Approved Summary
San Juan River Basin Recovery Implementation Program
Biology Committee Meeting
San Juan Public Lands Center
Durango, CO
7 May 2013

Attendees:

Biology Committee Members:
Bill Miller, Chair – Southern Ute Indian Tribe
Jake 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
Vincent Lamarra – Navajo Nation
Harry Crockett – State of Colorado
Eliza Gilbert – State of New Mexico
U.S. Bureau of Land Management – absent
Tom Wesche – Water Development Interests
David Gori – Conservation Interests

Peer Reviewers:
Steve Ross – University of New Mexico

Program Office – U.S. Fish and Wildlife Service, Region 2:
David Campbell
Sharon Whitmore
Scott Durst

Interested Parties:
Dale Ryden – U.S. Fish and Wildlife Service
Judy Monwell – Jicarilla apache Nation
Carrie Lile – Southwestern Water Conservation District
Steven Platania – American Southwest Icthyological Researchers
Nathan Franssen – University of New Mexico
Chris Cheek – Navajo Nation Fish and Wildlife
Stephen Saletta – PNM Resources

Michael Farrington – American Southwest Icthyological Researchers
Brain Hines – Utah Division of Wildlife Resources
Jim Brooks – U.S. Fish and Wildlife Service
Michael Howe – Bureau of Indian Affairs, NIIP
Sarah Conn – U.S. Fish and Wildlife Service
Steve Harris – Southwestern Water Conservation District
Randy Kirkpatrick – San Juan Water Commission
Russ Howard – Animas La Plata
Lara Wood Miller – The Nature Conservancy, NM

Tuesday 7 May 2013

Changes to agenda:

- Move nomination of Benjamin Schleicher as FWS R6 BC representative to first agenda item.
- Shift Berhery to earlier in agenda.
- Platania asked for time to discuss the impacts of possible low flows on sampling in the San Juan River.

Nomination of Benjamin Schleicher as FWS R6 BC representative

- Ryden distributed Schleicher's nomination and resume.
- Schleicher provided details on his experience with FWS in Grand Junction, UDWR, and USU. He's leading the Adult Monitoring and Non-native Fish Removal program out of the FWS-Grand Junction office and has been a contributor to the Colorado pikeminnow population estimation efforts in the Upper Basin.
- The BC questioned the outstanding report from Adult Monitoring. Due to sequestration, field work efforts were seen as a higher priority and completing the report is in progress.
- Crockett motioned to approve Schleicher's nomination as FWS R6 BC representative; Davis seconded, and was approved unanimously.
- McKinstry asked that Ryden continue to be involved on the BC on account of his experience with the San Juan River and Recovery Program.

Approve draft summary for 19 April 2013 conference call; review Action Item list:

- Durst incorporated earlier edits.
- The group discussed problems with emails not being received from the BC FWS list. Some suggested that each member could create their own BC specific email list. The Program Office is continuing to work with IT specialist to sort out these problems.
- Crockett detailed Colorado's willing to proceed with New Mexico's comments on the Non-Native Fish Stocking Policy. Crockett will work with Gilbert to make progress on this policy.
- Wesche motioned to approve the summary; Lamarra seconded, and was approved unamimously.

Discuss and finalize BC recommendation on Ridges Basin report – Miller:

- Miller sent a revised memo since the last conference call.
- Wesche suggested that the on-going SJRIP monitoring efforts should be included in this document. Current monitoring efforts within critical habitat should be detailed since those efforts would likely document any changes in the fish community associated with escapement from Ridges Basin Reservoir. Direct monitoring of the area downstream of the outlet works would be necessary to provide an advance warning of potential escapement. Miller incorporated these changes.
- Gilbert motioned to approve the memo, Gori seconded, and approved unanimously. Miller will distribute the revised memo to the Program Office. The Program Office will include SJRIP letter

head and forward to the CC for their comments prior to distributing it to FWS Ecological Services in Grand Junction.

- McKinstry asked about Long Hollow Reservoir. This project has an average annual depletion of 1,535 af and will include a screen on the outlet works to prevent escapement although there are no plans to stock any fish into the reservoir. The reservoir is expected to drain entirely in most years.

