

**Draft Summary
San Juan River Basin Recovery Implementation Program
Biology Committee Meeting
15-16 November 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
Dale Ryden – U.S. Fish and Wildlife Service, Region 6
Vincent Lamarra – Navajo Nation
Harry Crockett – State of Colorado
Eliza Gilbert – State of New Mexico
Greg Gustina – U.S. Bureau of Land Management
Tom Wesche – Water Development Interests

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

David Campbell
Scott Durst

Interested Parties:

Andrew Monié – New Mexico Department of Game and Fish
Steven Platania – American Southwest Ichthyological Researchers
Darek Elverud – Utah Division of Wildlife Resources
Dan Lamarra – Ecosystem Research Institute
Carrie Lile – Southwestern Water Conservation District
Patrick McCarthy – The Nature Conservancy
Mike Issacson – Keller-Bliesner
James Morel – Navajo Nation Fish and Wildlife
Bahram “Romie” Farokhkish – USGS Bozeman, MT
Ben Zimmerman – Southern Ute Indian Tribe

Tuesday 15 November 2011

Changes to agenda:

- The discussion of tagging NAPI fish at Dexter before they are delivered was moved to the first day during the general discussion of stocking.

Approve draft summary for 25 August 2011 BC meeting:

- Durst incorporated earlier edits received into the summary. Crockett recently sent some minor wording changes that have not been incorporated. Holden indicated that some of his comments on the habitats that could be sampled with experimental block seining during small-bodied monitoring were not included in the summary (especially sampling deeper and swifter habitats rather than just

near-shore runs). Durst will revise the summary to include these changes and Holden motioned to approve the revised summary, Davis seconded, the revised summary was unanimously approved.

Nomination of new BC chair:

- Miller volunteered during the December 2010 meeting for another two year appointment as chair (until 2012). There was some confusion over the length of this extended term (one versus two year).
- New nominations for BC chair will occur in November 2012.
- The group discussed the relative benefits of having a non-Federal partner serve as BC chair. A non-Federal chair highlights the Program's collaborative nature and offers an alternative perspective. Because of growth in the Program Office over the last few years, the chair is able to focus on responsibilities outside of meeting planning and logistics.
- McKinstry commended Miller's work as chair and thanked the Southern Ute Indian Tribe for supporting Miller in this role. The group echoed these sentiments.

Review nomination of Patrick McCarthy as BC representative for TNC:

- TNC nominated McCarthy as BC representative, Mike Roberts will serve as the CC representative (the role previously held by McCarthy). Roberts also represents TNC for the Upper Colorado Recovery Program.
- McCarthy discussed TNC's role in the Colorado River Basin and the San Juan River Basin and TNC's long-term commitment to river conservation.
- McCarthy discussed his background, highlighting long-term river conservation work inside and outside New Mexico, his work developing environmental flows policy along with a workshop and framework for flow recommendations on the Zambezi River. He is currently director of TNC – New Mexico's conservation program. McCarthy holds a masters degree from University of Vermont and has extensive training in TNC's freshwater programs in environmental flows and integrated water resource management.
- In response to Wesche's question about McCarthy's experience with the two endangered fish, McCarthy discussed TNC's Conservation Action Plan for the San Juan River Basin that included the two endangered fish within a suite of broader conservation targets and the RERI habitat restoration project to benefit endangered fish in the San Juan River.
- In response to Holden's question about TNC's commitment to the San Juan River, McCarthy discussed TNC's long-term commitment and the possibility of leveraging other funding partners to benefit the San Juan.
- Holden motioned to approve McCarthy's nomination, Gilbert seconded, and the group voted unanimously to approve McCarthy's nomination.

Budget update:

- McKinstry provided update. All aspect of the Program have received funding. BR made up the difference for elements that were not covered by power revenue (program management, non-native fish removal, and peer review).
- There is a 3.9% CPI adjustment for FY2012 but this money cannot go to projects that have already been funded (monitoring and O&M budgets will increase by 3.9%). Navajo Nation will be funded first, followed by states (Utah and New Mexico), and then Fish and Wildlife Service. Awards for the current fiscal year will not be as fast as normal because of the ongoing continuing resolution. BR will try to be creative to fund existing projects, especially non-native fish removal. Gilbert asked about the history of CPI. The CPI is part of the legislation but it is variable from year-to-year. CPI funds cannot be pulled together to fund new projects, it can only be spent in specific ways.

