



Approved Summary
BIOLOGY COMMITTEE MEETING
29-30 November 2016
Public Lands Center
Durango, CO

Attendees

Biology Committee Members

Bill Miller – Southern Ute Indian Tribe
Jacob Mazzone – Jicarilla Apache Nation
Brian Westfall – Bureau of Indian Affairs
Jason Davis – U.S. Fish and Wildlife Service (Region 2)
Mark McKinstry – U.S. Bureau of Reclamation
Benjamin Schleicher – U.S. Fish and Wildlife Service (Region 6)
Vince Lamarra – Navajo Nation
Harry Crockett – State of Colorado
Mike Ruhl – State of New Mexico
Tom Wesche – Water Development Interests
Dave Gori – Conservation Interests

Peer Reviewers

Steve Ross – University of New Mexico
Mel Warren – USDA Forest Service
Wayne Hubert – University of Wyoming

Program Management

Sharon Whitmore
Melissa Mata-Gonzales
Scott Durst
Nate Franssen

Other Interested Parties

Steve Platania – ASIR
Mike Farrington – ASIR
Henry Day – Arizona Public Service (APS)
Mike Green – PNM
Scott Clark – University of New Mexico
Brian Hines – Utah Department of Wildlife Resources
Richard Grimes – APS
Stephen Saletta – PNM
Alex Birchfield – OSMRE
Brent Uilenberg – BOR
Jerrod Bowman – NNDFW
Tom Sinclair – U.S. Fish and Wildlife Service Region 2
Dale Ryden – U.S. Fish and Wildlife Service Region 6
Bill Stewart – BOR
Bobby Duran – U.S. Fish and Wildlife Service Region 2
Tracy Diver – U.S. Fish and Wildlife Service Region 2

Carrie Lile – SWCD

Tom Turner – University of New Mexico

T. Kim Yazzie – Navajo Nation Department of Fish and Wildlife

Katie Creighton – UDWR

Tuesday 29 November 2016

Introductions and changes to agenda

- Franssen incorporated comments from Wesche and McKinstry; there were no additional comments. Davis motioned to approve the summary; Wesche seconded; the summary was approved unanimously. All action items from the summary were included on this meeting's agenda.

Update on 2017 Annual Work Plan

- Whitmore stated that the Program needs to codify the process for BC review and incorporation of comments on SOW's and reports before a BC recommendation is provided to the CC for their approval so we don't repeat what happened with the "diversion study".

Review CC decisions and action items on 2017 AWP

- The CC approved the 2017 AWP with two placeholders for the nonnative fish removal and UNM data integration SOW's. The CC will have a conference call on Dec. 12 to vote on the approval/disapproval of these SOW's.
- McKinstry sent out an email describing changes to the UNM SOW and how Scott Clark was hired using Program funds.
- Whitmore reviewed the new projects that were funded in 2017.
- Miller asked about how PI's are addressing comments on their SOW's received from BC members and peer reviewers. Whitmore said we could codify this process in the future if the BC wanted to go this route. McKinstry agreed that this may be useful but how many rounds of review/comments are needed? Miller said in the past authors included responses to comments in supplemental files that were included in the final versions.
- McKinstry and Whitmore agreed several people felt victimized after problems occurred with the "Diversion Study". Miller said the problems arose because there were changes to the SOW after the BC made suggestions. McKinstry stated that the BC/CC needs to be aware that these kinds of issues are likely to reoccur with outside contracts.
- Whitmore mentioned we need a process for substituting new projects if the CC votes to not fund nonnative fish removal in 2017. Miller asked what projects could be funded if nonnative fish removal was not funded. Current unfunded project include the natal origins study (ASIR), growth rates of larval fishes (ASIR), population estimates (UDWR, USFWS), and the evaluation of a passage around the waterfall (McKinstry and Wesche). Platania noted the SOWs from ASIR are finalized and are ready if needed. Whitmore and Miller stated the "priority list" is not very helpful and think we should consider how to prioritize things better. No determination on how to accomplish this was made.

