



Summary
San Juan River Basin Recovery Implementation Program
Biology Committee Meeting Summary – Farmington, NM
9-10 November 2010

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
John Alves – State of Colorado
David Propst – 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
Sharon Whitmore
Scott Durst

Interested Parties:

Andrew Monié – New Mexico Game and Fish Department
Carrie Lile – Southwest Water Conservation District
Michael Howe – Bureau of Indian Affairs (NIIP) (day 1)
Steven Platania – American Southwest Ichthyological Researchers
Jim White – Colorado Division of Wildlife Resources (day 2)
Chris Wrbas – Army Corps of Engineers (day 2)
Rob Waldman – Bureau of Reclamation (day 2)
Brent Uilenberg – Bureau of Reclamation (day 2)
Brian Westfall – Keller-Bliesner Engineering (day 2)
Mike Isaacson - Keller-Bliesner Engineering (day 2)

Tuesday 9 November 2010

Introductions; Changes to agenda:

- Add I&E discussion to second day (McKinstry)
- Formal vote on BC chair for 2011. Lamarra nominated Miller. Wesche seconded. Unanimous approval.

Approve draft meeting summary of 3 September conference call:

- Group discussed habitat section from the summary. Highlights of the discussion included: the 2010 money for habitat mapping and temperature monitoring has been carried over and what is the plan for this money in 2011. An RFP will be developed to guide the work in 2011. The coming SOW will provide the details. The flight data and temperature data from 2010 is available. The scope can include 2010 and 2011 work or just one year. The work should be according to the habitat monitoring protocol. Suggestion was to start with 2011 and if there is money left over then also do 2010 work. The 2007 habitat data provides the ground truthing for the next 5 years. The conference call summary will be modified to reflect this discussion. Holden moved to approve the summary with the modifications discussed; Ryden seconded; approved.

Review Action Item list:

- See Action Item list at end of summary for latest updates.
- Still need to relate body burden selenium to what is transferred to eggs during spawning. FWS is in discussion with BIA and KB to move this forward
- McKinstry presented CC with stationary PIT tag reader concept. They asked for recommendation from BC.
- Non-native fish policy is not yet finalized. New Mexico and Colorado policies should be compatible. Propst said the BC should give a recommended set of regulations so the States can draft an appropriate policy. This task needs to be assigned to BC members.

Update on largemouth bass virus at Dexter:

- Largemouth bass virus (LMBv) was detected in two lots of fish at Dexter NFH&TC in September 2010. The detection of LMBv in a lot of bonytail chub and a lot of Gila topminnow marks the first time the virus has been documented in these species. Affected lots were immediately destroyed. Due to this discovery, no fish will be stocked into the San Juan River for the remainder of 2010. Disinfection of the hatchery has occurred. Different states have different requirements to accept fish from the hatchery following the occurrence of LMBv. Utah has requested that two inspections, at least 6 months apart, be conducted prior to continued stockings. To date, Colorado has agreed to stock fish from the hatchery but not in writing. Alves could not provide any clarity if this is an official policy. No word what Arizona or California will require. New Mexico and Texas are both fine with stocking non-infected fish from the hatchery. There is a possibility that some stocking will occur prior to class-A certification.
- 3,000 age-1 and 300,000 age-0 Colorado pikeminnow that were to be stocked in the San Juan River in 2010 are being held over at Dexter NFH& TC. These fish were tested again during the first week of November with results expected by 10 December 2010. Future tests will be completed in April/May 2011. Will the Program want to stock all of these fish in the future? The Program has requested 450,000 age-0 fish in 2011. Dexter would like to stock at least some of the hold-over fish. When is a recommendation from the BC needed on what to do with these hold-over fish? What is the loss if these fish are not stocked? Would stocking the hold-over fish put too many fish into the system in 2011? The 3,000 age-1 fish are the last group of that age class to stock. Could some of these hold-over fish be stocked higher in the system (Bloomfield)? What is the right number and size of fish to stock and for how long do we stock? Is the hatchery effort getting us what we want – recruitment? Propst suggested flushing the hold-over fish. Miller and Lamarra came up with the stocking numbers based on population modeling effort. The hold-over fish could be stocked without

producing a new group of age-0? Lamarra doesn't see a big risk in stocking these fish and potential to gain information especially if these fish show the same patterns (being lost after 2-3 years) or if they remain in the system.

