

March 5, 2010

Biology Committee Draft Agenda  
[Holiday Inn Hotel and Suites](#), 2571 Crossroads Blvd  
Grand Junction, Colorado  
Wednesday – Thursday, March 10 – 11, 2010

**Wednesday, March 10**

**CONVENE: 12:30 p.m.**

1. Review/modify agenda (Trammell, All; 5 min.)
2. Tusher Wash – Discussion of mortality associated with turbines (Bob Norman, all; 15 min.)  
*Dave Speas will post a handout for this discussion on or before 3/8/10*
3. Approve Biology Committee January 14 meeting summary. (All, 5 min.) *The [summary](#) was posted to the fws-coloriver listserv by Angela Kantola on January 19.*
4. Review previous meeting assignments and reports due list (Kantola, all; 20 min.). *An updated reports due list will be sent to the Biology Committee in advance of the meeting. The status of Committee assignments is annotated at the end of this agenda (please review in advance of the meeting to reduce discussion time).*
5. Northern pike exclusion on the Yampa River (Hebein/Cavalli/PD's office, all; 20 min) *Tom Chart e-mailed Mark Wernke's trip report to the Committee on 2/18/10. PD's office has not yet had opportunity to work with CDOW to outline options (e.g., make the entrance too shallow for adults; a dike set back instead of right at the river; direct removal/net sets; piscicides, etc.) for Committee discussion.*
6. NNFSC updates (Speas, 10 min)
7. RIPRAP (cont'd Thurs., as needed) (Kantola, All; 3 hours) *Angela Kantola posted these items to the listserv Feb. 11, 2010 in two emails*
  - a. Review summary of annual and final report recommendations
  - b. Review RIPRAP tables
  - c. Review RIPRAP text
  - d. Review Budget estimate tables

**ADJOURN by 5:00 p.m.**

**Thursday, March 11**

**CONVENE: 8:30 a.m.**

Continue RIPRAP review if needed

8. Capital projects (Czapla, all: 1 hour)
  - Ponds (primary discussion)
  - Weir
  - Maybell PIT reader
  - Other
9. PIT pocket readers (Speas, 20 min) *potential new less expensive, smaller handheld device*
10. Update on new demands/needs for research/monitoring or other projects resulting from the Aspinall PBO (PD's office, Reclamation; 10 min)
11. Floodplain management (short discussion to lead into scheduling next meeting coincident with BC site visits with Ryan Mollnow, Ouray NWR).

Schedule next meeting (All, 10 min) – Agenda items will include floodplain site review, Discussion of results of Kolz and Martinez resistance load tests with three VVP-15B units (see attachment 2).

***ADJOURN by 12:00 p.m.***

## Attachment 1

### Assignments carried over or modified from previous meetings:

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.
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; on March BC 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.
5. Krissy Wilson will provide Utah's Health Condition Profile to Tom Czaplá. 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 Czaplá 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).
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 said they plan to complete the reports, then revisit the SOW.
7. The PD's office, Vernal CRFP and UDWR will coordinate with the Ute Tribe (Jay Groves) to see if there is interest in a greater level of sampling on the White River. Pending. 10/6: UDWR has been sampling in the White and the Tribe had planned to sample there, but this work has been delayed due to the Tribe's work on their hatchery. UDWR and FWS will follow-up with Jay to see if the Tribe would like them to go ahead and sample the White. 3/3/10: White River sampling was included in the FY 2010 Proj 154 SOW.
8. The Program Director's office will revise the final report format to indicate the need to include the agreement number on final reports. 3/5/10: Document changed, posting to website pending (website changes/additions on hold for ~1 week while site designer makes structural changes).

#### New Assignments

9. UDWR will revise and finalize the Westwater humpback chub report, and provide the final copy in pdf to the PD's office to post on the website. 3/3/10: Complete.

10. Doug Osmundson will revise and finalize the larval razorback sucker report, and provide the final copy in pdf to the PD's office to post on the website. *3/3/10: Revised; see 2/26/10 e-mail from Doug Osmundson. Final if no comments received by 3/12/10.*
11. 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.*
12. The Program Director's office and Dave Speas will draft the Flaming Gorge flow letter. *3/3/10: Chart posted letter to MC & BC 2/25/10; Service plans to make base flow request.*
13. The Service will review Modde's plan and develop a plan to implement rotational floodplain management. *2/22: PD's office recommends BC review.*
14. The PD's office will post the revised 2010-2011 Baeser SOW to the listserv (with "redside shiner" corrected to "sand shiner"). *Done.*
15. Trina will revise the 123b SOW to sample only this area (which will probably only require one extra day of sampling instead of two). Cost increase is ~\$12K (a little less with the reduced white sucker sampling area). *Done.*
16. CDOW will review the Loudy-Simpson escapement data and make a recommendation for where to translocate fish prior to the field season.

## Attachment 2

Larry Kolz completed some resistance load tests with three VVP-15B units. 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 electro taxis 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 next meeting (April or May 2010).