



**San Juan River Basin Recovery Implementation Program
Biology Committee Meeting – Farmington, NM
13-14 January 2010**

Attendees

Biology Committee Members:

Bill Miller, Chair – Southern Ute Indian Tribe
Paul Holden – Jicarilla Apache Nation
Ron Bliesner – Bureau of Indian Affairs
Jason Davis – U.S. Fish and Wildlife Service, Region 2
Mark McKinstry – U.S. Bureau of Reclamation
Dale Ryden – U.S. Fish and Wildlife Service, Region 6
Vincent Lamarra – Navajo Nation
David Propst – State of New Mexico
Gregory Gustina – U.S. Bureau of Land Management
Tom Wesche – Water Development Interests
State of Colorado – absent

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

David Campbell
Sharon Whitmore
Scott Durst

Interested Parties:

Joel Lusk – U.S. Fish and Wildlife Service
Ernie Teller – U.S. Fish and Wildlife Service
Chester Anderson – Dolores River Dialogue
Darek Elverud – Utah Division of Wildlife Resources
Mike Farrington – American Southwest Ichthyological Researchers
Amy Kraft – Southwest Water Conservation District
Howard Brandenburg – American Southwest Ichthyological Researchers
Carl Woolfolk – Arizona Public Service, Four Corners Power Plant
Chuck Dentino – New Mexico Environment Department
Gary Schiffmiller – New Mexico Environment Department, Surface Water Quality Bureau
Weston Furr – U.S. Fish and Wildlife Service

Michael Howe – U.S. Bureau of Indian Affairs

Barb Osmundson (via conference call 13 January) – U.S. Fish and Wildlife Service

Manuel Ulibarri (via conference call 13 January) – U.S. Fish and Wildlife Service

Introductions; Changes to agenda:

- Move discussion of PIT tag protocol from Thursday to Wednesday (McKinstry)

Approve 4-5 November 2009 meeting summary:

- The summary from the 4-5 November meeting summary was unanimously approved with minor wording edits.

Status of funding:

- Campbell reported on the new PayGo rules in Congress. Although a better picture of how these rules will affect the Program will be clearer in March 2010, there could be a reduction in the Program's funding in FY2012 of \$900,000. The current funding authorization would be limited to operations & maintenance of facilities and monitoring. It is unclear how certain management activities like non-native fish removal and research would be affected.
- Reclamation and Congress are seeking ways to make up any shortfall in funding.

FY 2010 update:

- McKinstry reported that all scopes of work have agreements in place but there is some uncertainty regarding the BIA agreement for habitat work.
- The razorback sucker and Colorado pikeminnow larval sampling projects are combined under the small-bodied monitoring project administered by NMDGF.

Contaminants presentation:

- Lusk presented background, data, and analysis concerning mercury and selenium in Colorado pikeminnow and razorback sucker in the San Juan River.
- The PowerPoint or pdf of the presentation will be distributed to the BC via email or be posted on the website.
- Some members of the Biology Committee disagreed with some of conclusions Lusk reached in his presentation.
- The NIIP re-consultation between BIA and FWS will be able to address some of the outstanding selenium issues.
- The Desert Rock consultation was withdrawn so it cannot be used to address mercury concerns.
- Collecting samples from razorback sucker and Colorado pikeminnow for later contaminant analysis could be incorporated into current fish sampling efforts. The group agreed that it could opportunistically collect tissue samples. A protocol needs to be developed for this effort. This protocol can be inserted into all fish sampling SOWs. Sampling kits to conduct this work would need to be distributed. Lusk and Osmundson have standard data sheets and protocols that can be used. The methodology that Lusk used in 2009 will be distributed one week before the next meeting. It would be useful to discuss this opportunistic contaminant sampling protocol with the Upper Basin during the upcoming Researcher's Meeting.