Update on 2017 budget, contracting, and CPI

- McKinstry stated the CPI was 1.5% for 2017 and; therefore, the PI's can apply this adjustment to SOW's that will be submitted for FY2018.
- McKinstry noted that Reclamation has only received 25% of their annual budget due to the continuing resolution. Therefore, he has been prioritizing the recipients of funding that have less financial cushion. He's also working on getting a new contract in place for larval work.
- Uilenberg stated DOI's Report to Congress that includes updated documentation on the status of the Upper Colorado River endangered species and the two recovery programs, was sitting on the secretary's desk for approval. The current funding authorization legislation expires in 2019 and if not reauthorized, would limit some recovery activities. The non-federal program partners will start drafting new legislation soon to extend the funding through 2023. They will use the Report to Congress to support continuation of the Programs.

Discuss UNM integration SOW #23

- Wesche stated the UNM integration SOW was much improved but he still has some minor edits which he passed along to Scott Clark. Miller echoed the same sentiment. McKinstry supports the SOW and stated the amount of data coming in from PIT antennae is going to be immense. Davis also appreciated the new version and is supportive.
- Miller asked about making published reprints generated from Franssen's previous data integration work available to program participants for free. Mata stated she will look into making those available in some fashion.
- McKinstry motioned to have the BC recommend the UNM data integration SOW #23 for funding to the CC. The BC unanimously supported recommending the SOW to the CC for funding.

Update on changes for Peer Review SOW

- McKinstry discussed changes to the Peer Review (PR) SOW which included reducing participation in meetings but adding an additional half day to meet with the PO and Reclamation to discuss sufficient progress towards recovery. Additionally, PRs will now focus more on SOW's than on annual reports. Ross and Warren stated it is often difficult to know when the PRs are being asked to comment. McKinstry suggested that direction needs to come from the PO. Warren was concerned about the amount in the budget and the timing for completion. McKinstry suggested the BC needs to discuss when to ask for reviews. Wesche was concerned PR's would not be at the May meeting; his constituents liked having them there. Ryden agreed it helps with public relations to have the PRs at the May meeting. Ross noted it is easier for the PR's to keep on top of things with more meetings. Warren also suggested there will be less quality control with new design. Whitmore stated these are all good concerns and this is why we are attempting to revamp this SOW to improve our PR process. This version was not sent out to the BC for review.
- Ross stated he is not supportive of the new requirements for individual reviews and thinks group reviews elicit synergism and result in better final documents. Schleicher stated that a group review process is very different from other professional arenas. Ryden noted that the upper basin assigns documents to other PI's for review. Westfall likes the PRs at the May meeting and the consolidated reviews because they are shorter documents. Franssen articulated concern that combined reviews makes it difficult to assess contributions of individual reviewers and limits the benefit of having several reviewers if dissenting views are marginalized. Whitmore noted the PRs will write a consolidated review of current activities after the half day meeting with Reclamation and the PO.

- McKinstry stated the PR SOW probably can't be changed for 2017 but future discussions can be incorporated into next year's SOW. Lamarra asked who the PR's worked for. Miller said they work for the Program. Davis noted in the Program Document that Program Coordinator is charged with assuring peer review. McKinstry reiterated the details of the SOW can be adjusted for 2018.
- There will be a new action item for the BC to make written comments on the revised Peer Review SOW.

Discussion of 2017 LRP, 2018 priorities, data integration past results and future needs, and identify new studies and RFPs for the 2018 AWP

Discuss pathway for conducting population estimates

- Durst described the "pathway" to conducting population estimates document. Durst reported Dr. Tuggle was not in favor of conducting river-wide population estimates until populations are self-sustaining. Miller asked if Tuggle's opinion would trump BC and CC suggestions. Whitmore said she would have to ask him.
- Wesche asked if Tuggle was supportive of the "pathways" document but Whitmore didn't know if he read it or not.
- Ross noted the document doesn't include variation around estimates of detectability, Warren suggested using the lowest and highest estimates.
- Ryden said the BC should be comfortable with these numbers because they will need to stay somewhat similar over time.
- Ruhl asked about how the triggers may change over time. He also suggested that if we knew how many adults we had in the river now, we could tell how many fish in the river produced the number of age-0 Colorado pikeminnow observed this year.
- Ross would like to see more details about methods and assumptions of models in the new revision.
- Ruhl asked how close we are to the new proposed triggers, Durst and Franssen didn't have the data on hand but could incorporate those numbers into the new revision.
- Durst and Franssen should have another draft out before the February meeting.

