

BIOLOGY COMMITTEE MEETING
October 24-25, 2000
Grand Junction, Colorado

Attendees: Art Roybal, Tom Pitts, John Hawkins, Tom Chart, Kevin Christopherson, Tom Nesler, Bill Davis, Gerry Roehm, John Wullschleger, Steve Petersburg, Paul Dey, George Smith, Tim Modde, Frank Pfeifer, Pat Nelson, Kevin Bestgen, Tom Pruitt, Larry Crist, Chuck McAda, Tom Czapla, Angela Kantola, Mike Hudson, Shane Collins, Al Pfister, Dave Soker, Ray Tenney, Dave Kanzer, Kirk LaGory, Gary Burton, John Pitlick, Steve McCall, Kathy Holley, and Brent Uilenberg, Mike Baker, Nick Korte, Rick Krueger, Dell Smith, Dan Beyers, Steve Hamilton, Barb Osmundson, Paul VonGerard, LeVon Cleveland, Pete Cavalli, and Doug Osmundson.

Assignments are indicated by ">"

Upcoming agenda items are indicated by "*"

Tuesday, October 24, Convene 10:15 a.m.

1. Approval of June 27-28, 2000, meeting summary - No changes were needed, so the summary is final as written and posted to the listserver on June 30, 2000.
2. New Biology Committee voting members - National Park Service (John Wullschleger and Steve Petersburg) and CREDA (Bill Davis) are now voting members. (Both John and Steve are to receive BC reports and information related to the recovery program.)
3. Acquisition of habitat complexes to support recovery of endangered fishes - Pat Nelson gave a Powerpoint presentation updating the Committee on recent and pending land acquisition of important habitat complexes. The Committee discussed existing protection and current threats to these habitat complexes. Increased gravel mining is a threat in the Grand Valley, perhaps particularly in light of the recent Supreme Court (Tulloch) ruling that the Corps of Engineers does not have jurisdiction over extraction (it is not yet clear if that means gravel can be mined without a Federal permit). The Committee discussed how we decide what properties to acquire. Pat explained that we have priority geographic areas and criteria for land acquisition (the criteria were recently revised), but that acquisition is an adaptive management process that considers willing landowners, available funds, existing threats, etc. Therefore, each property is considered on a case-by-case basis. Pat said it would be appropriate for the *Biology Committee to review the land acquisition program once or twice a year, this would aid BC members in supporting the rationale behind certain land acquisitions.

Pat noted that the Program has more land acquisition and levee removal we could do in FY 2001 than we have money for (FY 2001 funds probably will be spent within the next couple of months) and noted that he will be briefing the Management Committee on that in November.

4. Recovery Goals Progress Update - The Implementation Committee decided that the

Management Committee would have until October 27 to review the September 15 drafts of the Recovery Goals. Comments are to come through the Management Committee members (Arizona and New Mexico have asked to comment, and perhaps may submit their comments through Colorado or the water users). Tom Czapla, Bob Muth and Rich Valdez will review the comments in early November, then meet with the Management Committee on November 20. At that meeting, they will let the Committee know how they will address each comment and get consensus on what will go forward to the Federal Register. The final drafts will be posted to the Federal Register in early December (with a 30-day review period and perhaps another 30-day extension). The Biology Committee as a committee and the Recovery Team as a team have already had their opportunity to comment on the goals; further comments must come through Management Committee members.

5. Stocking Issues - Tom Czapla said the hatchery managers met yesterday to outline the production plan for next year. Utah's plan calls for stocking razorbacks at 135mm, yet in the Green River area, growth to only 75-80mm can be achieved by fall. The managers would like the Committee to consider holding fish another year and appropriate numbers of larger fish to stock. >Utah will consider this and make a recommendation for the *Committee's consideration at their next meeting.

Tom Nesler suggested revising the Colorado and Utah stocking plans to reflect new information. >Tom Czapla will review the plans and make recommendations for revisions to Colorado and Utah. *Then Tom and the states will bring those recommendations to the Committee at their next meeting.

