



**Approved Summary
San Juan River Basin Recovery Implementation Program
Biology Committee Conference Call
27 July 2011**

Attendees:

Biology Committee Members:

Bill Miller, Chair – Southern Ute Indian Tribe
Paul Holden – Jicarilla Apache Nation
Keith Lawrence – Bureau of Indian Affairs
Jason Davis – U.S. Fish and Wildlife Service, Region 2
Mark McKinstry – U.S. Bureau of Reclamation
Travis Francis – U.S. Fish and Wildlife Service, Region 6
Vincent Lamarra – Navajo Nation
Harry Crockett – State of Colorado
Andrew Monié – State of New Mexico
U.S. Bureau of Land Management – Absent
Tom Wesche – Water Development Interests

Program Office – U.S. Fish and Wildlife Service, Region 2:

David Campbell
Sharon Whitmore
Scott Durst

Interested Parties:

Brian Westfall – Keller-Bliesner
Eliza Gilbert – New Mexico Department of Game and Fish
Carrie Lile – Southwestern Water Conservation District
Steven Platania – American Southwest Ichthyological Researchers
James Morel – Navajo Nation Department of Fish and Wildlife
Darek Elverud – Utah Division of Wildlife Resources

Wednesday 27 July 2011

Changes to agenda:

- McKinstry asked that the table Elverud distributed be discussed prior to the Lake Powell SOW item.
- Morel added stocking locations for NAPI fish to the agenda.

Approve draft summary of 10 May 2011 BC meeting and review Action Item list:

- Previous edits were incorporated into the summary. Miller added some clarifications. Wesche motioned to accept the summary as revised and Holden seconded. Unanimous approval of revised summary.
- Revised Action Item list at the end of the summary reflects updates and revised due dates.
- Platania will work with Durst on the Prioritized Integration Analysis that Durst will incorporate into the revised Monitoring Protocols.
- Davis will get Furr's evaluation of stocking locations upstream of the Animas Confluence out by the end of the week.
- Miller reported that everything is in place for the Population Model. Work on this project will start with the new fiscal year. The CC is working on a MOU that will clarify how the model will be used and accessed. The MOU process will not slow down the start of work on the population model.
- Davis will get a summary of the feasibility of revitalizing the 6-Pack Ponds by the end of the day.

Review nominations of Brian Westfall and Eliza Gilbert as representative for BIA and New Mexico, respectively:

- Westfall provided some background for the BIA's rationale for him replacing Lawrence on the BC. Since KB has been so involved with the RERI project Westfall was attending the BC meetings as well. The BIA did not see any need to have two people attending the BC meetings. Lawrence will remain the alternate for the BIA.
- Westfall summarized his engineering and geomorphology background. Holden motioned to approve Westfall's qualifications and Wesche seconded. There was unanimous approval for Westfall becoming the BC representative for BIA.
- Westfall and Miller commended the job Lawrence had done in the role. Miller and Holden spoke of the importance of reviewing the existing documents so continuity is maintained as new members come to the BC. Holden also indicated the need for active participation by members of the BC. Holden asked what Bliesner's role will be on the BC once he returns. Westfall indicated that that is not known at this time. Lawrence thanked the BC for their support.
- Gilbert summarized her experience on the San Juan and in other aquatic systems inside and outside of New Mexico. Platania and Davis both expressed their confidence in Gilbert taking on this role based on their experience working with her. Davis motioned to approve Gilbert's qualifications and Holden seconded. There was unanimous approval for Gilbert becoming the BC representative for the State of New Mexico.

Review draft 2012 AWP:

Overall discussions of SOWs:

- Campbell discussed the two alternative budgets that have been presented. One with full funding and a second without those work items that would not be funded by power revenues (i.e., non-native fish removal, program management, etc.). The Program's reauthorization will need to be passed by Congress or Reclamation will need to come up with additional funding to fully cover the Annual Workplan.
- The current impasse in Congress with the debt ceiling debate has hindered moving ahead with the Program funding. Water development interests are pushing a reauthorization bill forward in Congress but it has not been introduced at this time.
- It might be necessary to re-prioritize the Program's priorities during the August meeting if further progress is not made on the budget and power revenue can only be spent on a sub-set of the workplan.

