Biology Committee Meeting Summary
September19-20, 2005
Grand Junction, Colorado (Holiday Inn, 755 Horizon Drive)

Biology Committee: Tom Chart, Tom Pitts, Gary Burton, John Hawkins, Melissa Trammell, Kevin Gelwicks, Kevin Christopherson, and Dave Speas. Tom Nesler and Bill Davis participated for parts of the meeting via conference call.

Other participants: Dave Irving, Sam Finney, Mark Fuller, Pat Nelson, Bob Muth, George Smith, Tom Czapla, Rich Valdez, Chuck McAda, Angela Kantola, Patty Gelatt, Al Pfister, Mike Montagne, Doug Osmundson, Ron Brunson, Tim Modde, Bill Miller, and Ray Tenney.

Assignments are indicated by ">" and at the end of the document.

Monday, September 19

CONVENE: 10:30 a.m.

1. Review/modify agenda - The agenda was modified as it appears below.

2. Review and approve draft July 12-13, 2005 meeting summary (sent by e-mail 7/19/05) - The summary was approved as written.

3. Review assignments from July 12-13 2005 meeting - The Committee reviewed assignments and carried forward those shown as assignments #1-7 at the end of this summary. With regard to the estimating the Yampa catfish population estimate in project #110, the Committee agreed the estimate will be discontinued beginning in 2006. With regard to stocking Colorado pikeminnow in currently uninhabited reaches of the upper Colorado River, Tom Czapla recommended suspending stocking until CDOW completes evaluation of potential impacts of downstream movement (and stocking the fish in the San Juan River in the interim). Tom Chart agreed. Tom Nesler concurred via phone.

4. Review/revise reports due list - The Committee reviewed the list and made modifications.

5. Research framework - Rich Valdez outlined the revised approach: investigators will develop life history models, evaluate Program activities, identify data sets for all four species, and analyze data for Colorado pikeminnow under Phase I. Data for the other three species would be analyzed in Phase II. Initially, the Colorado River and Green River pikeminnow populations will be considered separately. Melissa suggested including a column identifying what monitoring has been done, is underway, or is needed for each factor. Rich said they will first determine the data available, then whether those data help address the null hypothesis. Bob Muth asked about a geographic component (e.g., identifying different contributions of different reaches to various life-history stages), and Rich said this will be included. Tom Pitts pointed out another hypothesis needed in addition to #13 to address the effect of discharge fluctuations and habitat stability on dispersing larvae; Rich concurred. >Rich will bring the next stage back to the Committee in January (after completion of task #3). Gary Burton asked if Phase II

could begin sooner and Rich replied they'll need to see how the data analysis goes.

6. Review and approve draft September 2, 2005 conference call summary (sent by e-mail 9/7/05) and discuss Elkhead Reservoir escapement management actions during 2006 - Dave Speas reviewed the Management Committee's decision not to screen the reservoir or rehabilitate the conservation pool, but increase nonnative fish management downstream. Gary Burton added that he believes the Management Committee selected the most realistic option. Dave said the Biology Committee conference call summary doesn't adequately reflect the Committee's conviction that 2005 escapement was significant. Tom Pitts agreed the summary isn't detailed, but believes it's generally accurate. Dave said at least two investigator's data show that more fish escaped from Elkhead in 2005 than were translocated there in 2004 and the summary should reflect that. John Hawkins said his data show that at least 10% of the translocated smallouth bass escaped from Elkhead Reservoir, and that number should have been communicated to the Management Committee. John suggested there may be other options for reducing escapement, and Bob Muth agreed (and will continue to explore options with CDOW and the River District). The Committee discussed and revised the conference call summary. >Angela will send the revised summary to Dave Speas who will add the attachments and post it to the listserver. The Committee then took up the Management Committee's assignment to them to discuss implementation of increased nonnative fish removal from the Yampa River. With regard to smallmouth bass to be removed from the Yampa, the Committee asked CDOW if all other translocation options besides Elkhead have been exhausted. Tom Nesler said that at this time, CDOW believes there are no other options. >The Biology Committee will further discuss implementation of expanded removal at the nonnative fish management workshop (with the understanding that agreement will be reached on expanded removal in time for next field season, so that the Yampa River PBO can be appropriately revised). The Committee asked >the Program Director's office to continue discussions with CDOW and the River District about any ways the 2006 spill might be reduced, and thereby reducing escapement. Melissa distributed a schematic of Yampa River nonnative fish management for the Committee's use in discussing next year's activities.