Discuss and finalize LRP – Whitmore:

- Whitmore distributed the most recent version that incorporated earlier comments and edits.
- Wesche indicated that he wanted to be sure action items in the Sufficient Progress Report are included in the LRP. Whitmore said that this is the case.
- Any additional revisions such as time-frames for specific actions and status of individual projects can be included in 2014 version. Whitmore will develop a process for updating project status in the future.
- Davis motioned that the LRP be passed to the CC for their approval, Wesche seconded, and approved unanimously.

Potential water savings with reduced target base flows– Behery:

- Behery presented a summary to continue the discussion among Reclamation, Service, and Recovery Program about the possibility of a forecasted shortage in 2013 or 2014, and discuss opportunities that may exist that could potentially help avoid a shortage. During a 26 March 2013 BC conference call, Reclamation presented several water-saving options that could be implemented on a voluntary basis in an attempt to avoid a shortage. These options involved reduction in base flows primarily in the spring and summer, as specified in the Shortage Sharing Agreement. The BC requested that Reclamation examine potential water saving options in fall or winter that would presumably have less impact on fish spawning and water temperatures.
- A period lasting from August 13, 2013 through Feb 14, 2014, was analyzed with minimum target base flows of 500 cfs, 450 cfs, 400 cfs, and 350 cfs. The reduction to 450 cfs for this timeframe results in a savings of 30,000 af in the reservoir. The reduction to 400 cfs results in a savings of 62,000 af. The reduction to 350 cfs results in a savings of 94,000 af. These storage savings will make a spring peak release in upcoming years more likely (a typical 1-week spring peak release requires 80,000 acre-ft). A major benefit of reducing the target base flows in anticipation of a forecasted shortage is the flexibility in timing, amount, and duration of the reduction.
- Because there have been three years of low inflow the Program should consider the possibility for shortage sharing. If reservoir elevations are forecast to drop below NIIP at 5990 feet, shortage sharing takes effect.
- A declared shortage is shared equally. Reducing target base flows would be a voluntary reduction to save water that could be used for a future release. This voluntary shortage would not apply for water users. If a shortage is declared, Behery will do calculations to determine the degree that flows would be reduced. The Service and Reclamation are not signatories to the Shortage Sharing Agreement although they both support it.
- It would be important to tie reservoir elevation to flows and how particular habitat features are related to specific flows.
- Davis asked if reduced target base flows could be examined starting in October since there is so much work happening on the San Juan River in September (non-native fish removal and fall monitoring). The time of year when target base flows are reduced does not have a big impact on water savings, so reduced flows over three months saves about the same amount of water any time of the year. Low base flows in the summer may have negative biological impact while reduced flows in the winter would have less impact.

- McKinstry discussed the installation of remote PIT tag readers and asked for low flows during installation. Is it possible to have flows lower than 250 cfs? Since this has occurred for other projects seems likely to be able to do this. The BC does not think that reduced flows over the course of this project would have a negative impact on native fish in the San Juan River. McKinstry will pursue the necessary steps to have flows reduced below 250 cfs.
- The group discussed using a 3 day instead of a 7 day moving average to meet target base flows. Because of the need to constantly change releases it does not seem that decreasing the number of days included in the average calculation value would provide higher flows in the river. The group discussed maintaining higher target base flows when field crews are on the river. PIs will send Behery their schedules to see if higher flows could maintained to ease trips down the river. Irrigation season make it difficult to manage flows at any constant rate.
- Platania discussed how larval sampling would proceed under low flow conditions. Sampling would be conducted from smaller rafts or inflatable kayaks. However electrofishing sampling does not have this option of using smaller rafts. Under the worst case scenario trips would be cancelled if there if not enough water to float the river.