- PIT tags have been purchased from BioMark for < \$1 per tag (a substantial savings from previous years).
- Habitat monitoring scope put together by ERI and Miller has been funded (for 5 years but the Program has the option to modify the work as necessary).
- BR is developing an RFP for larval fish monitoring that should be ready in early 2012 (\$1 million to \$1.5 million over 5 years). There is still another year where larval monitoring can be funded through NMGF but this has become problematic. The RFP will be developed on a trip-by-trip basis.
- Campbell provided an update on the funding legislation. The Congressional subcommittee hearing has still not happened despite ongoing efforts of the Programs to address the subcommittee's questions. Delays in the funding legislation may become regular events in the future.
- Capital funding of the Hogback fish weir is in hand and is a priority to complete by winter 2012. The group discussed options of incorporating some kind of PIT tag reader into this project.
- Holden asked that if the Program can be made whole through other funding sources, what are the priorities?

Update on stocking and discussion of future planning at Dexter, Uvalde, Horsethief, and Southern Ute proposal. Discuss tagging NAPI fish before they are received to investigate tag loss:

- No decisions have been made regarding the future of the Program's relationship with Uvalde. We need additional monitoring data to determine if Uvalde's revised management efforts are resulting in more Uvalde fish being encountered in the San Juan. Early indication is that some Uvalde fish are being detected in the San Juan River.
- Horsethief is coming online soon and will be available for Colorado pikeminnow or razorback sucker production.
- PIT tagging NAPI fish prior to delivery from Dexter in an effort to reduce mortality and increase tag retention is a possibility although Ulibarri expressed concerns such as tagging smaller fish, ensuring appropriate recovery times for handled fish, and added manpower to tag these fish. PIT tagging Dexter fish bound for NAPI can address tag retention across different treatments (hatchery tagging versus field tagging). Based on information from the Upper Program hatchery tag loss is 0.5-2% but tag loss in the river may be as high as 10%. Tag loss appears to occur quickly after tagging. New tagging methodologies may reduce tag loss. Because of the large number of untagged fish that are captured in the San Juan River (in a wide range of size classes), need to tease these apart to get at recruitment.
- Horsethief ponds are dealing with whirling disease issues. Stocking fish from this source is a problem for the state of Utah. This problem should be resolved by the time any fish are stocked into the San Juan from these ponds. McKinstry asked what level of production we could expect from these ponds. While it is not possible to know until production starts, these ponds could likely produce about 4,000 razorback suckers.
- Davis reported that 645,000 Colorado pikeminnow were stocked in 2011. These included the 2010 holdover fish and 426,000 age-0 fish. There have been 6 stocking trips from Uvalde that have resulted in stocking a total of 9,000 razorback suckers. Stockings over the next week should bring this total to 12,000.
- McCarthy asked how stocking locations are determined. Davis explained that locations of diversions are taken into account, along with feasibility of soft releasing. Stocking higher in the system is looked at favorably too. Lower flows due to trout work below the dam have limited some of these sites. Navajo Nation has stocked some fish as high as Bloomfield.
- Navajo Nation had good return on razorback sucker from NAPI ponds and stocked 7,641 in the San Juan River at different locations. There were ick problems at NAPI again but it was caught

early and resolved. The 90% return rate at Hidden Pond was offset by returns as low as 50% at other ponds.