- The pros and cons of what to do with these hold-over fish will be discussed at the upcoming BC meeting in December. Davis will find out what Dexter needs for a recommendation from the BC. BC should examine population numbers using the population model. Does the Program need to look more seriously at the LMBv in the San Juan River?

Finalize monitoring protocols and process for yearly update:

- Wesche provided minor edits and expressed concern that future funding may not be devoted to the non-native fish removal program and the possibility of shifting non-native fish activities to the monitoring program. The group indicated that non-native fish removal is an important management action that should be included in the monitoring protocols. Power revenue in 2012 can only be spent on certain activities like monitoring and not non-native fish removal but Reclamation has indicated it would make up any shortfall with appropriated dollars.
- The BC is in favor of including the non-native fish protocols in the monitoring protocols. Miller suggested that it would go in the integration section. It could also be a stand-alone section within adult monitoring. Prior to the December BC meeting Davis and Elverud will incorporate their protocols and detail how the non-native data integrates with other datasets into the monitoring protocol document. Ryden will also revise the adult monitoring section to distinguish it from the non-native protocols. With these revisions and additions the Program should be able to address non-native fish response to management actions. To some degree, the non-native fish removal program is an endangered species monitoring program. The non-native fish protocols should be a sub-heading under adult monitoring. The Program will have to address how the non-native fish removal program is both a management and monitoring activity.
- Other issues that Wesche brought up were: (1) a reader should be able to replicate the methods of each protocol. This seemed possible for only the larval and small-bodied fish monitoring protocols. (2) P-values are not consistent across protocol. There is no explanation why alphas of 0.05 versus 0.1 are used. It was agreed upon to set alpha levels throughout the document at $p = 0.10$ or less.
- In comments on previous versions of the protocols, Steve Ross indicated that it was important to use appropriate metrics and units.
- The integration section is currently a list that came out of the monitoring workshop. Integration analyses are both within and across protocols. Some integration questions cannot be addressed within a given protocol. Given the current list of integration questions, what can we do, what data is available, and what are our priorities? A sub-group should be formed to develop a prioritized list of integration questions that take into account data in hand, efforts that will require new research, and critical questions that are missing from the current document. The sub-group will bring something forward to the BC by the end of January in time for the February meeting. The sub-group will consist of: McKinstry, Durst, Holden, Davis, and someone from ASIR.
- The Program Office will take ownership of completing the monitoring protocols document and will incorporate Wesche's suggestions along with the new non-native fish protocols and revised adult monitoring protocols that will be developed by the respective PIs.

Non-native fish stocking at Lake Nighthorse:

- The BC began discussion of this agenda item on 9 November in order to present the BC's recommendation of the proposed test release to Reclamation on 10 November.
- Reclamation is proposing a 200 cfs test release that will last from 2 days to 2 weeks. Campbell asked if there are outstanding concerns or recommendations from the BC as to how the FWS should weigh in on the proposed test release. The purpose is to test the integrity of downstream structures.

The BC suggested that, at a minimum, Reclamation should check for fish that pass through the sleeve valve. White suckers have become abundant in the reservoir. Currently there is no plan for a biological test to determine what passes through the sleeve valve. Based on previous sleeve valve tests, larvae and eggs can pass through the sleeve valve bass-o-matic. Considering that these young life stages should not be present at this time of year, it would make sense to conduct this test over the winter. It is unclear how white sucker entered the lake, but it appears that they likely entered the reservoir during a period of unscreened pumping from the Animas River while the reservoir was being constructed. The BC will consider the available information on the proposed test release and provide recommendations to Reclamation tomorrow.