7. Nonnative fish control workshop: focus/theme, dates, times and location - Dave Speas suggested a session to address approaches (e.g., prevention vs. control post-escapement), overall effectiveness of nonnative fish management efforts, and criteria by which to evaluate effectiveness. Tom Pitts recommended inviting the San Juan Program Biology Committee. Dave noted that the lower basin AMWG has now been charged with developing a warmwater fish suppression workshop. Pat Nelson emphasized the need to discuss ways improve capture efficiency. The meeting will be in Grand Junction beginning at 10:00 am. on Monday, December 12 through the afternoon of Tuesday, December 13, followed by a meeting of the Biology Committee on Wednesday, December 14 (keep a full day open). >The Program Director's office will set up the meeting. The ad hoc organizational committee will help organize the meeting as they did last year. >Pat Nelson will convene that group via conference call soon to outline the structure of the meeting.

8. Researchers meeting dates, times and location - January 18-19 in Moab, Utah, starting at

9:00 a.m and concluding by 4 p.m. on the 19th (hosted by UDWR, with Kevin Christopherson the lead). >Kevin will have UDWR send out a first call for papers in the next week or so. Please submit ideas for themes to Dave Speas and Kevin Christopherson. Tom Pitts suggested including a presentation on the recovery goals and the 5-year update.

9. Next Biology Committee meeting - Wednesday, December 14 (following the nonnative fish workshop). The primary agenda item will be modifications to nonnative fish management activities. Other agenda items will include: review of the revised Elkhead Reservoir lake management plan; presentation by Chuck McAda of a revised stocking/recapture summary; and a report on the Service endangered species permit process (Program Director's office). Agenda items which may need to be deferred to the next meeting include: 1) propagation issues - the Service has reviewed questions raised by Tim Modde and wants to bring some of these to the Committee for discussion (>the Service will provide background information 2 weeks prior to the December meeting, and Chuck's information on stocked fish and recaptures may provide insight to this, also). ; 2) tagging all chubs as part of all humpback chub population estimates (Tom Czapla will work with PI's to develop a statement on how those data will be used); and 3) report reviews - Pitlick channel monitoring report (final due to BC 12/1/05); draft Colorado River subbasin floodplain management plan; possibly Miller/Musseter report.

10. Population estimate workshop summary review (and discussion of the humpback chub population estimates sampling schedule; see draft report distributed on 8/26/05 by Tom Czapla) - Tom Czapla distributed copies of the schedule of upper basin population estimates. Rich said he believes investigators have generally agreed to a 3 years on/2 years off sampling schedule. With regard to meeting target capture probabilities and coefficients of variation (only fully met on the Green River so far), we may have to accept what we're getting for many estimates (in light of logistical limitations, concerns about fish handling, and small population sizes), but some estimates may have room for improvement. Tom Czapla said he thought the original plan for humpback estimates was three years on/two years off for the first estimate, followed by two years on/two years off (with the goal of achieving a certain number of estimates within the 8-year generation time period [note: this is 12 year for pikeminnow]). At this point, we're planning to maintain that schedule for humpback chub sampling in Black Rocks and Yampa, but not for Deso/Gray, Westwater and Cataract. Rich said he doesn't believe a third year will provide significantly more information in Cataract and Yampa canyons. We may need to hear more from the investigators, but two years probably would be sufficient in Deso/Gray and Westwater, as well. Dave Speas asked if there's any need to re-analyze the humpback data using more similar techniques across populations and Rich said that the data differ and that he doesn't believe reanalysis would be particularly helpful. Melissa noted we lose the ability to detect year-to-year trends if we only sample two years at a time. Rich said juvenile data can be used more efficiently for pikeminnow, but we don't capture enough juveniles for humpback. John Hawkins noted the fallacy of "two years off" since endangered fish experience sampling stress from nonnative fish management activities. The Committee agreed and discussed whether we're making the best use of the ancillary endangered fish data collected as part of nonnative fish work. >Committee members will send comments or questions to Rich Valdez (with copies to

Tom Czapla) by October 5 so Rich can finalize the summary.