Process for submitting and finalizing draft reports – Miller:

- Miller provided background after Ross inquired if there were outstanding reports he had not reviewed. The timeline for submission of draft and final reports and datasets is set. It is important to have these submitted on time so those results can be used for developing the future work-plan.
- The Adult Monitoring, NAPI Ponds, PNM Fish Passage, and Lower River Non-native Removal reports have not been submitted for 2012. Because of staff turnover and sequestration these reports have been delayed. Cheek indicated he just sent out the PNM and NAPI reports. The Adult Monitoring and UDWR reports will be completed soon.
- The Upper Program reporting requirements are more "lean" and perhaps SJRIP can shift to these brief reports? The group generally agreed that those briefer reports are not as useful as the more comprehensive ones produced by the SJRIP. However, if reports can be streamlined while including key information, PIs should make those changes. Hopefully this will encourage more BC members to review annual reports.

Discussion of 2014 SOWs:

- The group discussed the need for any changes of individual SOWs based on reports/data. Previously there was discussion of shifting UDWR trips from the lower to middle river.
- McKinstry provided an update on Reclamation budget issues. Reclamation will be shifting to FBMS this year. This is likely to create delays so McKinstry submitted the SOWs with 5 year budgets to get the process started. FY2013 funding has not been delivered. BC should focus on technical issues at this point but if budgeting issues affect work, those issues should be relayed to the CC.
- Miller supports additional non-native removal effort in the middle section of river. When would these efforts be shifted? These changes should be budget neutral. The Program needs to be cautious of potentially impacting spawning fish by electrofishing during the spawning season. Lower canyon channel catfish catch rates have been stable but there have been increases in the middle section of the San Juan River. There are currently 9 passes in the lower river that include 1 marking pass. Perhaps 2 of these trips could be moved to the middle section of the river. This may result in only 1 trip in the middle section of the river since it is longer. Davis and Hines will work together to develop a proposal to address these changes in effort.
- The Uvalde SOW has a lower budget since they will only be transporting the remaining razorback suckers on station but Horsethief Canyon will absorb this budget once that facility is being fully utilized by the Program. FWS R2 and R6 are working to have capital equipment moved from Uvalde to Horsethief Canyon.

- Investigation of opercula deformities was a one year study that will be completed in 2013.
- Although Lake Powell work will continue into 2014 outside of Program funding, it should be included in the AWP. Other sources of in-kind funding should be included and updated in the AWP.
- Campbell indicated that funding set aside for workshops for 2014 may not be sufficient.
- The current budget falls $186,000 short to cover all SOWs. This shortfall is due to the effects of sequestration. The Program Office will make recommendations as to how and where the AWP can be revised to fall within budget and the BC will evaluate the technical merit of those changes. This AWP should be reviewed given the previously discussed Program priorities.
- Workshops to start the revision of flow recommendation will be part of this AWP. Data integration SOW can address questions posed as part of the flow recommendation revision. Campbell will distribute a draft SOW developed by TNC for flow revision. The BC needs to evaluate the technical relevance of this SOW. By the time the flow revision workshops start Brian Bledsoe should be available as a Peer Reviewer. McKinstry cautioned that outside experts have not always been a worthwhile investment at past workshops. Part of this process will be to review existing flow recommendation and determine if they need to be revised and what those revisions should be. It will be important to evaluate biological response to flows. To some degree flow recommendations have not been implemented due to lack of water and because of a lack of a controlled experiment it may be difficult to determine a biological response to flow.
- Wesche brought up ideas from the February meeting that should be considered for this AWP: effects of water temperature depression, means to deal with additional PIT tag data, determining length-age relationship in the San Juan to identify when fish are reproductively mature, additional Lake Powell work, evaluate passage and entrainment issues, targeting Colorado pikeminnow and razorback sucker spawning time and location, determining if the sex ratio of stocked fish is it 1:1, using telemetry and larval sampling to track spawning fish.
- Miller suggested having water temperature monitoring SOW shift to USGS starting in 2014. This would increase funding to USGS in 2014 as new equipment would need ot be installed; National Fish and Wildlife Foundation funds could be used for installation and base funds used for annual operation. USGS may lose some gages based on sequestration but no word if any of these are in San Juan.