I&E:

- McKinstry said that there are repeated questions on the river from the public concerning Program activities. Can we make a brochure that can be distributed to the public or post a sign in Bluff or Mexican Hat? We have a good ally on the San Juan River with Wild River Expeditions.
- People conducting Program work on the river need to be cognizant of talking to the public to educate them.
- The Program Office will work with Debbie Felker, the Program's I&E contact from the Upper Program, to see what can be done to address this.

Yellow Jacket Canyon:

- Ryden reported that 2010 is the 4th year in a row that BLM has caught Colorado pikeminnow in Yellow Jacket Canyon, a tributary of McElmo Creek. In 2010 BLM caught 6 pikeminnow of different sizes in a short section of the creek (500 ft). There were also numerous native fish in these samples.
- It is clear that pikeminnow are using this tributary to the San Juan River. Should the Program investigate additional work in this area or other tributaries? At a minimum the Program could provide input and support to Tom Fresques of the BLM.
- Gustina will follow up with Fresques about providing the BC with a presentation of Yellow Jacket Canyon during the December meeting.

Finalize recommendations from the non-native fish workshop:

- The BC talked about integrating the report Whitmore produced and the summary from the workshop prepared by SWCA. The group suggested that the questions and recommendations concerning existing datasets from the peer reviewers be incorporated into a final document.
- The PIs should ensure that their summarized presentations are accurate and Whitmore will move ahead with integrating the two summaries.
- There was some discussion on standardization of gear and methods for non-native fish removal. The Program's methods are dictated by on-the-ground conditions and are already largely standardized. It appears that the Program is using the best methods appropriate for the San Juan River. The group also discussed electro-fishing efficiency of smaller individuals. Durst and Ryden will work together to come up with species specific catch curves using the adult monitoring dataset. The group went through each recommendation from the workshop to create a more reasonable and logical flow in the document.
- The Program will need to develop milestones and targets to evaluate the success of the non-native program. Can this be done with existing data? This could be something to think about in an integration context. Should the Program consider Modde's 65% exploitation rate? Can we draw inferences from collapsed commercial fisheries and use those tactics on the non-native fish in the San Juan River? Is there a literature review that could be done in conjunction with this? We could reexamine the bioenergetics of non-native fish by using the population model. Can condition factor

be examined? What about possible shifts in reproduction of exploited non-native fish (to smaller size classes)? A long-term comprehensive non-native species management plan should be incorporated into the monitoring protocols.

- Propst suggested looking at the level of effect catfish have on T&E fish. Non-native fish in different size classes may have different impacts on T&E fish. Do pikeminnow learn to avoid catfish after a non-lethal negative encounter?
- The Program should first look at non-native fish response to management actions before looking at the response of the native fish community to these activities. There are lots of management actions that will confound any response (like augmentation and flow). Could non-native fish just be a convenient scapegoat for a myriad of other problems?
- Additional questions the group raised were: (1) What do native fish eat? (2) Should we scan all non-natives to see if they've eaten a T&E? (3) Has there been a response of the non-native fish from a comprehensive perspective? (4) Can we combine these questions together to form some kind of risk assessment? (5) What kind of metrics can we use to measure the effect non-native fish removal has had on the native species? (6) When, where, and how are catfish a problem so we can better control them? (7) Could we add a threat assessment to the integration effort that includes the risks of predation, choking, and resource competition?
- It would be useful if the BC had the fish management plans for all the reservoirs within the Basin along with a list of the species that occur there. This would have to come from the agencies responsible for the reservoirs.
- Whitmore will work to clean up these documents and combine them. The revised document will include an executive summary and an appendix of the PowerPoint presentations. Some aspects of the non-native fish documents will need to be incorporated by the PIs into the relevant sections of the monitoring protocols. The SWCA report should be posted to the San Juan website.