11. The role of temperature modification in recovery of Gunnison River endangered fishes – The Committee discussed approaches for discussing this at a future meeting. Dave Speas noted that Amy Cutler's report concluded that sensitivity analysis would be needed to determine the feasibility of temperature modification. Dave said temperature modification is not under consideration as part of the current Aspinall EIS, primarily due to complexity, but it could be considered a future EIS. Tom Pitts said he has questions regarding whether temperature modification is needed for recovery. Melissa said she'd like to see a presentation from Doug Osmundson on the effects of temperature on the fish and the potential contribution to recovery (Tom Chart suggested this could be a presentation at the researchers meeting). Bill Davis suggested four headings under which we might pose questions: 1)role of the Gunnison River in recovery (e.g, do we need to meet all fish needs throughout the Gunnison River); 2) timing (e.g., how long would it take to go through the process and construct a TCD); 3) biological; and 4) other technical (e.g., feasibility). Bob Muth suggested this discussion may be premature until we have a better idea of current fish use of the Gunnison River. For the time being, the Committee decided to table further discussion/determination of the need for temperature modification for recovery. It's mentioned in the RIPRAP, so it hasn't been taken off the table.

ADJOURN 5:00 p.m.

Tuesday, September 20

CONVENE: 8:00 a.m.

12. PIT update - Dave Speas outlined results of a meeting with Biomark representatives and others to discuss Program tag needs. We're using full-duplex tags now; half duplex tags would be less expensive, but are too large at this time. Three types of tags are available: ST (supertag, which is what we've been using), SGL, and a new, less expensive BE series tag (can only be read within 4-6"). If we ever want to use automated antennas (antenna technology is really developing at this point), we would want to keep using tags which can be read from a distance (although there could be ways to insulate an automated antenna to read BE tags). Dave recommends sticking with the higher performance tags. Tom Pitts agreed; noting that tag costs are small in proportion to the cost of finding the fish. Tom Czapla has invited a biologist from the Klamath Basin who works on Lost River sucker to make a presentation at the researchers meeting on the flat panel antenna they used to detect fish on spawning areas. As part of the tag bid process, Reclamation will ask for samples of 50 tags they can test from each bidder.

    UDWR-Moab has asked about tagging roundtails (they'd like to do roundtail population estimates to judge changes in the chub community over time and have been tagging several hundred roundtails per year in the past). Tom Chart and others endorsed this. Dave Speas noted the importance of tagging chubs in light of the intergrades we find. Rich Valdez noted the importance of developing a tag history for every tagged fish and outlined how this information can be used in data analysis. Chuck said they don't

typically check all roundtails captured in the Grand Valley for tags, but they could. They also could tag roundtails in Black Rocks (likely 100-200). Tom Pitts suggested if we're going to do this, it should be covered in a scope of work (and explain why we're doing it), and emphasized that he doesn't want to see this expand to tagging all native fish. Kevin Christopherson agreed. Bob Muth asked about Deso/Gray and the group agreed to the need to tag all chubs there, also. Chuck said it would make sense to do this in Black Rocks, also. The group agreed Utah should continue tagging all chubs. The group discussed tagging all chubs as part of all humpback chub population estimates (Chuck estimated this would require ~2,000 tags/year) and asked >Tom Czapla to with PI's to develop a statement on how those data will be used for the Committee's consideration. Bob Muth suggested that this should be one of the things considered as part of consistency of data reporting and use.