- It is possible to build rearing ponds on Southern Ute Indian Tribe lands and water is available. Production on Southern Ute lands would buffer shortfalls from other sources. Ben Zimmerman is receiving guidance from Dexter to move forward with this. Although the capital cost of these ponds would be relatively small the O&M cost should be seriously considered given the current tight budget situation.
- Before any other production facilities are brought online we will need to determine what is happening with Uvalde fish. The group agreed that it is best to try and fix the situation at Uvalde before developing additional facilities.
- The BC recommends that if it is logistically feasible, some fish bound for NAPI from Dexter be PIT tagged at Dexter prior to delivery with the remaining fish tagged at NAPI to improve the overall tag retention and to compare tag retention of hatchery tagged fish versus those tagged under field conditions. The operations at Uvalde should proceed in 2012 as they did in 2011.
- Is it possible to stop stocking to determine what is happening with natural recruitment?

Update on projects not funded by the Program – tributary project, catfish food habitats, and population model:

- Miller reported that the contract for the population model is moving forward and the goal is to have a functioning model by summer 2012.
- McKinstry and Crockett reported on tributary projects. Focus of this work is on the three species (flannelmouth sucker, bluehead sucker, and round tail chub). Keith Gido is also involved in this project. PIT tag antennas are in place in the McElmo drainage. Utah and Navajo Nation are also working together and Morel will report on information as it becomes available. Removal of diversions in the Mancos could be part of a management action to increase connectivity between the tributaries and main-stem San Juan. Flow connectivity and water quality issues are also important considerations in these tributaries.
- Farokhkish is continuing to move forward on studying the effect of repeated electrofishing on reproducing razorback sucker at Uvalde. Permitting issues have slowed progress on this project. Questions have come up with what will happen to these fish after experiments are completed, can these fish be stocked? NMFWCO will have internal discussions to work out these details. The project will involve 250 total fish in different treatments (some receiving up to 8 shock treatments). There will be x-ray analysis of any mortalities to look for skeletal damage and other suggested looking for organ damage as well.
- McKinstry reported on a study of catfish food habits that included sampling catfish stomachs after age-0 Colorado pikeminnow stocking. No pikeminnow were detected but they detected mice and crayfish in catfish stomachs. The presence of crayfish might have to do with how irrigation canals are managed. Platania indicated that numerous crayfish come into the river once water in the canals is cutoff. Further analysis of these stomachs will occur over the winter.
- Farokhkish is also working on a length-age key for catfish, building on Morel's earlier work. He is also looking at fecundity and age at susceptibility to sampling to determine if management actions are shifting catfish to younger reproductive fish.
- The RERI habitat restoration project is also being funded outside of the Program.

Final report of results of the "bass-o-matic" study:

- No one from the local BR office was present to report on this.

Discussion of proposed modifications to the larval fish project:

- Platania reported on the CC request for otolith analysis of razorback sucker specimens. The CC asked for a budget to examine previously collected otoliths for age-growth analysis (can do this for specimens stored in ethanol and formalin however the focus will be on newer samples stored in ethanol because of the better resolution). The proposal will attempt to correlate spawning of razorback sucker to temperature and hydrograph and develop a better model to back-calculate spawning date specific to San Juan razorback suckers. This data can be examined in the context of flow recommendations. The BC should review the SOW and discuss further at the February meeting.
- This request was made during the Annual Meeting. The Program does not produce a summary of the Annual Meeting. Miller suggested the Program make a summary of the Annual Meeting or produce some sort of Action Item list that comes out of that meeting.
- The second proposal Platania discussed detailed an increase in Colorado pikeminnow larval sampling effort between the existing July and August sampling trips. In 2011 there were 29 larval pikeminnow collected at different life stages in both upstream and downstream locations. Pikeminnow have a shorter spawn and shorter larval life stage so additional sampling may capture additional individuals. The proposal is to conduct a one-time additional sampling effort over the two weeks between the existing July and August trips in order to better direct sampling efforts in the future to maximize larval pikeminnow captures. Future pikeminnow sampling dates would be floating and could be based on temperature and hydrograph. The BC will review this proposal for further discussion at the February meeting.
- Miller suggested using otoliths data to direct larval Colorado pikeminnow sampling data. Are there temperature limits for pikeminnow reproduction? Based on Upper Program information it is 20°C on the descending limb of the hydrograph. The San Juan's telemetry data can be used to see when fish were on spawning bars and correlate that to the hydrograph.
- Holden expressed support for these proposals but indicated they be considered in the context of other priorities. Lamarra supports increased monitoring but suggested it is time to have a bigger discussion of the Program's monitoring efforts and start tagging fish and following them to spawning bars to address some of these questions and identify recruitment bottlenecks. Many pikeminnow are being collected in existing monitoring efforts. McCarty suggested that the RERI project could play a part in identifying recruitment bottlenecks.
- Previous larval sampling has indicated razorback sucker spawning is occurring further upstream through time. The project currently launches at Cudei but should it move upstream to Shiprock?
- Miller suggested moving the decision on the two new proposals Platania detailed for the February meeting and making a decision on moving sampling further upstream today. Holden motioned to shift larval monitoring upstream to Shiprock and to include wording in the protocols that sampling move upstream as condition in the river dictate. Lamarra seconded and the motion was approved unanimously.
- Wesche brought up the importance of tying some of this otolith work to the flow recommendation revision process. The sooner the otolith work is done, the sooner it will be able to be incorporated into the flow revision process. Since we have limited ways to link flow to biology, we need to take advantage of them when they are available.
- What data do we need to collect to identify bottlenecks to recruitment? Maybe we need to conduct monitoring efforts at different times of the year to address important questions. How do we address holes in the Program's dataset? What flows minimize and maximize backwater habitats? Larval monitoring attempted to address backwater habitat in 2010 but these habitats changed too rapidly to track effectively. Maybe habitat persistence could be addressed if sampling was conducted on a weekly basis. In 2011, of ~1,000 total razorback sucker larvae collected, 250 were collected upstream of Aneth.