- If Program management budgets are lost then the ability to fund other Program activities will be limited. McKinstry has been able to come up with about \$2 million of the \$3 million shortfall between the Upper and San Juan Programs.

Review 2011 Lake Powell work and draft 2012 draft Lake Powell Survey SOW:

- The Lake Powell fish count towards the Recovery Demographic Criteria but it remains to be seen if fish are successfully spawning and recruiting in Lake Powell. The wording in the Recovery Goals should be updated to specifically refer to these Lake Powell fish. Detection of fish in Lake Powell does not change current Critical Habitat Designation.
- The group discussed the focus of the project on razorback sucker and the detection of Colorado pikeminnow during this project. The study is designed to capture razorback sucker and collection of Colorado pikeminnow are only incidental at this point.
- Elverud explained the tables and figures he previously distributed via email (see attachment before Action Item list of these tables and figures). Changes in methodology following three Colorado pikeminnow mortalities during Trip 2 resulted in no further mortalities. Half of the Colorado pikeminnow captured had PIT tags. It is not clear why so many razorback sucker were collected in Lake Powell without PIT tags. None of the razorback sucker captured in the river portion of Lake Powell were collected in the lake portion. Because the arrival date of razorback sucker in Lake Powell is unknown, the growth data should be viewed cautiously since the growth could have occurred in the river.
- Campbell suggested using lake bathymetry data to see if there are habitat features that are correlated with some of the capture “hot-spots.” It appears that razorback suckers are moving between trips, possibly spawn related movements.
- Because Lake Powell rose about 50 feet this year the waterfall could be inundated. Elverud and Francis will make a trip to the waterfall next week. McKinstry will look into forecasts for the expected Lake Powell level this coming fall and winter.
- Fin clips were collected from both previously PIT tagged and untagged razorback suckers. The fin clips still need to be analyzed to age those individuals. Holden suggested Elverud and Francis come to Logan to learn how to do this.
- The BC supports funding the Lake Powell SOW in 2012. Electrofishing will remain part of the 2012 sampling protocol since it was so productive in 2011. The schedule was changed to save travel costs so crews will spend longer time periods in the field. The sonic tags have an 18 month life-span so those fish implanted in 2011 can be tracked next year. Dip net sampling will continue to be used to document spawning.
- Platania agreed to identify the larval fish collected in 2011.

CC direction to BC re: review of small-bodied protocol:

- Campbell sent guidance from CC to BC via email. Miller suggested assigning tasks to answer these questions posed by the CC during the August meeting.
- Durst will distribute the revised monitoring protocols per the 2009 workshop before the August meeting. The peer reviewers at the workshop were in favor of maintaining the existing monitoring protocols. No major changes were made to the protocols.
- The value of the small-bodied monitoring is the long-term fish community dataset. Holden claimed that the protocol does not sample endangered fish and asked if the objectives of protocol are being met. Monié indicated that these species will be collected once they are present in sufficient numbers. For large-bodied species, the small-bodied and large-bodied protocols capture similar relative numbers of fish. Should the timing or location of sampling be changed to improve collection of endangered fish? Are the

reach-by-reach patterns seen in the small-bodied dataset the same as patterns observed for the entire river?