13. Draft Upper Colorado River Floodplain Management Plan - No Biology Committee comments were submitted. Dave Speas expressed concern regarding the time to review this report and suggested formal peer review, as well. Pat said he thinks the expertise for review of this document is on the Biology Committee; Tom Pitts agreed. >The group agreed to a new formal Biology Committee comment deadline of October 7. Rich said comments from the Grand Junction CRFP biologists would be particularly helpful. >Chuck McAda will provide locations of captured razorback larvae to Rich. Melissa expressed concern regarding perceived priorities (e.g., Butch Craig not cited, and we've done considerable work there). Melissa also suggested that including the larval drift decay curve graph is premature. Tom Chart said the results of the initial floodplain model run (bottom of page 2-3) seems characterized as an absolute and should be qualified based on model uncertainties. Dave Speas emphasized that it should be made clear that this is a working document. Pat noted that we don't have a picture of floodplain inundation as a function of flow in the Colorado River subbasin as we do for the Green. Dave Speas suggested incorporating recommendations for nonnative fish control in the gravel pit ponds that don't drain; Rich said the report recommends developing nonnative fish control strategies. Also, we need to gather data on spawning site locations. In light of the uncertainties, the prioritizations are only meant to indicate the projects which should be undertaken first (e.g., identifying spawning sites), they aren't intended to dictate which floodplains should be restored until spawning sites, etc., are better understood. Tom Pitts emphasized the need to show performance in our floodplain management efforts; Bill Davis agreed, and further expressed concern about the extensive management activities predicted to be needed at these sites (likely in perpetuity, which doesn't really meet the definition of recovery). We don't have sufficient razorbacks in the system to produce sufficient larvae to test whether the floodplains will work; Bill believes we should be stocking significantly more fish for this purpose. Since we're going to have to intensively manage floodplain sites, we also should be willing to intensively manage off-channel ponds to rear fish for stocking. Tom Pitts agreed we need enough fish in the system to test floodplains, but sees that as a different issue from long-term intensive management. Kevin Christopherson proposed a future agenda item to discuss how to raise more fish in off-channel ponds. Tom Pitts and others agreed. Chuck McAda noted that they're successfully raising razorbacks at the Hot Spot Complex pond; the Committee may wish to discuss what may happen if that pond is connected to the river. Melissa noted that we've just discontinued leases on a

number of off-channel ponds which haven't worked very well; Chuck said he thinks we're learning more about what characteristics make a pond successful.

14. Prioritization of new projects for 2006 - The group discussed pros and cons of surveying relative fish distribution and abundance of fish in the Gunnison vs. including radio-tracking in the first year. Doug noted that in the Colorado River they found numerous razorbacks running ripe, but never found aggregations of fish. Bill Davis said he doesn't believe we should do the Lodore Canyon work in FY 06. Tom Pitts acknowledged the need to help Reclamation meet the biological opinion requirements, but agreed that the Lodore work is not a priority for FY 06. Dave Speas pointed out the possibility of nonnative fish control work in Lodore; Melissa concurred, noting the importance of spot control of nonnative fish in that area. The Committee agreed Lodore Canyon nonnative fish control could be considered under priority #1 (after the Yampa work, of course). With regard to the cyprinid key, the San Juan Program also committed funds contingent upon the remaining funds being received. Dave Speas said he doesn't know if Reclamation can come up with the other third of the funds. The Committee concurred with the Program Director's office first three priorities (with Lodore nonnative fish work being considered as part of nonnative fish management modifications).