Discussion of Program priorities and review LRP:

- The group asked what data does the Program need to move forward. Gilbert asked about the questions that were developed from the monitoring workshop. What studies are needed to address outstanding questions? Are all the habitats needed to recover the fish present in the San Juan River? McCarthy asked about long-term channel morphology studies, a sediment transport model, and how these are related to spawning and nursery habitats.
- Russian olive encroachment and high flows are thought to have created the current habitat conditions on the San Juan.
- Major recovery elements are prioritized during the fall meeting to direct the Program Office in developing budgets.
- How far is the Program in terms of reaching the recovery demographic criteria? When should population estimates be conducted? Why is recruitment not being detected in sufficient numbers to reach recovery goals? How can the origin of hatchery-reared versus wild-produced fish encountered without PIT tags be established? Isotopic signature of scales should be able to get at natal origin. These are critical issues to sort out to document recruitment. Even in places where there is known recruitment, juvenile fish are not detected. Holden suggested looking for juveniles by sampling different habitats and using appropriate gear. Platania will investigate means to distinguish origin of untagged fish using isotopic signatures and report back to the group in February. Scales have been collected from fish so there is a supply of samples to look into this.
- It is important to know where fish are reproducing. Fish could be radio-tracked to spawning bars to detect other reproducing fish and direct larval sampling efforts. Preparations need to be made to deal with new information to move toward recovery.
- Population estimates for T&E fish can be based on the current effort in Adult Monitoring and Non-native Fish Removal projects.
- We need to document juvenile life stages and identify recruitment in order to achieve delisting.
- We are just now regularly reaching our stocking goals, are these efforts to chase down juveniles and recruitment premature? The current monitoring effort is designed to collect the data that is missing. What would the monitoring plan look like if it were designed from scratch? Are we overstocking endangered fish?
- Lake Powell could be a source of recruiting fish and the importance of tributaries is highlighted by the recent detection of T&E fish in these locations.
- Where would be appropriate locations for PIT tag readers in the San Juan? Additional PIT tag readers would allow for the detection of individuals not encountered during other monitoring efforts and “fuller” encounter histories would lead to more robust population and survival estimates. Better survival and recruitment data would fill in gaps in the population model. The model will be better utilized if these outstanding data gaps are filled.
- Based on some response, how should management and monitoring activities be changes? What are the missing data gaps and how does filling those gaps fit in with other Program priorities? Maybe in 2013 money being spent on Lake Powell work could investigate question of juvenile recruitment?
- Recovery of razorback sucker rangewide must include recovery in the San Juan River while recovery of Colorado pikeminnow does not require recovery of that species in the San Juan.
- The group came up with a draft list of Program priorities for 2013 that will be further revised at the February meeting:
 1. O&M of existing facilities for ESA compliance.
 2. Augmentation, including production, stocking, and evaluation.
 3. Efforts to document recruitment of detect juvenile endangered fish. Start planning in February 2012 for implementation in 2013 (possibly testing methodology).
 4. Non-native monitoring and control.