Marking age-0 Colorado Pikeminnow to distinguish them from wild-produced fish. Is there a need for a SOW in 2018 to "read" these marks? What material/data should be collected from wild fish?

- After NMDGF caught 23 YOY Colorado Pikeminnow in 2016, they asked if we should consider not stocking Age-0 CPM in 2016. The BC does not support stopping stocking at this time.
- Durst gave an update on the calcein marking experiment that is going to be conducted at the Southwestern ARRC to distinguish between wild and stocked Age 0 fish. The project is slated to begin in January 2017 and last for ~10 months.
- Platania reported they examined pikeminnow fin rays but could not distinguish Southwestern ARRC from river signatures. They surmise this is because the fish are stocked into the river at such a young age.
- Ruhl voiced concern again that not stocking fish should be an option and the Program should be nimble enough to go that route if we want to. Ross said the Program needs be aware that stocking fish on wild fish may be deleterious to wild fish. Ruhl suggested the BC starts

working in an adaptive management framework to help guide management activities when we start seeing more wild-spawned fish.

- BC discussion about when stocking should cease will be included on the agenda for the next meeting.

Update on Colorado Pikeminnow and Razorback Sucker recovery planning

- The Razorback Sucker Species Status Assessment (SSA) has received comments and currently those are being incorporated. The Colorado Pikeminnow Population Viability Analysis (PVA) should be finalized by April 2017.

Update on Animas stocking memo

- Whitmore stated that at the Regional Director briefing, Dr. Tuggle said the Program needs to demonstrate how stocking the Animas River would fit into recovery. Whitmore asked the BC how they wanted to proceed because some have been supportive of expanding upstream range for quite some time. The BC should provide ideas and assistance on how to make this happen. Warren asked who was responsible for major pushbacks. Whitmore stated that Tom Pitts was concerned about the potential cost of placing fish up there. Miller said some partners were also concerned about how ESA issues would be handled. Uilenburg asked what evidence we have that suggests stocking in the Animas is necessary for recovery. After someone asked if range expansion is necessary, McKinstry stated the biological benefit towards recovery of stocking endangered fish in the Animas River is unequivocal.

Navajo Generating Station (NGS) conservation measures

- Bill Stewart, who now works for Reclamation (previously with AZGFD), was introduced. His main focus has been the Gila River but is now involved with the EIS for Navajo Generating Station which is out for public comment. The BA includes some conservation measures that pertain to the Program to the sum of \$150K per year.

2018 priorities, data integration past results and future needs; identify new studies and RFPs for the 2018 AWP

- Whitmore suggested that a more meaningful priority list might be a list of potential project ideas to refer to when looking for new SOWs.
- Potential importance of temperature modeling was discussed. Ross stated that Eliza Gilbert presented data at the latest Desert Fishes Council that demonstrated Razorback Sucker larvae grow slower than other native suckers in the same water temperature. Miller didn't know those types of data were available for the San Juan River. Platania stated ASIR has been going back to samples and aging individual larvae using otoliths to get those data.
- The potential use of radiotelemetry was discussed. Could be useful to assess spawning aggregations. Where are fish spawning or are there enough fish spawning?
- Davis, Wesche, and Gori thought it would be useful to place remote PIT antennae in the Animas River to assess its use by endangered fishes. Wesche said we should also be focusing on lateral connectivity.
- Ruhl asked about the potential for sampling the lower part of the river. Discussed whether small-bodied sampling could become more nimble. Platania said ASIR could potentially help if NMGF wanted to sample the canyon in some years.

