office** will provide the Committee a draft addendum to the White River report that will present the measured flow requirements in a historical hydrologic perspective. The Program Director's office also will research where we left Schmidt and Orchard's draft report on peak (channel maintenance) flows and recommend whether to have it reviewed by the geomorphology panel. The Program Director's office will use the information currently available to >develop a position paper on Price River flow recommendations for Committee review. 10/16 Pending; *out by the end of November-1/5: February 2009. 2/20: Bob Muth said he's making good progress on this and he'll have a draft to the Committee by ~~early March~~ end of April. 7/8: Mohrman and Chart expect to provide drafts of this and Price River report by the end of August 2009. 7/13: Dave Speas said the goal for the Narrows EIS is to get it out for public review in the fall, so the above schedule should work. The PD's office will keep the Service's SLC-ES shop in the loop on Price River. 9/21: Chart and Mohrman have made good progress on this, but other priorities have so far prevented completion. 1/14/10: still pending and the PD's office will continue to communicate with Reclamation re: Narrows. 3/3/10: PD's office is communicating with SLC-ES to determine the best way to move this forward.*
4. *Melissa believes an Environmental Assessment of the impacts of the Humpback chub captivity management plan (also addresses how to deal with captured roundtail chub) will need to be written; Krissy will work with Melissa on the EA. 7/13: Melissa needs to coordinate with the NPS if this is the case and she intends to do that in the next few weeks. 10/6: John Reber reported that **Melissa Trammell** will do the EA for this (pending).*
5. **Krissy Wilson** will provide Utah's Health Condition Profile to **Tom Czapl**. 4/20: *Krissy has asked for a formal write-up from their hatchery folks. 7/13: Krissy will condense relevant information gleaned from hatchery managers and consider organizing workshop(s) in the future. 10/6: Krissy provided this information to Tom Czapl and will work with Tom to determine if we'll host a workshop for hatchery personnel (pending, will schedule after new hatchery manager is in place at Ouray NFH). 3/10: Workshop for hatchery folks will be scheduled in late summer or early fall, probably in Grand Junction (to allow someone from the Mumma Hatchery to attend).*
6. The **PD's office** will communicate with Gary White to determine how many and which of the questions from the HBC workshop to focus on. *Pending. **Derek Elverud** will provide the database for Westwater for Gary White to combine with Black Rocks, which will require a separate SOW. 10/6: **Travis Francis** said they plan to complete the reports, then revisit a SOW for assistance from Gary White. 3//10: pending.*
7. *The **Program Director's office** will review the 121a report recommendations (as well as the Gunnison PBO) and determine what items need to be included in the RIPRAP. 2/22: *PD's office recommended this be incorporated into the Gunnison River Study Plan.*
8. *The Service will review Modde's plan and develop a plan to implement rotational floodplain management. 2/22: *PD's office recommends **Biology Committee** review; Angela Kantola sent to the Committee on 3/10. 3/11: **Angela Kantola** will send the Committee a*

*“Doodle” request to schedule a meeting to visit floodplain sites and review overall floodplain management. **Aaron Webber** will outline a set of options for using Baeser Bend and/or Old Charley as razorback acclimation sites for consideration at the Biology Committee’s upcoming meeting focused on floodplain management.*