15. Report Review/approval: "Survival and growth of stocked razorback sucker and bonytail in multiple floodplain wetlands of the middle Green River under reset conditions.", Modde and Haines, Project C-6-bt/rz. (Revised report provided to BC via e-mail on 8/12/05) - The report was revised primarily in response to comments from UDWR. Melissa thought some of comments were adequately addressed and others weren't; so she submitted additional comments. Kevin agreed Tim addressed some comments in the revision but not others, as is the author's prerogative. Tim incorporated Melissa's comments, except the one about standing stock biomass. On page 17, under "factors associated with stocked razorback and bonytail survival," there is apparent conflict between two sentences (the second of which is "Despite not showing significant relationship, both were highly correlated with submergent vegetation"). Tim will clarify the statistical subtleties (no significant predictive linear relationship, but the two independent variables varying in the same direction suggested a possible positive association). Dave thinks the report appropriately points out the need for nonnative fish management in floodplains, specifically the need to manage for reset conditions. Kevin Christopherson said he'd like the authors to state where the data showed 80% significance, etc. (even though 95% significance was not achieved). Tim said he thinks vegetative cover will be more important for age-1 razorback than age-0. Kevin asked Tim to clarify the distinction he made that the ultimate measure of success was overall growth (deeper sites had a longer growing season resulting in larger fish by the end of the season) rather than growth *rate*. Dave Speas asked about the Birchell & Christopherson citation on page 18 and Kevin asked about the next sentence that says biomass should be comparable (added in response to a comment by Melissa), Tim explained this, and Kevin asked Tim to add a paragraph explaining that he used Birchell and Christopherson's fall standing stock (biomass) to estimate standing stock in the spring (and why he used that approach). With regard to the first recommendation to reset *all* floodplains, John Hawkins asked if all our floodplain sites *can* be reset. Tim said all the large floodplains except Thunder Ranch can be drained for reset. John Hawkins asked about the

recommendation to assign equivalent value to all floodplains; Tim said that the data don't support the floodplain management plan assertion that floodplains closer to the spawning sites are more valuable (as many larvae were found at Ouray as were found at Jensen). Tim will revise the recommendation to make it clear that the value of downstream floodplains should not be discounted. Tom Chart asked if Tim would draw specific conclusions as to how to determine sites that will perform best and Tim emphasized that the bottom line is sites that retain water. Kevin said he doesn't believe the data support the recommendation to favor large sites over small sites (only one site overwintered fish and it wasn't the largest site). Kevin said we've overwintered fish and had survival in the smallest sites. Tim said he believes we can get more consistent survival in large sites; Kevin agreed, but emphasized that the data don't support that recommendation. Tim disagreed, saying he believes the data do support that recommendation (and maintained that recommendations are really the author's prerogative). The Committee will respond to the recommendations in future discussions of floodplain management. The Committee gave the report conditional approval contingent upon >Tim's revision and Kevin and Melissa's review and approval (Pat Nelson to facilitate as needed).

16. Report Review/approval: "Larval razorback sucker and bonytail survival and growth in the presence of nonnative fish in the Baeser floodplain wetland of the middle Green River" by Brunson and Christopherson, Project C-6-RZ-BT (revised report provided to BC via e-mail on 8/15/05). Dave Speas said he appreciated the authors' responses, and asked that their response regarding the purpose of water quality and zooplankton monitoring be addressed in the text. Tim Modde asked if his comment about predator density not being an issue (page 20) was addressed, Ron said he hasn't incorporated the second round of comments yet, but will do so. Tim pointed out that they really looked at larval stocking, not predator density. The Committee approved the report with revisions; >Ron will revise and finalize the report.

17. Report Review/approval: Miller-Musseter report (Non-Program report, revised report with response to comments provided to Biology Committee on CD by Ray Tenney week of September 6 (mailed ~September 1) - Melissa asked if the report was revised in response to the geomorphology panel review in summer 2004 and Ray said no. Ray said the additional data, Biology Committee review, and the peer review the District solicited from 2003 have been incorporated in this current March 2004 version, but the geomorphology panel review since that time has not yet been incorporated. Ray didn't understand the Biology Committee had requested that; he thought the Committee would going to use the geomorphology panel reviews to inform Committee comments, then the authors would revise the report. Tom Pitts suggested the Committee provide their comments now. Melissa suggested addressing reviewer's comments would require significant revision of the conclusions; if the authors' aren't willing to revise those conclusions, the Committee may want to take a similar stance as they did with the Anderson report and simply not act on it (as it is not a Program report). Tom Pitts asked if the District is willing to make a point-by-point response/revision to the geomorphology panel and Doug Osmundson's comments at this point. Ray said he would take that request to the District's management based on a letter from the Program; >Bob Muth will send the letter to Ray clearly outlining the Program's request and expectations. Melissa added the letter should note the District also has the option of not pursuing Program