- McKinstry pointed out that recruiting size classes of endangered fish are not captured in the Upper Basin either. Fish in recruiting size classes may not be in the sampled habitats during the time of sampling. The Upper Basin using a sampling protocol similar to the San Juan. However there are habitat differences between the two basins.
- NMGF previously used block netting and backpack electrofishing, there was no difference between experimental and seining capture technique (alternative techniques were used in 2004, 2005, and 2007). Published literature reports those most juvenile razorback suckers are captured in off-channel habitats using seines.
- Platania indicated that the first discussion should address if the data provided by the project are representative of the fish community being sampled. The discussion should be based on what we are doing with the data. What kind of precision do we need with this data?
- Can the larval and small-bodied datasets be integrated? Why are razorback sucker detected during larval monitoring but not small-bodied monitoring? Do larval captures correlate to small-bodied captures for the same species? Are YOY razorback sucker so rare that they are difficult to capture during small-bodied monitoring? McKinstry suggested that the collection of numerous recruiting fish during electrofishing efforts would be an indication that these fish are being “missed” during seining. It does not appear that this is occurring. Some apparently recruiting fish are captured but the numbers are small. While few to no razorback suckers are captured in the 60-225 mm size range, adult monitoring captures many other native suckers in this size class using electrofishing. Some untagged individuals may have lost their tags. In the Upper Basin tag loss in 9-10%. The group also discussed developing a length key to identify razorback suckers that could have been the result of NAPI ponds stocking in 2006 and 2007.
- The BC needs review earlier datasets, integration efforts, and past reports for the August meeting. During the August meeting captures of small-bodied fish by different PIs can be compared. Note that these sampling efforts may have occurred during different time periods. In order to address the CC questions during the August BC meeting, BC members should consider the precision, timing, techniques, methods, intensity, and habitats as detailed in the small-bodied monitoring protocol.

CC question re: how the 2012/2013 flow recommendation revision fit into the budget:

- This is a question from Tom Pitts.
- The hydrology model needs to be completed before this can move forward. The model is due to be completed in 2012 so the flow recommendation revision should start in 2013.
- A spread-sheet could be put together so budget items on the horizon can be planned for.

Habitat workshop planning update:

- Whitmore provided details of the planning meeting held in June in Albuquerque. The purpose of the meeting was to set the objectives and goals for the workshop. The overall goal is to revise the flow recommendations and establish the monitoring effort that would support that revision. A series of two workshops will be necessary to achieve this goal. The first workshop will focus on habitat protocols in the context of revising the flow recommendations in terms of the underlying assumptions and hypotheses behind the flow recommendations. The second workshop will establish the process to go about revising the flow recommendations and will be held in spring 2012.

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- Need to develop an agenda, finalize the dates, and determine the outside experts who will participate in the workshop. Whitmore will send out a Doodle Poll to find a date that works for everyone and an agenda before the August BC meeting.
- Pitlick agreed to do a “scorecard” grading the Program’s ability to meet the underlying assumptions that form the foundation of the flow recommendations.

RERI project update:

- Westfall provided an update. The permitting process is still on-going. The Corps of Engineers concurred with the wetland delineation. While this will still take some time, there are no anticipated hold-ups. The final designs are complete.
- Lots of effort is going into planning for non-native vegetation removal and re-vegetation with native species. Tamarisk will be removed mechanically and Russian olive will be removed by hand and chemically treated.
- KB is planning to plant native cottonwood and willow over the winter to promote survival. Wesche has experience with native re-vegetation that he will share with Westfall after the conference call.
- KB will partner with BIA for non-native vegetation control and the Cudei Chapter for road improvements so equipment can access sites.

Next meeting – August 25, 2011 from 8am to 3pm in Farmington, NM:

- Members should be prepared to discuss the small-bodied protocol in detail. Additional agenda items include annual budget, 2012 SOWs, habitat workshop, discussion of additional stocking locations, non-native fish stocking protocol, non-native fish workshop summary, and revised monitoring protocols.
- Morel will work with Davis and Furr on stocking locations for passively harvested NAPI fish.
- A Doodle Poll will be sent out to find dates for a meeting in November or December.

The following tables and figures were provided by Darek Elverud:

Table 1. Captures by trip and species.