- Westfall asked about the status of flow-habitat analyses. Lamarra replied he is going to add the data from 2016 and rerun the analyses with the suggested changes.
- Lamarra suggested we look at saturation of habitats by endangered fishes; do we have enough suitable habitats?
- Miller reminded everyone that they have produced a menu of items for habitat monitoring without costs. Warren was concerned that we won't know what habitat types to monitor until we know what type of flow year we are going to have. Miller said it might be easier to pay for those types of habitat monitoring with NFWF funds.
- Davis posited that we should be assessing the effects of Channel Catfish on T&E fish. These should include a thorough diet study now that we have endangered fish in the system. Competition should also be investigated.
- Miller suggested that BC members should review recent SJR publications that may help with integration ideas.
- For the February BC meeting, BC members should be ready to present and discuss conceptual projects that address these kinds of questions. Potential conceptual projects could be developed in new SOWs.

Discuss process and protocols for BC review of SOWs and other materials

- Whitmore noted that several draft documents sent to the BC for review and further discussion have been prematurely intercepted by members of the CC before the BC could review and provide their recommendation to the CC.
- Ross and Warren suggested the CC needs to clarify the role of the BC if they are going to make decisions without the BC's input on technical issues.
- Ryden said the Animas stocking memo should be considered as a biological issue before the CC votes on it.
- The PO will ask the CC for clarification on the process to proceed with blind reviews and the conflict of interest that is inherent in the BC.

Discuss updating SJRIP annual cycle and revised deadline for SOW submission and review

- Whitmore stated a modified annual cycle was sent out for review. The intent of the changes were to push up some deadlines in the year so there's adequate time to complete the technical review of the AWP SOW's but most deadlines are in the same order. The new flow recommendation process was also added to the document. The main thing is we need to do a better job of sticking to the schedule. Comments from the BC will be included.
- McKinstry suggested that the PO sends out a template to fill in for comments on the annual SOW's. This will help keep track of people's comments or lack thereof.

Updates on 2016 projects

Waterfall project

- McKinstry reported on a reconnaissance trip in September 2016 with Keith Gido and Casey Pennock of Kansas State University. This pair supposedly floated the San Juan River from the waterfall to Piute Canyon in Lake Powell. The duo reported a good bit of low-velocity habitats in that stretch of the river and postulated larval endangered fish may fair quite well in such places. The current plan is to return in April to catch and tag as many Razorback Suckers

as possible. The group has been consulting with Mary Conner from Utah State University about how to estimate population size using mark-recapture models. They are also planning on aging fish from fin rays. Ross asked how fish are going to be moved above the waterfall, McKinstry reported they will have a raft above the waterfall to move them a couple of miles upstream. Of the fish that were taken to Hogback last spring, four were detected moving downstream past Four Corners and Mexican Hat. There will be a new antennae placed below the waterfall in February 2017.

PIT tag antennas at Hogback, McElmo Creek, and Four Corners Bridge

- There will be an installation of PIT antennae at the Hogback diversion next week. When the bridge over McElmo Creek near its confluence with the San Juan River is rebuilt, there will be a PIT antenna installed.
- Ryden stated the construction at the Four Corners Bridge is still in the planning phase. There will be an opportunity to put in PIT antennae when the construction occurs. Mata said they only have funds for the design phase; they are probably still four years out before they start the project. Crockett asked that CO be kept in the loop on developments of the project.

Habitat monitoring activities

- Lamarra said that two tasks have been completed. ERI found a contractor (Blue Skies) to fly the river for videography when the river was at 900 cfs. The contractor also provided 4-band color and infrared so vegetation types could be quantified. ERI also floated the river and mapped habitats. General impression that there was a lot of work done by the extended flows as evidenced by the large amounts of newly deposited woody debris. The Phase II habitat restoration site looked good and was still flowing.