Follow-up discussion on test release at Lake Nighthorse:

- Westfall reported that the test is intended to test stability of downstream structures and water loss in the channel. There is supposed to be a screen somewhere downstream
- The BC came up with a series of questions for Reclamation: (1) Can there be a way to conduct biological monitoring in conjunction with the release (what are the options for monitoring)? (2) Could the release incorporate a test of the sleeve valve? (3) Does the release test have to happen at this time (a legal requirement)? (4) A monitoring plan needs to be in place before any releases occur (the monitoring plan should include biological, sediment, and water quality). (5) How much water will be released in total and how close will the release put the reservoir level to the conservation pool (and the outlet structures)? (6) Would this trigger a reconsultation of ALP? (7) Will there be other tests in the future that the BC needs to be aware of?
- The BC agreed that allowing the test release to happen with little notice could set a bad precedent. This is an opportunity to establish a communication link between BC and Reclamation operators of the lake. In the future Reclamation should give at least a 30 day notice of other actions that require comment?
- FWS R6 is concerned with direct or indirect effects of Lake Nighthorse operation.

Wednesday 10 November 2010

2011 Budget:

- McKinstry reported that the CC passed the 2011 workplan. The BC expected a 2% CPI but it was actually 1.1%. The Program is still operating under a continuing resolution with the funds being treated as appropriated money. The continuing resolution will likely get pushed to March but the Program needs to get an actual budget from Congress.

- Due to these constraints, McKinstry can only release 17% of the total funding this year. Options to proceed include: fund priority projects at full amount (adding up to 17% of total) or fund 17% of each project. Because the Adaptive Management Program funds are in the same “bucket,” we can take 17% of the greater total. Currently \$1 million is available.
- McKinstry and Whitmore prioritized 2011 work to be funded in full to the \$1 million level: (1) Lake Powell work; (2) non-federal partners including Navajo Nation, Larval Monitoring, peer review, lower San Juan non-native fish removal (Utah), Inks Dam (for RDU – also a new scope), and Small-bodied Monitoring; and (3) funding for Federal partners will wait until later in the fiscal year.
- McKinstry will provide an update to the BC during the December meeting.

RERI site selection:

- Patrick McCarthy from TNC called in.
- Westfall and Mike Issacson presented a PowerPoint based on the previously distributed written report. Westfall discussed initial contracting issues, documented decrease in habitat complexity, and narrowing 14 initial sites to 7. About \$200,000 will be available for construction activities. Westfall asked what can be done through active management, what can be done at these sites, and where can we get heavy equipment? Westfall looked for the BC’s input on what the habitat at these sites should look like after completion. There would likely be a mixture of restoration methods at the 7 sites. Issacson presented each site and what could possibly happen to restore each of them. Debris piles could be used to create scour.
- Chris Wrbas was available to present Army Corps of Engineering’s view on any permits that will be necessary for this work. His concerns included the equipment, fill materials, and loss of wetlands. Wrbas suggested including a variety of alternatives to restoration plan to avoid amendments. Durst will work with Wrbas on the relevant permitting (Section 404, nationwide 27, EPA section 402, Navajo nation, or BIA).
- KB will sub-contract the work through Navajo Nation contractors. Construction is anticipated to begin in September or October of 2011 during base flow periods.
- BC suggested that restored channels should be free of vegetation so there will be meanders to create complexity. Banks should be less armored so the complexity will develop. Any work should avoid diverting the entire river because of potential unintended consequences. Debris piles could be used in the secondary channels to create complexity and willow cuttings might be used for the same purpose. The restored channels should be connected to the river at base flows.

Lake Nighthorse sleeve valve test:

- Uilenberg and Waldmen presented the results of the sleeve valve tests. Thus far there have been 5 tests. Fish mortality approaches 100% but egg mortality is around 60-80%. Three more sleeve valve tests are scheduled in the spring with when there will be a higher reservoir elevation.
- The group discussed how white sucker ended up in Lake Nighthorse. The screens at the Durango Pumping Plant appear to exclude fish but larvae or eggs could pass through. These screens were not in place during construction and initial pumping operations.
- The upcoming test release is to examine the downstream channel and drop structure integrity. The release will be 200 cfs and the flow will pass through a 500 micron mesh to net the release to determine if fish are passing through the system.
- Miller presented the BC’s questions and concerns from yesterday’s discussion.
- With the netting and monitoring plan presented by Reclamation, the BC’s and FWS’s concerns were addressed. In the future there should be improved communication so everyone has more notice of these kinds of actions.
- Reclamation is looking for input from the BC and CDOW concerning the white sucker problem. What is going to happen with white sucker problem in the reservoir?