Frank Pfeifer said they have razorbacks from Lake Mohave in Bounds Pond which will be sexually mature this spring. Frank recommended incorporating those fish into Colorado River propagation (crossing them with Upper Basin fish) and asked the Committee to advise him if they'd like to do that (so he can take the fish out of Bounds Pond before ice-up and put them in the Horsethief ponds for use next spring). Tom Nesler said Colorado would support this, but noted that previously Utah has not wanted to do this. >Kevin will try to confer with his colleagues and offer Utah's position tomorrow. (>Utah's position will be given at next meeting)

In light of success in stocking smaller razorbacks in depression wetlands, Tom Czapla noted that there's been discussion regarding taking a similar approach to bonytail stocking. Tim Modde suggested putting bonytails (age 1+) that can spawn into flooded bottomland areas. Tom Nesler recalled our concerns about hybridization of bonytail and humpback and noted we will need to consider that risk when deciding where to stock. Tom Chart recommended giving this a first try in the Uintah basin area where that risk is not a great concern (to which the Committee agreed). Tim said he believed the work could be done at no cost (with the results monitored as part of ongoing activities). >Tim and Kevin will prepare a proposal for the Committee's review at their next meeting (probably this is a proposed revision to the stocking plan).

Tom Czapla said Robert Wigington raised a concern that the latest RIPRAP calls for 25

acres of growout ponds on the Green River and 575 acres on the Colorado, yet Robert thought the Committee had recommended getting those only through leases. Tom said he thought the Committee had agreed we need this space and that we should get it in whatever way is most cost-effective (build hatchery ponds, lease ponds, etc.) Dave Soker said it's not realistic to get 575 acres of growout ponds in the Colorado River. The Committee agreed that they wanted to use whatever methods were available (this does not imply a blank check, but does not restrict to only leasing). John Hawkins said that Robert also would like to see consistency between the RIPRAP and the Facilities Needs Plan. Steve Petersburg added that he thinks the Park Service could provide not only 10 acres of growout ponds, but probably much more in the area below Split Mountain (Kevin agreed it would be possible to raise Colorado River, not just Green River fish there).

6. Database Management - Chuck McAda gave an update regarding database management, noting that researchers' submission of "other fish data" has fallen behind significantly. However, there seems to be little call for this data so Chuck would like to know if the Committee believes we should continue to maintain it. If so, they need to impress upon people in their agencies the importance of submitting that data, as well as the RARE data and PIT tag data. >McAda will put together a list of reports that data is not yet in the central data base. Data can be submitted in d-base, spreadsheet or ASCII formats. The Committee adopted the policy: ***to finalize a report requires the electronic data base be submitted at the same time.***
7. Discussion of Comments/Responses for Final Draft Report: Flow Recommendations to Benefit Endangered Fishes in the Colorado and Gunnison Rivers, Project 54, McAda, May 2000. Art noted that comments were submitted by Western, Water Users, Environmental Group, Colorado Water Conservation Board, CDOW, River District, and CREDA. Utah and Wyoming did not submit comments.

Art said one of Western's major concerns is that they would like to see the flows modeled to see if they are achievable. Chuck said that's possible, but his understanding was the purpose of the report was to identify the biologically-based flow recommendations. Kirk said that what needs to be added to the report is an analysis (model) of whether the river can provide the flows recommended. Frank countered that he believes the water is *physically* available (in the system from a mass balance standpoint) for all the recommendations made, and that the report is not required to consider operational constraints.

Tom Nesler expressed concern that there has been no consideration or analysis of how *all* the flow recommendations can be met (meeting recommendations in one reach may prevent meeting them in another).

It was suggested by the BC Chair that one way or process to get through the report would be that each member who has concerns discuss three major items. Those concerns that relate to policy issues would be noted and presented to the Management Committee at their November 20 meeting. These policy issues, based on Management Committee decisions, would be brought back to the BC for discussion if applicable to the

Gunnison/Colorado River flow recommendation report.