5. Data integration of Lake Powell work, integration in association with upcoming revision to flow recommendation, and integration of general biological data.
 6. Fish monitoring (in order of priority: larval, small-bodied, and adult).
 7. Habitat monitoring.
 8. Peer review.
- Capital priorities include constructing PIT tag readers at selected locations.
 - Navajo Nation has put in for funding a PIT tag reader at PNM from outside sources but it appears that the proposal will not be funded.

Update on PIT tag detections in McElmo Creek and Yellowjacket Canyon:

- Jim White (CDOW) gave presentation. This effort was designed to expand three species monitoring and follow up on the detection of Colorado pikeminnow in Yellowjacket Canyon over the last 4 consecutive years. Remote PIT tag arrays were installed in McElmo Creek and Yellowjacket Canyon. Both drainages have > 80% native fish. It will be important to identify the effect of barrier in these systems.
- Durst will distribute White's presentation to the BC and White will give a more detailed presentation at the February meeting.
- Are there other tributaries in the San Juan Basin where a PIT tag array would be effective documenting tagged T&E fish? White indicated that a satellite hook-up to access data has been more problematic compared to a cell phone modem.

Habitat workshop planning update:

- Durst distributed the compiled peer reviewer questions that Campbell previously requested.
- The workshop should focus on what are we doing now and then apply that to review and revise the existing flow recommendations.
- The outside peer reviewers need to review the assumptions that went into the development of the Program's flow recommendations.
- What is the Program assessing with habitat monitoring? How will this monitoring relate to revision of the flow recommendations? What data drove the creation of the flow recommendations?
- The Program Office needs to distribute the latest version of the agenda. The first workshop should cover two days and focus on a review of the habitat monitoring that has been done. The next workshop should focus on how the flow recommendations will be reviewed and revised. Each workshop should have a separate agenda.

SOW for habitat response to flows and other factors:

- Lamarra detailed an outline of a presentation that would set the stage for the workshops. The budget for the workshop will cover Lamarra's costs.
- The outline of the SOW includes:
 - Historical habitat description and evaluation.
 - Geomorphic investigations
 - Transects and substrate changes
 - Secondary channel investigations
 - Habitat quality
 - Quantify characteristics of secondary habitats
 - Synoptic surveys compared to other Southwestern rivers
 - Backwater habitat quality monitoring
 - Spawning bar characteristics
 - Integration of habitat and fisheries data

- Adult monitoring and microhabitat data collection
- Complex reach studies
- Lessons learned and current habitat monitoring
 - Habitat creation and loss
 - Conclusions on San Juan habitat data
- Lamarra anticipated that this presentation would take $\frac{3}{4}$ of one day during the first workshop. He will track down the data he needs to complete this presentation.
- Holden would present complex reach data.
- The outside peer reviewers should weigh in on this presentation to evaluate what we have done in terms of habitat monitoring.
- Some work by Melissa Stamp that formed the basis of the RERI project could also be important to present. Biology presentation can be presented by Gido, Durst, and others.
- Outside peer reviewers are being contacted.
- McCarthy asked if sediment transport models were available.
- Durst will distribute the workshop agenda.

Wednesday 16 November 2011

Initial fish-flow relations:

- Durst gave presentation on fish-flow relationship he has explored.
- Durst used an information theoretic approach to evaluate multiple linear regression models looking at adult monitoring catch rate and a variety of flow statistics and larval catch rates, reach, and a variety of flow statistics. He compared larval results to the small-bodied analysis from Gido and Propst.
- Models did not fit adult data
- Some larval models highlighted the influence of flow statistics on larval catch rate and in general agreed with small-bodied analysis of Gido and Propst.
- BC suggested different size classes from adult monitoring could show patterns that were obscured using the entire dataset. Other flow parameters that highlight flow peaks and flow variability could be important as well. Reach could be important to include since fish distribution clearly varies by Reach.
- Durst will distribute the PowerPoint presentation.