Other 2016 projects

- Platania gave update on the diversion study. The report was completed in August 2016, it was then modified after comments were received. The final report, which included reviewer comments and the responses of the authors, was sent to the PO on October 1, 2016. There was a meeting scheduled with the Water Users to discuss calculations in the report but this meeting was canceled by Tom Pitts due to scheduling problems. That meeting has now been rescheduled for this coming Monday.
- Ruhl updated the group on small-bodied fish sampling from fall 2016. Preliminary data suggested it was a great year for small-bodied fishes. Speckled Dace, Channel Catfish, and Common Carp were in really high numbers. Other nonnative fishes were not very abundant. One Razorback Sucker that was ~100 mm TL was captured and inadvertently released. Repeated attempts by New Mexico Game and Fish staff to recapture this rare individual were met with no success. 23 age-0 Colorado Pikeminnows were collected between Four Corners and Lime Creek. The number of age-1 Colorado Pikeminnow collected was similar to other years.
- Several people noted that it is surprising age-0 catfish were abundant given the high flows of cooler water through the summer.

Update on Rio Grande Chub detections in the San Juan River Basin

- Crockett stated that it is highly likely Colorado Parks and Wildlife (CPW) stocked Rio Grande Chub into the San Juan River Basin by accident.

- Sampling by BLM found Rio Grande Chub in May 2016 and CPW caught them June 2016 in Weber Canyon. Twenty five fish were sent to Kevin Bestgen at the larval fish lab and he identified them as Rio Grande Chub. CPW is going to assess the genetics of their Roundtail Chub brood stock.
- CPW is going to use mechanical means to remove the stocked Rio Grande Chubs

Three Species Update

- Historic range of the three species has decreased by around 50%. There are very few populations in CO that are secure.
- Colorado Parks and Wildlife is currently using occupancy-based modeling to assess changes to distribution controlling for detectability.
- Colorado is conducting a lot of other activities with the three species. These included stocking fish from the Mumma hatchery, installing PIT antennae, conducting habitat improvements, nonnative fish removal, and genetic characterization. Crockett is going to send a database of all CPW stockings in the San Juan River Basin to the Program Office.

Update on the Phase III habitat restoration project: discussion of design criteria for a restored floodplain wetland and next steps

- Gori presented ideas about the new Phase III project. He requested input on criteria for the design and asked for input on depth, how long should be inundated, high maintenance or low maintenance, etc. BC members asked many questions and debated amongst themselves about what to consider when constructing the structure. There was little consensus about what the goal of this project should be. Miller suggested the goal of the project be defined before soliciting suggestions from the BC.

STReaMS update

- Durst gave brief update on STReaMS. Miller asked if all species included not just T&E species. Durst said they are working on getting all tagged fish into the database.
- A workshop on the use of STReaMS is scheduled for 15-16 March 2017 at Colorado State University, Fort Collins, CO.

Status of flow workshop summaries

- Franssen reported that Susan Behery of BOR had recently supplied the PO with model runs assessing different decision trees which were needed for the summary. He is currently working on the workshop summaries and hopes to have a draft before the February meeting but made no promises.

Discussion of new BC chair

- The BC timeline says the BC chair term is two years, but there is no Program guidance on term limits. The BC has not adhered to the two year timeline but decided to vote on the Chair position. Miller said he has been Chair since 2010.
- Westfall nominated Miller, McKinstry nominated Davis and Mazzone. Vote for Miller was 7 members for (majority). Miller was voted BC Chair for two more years.

Other business

- McKinstry discussed the lack of space at the Navajo boat shed and asked if the BC can recommend getting another two-bay building constructed. The BC was supportive of recommending this to the CC. They still need to get a quote for the CC.
- Davis mentioned a large Razorback Sucker die off at NAPI ponds caused by “ich”. Kim Yazzie stated they treated the infected pond (Hidden) with salt. The infection wasn’t noticed until a week before the fish were planned for harvest. Overall, only 147 fish were stocked out of this pond.