Some of the outstanding issues or concerns:

- 1) Are the flows achievable? (Western)
 - Western would like to see the flows modeled before the report is finalized (Steve McCall said this would be a very big task.) (This also was not a part of the original scope of work.)
- 2) Based on Pitlick's report, the peak flows for channel maintenance stated in McAda's report appear to be too high (Western). John Pitlick said his recommendations were target flows for channel maintenance, not peak flow recommendations. Although it's clear the targets can't always be met, Chuck was concerned that if they're lowered, then the desired target would never be met. Pitlick's report identifies *durations* for flows at or above median bankfull discharge to improve channel conditions, but Chuck's report defines instantaneous peak flows. Kirk noted additional concerns about the sediment regime (is it currently in equilibrium, and if so, what happens if you begin to meet the flow recommendations?).
- 3) Should *any* policy issue be addressed in the report; for example, should the report have eliminated recommendations that would result in flooding at Delta? (Hawkins)
- 4) What life stages/species need to be supported by the Gunnison River; what is the role of the Gunnison River in recovery? (Roybal)
- 2) Tom Pitts noted that the flow recommendations at Cisco don't consider the additional 120,000 acre feet of depletion in the PBO (which, realistically, will mostly come off the peak). The 15-Mile Reach recommendations don't consider the additional depletion either, but they were written before the PBO.
- 3) With regards to the recommendations for floodplains, Tom Pitts asked where we get 180 acres of flooded habitat and is this the best way to attain it? (We agreed in the floodplain acquisition and enhancement A to base floodplain restoration on average peak flows.)
- 4) Bill Davis asked about releases for Red lands and whether they are discretionary or non-discretionary. Brent said the outcome on these releases would be determined in the NEPA process.
- 5) The report talks about the Gunnison having the highest percent of native fish; Bill Davis asked if FWS identified the difference between their habitat needs and those of the pikeminnow and razorback and if there's any information to suggest that the recommended habitat changes could harm the other native fishes?

- 6) Would the endangered fish or the nonnative fish (including white sucker) benefit more from these flow recommendations and what's the contingency plan if it's the latter? (Bill Davis)
- 7) Will the duration of terrace flooding (to create larval razorback habitat) be sufficient to get the results desired? (Bill Davis)

Other BC members who had concerns were not given an opportunity to voice them due to the need to adjourn the meeting for the day. It was pointed out by Art that formation of an interdisciplinary team with representatives from participating members would of aided in gaining consensus on flow recommendations and contents of the report prior to it being released to the public. Frank stated that Western approved the SOW which had specified the single-author format. Shane stated that Western expressed concern at the time, but approved the SOW because the flow recs report was to be a "straw man" document rather than a fully flushed out set of flow recommendations.

Resolution: >Responses to Chuck's responses and any other outstanding issues will be submitted to Chuck via the listserver ABSOLUTELY NO LATER THAN November 13. By December 7, Chuck will propose how he believes he can address those remaining issues. (Frank noted that a comment that comes in a second time with no additional biological justification will get the same response Chuck gave it the first time.) The Biology Committee will consider the report again at their next meeting. (Kevin noted that the Committee may very well not be able to reach consensus – the Committee either accepts or rejects the report, but it is not going to be written by committee.)

Wednesday, October 25

8. Review/Approval of Final Draft Reports:

- Evaluation of Interspecific Sensitivity to Selenium Exposure: Razorback Sucker Versus Flannelmouth Sucker, Project CAP-6 SE-NF, Beyers and Sodergren, August 4, 2000. Pat Nelson noted that NIWQP provided comments that they would still like to discuss with Dan; Dan and the reviewers will meet this afternoon to work through those. John Harb suggested that since this report and Hamilton's report could be misconstrued as having opposite conclusions, the conclusions and recommendations sections of both reports need qualifying statements that clearly identify the limitations of the results. John said NIWQP has two main areas of concern: 1) the need to carefully clarify the statement regarding fathead minnows as surrogates for razorback suckers; and 2) comparison of impacts to 11-day old fathead minnows and 41-day old razorbacks based on a citation regarding selenium concentration in water (as opposed to food) (Dan said he would provide additional citations). Barb Osmundson raised a concern about interchanging relative toxicities between different species (extrapolating dietary exposure from data on water exposure). For example, the comparison of fathead minnow toxicity to razorback toxicity. Only water exposure tests were done, and those can't be extrapolated to say that the two species would have similar dietary toxicities. Therefore, the data aren't sufficient to say you can use fathead minnows as surrogates for razorback suckers. Dan clarified