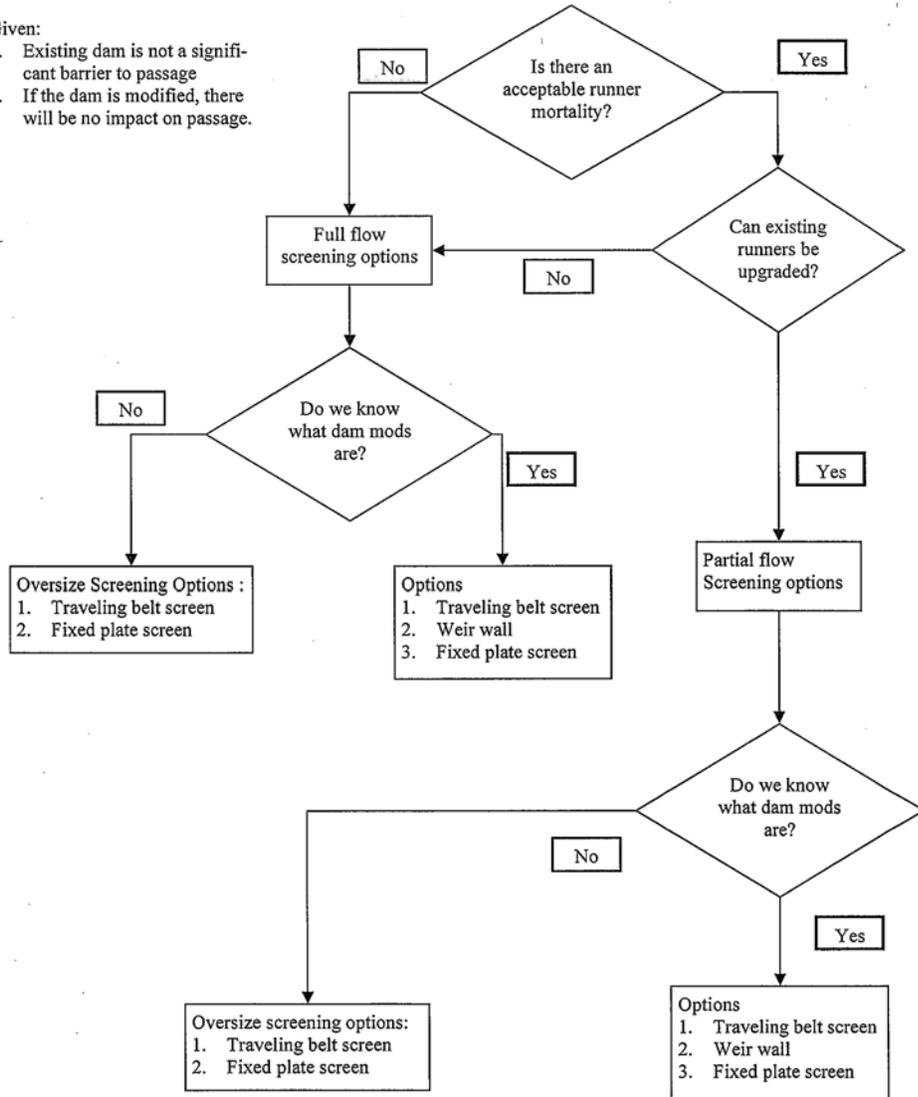
9. **CDOW** will review the Loudy-Simpson escapement data and make a recommendation for where to translocate fish prior to the field season. *3/10: Sherm said their preliminary work indicated that less than 1% of the fish stocked into Loudy-Simpson 2007-2008 escaped back to the river (p-hat 3-8 fish), so they think escapement very minimal. CDOW will continue to evaluate and will defer stocking northern pike into Loudy-Simpson until after the river recedes and no Loudy-Simpson is no longer connected (the same will apply to Yampa R. SWA). In light of likely overwinter survival, Tom Chart asked CDOW to continue to focus on Headquarters Pond as long as it will sustain the number of fish being stocked.*
10. *The **Program Director’s office** will prepare a list of issues to be resolved regarding Tusher Wash screening (e.g., what levels of mortality are acceptable for what size classes, potential O&M costs, etc.) to help move this decision forward (and provide that to the Biology Committee and the Service).
11. **Angela Kantola** will add a reminder to future annual report requests about the importance of PI’s supervisors’ reviewing recommendations to be sure that they are grounded in the data and that the Program takes these recommendations seriously. *Pending in 2010 annual report request.*
12. **Michelle Shaughnessy** will provide cost comparisons for O&M of the proposed new Grand Valley fish rearing ponds versus existing ponds as soon as the value engineering study is completed.
13. **Angela Kantola** will send the Committee a revised reports due list. *Done.*