Total Number of Captures by Species				
Trip	Flannelmouth Sucker	Colorado Pikeminnow	Razoback Sucker	Razoback/Flannelmouth Hybrids
1	0	0	0	0
2	14	6	11	0
3	38	1	20	0
4	53	17	44	2
Total	105	24	75	2
Sixteen of the 17 Colorado pikeminnow captured during trip 4 were captured electrofishing in the river between the waterfall and Lake Powell				

Table 2. Captures of razorback sucker by location and sampling gear.

	Electrofishing	Trammels Netting	Total
Neskahi Wash	10	29	39
Spencers Camp	9	7	16
San Juan River (between the waterfall and Lake Powell)	20	0	20
Total	39	36	75

Table 3. Electrofishing catch by trip and site.

Electrofishing Catch					
	Trip 1	Trip 2	Trip 3	Trip 4	Total
Neskahi Wash	0	0	9	1	10
Spencers Camp	0	3	2	4	9
San Juan River (between the waterfall and Lake Powell)	N/A	N/A	N/A	20	20
Electrofishing Total					39
Catch Per Unit Effort in Lake Powell = 0.96 RZ/Hour					
CPUE does not included electrofishing sampling in the river between Lake Powell and the waterfall.					

Table 4. Trammel netting catch by trip and site.

Trammel Netting Catch					
	Trip 1	Trip 2	Trip 3	Trip 4	Total
Neskahi Wash	0	5	8	16	29
Spencers Camp	0	3	1	3	7
San Juan River (between the waterfall and Lake Powell)	N/A	N/A	N/A	N/A	N/A
Trammel Netting Total					36
Catch Per Unit Effort = 0.19 RZ/Net Night					
CPUE does not include all trammel netting data as nets were only set during the day at Spencers Camp on trips 3 and 4 to avoid Colorado pikeminnow mortalities.					

Table 5. Razorback total length (mm)

	Mean Total Length	Range		Number
		Minimum Total Length	Maximum Total Length	
Razorbacks stocked with a PIT tag and captured in 2011 in Lake Powell	499	429	560	42
Total length at the time of stocking for razorbacks captured with a PIT tag	328	191	462	42
Mean TL of RZs captured without PIT tags	514	444	619	27
Growth/Year for RZs stocked into river	34	7	109	42

Table 6. Origin of captured razorback suckers.

	Number of RZs	Origin
Razorbacks with a PIT tag when captured in Lake Powell in 2011	1	Stocked in 1994*****
	1	Stocked in 1995
	1	Stocked in 2001
	1	Stocked in 2002
	14	Stocked in 2004
	3	Stocked in 2005
	3	Stocked in 2006
	16	Stocked in 2007
	1	Stocked in 2008
	1	Stocked in 2009
	0	Stocked in 2010
***** The razorback from 1994 was captured in the river at RM 82 on 5/14/1995 and was captured again at RM 100 on 4/16/1999.		
None of the other razorbacks stocked with a PIT tag and captured in Lake Powell in 2011 were ever captured in the San Juan River.		
No stocked razorbacks from years 1996-2000, 2003 or 2010 were captured in Lake Powell.		
Razorbacks tagged in the San Juan River above the Waterfall	1	Tagged in the San Juan River in 2007 at RM 39
	1	Tagged in the San Juan River in 2007 at RM 101
	1	Tagged in the San Juan in 2008 at RM 148
Razorbacks without a PIT tag when captured	27	Origin Unknown