acceptance. John Hawkins outlined how the process might proceed from here, and the considerable additional review/comment/revision steps that are likely. Gary Burton said he needs to see the authors' response to the current peer review comments (geomorphology panel and Doug Osmundson's) before he can comment on the report, but as an interim step, it would be valuable just to have the authors make a point-by-point response to the comments and how they would address them (as opposed to a revision) at this point. Kevin Christopherson said a point-by-point response may be helpful, but in the end, the Committee can only respond to a revised draft; the Committee agreed. Gary Burton noted that after the entire process of peer review, revision, and response to comments, Western and Argonne sent their floodplain management white paper back to the Committee only for their information (as opposed to Program approval).

18. Report review: "Movement, Migration, and Habitat Use by Colorado Pikeminnow (*Ptychocheilus lucius*) in a Regulated River below Flaming Gorge Dam, Utah". Non-program report by Kitcheyan and Montagne; e-mailed to the Biology Committee by Mike Montagne on 8/17/05. Melissa received some late comments from John Wullschleger regarding reducing verbosity of some of the conclusions and recommendations and asked for conditional approval with Mike posting revised conclusions and recommendations. Melissa asked Mike to qualify that the triangulation error is best professional judgement; Mike agreed. Tom Chart will provide Mike a mark-up with some grammatical changes. Tom Pitts expressed concern with how the conclusions are stated, noting that there's considerable extraneous information and he supports making those more succinct. Tom Pitts said he's not sure he agrees with recommendations that the Program put more effort into Lodore Canyon. Tom Chart suggested the last recommendation isn't clearly supported by the data (restrict this to pikeminnow, as opposed to the fish community); Mike agreed. The Committee may consider the recommendations separately. Tom Pitts asked about the recommendation to allow temperatures to increase with increasing flows; Mike said he will remove the reference to temperature. The Committee approved the report pending approval of revised conclusions and recommendations >to be posted by Mike. If no Committee members express disapproval of the revised conclusions and recommendations within 2 weeks of posting, the report will stand approved.

19. FWS permitting - Angela Kantola reported that the Service will now require endangered species subpermit holders to have full permits, which will involve a 30-day comment period (adding 30-45 days to the review process); therefore researchers and others who will need permits should apply sooner rather than later. >The Program Director's office will talk to the Service about ways of considering all Program permit requests together and sorting out the rationale behind which activities require permits and which do not.

20. Report review - The Committee discussed Program vs. non-Program reports and how recommendations are or are not accepted. About the only difference in how the Committee handles non-Program reports that are brought to them for review and approval is allowing some flexibility in format in non-Program reports. With regard to recommendations, the Committee can consider these separately; report approval does not imply "acceptance" of recommendations. (However, Committee members may, and often do, request revisions to recommendations that are not based in the data presented in the report.) The Committee also has outright rejected recommendations in the past. Pat

Nelson noted that two of the peer reviewers for Tim Modde's report didn't want to share their comments with the Biology Committee; the Committee agreed that the minimum of 3 peer reviewers must be people willing to share their comments with the Committee.

21. Ouray NFH cormorant depredation - Mike Montagne said Ouray NFH has purchased nets to cover all their ponds to control cormorants, and they're also discussing target numbers of cormorants with Ouray NWR. They may shoot cormorants that come in to the ponds and they also have propane cannons they can use as necessary. Bottom line is that the Service agrees no more cormorant predation acceptable.

ADJOURN: 1:00 p.m.

ASSIGNMENTS

Carry over from previous meetings:

1. Tom Nesler still needs to provide the Committee a criteria assessment for when northern pike and bass removal should be expanded upstream (includes pike, bass, and pikeminnow density estimates). The Yampa aquatic management plan can't be revised until this is accomplished (Biology Committee has requested this by the end of the year). Tom Nesler will discuss the status of the revision with Sherm Hebein (complete revision or just an update of nonnative fish control and native fish management sections).

2. Tom Nesler still needs to have CDOW present the revised Elkhead management plan to the Biology Committee. (Anticipated with State and Service comments on the recent revision at the next Biology Committee meeting.) This plan does not yet address escapement from Elkhead, either.