Evaluation of constructed habitats SOW – Gori:

- Gori posed a series of question on the monitoring of restoration sites and construction of additional sites. TNC has received money from various sources to conduct this work. Some of the RERI sites are not flowing at 500 cfs.
- How can we improve effectiveness of restoration? Do we need additional geomorphological work to understand why these sites "failed"? Do we need more flows? Do we understand the system enough to know why they were not successful? We are unable to really evaluate the effectiveness of that restoration effort because there have not been sufficient high flows. Monitoring is in place to see how these restored site change through time. We should consider modeling of the system to know what flows should do in these systems.
- Lidar would be of help for future site selection. This should be available by fall. Also Lamarra's retrospective study will be informative in the site selection process.
- McKinstry brought up the Utah State University restoration work at Recapture Lodge in Bluff. Maybe the Program could collaborate for on-the-ground restoration and off-channel ponds?
- As additional sites are restored there will likely have to be stand-alone efforts to monitoring them or additional funding to existing efforts to cover this additional monitoring work-load. Do we have a good evaluation process in place to evaluate if these efforts are providing additional valuable habitat that are important for fish? Need a dedicated scope to evaluate and monitor specific aspects to each restored sites.

Overview of integration and synthesis of Program's long-term monitoring data – Franssen:

- Franssen presented results from three projects: (1) fish community responses to mechanical removal of non-native fishes, (2) Predicting the spatial distribution of Colorado pikeminnow, and (3) seasonal movement and growth of Colorado pikeminnow.
- He observed sharp declines in common carp densities, stronger channel catfish declines in the upper San Juan River compared to the lower, little native fish response to removal effort, and no changes in channel catfish size structure.
- The group discussed confounding factors of endangered fish stocking and the effect of environmental factors. It is difficult to single out the effect of non-native removal because it was occurring in conjunction with other management activities. Other studies could be conducted to determine the impact of non-native fish but removal is affecting the non-native fish population. The Program could consider control reaches for non-native fish removal but those non-native fish may cause impacts to the native fish community. Evaluation of the Program's management actions is necessary for adaptive management.
- Colorado pikeminnow are found in higher density in reaches with more small-bodied prey but age-2+ Colorado pikeminnow distribution is positively associated with juvenile channel catfish. Colorado pikeminnow did not exhibit habitat associations at the 1 RM scale.
- Colorado pikeminnow exhibit upstream movements in spring and downstream movements over winter. It is not clear why they are making these movements. Possibly innate spawning movements in spring and downstream movements to segregate the population in winter or to find warmer water temperatures.
- Smaller Colorado pikeminnow have lower growth rates compared to larger ones and annual temperature appears related to annual growth rates. Slower growth rates could be related to high densities of stocked smaller Colorado pikeminnow. Prey density does not seem like a reasonable explanation.

Overview of TNC hazardous threat assessment project – Wood-Miller:

- Wood-Miller presented a hazardous threats assessment of the San Juan River that was based on a synthesis of existing spatial data including selenium, mercury, hydrocarbons, mining, and spill risk. The final product for this assessment will be a mapbook and geodatabase. Summaries are primarily organized along hydrologic units of the San Juan River Basin. The purpose of this assessment is to prioritize monitoring and mitigation and to develop early response plans. Completing the threats assessment was included in the recovery goals and sufficient progress report.
- Spill risk does not distinguish between bridges over perennial versus ephemeral water.
- Some asked for more neutral wording of "hazardous threats."
- Since this is a Program funded project it should proceed through the normal review process and will be posted to the Program website when it is finalized. Wood-Miller will distribute a draft for review and the mapbook will include a narrative introduction.

Overview of population model – Miller:

- Because of problems with Stella 10, the model is being updated from Stella 8 to Stella 9. The model uses arrays of reaches that are linked together in a single model run.
- Data can be manipulated outside the model to input various management actions like stocking and non-native fish removal. The utility of the model will be to evaluate "what if" scenarios.
- Miller and Lamarra are working to complete the first reach in a few weeks. When the model is complete it will be posted to the SUIT website along with a descriptive report and operations manual.