Discussion on revising the expiring positive population response criteria:

- The positive population response criteria are included as one of the criteria to evaluate the Program's progress toward recovery in the Sufficient Progress Report. The current set of criteria cover 2007-2011 and will need to be revised to cover the time period beyond 2011. The Program Office views keeping these criteria in the Sufficient Progress Report as useful to demonstrate the Program's progress toward recovery and adequacy in serving as the vehicle for ESA compliance.
- Any revision to these criteria can be based on population numbers. Could also use CPUE statistics and develop a positive trend into the future. These criteria do not need to be complicated. The criteria should detail an incremental increase in different age classes of fish over a 4-5 year time frame.
- The Program Office should work with the BC to develop new criteria. Durst will distribute the older version of these criteria.
- It will be important to look at current trends in data to determine the current status.

Monitoring plan and protocol revision:

- Durst revised the document to include items removed from the previous revision. Miller found discrepancies in the newest version. Holden made comments that were incorporated.
- The non-native fish removal section that highlights the T&E data needs to be incorporated with adult monitoring and the data integration section needs to be updated. These protocols should document the monitoring that is currently occurring on the San Juan.
- The larval protocols should include moving the sampling effort upstream as on-the-ground condition warrant.
- Platania discussed revisions to the data integration section. This section came from the questions that were posed during the monitoring workshop. In preparing this section the sub-group realized that integration work was already being conducted by the different PIs. Each report should have a specific section to draw attention to the integration work that that protocol is addressing. Integration questions that are not being currently addressed should be dealt with as time permits or priorities are identified. The integration section needs to include non-native fish. At some point recruitment will need to be included in this document.
- Platania will “clean up” integration document and Durst will incorporate it into the monitoring plan and protocol document. BC members should send comments to Durst by the end of November and he will distribute to the BC and peer reviewers by the end of December. Peer reviewers should comment in time for the February meeting. Water quality section should be removed from document.

RERI update:

- Issacson provided update of KB’s work with TNC to restore habitat in the San Juan downstream of Shiprock.
- 4 to 6 sites will be completed by Thanksgiving. Navajo Nation contactors are doing the work. Excavated channels are connected at base flows so higher flow events will sluice them. Aerial photo monitoring was conducted with a remote control drone.
- Questions were posed of what additional work would be needed to destabilize channels and if some of these sites would need additional work in the future.
- This project was started as a “test of concept.” The Program is testing the hypothesis that this type of management will be successful creating self-maintaining nursery habitats. Can this project be done on a larger scale in the San Juan?
- Larval and small-bodied monitoring is expected to occur at these restoration sites to determine fish response to the management activities.
- The group discussed field trips to these sites. TNC is looking to put together a tour for congressional staffers. A site visit for the BC or CC would also be useful. It is possible to combine a site visit with a future meeting but it may be better to wait until high flows occur in 2012 to see how these restored channels respond. These sites can be accessed via road or raft.

Non-native fish stocking policy update:

- Gilbert met with NMGF fisheries chief to ensure that this concept was acceptable for the Department.
- The only fish that will be stocked into the San Juan are triploid rainbow trout. Stocking in off channel ponds may involve section 7 consultation with FEMA. Any inspection of off channel ponds will fall to State or Tribal authorities.
- New Mexico and Colorado have been working together to make this agreement acceptable for both States. Following revision it will need to be sent back to Tribes for their approval. This agreement should be consistent between Upper Basin and San Juan. Gilbert and Crockett will clean up the agreement and send to Program Office for distribution to FWS and CC tribal representatives.

Finalized non-native fish workshop summary:

- Whimore previously distributed a version that blended earlier summaries.
- In the absence of additional comments the BC considered this summary as the final summary for the workshop.