that he is *not* advocating using fathead minnows as surrogates, but rather saying that the *potential* for using fathead minnows as surrogates should be investigated. Dan said he took this reference out of the recommendations, but would like to leave it in the discussion where it can be properly qualified. Dan also will add qualifying statements to the conclusions sections to clarify what he's saying about fathead minnows. John Hawkins suggested that some of the table and figure titles need to be qualified to note the age of the fish (the Committee agreed). The Committee tentatively approved the report, pending revisions. >Dan will work out the wording issues with NIWQP and post the changes to the listserver. If no Committee member identifies any concerns with the resolution of revised wording within 2 weeks of that post, then the report is approved as final.

- Assessment of Exposure of Larval Razorback Sucker to Selenium in Natural Waters and Evaluation of Laboratory-Based Predictions, Project CAP-6 SE, Beyers and Sodergren, August 4, 2000. Dan noted that the headings on Table 4 all need to be shifted to the right one column. John Harb suggested that the concluding statement, "Consequently, concerns about effects of selenium concentrations at or below these levels, should not constrain management activities intended to increase survival and recruitment of young razorback sucker in nursery habitat" needs to be qualified. Paul asked Dan what recommendation he sees as most important. Dan said that although we don't have a map of what selenium information we have and what we're lacking (identification of data gaps), from his perspective the question regarding overwinter survival and selenium is the most important. Tom Pitts said that when these reports are finalized, he plans to ask Pat to review them and make recommendations to the Program as to what we should or should not be doing in the floodplain restoration program. Regarding the sentence that Dan added to the conclusions section ("... pre-exposure may increase effects of selenium exposure during larval development"), Tom Pitts recommended that this should be changed to "pre-exposure may or may not increase effects..."). The Committee tentatively approved the report, pending revisions. >Dan will work out the wording issues with NIWQP and post the changes to the listserver. If no Committee member identifies any concerns with that resolution within 2 weeks of that post, then the report is approved as final.

- The Evaluation of Contaminant Impacts on Razorback Sucker held in Flooded Bottomland sites near Grand Junction, Colorado -- 1996, Project CAP- 6 WW, Hamilton, Holley, Buhl, Bullard, Weston, and McDonald, July 17, 2000. Tim Modde suggested that if this is the second year of a two or three-year study, he would prefer to have it combined into one report. Kathy agreed, noting that there are some things in the 1997 report that need to be considered in relation to this report. Steve suggested that he would carry any revisions made to this report into the 1997 report. Tom Pitts said he does not want to finalize this report until we see the 1997 report. The Committee previously asked Steve to finalize the individual reports. This was a one-year study that was repeated for a second year. (Steve also has a third report, a remediation study to determine if flushing flows can reduce selenium at Walter Walker. This would be a stand-alone report.)

Tom Nesler outlined the following concerns: 1) the report is too long, spending too much time trying to justify why selenium is the major factor affecting the endangered fish (using extensive citations that do not appear directly relevant); 2) Tom accepts the first 3 conclusions, but thinks the 4th conclusion may be true for the author's study, but it needs to be qualified that it applies to the conditions of that study; 3) the 5th conclusion is unacceptable because it is not based on the results of this study, rather it primarily reflects the author's conviction that selenium is the major factor rather than the results of the study (the Committee agreed); and 4) with regard to the report's recommendation that floodplain restoration sites be remediated or tested, Tom said he does not believe that we can make decisions simply on the basis of a certain concentration level. In addition, Tom would like to see the conclusions and recommendations based on the results of both the 1996 and 1997 studies.

John Hawkins agreed the report is too long, and suggested that the report might be better understood if the egg, larval, and adult portions were discussed separately. John questioned the generality of conclusion #3 – how much do these concentrations adversely affect razorback sucker larvae? Kathy agreed, noting that the 1997 studies showed 30% survival in larvae eating food items with very high concentrations. Frank Pfeifer said that since the parents of the test fish were siblings, inbreeding could have played a major role in this study. That factor should be clearly and correctly acknowledged in the report. Tom Chart noted that it seemed larvae began to decline before they even began to feed and Steve countered that they believe the fish were feeding at that point. Tom asked if the amount of food was adequate (might starvation have played a role)? Steve said that their previous feeding trials showed that the food concentration was more than adequate. Steve discussed selenium levels and synergistic/antagonistic effects of other inorganic elements at the various sites. John Hawkins expressed concern about confounding effects (such as site food).