Recap decision points and review assigned action items

- The BC needs clarification from the CC about time restrictions or durations on the BC Chair, the fate of the blind review proposal, and the apparent conflict of interest on BC member’s prioritization of their own and other SOWs.
- The PO needs to figure out how to make published papers available to the Program.
- The BC recommended the UNM integration SOW for funding.
- The PO should include the need for a response from BC members in the subject line of emails and the PO should provide a template for SOW reviews this coming year.
- The annual cycle has been updated and comments are needed from BC members.
- BC should also make comments on the Peer Review SOW for 2017.
- Mata is going to get a revised Long Range Plan out to the BC for review soon.
- The BC needs to consider when they should discontinue stocking in the future.
- Lamarra is going to send most recent aerial photos to the PO for use in new river maps.
- The BC still has time to make comments on the stocking procedures.
- The PO is going to revise the “Pathways” document for future BC review.
- The BC will consider priorities at the meeting in February and should be ready to discuss projects and processes to address those priorities for that meeting.
- The PO is going to send out a complete list of priorities discussed during this meeting.

Upcoming meetings:

- Researchers Meeting – 10-11 January 2017, DoubleTree, Grand Junction, CO
- Biology Committee meeting Feb. 21-23, 2017
- SJRIP Annual Meetings – May 16-18, 2017, Durango

BIOLOGY COMMITTEE ACTION ITEM LOG
(Updated 19 December 2016)

Item No.*	Action Item	Meeting/Origination Date	Responsible Party(s)	Due Date	Revised Due Date	Date Completed
1	Provide RBS/CPM stocking/capture/recapture data		P.I.'s to the Program Office	Annually before Jan. 1		
2	Provide Preliminary Draft Report Presentations		Project Leads (authors)	Annually at Feb. meeting		
3	Review LRP		BC	Annually at fall meeting		
4	Review Peer Review Comments from the February and May meetings		BC	Annually at fall meeting		
5	Provide Draft Reports		Project Leads (authors) to Program Office	Annually by end of March		
6	Scopes of Work		Project Leads to Program Office	Annually by end of March		
7	Provide Final Reports		Project Leads (authors) to Program Office	Annually by end of June		
8	Annual Data Delivery		PIs to Program Office	Annually by June 30		
9	T&E Species Data		BC to Program Office	Annually by Dec. 31		
10	Annually compile T&E data and Program progress into summary to address overall Program recovery goals/objectives for presentation at annual meeting		Program Office/BC	By Annual Meeting in May		
11	Distribute Consolidated Data and list of annual data collected and available in the Program's database		Program Office to BC	Annually by Jan. 31		
12	Recapture analysis on PIT tagged fish		Durst	Annually by March		

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(Updated 19 December 2016)

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13	Coordinate CPM stocking closely with Reclamation to avoid negative impact due to high flows/releases		Project Leads	Annually		
14	Revise RBS Augmentation Goals (based on the outcome of experimental stocking and analysis by Franssen and Durst). What is the appropriate numbers of fish to stock?	5/10/10	FWS Fisheries/Program Office	5/2011 – provide update and extend as needed	6/15/16	6/15/16
15	Pursue Non-native fish stocking procedures	11/5/09	Crockett and Ruhl	2/23/16	12/15/16	
16	Pursue effects study on Hg/pikeminnow with other groups/programs	1/14/10	Program Office lead	ongoing		
17	Include benchmarks for recovery in LRP	12/5/14	Whitmore	1/5/15	9/30/16	
18	Status updates for the LRP	12/2/15	PIs to Whitmore	2/23/16	9/30/16	
19	Investigate Upper Basin requests for STReAMS database funding	12/2/15	Whitmore	3/31/16	9/30/16	
20	Revised SOWs sent to the PO	06/18/16	PIs to PO	8/1/16		8/1/16
21	Review “Pathway to population estimates”	06/18/16	BC and Peer Review to PO	10/31/16		10/31/16
22	Draft new BC review process (i.e., blind comments)	06/18/16	PO	11/1/16		11/1/16

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23	Make Program peer-reviewed publications available to Program participants.	11/29/16	PO (Mata)	02/21/2017		
24	BC needs to comment on updated Annual Cycle	11/29/16	BC	02/21/2017		
25	BC needs to comment on Peer Reviewer 2017 SOW	11/29/16	BC	02/21/2017		
26	Revise "Pathways" Document	11/29/16	PO	02/21/2017		

*Items were re-numbered after changes were made

Yellow highlight indicates annual action items

Green highlight indicates new action items

Red highlight indicates completed action items that will be removed from the next iteration of the Action Item Log