Discuss Colorado pikeminnow 5-year status review:

- Holden asked that this item be added to the agenda.
- The status review should be consistent with the recovery goals. The Program Office and individual BC members provided comment to Tom Czaplá (the Upper Program was responsible for the status review).
- There is some different interpretation as to how this document should be used.
- The group stressed the importance of cross-pollination between the San Juan and Upper Colorado recovery programs. Some efforts are under way to increase this cross-pollination.
- The Program Office should distribute status reviews for other species as they become available.

Schedule next meeting:

- The Annual Researcher's Meeting will be held in Grand Junction 24-25 January 2012. Possible presentation from the San Juan program include: Lake Powell, small-bodied monitoring, larval monitoring, and RERI project.
- There have been discussions in the future that the Annual Researcher's Meeting could rotate among Grand Junction, Moab, and Durango.
- Next BC meeting is scheduled for 13-15 February 2012. The meeting will start at noon on the 13th and end at noon on the 15th. The meeting will be held in Durango, Farmington, or Ignacio. Miller will look into holding the meeting in Ignacio.
- The group set aside the weeks of May 7th and 14th for the Annual Meeting at Fort Lewis College in Durango.

BIOLOGY COMMITTEE ACTION ITEM LOG

(Updated 22 November 2011)

Item No.*	Action Item	Meeting/O rigination Date	Responsible Party(s)	Due Date	Revised Date	Date Complete d
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 22 November 2011)

Item No.*	Action Item	Meeting/O rigination Date	Responsible Party(s)	Due Date	Revised Date	Date Complete d
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	

BIOLOGY COMMITTEE ACTION ITEM LOG

(Updated 22 November 2011)

Item No.*	Action Item	Meeting/O rigination Date	Responsible Party(s)	Due Date	Revised Date	Date Complete d
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	Gilbert will attempt to re-write to make compatible with NMDGF and run by NMDGF for reaction	12/1/09	12/31/11	
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	Redo monitoring protocols and integration analysis document by including all background info. and completed data integration section – get comments from BC and distribute to peer reviewers	3/24/10	PO	5/10/10	11/30/11 12/31/11	

BIOLOGY COMMITTEE ACTION ITEM LOG

(Updated 22 November 2011)

Item No.*	Action Item	Meeting/O rigination Date	Responsible Party(s)	Due Date	Revised Date	Date Complete d
25	Prioritized integration analysis – Platania will distribute to group	11/10/10	Integration sub-group	1/31/11	11/30/11	
22	Complete non-native fish workshop report	5/10/10	BC to provide comments to PO	11/2010	9/30/11	11/15/11
23	Southern Ute funding of Population Model	5/10/10	Miller	11/2010	ongoing	
24	Work with I&E Coordinator to determine feasibility of brochures and signs	11/10/10	PO	2/24/11	Ongoing	
26	Habitat-Flow Workshop Planning – distribute agenda	7/27/11	BC comments on Habitat-Flow Workshop outline to PO	8/25/11	12/15/11	
27	Compile info. on current knowledge of habitat response to flows and other factors (e.g., veg. encroachment) for Habitat-Flow Workshop	8/25/11	LaMarra will put together SOW	11/15/11	12/2/11	
28	Pit tag/equipment needs	8/25/11	P.I.'s provide needs to McKinstry next Friday	9/2/11		9/7/11
29	Draft summary of small-bodied monitoring discussion	8/25/11	PO to BC Sept. 12; comments back by morning of Sept. 19	9/12/11; 9/19/11		9/8/11
30	Presentation on preliminary results of Durst's fish response investigations	8/25/11	Durst	11/15/11		11/15/11

BIOLOGY COMMITTEE ACTION ITEM LOG

(Updated 22 November 2011)

Item No.*	Action Item	Meeting/O rigination Date	Responsible Party(s)	Due Date	Revised Date	Date Complete d
31	Revised positive population response criteria	11/15/11	PO to BC	2/13/12		
32	Investigate feasibility of using stable isotopes to distinguish natal origin of San Juan fish	11/15/11	Platania			

* 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			