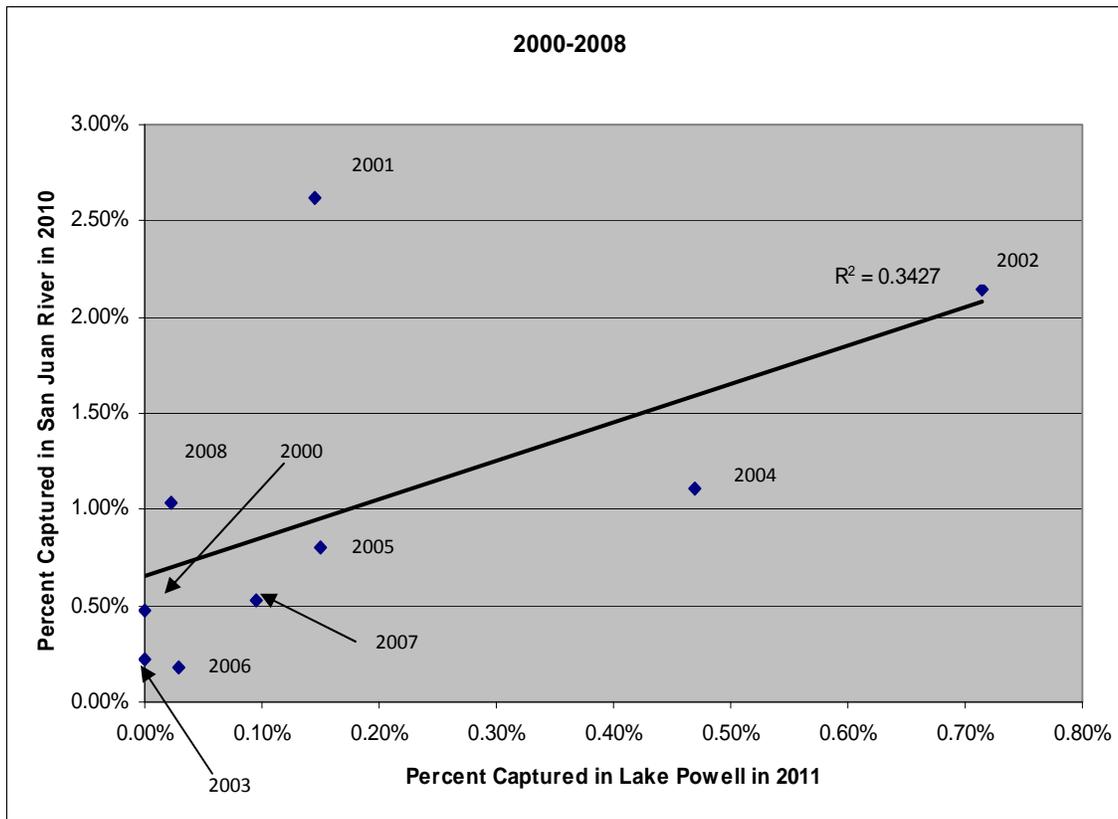


Figure 1. Percentage of razorback suckers stocked from 2000 to 2008 and captured in Lake Powell in 2011 (x-axis) vs. percentage of razorback sucker stocked from 2000 to 2008 and captured in the San Juan River in 2010 (y-axis). For example: approximately 0.7% of the razorback sucker stocked in 2002 were captured in Lake Powell in 2011 and approximately 2.1% of the razorback suckers stocked in 2002 were captured in the San Juan River in 2010.

BIOLOGY COMMITTEE ACTION ITEM LOG

(Updated 29 July 2011)

Item No.*	Action Item	Meeting/Origination Date	Responsible Party(s)	Due Date	Revised 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		

BIOLOGY COMMITTEE ACTION ITEM LOG

(Updated 29 July 2011)

Item No.*	Action Item	Meeting/Origination Date	Responsible Party(s)	Due Date	Revised Date	Date Completed
				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		
13	Coordinate CPM stocking closely with Reclamation to avoid negative impact due to high flows/releases		Project Leads	Annually		
14	Waterfall Inundation Whitepaper – review past meeting summaries, determine what is needed, and provide report at the next meeting.	05/18/07	Program Office	12/07/07	Not a current priority	
15	Revise RBS Augmentation Goals (based on the outcome of experimental stocking)	5/10/10	FWS Fisheries/Program Office	5/2011 – provide update and extend as needed	ongoing	

BIOLOGY COMMITTEE ACTION ITEM LOG

(Updated 29 July 2011)