Tim Modde also expressed concern regarding the length of the report and suggested that it should be tailored to the Recovery Program audience (the length suggests another audience). Tim asked about overestimation of residual impacts (the fish remained in the study areas all year, unlike they would in the wild). The report needs a comparable explanation of the abundance of nonnative fishes and the effects of selenium on those fish.

Paul Dey suggested including a flow chart or summary table to better explain an overview of the study methods (treatment sites, etc.) (The diagram in the Duchesne River scope of work is an example.)

Kathy Holley circulated a table summarizing the results of the 1996 and 1997 studies; Committee members agreed it would be good to include a table like this in the report. The Committee discussed the relationship between the 1996 and 1997 reports. The Committee wants to be sure that the 1997 report synthesizes the results of both years.

The Committee discussed the report conclusions. Steve said he believes conclusion #4 is

valid. Paul Dey countered that it may belong in the discussion, but because it does not follow from the results of the study, thus it is inappropriate in the conclusions. Steve argued that this approach ignores the body of knowledge on the effects of selenium. The Committee agreed this belongs in the discussion section.

Frank Pfeifer suggested that including the Horsethief informal study lengthens the report and doesn't strengthen the case. With regard to the non-schooling behavior as an indication of selenium effects, this is not substantiated by hatchery personnel who fed the fish on a daily basis. The quality of broodstock argument seems to have been used selectively. Frank also clarified that when the 36 fish were stocked in the pond, their sex was not known.

Kathy Holley commented that when the (possibly inbred) larvae in the 1996 study were fed brine shrimp they survived very well. Kathy noted that while considerable information has been gathered on bioaccumulation and selenium levels in this environment, there has been little documentation of the biological effects. Kathy stressed that *all* of the data need to be clearly laid out (and equally emphasized) in this report. Tom Nesler added that the author should acknowledge alternative interpretations for the results.

Tom Pitts noted the several qualifiers were added to the Beyer's report and asked if Steve's study addressed the effects of maternal exposure.

The Committee asked >Steve to incorporate these comments in both his 1996 and 1997 reports. The Committee will reconsider this (revised) report when Steve submits the 1997 report to the Committee (by January 31, 2001).

9. Review/Discussion of Draft Final Report: Recommendations for Flows in the Upper Colorado River between Palisade and Rifle, Colorado for Recovering Populations of Endangered Razorback Sucker and Colorado Pikeminnow, Osmundson, September 20, 2000. Tom Pitts asked to submit written comments in 2 weeks and requested that the Committee not finalize this report today. Art said he also would like to submit comments within 2 weeks. Frank Pfeifer noted that this report has less biological information than most of their flow recommendation reports, and reminded the Committee that this was a short, low-budget study (scope of work #74). Tom Nesler said he has primarily editorial comments, has not finished reading the report, but has wondered if data was collected, how was it treated in the report. Doug said that he found the minimal field data collected did not provide any biological justification for flow recommendations (Doug will make that clear in the report). Tom Chart questioned if the types of flows recommended for the 15-Mile Reach are really the best for the canyon-bound (and other dissimilar) reaches. Doug will qualify that statement. Paul Dey noted that methods need to be better defined and Doug agreed to add the appendix from the 1995 report that defines habitat types. Art asked if Doug agreed with Bestgen's comments that these are really recommendations to meet downstream needs. Doug said he thought that was more true of the previous draft of the report. >Written comments will be submitted via the listserver NO LATER THAN

NOVEMBER 8, then Doug will respond with his revisions via the listserv. Then, if any member of the Committee has concerns with the way the report was revised they will respond to the listserv within 2 weeks. Otherwise, the report will be final as revised.