3. Tom Czapla is still working with Tom Nesler and Chuck McAda and draft written procedures for who reports what stocking data to whom and when.

4. Tom Czapla will provide a more full evaluation of stocked fish report and Chuck McAda will provide a revised summary of stocked fish from Doug's population estimate work (2005 data won't be incorporated until later, however). Chuck and Tom will set up a conference call to discuss data collection and analysis.

5. Chuck will work with Tom Czapla, Melissa, Dave, and someone from the field to outline the process and longer-range goals for the ad hoc data group. Perhaps involve Rich Valdez and Kevin Bestgen since this has relationship to the research framework.

6. CDOW still needs to re-evaluate stocking pikeminnow in currently unoccupied or unavailable habitats, with their stocking plans stating that if pikeminnow are not retained in those areas, stocking would be re-evaluated (many of the stocked fish are being found significantly downstream of those areas). Tom Czapla recommended suspending stocking until Colorado completes the evaluation of potential impacts of downstream movement (and stocking the fish in the San Juan River in the interim). Tom Chart agreed. Tom Nesler concurred via phone.

7. Kevin Christopherson will send Pat the revised SOW for #144.

New assignments:

8. Rich will bring the next stage of the research framework back to the Biology Committee in January (after completion of task #3).

9. Angela will send the revised September 2, 2005, conference call summary to Dave Speas who will add the attachments and post it to the listserver.

10. The Biology Committee will further discuss implementation of expanded removal at the nonnative fish management workshop (with the understanding that agreement will be reached on expanded removal in time for next field season, so that the Yampa River PBO

can be appropriately revised).

11. The Program Director's office will continue discussions with CDOW and the River District about any ways to reduce the 2006 Elkhead spill.

12. The Program Director's office will set up the nonnative fish workshop (in Grand Junction beginning at 10:00 am. on Monday, December 12 through the afternoon of Tuesday, December 13, followed by a meeting of the Biology Committee on Wednesday, December 14 [keeping a full day open]).

13. The nonnative fish ad hoc organizational committee will help organize the December workshop as they did last year. Pat Nelson will convene that group via conference call soon to outline the structure of the meeting.

14. Within the next week or so, Kevin Christopherson will have UDWR send out a first call for papers for the January 18-19 researchers meeting (Moab, Utah).

15. The Service will provide background information on propagation issues/concerns 2 weeks prior to the December meeting.

16. Committee members will send comments or questions on the population estimate workshop summary to Rich Valdez (with copies to Tom Czapla) by October 5 so Rich can finalize the summary.

17. Tom Czapla will work with PI's to develop a statement on how data gathered from tagging all chubs captured in all humpback chub population estimate sampling would be used.

18. Biology Committee comments are due October 7 to Rich Valdez on the draft Colorado River floodplain management plan (comments from the Grand Junction CRFP biologists would be particularly helpful).

19. Chuck McAda will provide locations of captured razorback larvae (Colorado River subbasin) to Rich.

20. Tim Modde will make the requested revisions to his report "Survival and growth of stocked razorback sucker and bonytail in multiple floodplain wetlands of the middle Green River under reset conditions" and provide it to Kevin Christopherson and Melissa (and Pat Nelson) for final review and approval.

21. Ron Brunson will revise and finalize the "Larval razorback sucker and bonytail survival and growth in the presence of nonnative fish in the Baeser floodplain wetland of the middle Green River" report

22. Bob Muth will send a letter to Ray Tenney outlining the Program's request that the authors of the "Ecological and physical processes during spring runoff and summer baseflows in the Colorado River" report respond to the most recent reviewer comments.

The letter also will outline expectations for the remainder of the Program review process of that report and note that the District also has the option of not pursuing Program acceptance of the report.

23. Mike Montagne will post revised conclusions and recommendations to the "Movement, migration, and habitat use by Colorado pikeminnow (*Ptychocheilus lucius*) in regulated river below Flaming Gorge Dam, Utah" report. If no Committee members express disapproval of the revised conclusions and recommendations within 2 weeks of posting, the report will stand approved.