Item No.*	Action Item	Meeting/Origination Date	Responsible Party(s)	Due Date	Revised Date	Date Completed
16	Develop a detailed outline for San Juan River Recovery Program case history manuscript	11-5-08	Propst/Miller			On hold
17	Non-native fish stocking procedure to States and Tribes	11/5/09	Gilbert and Crockett are working together to determine where this stands	12/1/09	8/25/11	
18	Pursue effects study on Hg/pikeminnow with other groups/programs	1/14/10	Program Office lead	ongoing		
19	Blank database structure for data integration	1/13/10	Durst	3/23/10	2/24/11	
20	Discussion of what is the appropriate number of fish to stock	3/23/10	BC	ongoing		
21	Finalize monitoring protocols and integration analysis document PO will incorporate Wesche's comments and PIs will complete NNF section, incorporate TOC	3/24/10	PO, Davis, Elverud, and Ryden	5/10/10	8/16/11	
22	Evaluate stocking locations upstream of Animas confluence	3/24/10	Davis, Furr	6/30/10	7/29/11	

BIOLOGY COMMITTEE ACTION ITEM LOG

(Updated 29 July 2011)

Item No.*	Action Item	Meeting/Origination Date	Responsible Party(s)	Due Date	Revised Date	Date Completed
23	Develop final product from non-native workshop that incorporates notes and Peer Review report – revision based on Nov meeting	5/10/10	Whitmore	11/2010	8/16/11	
24	Southern Ute funding of Population Model	5/10/10	Miller	11/2010	ongoing	
25	Work with I&E Coordinator to determine feasibility of brochures and signs	11/10/10	PO	2/24/11	Ongoing	
26	Prioritized integration analysis – Platania will distribute to group	11/10/10	Integration sub-group	1/31/11	8/12/11	
27	Evaluate feasibility of bringing 6-Pack Pond back into production	2/25/11	Davis (working with Dexter)	5/10/11	8/25/11	
28	RFP for habitat and temperature monitoring	5/10/11	McKinstry and Campbell	10/1/11		
29	Circulate integration question	5/10/11	Holden	7/27/11		
30	Agenda for habitat workshop	7/27/11	Whitmore	8/25/11		

* 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

Annual SJRRIP Cycle (Oct. 1 –Sept. 30)

January 2011 version

Date	Annual Tasks	PO	CC	BC	P.I.
Oct.	Reclamation administers contracts	X			
Nov.	BC Meeting <ul style="list-style-type: none"> Identify questions for annual data integration Review data integration results from previous year Discuss Program priorities LRP review and provide recommendations (pros and cons) to Program Office 	X		X	
Dec. 31	RBS/CPM stocking/capture/recapture data to Program Office				X
January	Notification/update of Program rosters/ mailing lists	X			
January	Executive meeting (Program Office; Reclamation Fund Manager; CC and BC Chairs) to do preliminary planning for upcoming year	X	X	X	
January	Updated LRP to BC and CC for review	X	X		
Jan. 31	Distribute consolidated PIT tag data and post other data	X			
February	BC Meeting <ul style="list-style-type: none"> Prepare for Annual Meeting Provide preliminary results; draft report presentations Review updated LRP Review annual data integration priorities 	X		X	X
February	Final updated LRP to CC (with explanation of input included/not included)	X			
Feb/Mar	Approval of yearly LRP		X		
March	Annual guidance/solicitation for SOWs based on LRP/list of prioritized projects	X			
March 31	Draft reports due/SOWs to Program Office			X	X
April	Preliminary draft Annual Workplan and Budget	X			
May	Annual Meeting <ul style="list-style-type: none"> Program overview P.I. presentations Review preliminary draft AWP Committee reports 	X	X	X	X
June/July	Draft Annual Workplan and Budget	X			
June 30	Provide final reports and data sets				X
August	Tech review of draft AWP; recommendations with pros and cons to Program Office			X	
August	Revise AWP based on input and transmit final draft to CC with documentation of all input	X			
Sept.	Review and approve final AWP		X		
Sept.	Post final AWP to website	X			