- Important data needs related to contaminants in endangered fish within the San Juan River include: study the effects of size and length of time in river, baseline data for hatchery reared fish, population level effects of contaminants (included as part of a relative stressor analysis), and investigating contaminant sources and pathways with lower detection limits.
- The importance of a combined field and laboratory based effects study was repeatedly brought up. Continued monitoring of these contaminants is needed but ultimately, a comprehensive study is needed to understand the effects of these contaminants on the endangered fish. Because of the high cost for these kinds of studies, the Programs may need to find other sources of money. The Program could team up with the Upper Colorado River Recovery Program, the Lower Colorado River Conservation Program, and the Grand Canyon Monitoring and Research Center to develop a study to address these issues. The Program Office will take the lead on coordinating with the other programs.
- Navajo Lake as a source of methyl-mercury was discussed. Numerous mercury manometers within Navajo Lake could be an additional source of mercury within the San Juan River. If the lake is a large source of mercury in the river, is there a management action that could be enacted to address the problem?

Stocking and augmentation:

- Durst presented the Colorado pikeminnow age-0 versus age-1+ cost-benefit analysis previously distributed to the group. The analysis indicated that although age-1+ fish have higher one-year post-stocking return rates, there are many more recaptures of pikeminnow stocked as age-0 in the San Juan River. Because of the difference in the recaptures of pikeminnow in these two age classes, it appears to be more cost effective to only stock age-0 individuals.
- Furr gave an update on the revision to the augmentation plans. The draft Colorado pikeminnow augmentation plan will be finished by the end of January. The draft will include revised survival curves based on different numbers of fish stocked. Davis circulated a “back-of-the-envelope” calculation looking at the different survival curves with different stocking scenarios. Survival curves that were the basis of the initial augmentation plans were estimates that we can update with current data.
- The group suggested moving forward with stocking current numbers in the near-term and making any revisions in the future. Hatcheries would need ample time to be able to produce more age-0 pikeminnow and it is possible that hatcheries will not be able to meet all San Juan River stocking needs in the future. If the one pond devoted to age-1+ pikeminnow were dedicated to age-0 fish, an additional 100,000-150,000 age-0 pikeminnow could be produced for stocking.
- The group discussed ways to improve the survival and retention of stocked fish. The 24-hour acclimation period does not appear to have a positive benefit. Holden suggested stocking location, acclimation, exercise and other factors might improve survival. The group agreed that an acclimation plan would be separate from the augmentation plan.
- The group discussed the possibility of discontinuing stocking age-1 pikeminnow in 2010. There would be no cost savings if any changes were made now. The group recommended that the current plan continue for 2010 and stop stocking age-1 pikeminnow in 2011. This plan should be reflected in the augmentation plan.
- Dexter agreed to weigh and measure all stocked age-1 Colorado pikeminnow in 2010.
- McKinstry brought up the need for a PIT tag protocol to avoid problems such as the mix-up of 400 kHz PIT tags at Uvalde. Davis was tasked with developing a protocol in conjunction with Dexter and Uvalde that will be available one week prior to the next meeting. However all of the fish from Uvalde were inserted with a functioning 134kHz tag prior to stocking.

Revised monitoring protocols and Comprehensive Monitoring Plan:

- McKinstry and Miller compiled all of the documents from the monitoring workshops into a comprehensive monitoring plan that includes the monitoring protocols. Most of the changes to the monitoring protocols will be the same as those made in the last round, but additional changes could come in the future. The Long Range Plan will be updated and any new tasks will be carried over into the monitoring plan/protocols. The group envisions that the comprehensive monitoring plan will be a “living document” tied to the LRP. Any comments to this document should be sent to Miller and McKinstry by 26 January.
- In an effort to streamline future data integration efforts, Durst was tasked with developing a “blank” database structure to distribute to the PIs.
- Ryden presented proposed changes to adult monitoring based on analyzing data at different spatial and temporal scales. The best option is to make no changes to the protocol but if the intent is to free-up funds to conduct other work, the spatial extent of the study could be reduced to the reach from the Animas confluence to Sand Island with little change in inference from the overall data set. Although any change to the temporal scale of the study would result in the loss of potentially important data, sampling every other year would be the best option. The group thought that the recommended spatial change would be appropriate and to continue with a single pass in the fall.
- The group questioned how adult monitoring would fit in with eventual population estimates. Some combination of alternating years of CPUE estimates with population estimates seemed most reasonable. Future population estimates should be a dedicated effort that does not “piggy-back” on other field efforts. Any current estimate would only be based on stocked fish. Ryden presented a cost estimate for this based on work conducted within the Upper Colorado River Recovery Program.
- Durst presented a “triggers” analysis that indicated that there is no “magic number” when the Program should start conducting population estimates. It will be the group’s decision when to switch from CPUE to population estimates.
- The group discussed the Lake Powell sampling framework that Ryden and Elverud developed. Key questions include: how many fish reach Lake Powell, do they retain there, and do they have self-sustaining populations? The entire river monitoring program could shift to work below the waterfall. Sonic tags could track fish to potential spawning areas. The group needs to decide how big of a priority this will be in the future.
- Larval sampling should remove the September sampling trip because so few rare fish are captured. The larval monitoring will take on a pilot project to map habitat at sampling locations during high flow (May and June).
- Small-bodied monitoring will enact the same spatial change recommended in adult monitoring (RM 180-76.4).
- Habitat monitoring will remove the razorback sucker larval habitat study element. Contaminant sampling will be done by the BIA through the Program.
- Outstanding question related to the monitoring discussion need to be addressed. These include: Lake Powell, population study, prioritizing outstanding questions, expectation of numbers of fish going over the waterfall into Lake Powell, and exploring remote detection options in the lower river.
- Campbell reported that filling the Recovery Science position has been postponed due to uncertainty in the Program’s funding authorization. The position will likely be re-advertised later this year once funding is

secure. In the interim, Durst will cover the bulk of these duties and can work on some of the high priority data integration needs.

- To move ahead with future data integration the group needs to prioritize the data analysis questions in Table 12 of the comprehensive monitoring plan developed by McKinstry and Miller.
- P.I.s will review and make changes to their sections of the Comprehensive Monitoring Plan and the BC will review the entire Comprehensive Monitoring Plan. Comments and input are due to Miller/McKinstry by Jan. 26. Miller/McKinstry will provide a revised plan to the BC and peer reviewers by Feb. 5, Feb. 8 at latest.

Hogback fish weir update:

- McKinstry updated the group on the status of the Hogback fish weir. A contract has been awarded; however, consultation with FWS on the entire diversion project will be required. The consultation could cover the different phases of construction activities related to the project.

Desert Rock Energy Project update:

- Campbell updated the group on the status of the Desert Rock Energy Project. The FWS was in negotiations with BIA and EPA on RPAs for the jeopardy opinion. These negotiations were not moving forward and BIA withdrew the project. The EPA will be developing new mercury rules in the near future.

Outstanding discussion from first day:

- Bliesner suggested reviewing and prioritizing the questions/data needs identified at the workshops and included in Tables 12 and 13 in the monitoring plan. He emphasized the importance of pursuing some of these sooner than later and said the Program should not rule out contracting out for outstanding data integration tasks if necessary.
- The group went through Table 12 to determine what should be addressed in the near term.
 - Several priority questions/data needs were flagged including: Larval Questions 1-5 (Table 12), Question 1 (Table 13, San Juan River), and Question 2 (Table 13, Lake Powell); Adult Questions 1, 2, and 7 (Table 12); Geomorphology and Habitat Question 9 (Table 12); and Long Term Cross Protocol Synthesis and Integration Question 4 reworded to, "Determine the number of fish by size class as a result of stocking (Table 12).
 - The group contemplated shutting down all current activities for one year to do full scale data integration. Campbell emphasized the stocking program has just recently been meeting the targets and we are just now getting large numbers of fish in the system. Stocking should not be curtailed at this time.
 - The group determined 2012 would be a good goal for doing large-scale data integration, i.e., State of the River report. In the interim, the data needs to be readied for integration and critical missing data identified and obtained. The timeline for this State of the River data integration is:
 - 2010 – Regular process/products plus P.I.'s/Program Office use existing data to address additional questions. Identify needed information/studies to include in the 2011 AWP
 - 2011 – Do additional work/studies to get information/answers for 2012 integration
 - 2012 – Do State of the River data integration

Data needs for 2010 data Integration:

- Some of the data is not easily integrated because it is provided to the Program Office in different formats with different fields. Propst asked that Durst to send out a standard format for all P.I.'s to use so data can

be analyzed effectively. To convert past data into the standard format, P.I.'s could include an extra task(s) in their SOWs to reformat their past data.