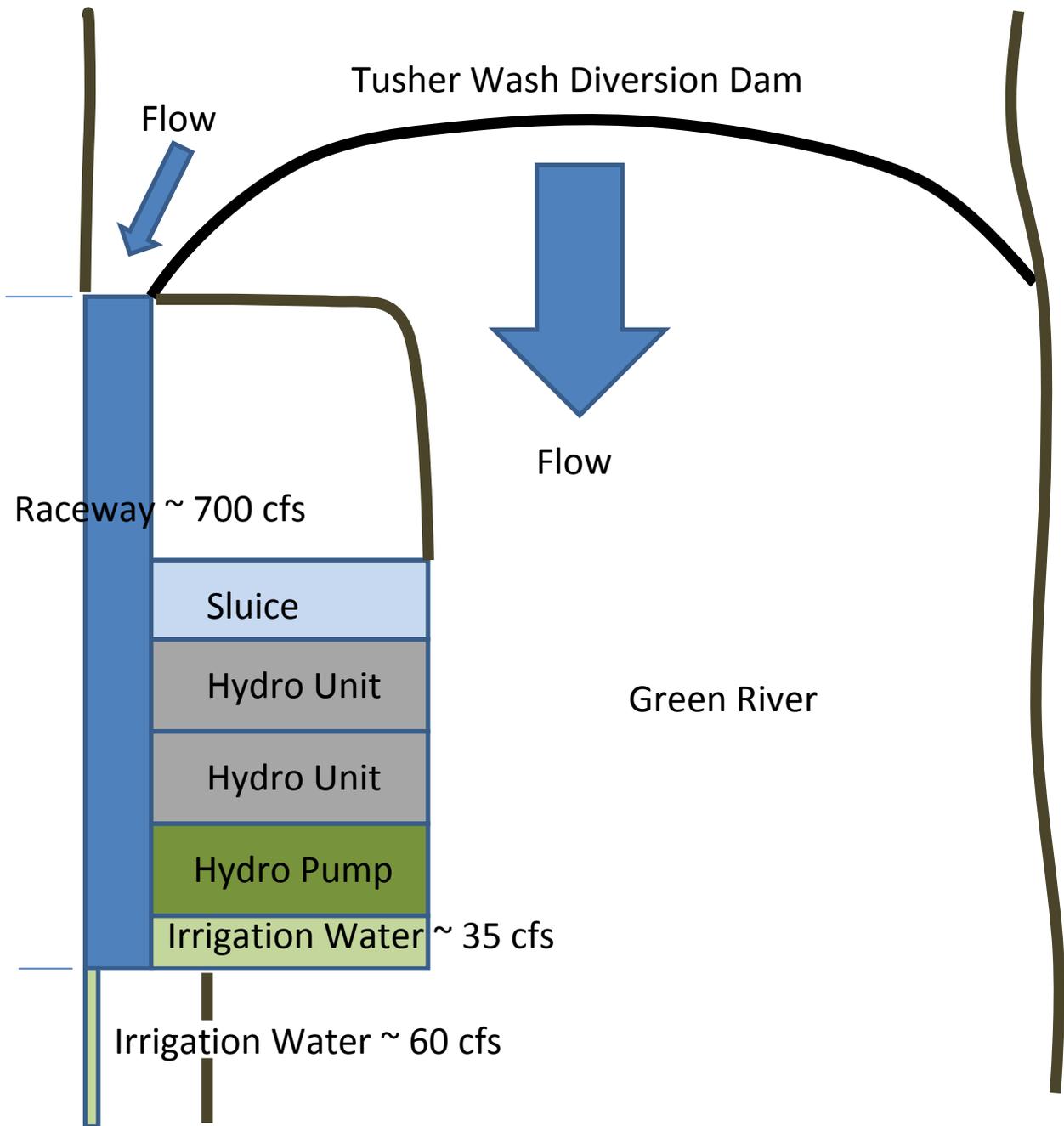
Attachment 2

Tusher Wash Screening
Screening Options Flow Chart

Given:

1. Existing dam is not a significant barrier to passage
2. If the dam is modified, there will be no impact on passage.





Attachment 3

Larry and Pat Martinez just completed a discussion of the data, results and implications for Recovery Program electrofishing personnel. Here are some items for a future discussion:

- 1) The key difference between waveforms of the VVP and the GPP 5.0 is the duty cycle. The field data sheets providing records of electrofisher settings from Walford/Hawkins were essential in helping to identify the significance of this difference.
- 2) The field observations provided by Cameron in his Researcher's meeting presentation regarding superior taxis of fishes in response to the VVP is attributable to the VVP's capacity to operate at a duty cycle (~30) that is twice that of the GPP (~13). Both levels of duty cycle are within the recommended range (10-50), but higher duty cycles tend to be associated with better electroaxis of fish within the effective electrical field.
- 3) The GPP cannot achieve these higher duty cycles unless it is operated at frequency of 120 Hz. Since the percent of range adjustment is operationally fused with duty cycle in the GPP design, it may not be feasible to operate the GPP at a more favorable, higher duty cycle as it would require adjusting the percent of range upward such that it may be applying too much voltage which may injure fish.
- 4) Neither the VVP or the GPP offer the best solution to the range of conductivities encountered in UCRB rivers by aluminum-hulled electrofishing boats. The VVP is only able to maintain sufficient power to capture fish up to about 400 $\mu\text{S}/\text{cm}$. The GPP can operate across most of the conductivity range encountered, but the catch by a VVP-15B would be expected to prove consistently higher at the lower conductivities, provided the unit was operated and functioning properly (a range of operational variability was noted in the units tested - Crockett's will require service to correct a faulty duty cycle adjustment knob).
- 5) For aluminum electrofishing boats operating on UCRB rivers, this issue of electrofisher performance appears to have the most immediate implications for the Yampa River because of its generally lower water conductivity. While boats can be wired to accommodate either system, deploying both on an individual boat is impractical due to the need for two different generators (GPP generators are proprietary). While the use of a VVP may optimize SMB capture at 100-400 $\mu\text{S}/\text{cm}$, its use would become ineffective during early season passes when water conductivities are higher or in high conductivity backwaters which may hold other targeted species (e.g. northern pike).
- 6) Fleet standardization remains a desirable and recommended goal. By standardizing the electrodes, we have been able to provide performance evaluations of the electrofisher options. Reducing anode sizes in an attempt to expand the utility of the VVP is discouraged. This defeats the standardization of the effective field of fish capture by reducing the effective field to boost power output which may result in more fish injury.
- 7) Further analyses revealed a 17% difference in electrical resistance between half-submerged and fully-submerged spherical anodes. Insulating the top half of the anodes with a non-conducting covering would help stabilize the electrofishing circuit and reduce the degree of power surges due to varying degrees of anode submergence resulting from boat motion or water

conditions. This anode treatment would be particularly helpful when operating at maximum power in high conductivity, and may facilitate more effective fish capture under these extreme conditions.

Larry and Pat look forward to discussing these data and their implications with the Biology Committee at their May meeting.

New demands/needs for research, monitoring and other projects from [Aspinall PBO](#)

Recovery Program Obligations under the PBO:

Monitor fish populations in Gunnison River: Program monitors pikeminnow populations and is developing a basin-wide razorback monitoring program to include monitoring of multiple life stages. Monitoring program design is expected to be completed in fiscal year 2010. Implementation to begin in 2010 and include multi-life stage monitoring on the lower Gunnison. Density estimates will be developed for Colorado pikeminnow and razorback sucker in the lower Gunnison River.