New policy (slight modification to the report review process): The Committee will act on a report at their next meeting provided that the members receive the report at least 45 calendar days before the meeting. Any report received at least 45 calendar days before a Committee meeting WILL be addressed at that meeting. It also was the consensus of the Committee members present (Hawkins, Modde, Chart, Dey, Wullschleger/Petersburg, Christopherson, Roybal, Nesler) that the Biology Committee operate in this way: if a Committee member can't be at the meeting (or a part of it), then that member will either have someone else represent them or simply forego their opportunity to weigh in on the issue (other than via the 2-week minority opinion process).

10. Revised FY01 SOW's

- Lower Green River Population Estimate - Spring vs. Fall - Kevin Christopherson reviewed the history (the Program Director's office asked the Service and Utah to merge their scopes). The Service's proposal was for a fall estimate, whereas Utah's was for a spring estimate (which Utah believes will be much more efficient, and also seems more consistent with the middle Green estimate which is done in the spring). Tim said his office could do a spring estimate if he can come up with another electrofishing boat. Frank may have a boat available, but can't be sure. Reclamation, Utah, or the Park Service might also be able to provide a boat. Steve said that by February 1 he'll let Tim know the one week that the Park Service boat would not be available. The Committee approved this revision (>Tom Czapla will revise the scope of work and post it to the listserv).

- New Start - Development of Monitoring Plan for Stocked Fish (The Management Committee approved this scope contingent upon Biology Committee review) - Tom Nesler asked what existing data would be reviewed and Tom Czapla said experimental fish stocking data and other State stocking data would be reviewed. The Committee approved the scope.

- Yampa River Northern Pike Spawning Habitat Exclusion - Steve Petersburg asked why we would screen to exclude pike instead of setting traps and removing pike entering a spawning area (which would seem much more effective). Tom said that screening is simpler, and is something the rancher can do. Further, the literature indicates that the best way to control pike is to control their spawning. The Committee approved the scope.

- Determination of Winter Use and Seasonal Flow Needs of Colorado Pikeminnow in the Lower Price River - Pete said that he believes both the hydrology and the telemetry work is needed. Those on the conference call agreed that for \$80K, what Pete has proposed is reasonable. More specificity has been added and Paul feels that has helped. Pete says that

he's concerned about the reliability of the gage. The scope was approved.

- Development of a Channel Catfish Control Program - Tom Nesler suggested that *all* nonnatives be removed (Tim said they would be). Steve noted that the end result has to be a positive response from the native fishes and that this is part of the larger Yampa Management Plan. The Committee felt that additional revision might be necessary, and discussed the possibility of deferring this project a year and sending it back through the Program guidance process. >Tim will send the *preliminary* results to Biology Committee members and Bob Muth by this Friday. The Committee expressed concern about cost, methodology, and effectiveness and was thus somewhat hesitant to launch into a long-term project without knowing if this is the best method. >Committee members will submit written comments to Tim, Tom Nesler, and Bob Muth via the listserver by November 6. Tim will address those comments by December 7 and the Committee will reconsider this scope at their December meeting.

11. Early FY02 Program Guidance Outline - Angela Kantola said that since the Committee has already discussed stocking bonytails in floodplain habitats and no scope needed, the only item the Program Director's office has in the way of early program guidance for FY 2002 would be for a White River water availability study (> An outline will be posted to the listserver by mid-November). The Program Director's office also would encourage the Program *not* to accept unsolicited scopes of work. These ideas should be submitted through the early or regular Program guidance process.) The Program Director's office (as always) invites submissions to Program Guidance. >Tim said he will submit recommended guidance to evaluate bonytails in floodplains.
12. Yampa Management Plan Update - deferred.
13. Next Meeting: December 14-15 (Nesler cannot attend on the 14th). . The meeting will be in Denver at CDOW if the meeting room is available (>Tom Nesler will check).

Issues:

- Tributary report
- Gunnison River flow recommendations
- Recommendation from Utah regarding holding Green River razorbacks another year before stocking.
- Recommendations for revisions to the Colorado and Utah stocking plans
- Election of new Biology Committee chair
- Yampa Management Plan Update - Tim would like the Biology Committee to ask the Management Committee to clarify the Biology Committee's role in reviewing the Yampa Management Plan (>Angela Kantola will put this on the agenda for the November 20 Management Committee agenda).
- Channel catfish scope of work

Adjourn - 4:20 p.m.