- A detailed study plan for data integration is needed including key questions; time frame (e.g., 1992-2011); how integration will be done (e.g., by species, life stage, etc.). It should include status of two species. Propst said the focus should not be only on the two listed species but should include the rest of the native fish community. Campbell said an assessment should be done to determine if the community approach has been successful.
- Ryden said the group should be considering making the annual meeting more meaningful by replacing the P.I.'s standard presentations with reporting on the questions they will address. Miller suggested refocusing the February meeting to accommodate the additional data analysis. Propst said it will be difficult to address any questions by February and suggested it not be due until March. A decision was made to postpone the February meeting until March 23-24.
- Will the P.I.s be able to do the additional work under their current contracts? Ryden said he could but the deliverables will be late. Campbell said 2010 SOWs and contracts are done so major changes cannot occur in 2010. Miller said any additional work should be aimed at identifying needed studies and management actions that can be implemented in 2011. If a priority question cannot be answered with existing data, the information and/or studies needed to answer it should be identified.
- P.I.s. will consider the questions and data needs in Tables 12 and 13 and use existing data to address priority information needs, to the extent possible, for discussion at the March meeting. A primary objective of this exercise is to identify critical information needed for the 2012 data integration and to identify what new studies/work activities should be conducted prior to 2012.

NNF workshop planning:

- McKinstry reported he contacted several outside experts about their availability for the May 26-27 workshop. Pat Martinez, Rich Valdez, Wayne Huber indicated they would be available. He also informed the Program's peer reviewers about participating but has not heard back on their availability. Propst said he would like experts from outside the Upper Colorado River area to participate.
- A workshop outline is needed with more detail on workshop content. The group threw out ideas for the workshop including:
 - Are NNF generically a problem?
 - Which SJR species are problematic?
 - What other species could become a problem?
 - What control methods have been used?
 - What other control methods are available?
 - Is NNF removal important to achieve recovery?
 - If so, identify/develop target removal numbers.
 - What level of effort is needed to accomplish those targets?
 - Summary of NNF removal efforts in Upper Colorado River and other areas
 - Summary of available data/literature on NNF, effects on native species
 - Evaluate SJRRIP NNF control program – Is it achieving its intended purpose? Are current methods appropriate? Are there better methods?
 - Proactive planning for future NNF issues/activities in the San Juan River

- The BC will provide input to McKinstry by the end of January. McKinstry will provide a workshop outline to the BC for review by February 15. The BC will provide comments back to McKinstry by March 5. A final workshop outline will be sent out by March 15.

LRP revisions (PO): Whitmore reported the 2010 revision is underway but is not done yet. The LRP schedule calls for an updated LRP to the BC for review in January, BC review of the updated LRP in February, a final updated LRP to the CC (with explanation of input included/not included) in February, and approval of yearly LRP in February.

SJRIP annual cycle (PO): A line was added for draft SOWs to be due to Program Office in April.

NNF stocking procedures document: Propst reported that this is being pursued. New Mexico wants to be a signatory; Colorado has already signed. The group asked about the status of the tests at Nighthorse reservoir. McKinstry will get an update on the bassomatic tests and, if appropriate, will arrange for a report at March meeting.

McKinstry proposed there be an on-line library of references/literature housed at the Program Office. The Program will start compiling a list of references/literature currently at the Program Office for the website.

Next Meeting: The February 23-24, 2010, meeting was moved to March 23-24 at 8:00 a.m. in Farmington.