Collect tissue samples during monitoring: During fish community monitoring in the lower Gunnison River, tissue samples will be collected from razorback suckers, as well as a chosen surrogate species, to determine selenium concentrations.

Assist in development of Study Plan to evaluate effects of Aspinall reoperation and how it improves habitat & contributes to recovery. Complete within one year of PBO. Include an evaluation of the effects of reoperation on critical habitat in the Gunnison River and Colorado River from the Gunnison River confluence to Lake Powell. Focus on previously identified uncertainties related to geomorphic processes, floodplain inundation, and temperatures:

While relationships among initial motion, significant motion and streamflow are well defined, duration of flows necessary to accomplish habitat work is not completely known. Because flow duration recommendations were developed based on a wet period, the recommended durations require a large volume of water that may not always be available.

Water availability may limit the ability of the Gunnison River to meet the Flow Recommendations under certain conditions.

Because of timing and other differences in runoff patterns of the Colorado and Gunnison rivers, it is difficult to predict the effect of Gunnison River flow changes on the Colorado River.

The trade-off facing Colorado pikeminnow between stream bed maintenance and temperature regime in the Gunnison River is an uncertainty that may need to be evaluated by the Recovery Program.

The Recovery Program may need to evaluate the trade-off between high spring flows and base flows needed during the mid- to late summer to operate Redlands (and, to a lesser extent perhaps, maintain movement of sediment through the system).

Conservation Recommendations: (Discretionary agency activities to minimize/ avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.)

Selenium: Recovery Program initiate investigations to determine appropriate levels of selenium to insure recovery of Colorado pikeminnow and razorback sucker. Any new studies would follow established Recovery Program protocol for priority and funding.

Attachment 5

SAN JUAN AND UPPER COLORADO COST CEILING SUMMARY (Dated 03-30-2010)

	SJ RIP	UC RIP	TOTAL
Remaining Cost Ceiling End of FY 2008 1/	\$ 15,400,000	\$ 28,332,000	\$ 43,732,000
P.L. 111-11 Cost Ceiling Increase	\$ 12,000,000	\$ 15,000,000	\$ 27,000,000
FY 2009 Expenditures	\$ 285,000	\$ 5,999,000	\$ 6,284,000
Remaining Cost Ceiling End of FY 2009	\$ 27,115,000	\$ 37,333,000	\$ 64,448,000
Projected Expenditures FY 2010 - 2023 2/			
Farmers Mutual Ditch Repair	\$ 9,000,000	\$ -	\$ 9,000,000
APS Fish Passage	\$ 1,500,000	\$ -	\$ 1,500,000
Fruitland Fish Passage	\$ 1,500,000	\$ -	\$ 1,500,000
Hogback Fish Barrier	\$ 2,500,000	\$ -	\$ 2,500,000
San Juan Capital Projects Management	\$ 700,000	\$ -	\$ 700,000
Horsethief Canyon Rearing Ponds	\$ 900,000	\$ 4,500,000	\$ 5,400,000
Butch Craig Levee Repair	\$ -	\$ 500,000	\$ 500,000
GVIC Fish Screen Retrofit	\$ -	\$ 400,000	\$ 400,000
OMID Canal Automation	\$ -	\$ 16,500,000	\$ 16,500,000
Price-Stubb Fish Passage Pit Tag Reader	\$ -	\$ 120,000	\$ 120,000
Tusher Wash Fish Screen/Barrier	\$ -	\$ 8,000,000	\$ 8,000,000
Upper Colorado Capital Projects Management	\$ -	\$ 1,400,000	\$ 1,400,000
Projected Expenditure Total	\$ 16,100,000	\$ 31,420,000	\$ 47,520,000
			\$ -
Unallocated Remaining Ceiling FY 2010 - 2023	\$ 11,015,000	\$ 5,913,000	\$ 16,928,000

Notes:

1/ Indexed to 2008 price level

2/ Projected costs are based on estimates of varying detail and should be used as approximations only.