- The group discussed the importance of validating the model with real-world results in order to be confident that trends described in the model represent reality.

Review assigned Action Items, discuss outstanding business, and final preparation for Annual Meeting:

- Davis will work with UDWR to provide the BC with the pros and cons of moving trip from lower to middle sections of river.
- PIs should provide trip dates to Whitmore. She will consolidate these to Reclamation to determine if flows can be adjusted during sampling efforts.
- Miller will finalize memo on recommendations for the Ridges Basin report. The Program Office will send to the CC for their input before forwarding it to the FWS R6.
- PIs should review recommendations from the February and May BC meetings and revise SOWs as appropriate. BC should review distributed AWP. A conference call will be scheduled for late May or early June to discuss.
- Whitmore will finalize LRP following CC discussion and post to Program website.
- Wood-Miller will complete a draft of the Threats Assessment for review by June.

BIOLOGY COMMITTEE ACTION ITEM LOG (Updated 13 May 2013)						
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		

BIOLOGY COMMITTEE ACTION ITEM LOG (Updated 13 May 2013)						
Item No. *	Action Item	Meeting/Origination Date	Responsible Party(s)	Due Date	Revised Date	Date Completed
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		
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	

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Item No. *	Action Item	Meeting/Origination Date	Responsible Party(s)	Due Date	Revised Date	Date Completed
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	
16	Develop a detailed outline for San Juan River Recovery Program case history manuscript	11-5-08	Propst/Miller			On hold
17	Pursue Non-native fish stocking procedures	11/5/09	Crockett and Gilbert	12/1/09	5/14/13	
18	Pursue effects study on Hg/pikeminnow with other groups/programs	1/14/10	Program Office lead	ongoing		
19	Discussion of what is the appropriate number of fish to stock	3/23/10	BC	ongoing		
20	Southern Ute funding of Population Model	5/10/10	Miller	11/2010	ongoing	
21	Work with I&E Coordinator to determine feasibility of brochures and signs	11/10/10	PO	2/24/11	Ongoing	
22	Revised positive population response criteria	11/15/11	PO and FWS to BC	2/13/12	5/7/13	5/7/13

BIOLOGY COMMITTEE ACTION ITEM LOG (Updated 13 May 2013)						
Item No. *	Action Item	Meeting/Origination Date	Responsible Party(s)	Due Date	Revised Date	Date Completed
23	Prepare memo to CC conveying BC recommendation to conduct a feasibility study on removing fish barriers in the lower Animas River	7/9/12	PO	8/20/12	5/7/13	
24	Revise Lake Powell 2013 SOW	8/13/12	FWS-GJ	8/31/12	3/26/13	3/27/13
25	Provide historic perspective on historic San Juan data	11/8/2012	PIs	2/20/13	5/7/13	5/7/13
26	Comments on LRP to Whitmore	2/21/13	BC	3/18/13		4/1/13
27	Review and comments on Lake Nighthorse report to PO	2/21/13	BC	3/18/13		5/9/13
28	NNF workshop recommendations to Davis	2/21/13	BC	3/18/13		
29	Pros and cons of moving non-native removal trips from lower to middle sections of river	5/7/13	Davis	6/28/13		
30	Provide trips dates to Reclamation (via Whitmore) to determine if flows can be increased during sampling trips	5/7/13	PIs	5/31/13		

BIOLOGY COMMITTEE ACTION ITEM LOG (Updated 13 May 2013)						
Item No. *	Action Item	Meeting/Origination Date	Responsible Party(s)	Due Date	Revised Date	Date Completed
31	Finalize memo on Ridges Basin recommendations, CC review, forward to FWS-R6	5/7/13	Miller, PO	5/31/13		
32	Revise SOWs based on recommendations from February and May meetings	5/7/13	PIs	5/31/13		
33	Review AWP	5/7/13	BC	5/31/13		
34	Finalize and post LRP to website	5/7/13	Whitmore	5/31/13		
35	Complete Threats Assessment draft	5/7/13	TNC	6/28/13		

* 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 • 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 • 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 • 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			