BIOLOGY COMMITTEE ACTION ITEM LOG

(Updated January 22, 2010)

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 Final 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		

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(Updated January 22, 2010)						
Item No.*	Action Item	Meeting/Origination Date	Responsible Party(s)	Due Date	Revised Date	Date Completed
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	Coordinate CPM stocking closely with Reclamation to avoid negative impact due to high flows/releases		Project Leads	Annually		
13	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	
14	Revise CPM and RBS Augmentation Goals	5/7/08	FWS Fisheries/Program Office	11/30/08	1/31/10	
15	Provide specifics of selenium sampling procedures and analysis	1/26/09	Bliesner/Osmundson	2/18/2009		On hold
16	Develop a detailed outline for San Juan River Recovery Program case history manuscript	11-5-08	Propst/Miller			On hold
17	Remote PIT tag reader white-paper	BC 13 may 2009	McKinstry			
18	Review Research and Information Needs and other	11/5/09	BC to Miller and McKinstry	11/20/09		1/4/10

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(Updated January 22, 2010)						
Item No.*	Action Item	Meeting/Origination Date	Responsible Party(s)	Due Date	Revised Date	Date Completed
	documents from monitoring workshop					
19	Description of simplified habitat categories for habitat mapping	11/5/09	Bliesner to BC	11/20/09		1/13/10
20	Interview panel for recovery science biologist	11/5/09	Miller, Propst, Wesche	Dec or early Jan	Cancelled	
21	Develop triggers to switch from CPUE to population estimate approach	11/5/09	Durst	1/13/10		1/13/10
22	Compare past data analysis under different temporal and spatial regimes to help determine what kinds of changes are appropriate in future protocols	11/5/09	PIs	1/6/10		1/13/10
23	Assimilate monitoring workshop documents	11/5/09	Miller and McKinstry	1/1/10		1/4/10
24	Revised LRP for discussion at March meeting	11/5/09	PO to BC	1/15/10	3/15/10	
25	SJRIP annual cycle	11/5/09	Whitmore to BC	11/30/09		1/13/10

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(Updated January 22, 2010)						
Item No.*	Action Item	Meeting/Origination Date	Responsible Party(s)	Due Date	Revised Date	Date Completed
26	Revised SOWs with 0% CPI	11/5/09	Pls to PO	11/25/09		11/25/09
27	FWS contaminants data and literature review and presentation at January meeting	11/5/09	FWS/PO	11/30/09		1/13/10
28	Non-native fish stocking procedure to States and Tribes	11/5/09	Nesler	12/1/09		
29	Reevaluate stocking goals	11/5/09	Davis, Furr, Durst	3/23/10		
30	BC Input on NNF Workshop to McKinstry	1/14/10	BC	1/31/10		
31	NNF Workshop outline out to BC for review	1/14/10	McKinstry	2/15/10		
32	BC comments on NNF Workshop outline back to McKinstry	1/14/10	BC	3/5/10		
33	NNF Workshop outline back to BC by March 15	1/14/10	McKinstry	3/15/10		
34	Develop protocol for opportunistic sampling of mercury and selenium during Program monitoring activities	1/14/10	Lusk/Program Office	2/28/10		

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(Updated January 22, 2010)						
Item No.*	Action Item	Meeting/Origination Date	Responsible Party(s)	Due Date	Revised Date	Date Completed
35	Pursue effects study on Hg/pikeminnow with other groups/programs	1/14/10	Program Office lead			
36	PIT tag protocol SOP	1/14/10	Davis/Furr	2/17/10		
37	P.I.s review their sections of the Comprehensive Monitoring Plan and questions - provide comments/edits to Miller and McKinstry	1/14/10	P.I.s	1/26/10		
38	BC review Comprehensive Monitoring Plan - comments/input to Miller and McKinstry	1/14/10	BC	1/26/10		
39	Revised Comprehensive Monitoring Plan to BC and peer reviewers	1/14/10	Miller/McKinstry	2/8/10		
40	Distribute contaminants presentation from January meeting	1/13/10	Program Office	3/23/10		
41	Blank database structure for data integration	1/13/10	Durst	3/23/10		
42	Compile list of references and literature available at Program Office	1/13/10	Program Office	3/23/10		

* Items were re-numbered after changes were made