Non-native fish stocking policy update:

- Colorado, New Mexico and the four Tribes (Navajo Nation, Jicarilla Apache, Ute Mountain Ute, and Southern Utes) need to be in agreement on this. New Mexico will incorporate its comments and get the document to the Tribes. Alves will confirm that the current draft is up-to-date.

Lake Nighthorse non-native fish management and stocking policy:

- Jim White presented a PowerPoint. He discussed the need to balance sport fish and native fish concerns. CDOW is holding off on their lake management plan to solicit input from BC before moving ahead.
- Lake Nighthorse provides suitable habitat for warm-water fishes. White asked how white sucker got into the lake. He suggested that these fish came up from the lake into the inlet channel and maybe came from river. Larval fish and fry might be coming up from the Animas (through the screens of the pumping plant) but it is not possible for adult or sub-adult fish. There was a pond filled with river water that was used over 4 years during construction before screening was in place. This could have been the source of fish in the lake. Larvae and eggs could have moved up from the Animas at any time because they could pass through the screen.
- Colorado would follow the non-native fish stocking procedure that is adopted by the States and Tribes.
- White discussed the risk of illegal introductions of warm-water fish. Who would be responsible for potential small-mouth bass introductions into the Animas? It is important to think in a preventative rather than strictly reactive fashion regarding non-native fish introductions. CDOW will incorporate boat inspections to limit some introductions. What can be done about the current white sucker problem? Biological control with tiger muskie is one option CDOW is pursuing. Some members of the BC asked about a rotenone treatment to put the reservoir back to square one. To determine how to deal with this issue, the source of white sucker needs to be found. Was this a one-time problem or is there an annual source of these fish into the reservoir? Escapement from the reservoir is something that will certainly occur into the future (by some means).

Data integration, online database, and 2011 integration analysis:

- The sub-group formed yesterday will prioritize questions and analyses to include in an integration analyses, including analyses Durst has done in the past. In lieu of new tasks, Durst can proceed with analyses he has done in the past focusing on integration (especially T&E PIT tag database).
- McKinstry presented information on an online database with real-time analysis capabilities. He will look into getting additional details on cost and complexities.
- Critical questions remain of what do we need the database to do? Is the system we have sufficient?

Remote detection with PIT tag antennas:

- McKinstry coordinated with Bio-Mark to develop a test of this system. Anchored remote PIT tag readers have been used in cobble systems but the sediment in a sand dominated system will present problems. Reader range is 2.5 to 3 feet, so it will still be effective if it is buried by some sediment. PNM or Hogback might be a reasonable location for this kind of system. A test of this system would cost \$20,000 but a fully functional system would cost \$126,000. Capital funds could cover these costs.
- McKinstry also detailed the results of a floating antenna system. He detected 25 tags in one secondary channel. PIT tag data included a GPS and date stamp. The floating antenna could be placed at the mouth of some tributaries or possibly above the waterfall. This system cost \$40,000. Funding for this system would need to come from sources outside capital funds.

- The CC asked McKinstry to get the BC's recommendation on this remote technology. Holden recommended moving forward with this concept; Propst seconded, and was approved unanimously.

Upcoming meetings:

- 13-14 December 2010 meeting will be in Durango at the Public Lands Center. The meeting will start at 1pm on the 13th and run until 3pm on the 14th. There is the possibility of touring the Lake Nighthorse facility after the meeting adjourns on the 14th. Agenda items should include: Long Range Plan and BC priorities, Conservation Action Plan, Largemouth bass virus update from Dexter, Yellow Jacket Canyon, monitoring protocols, non-native fish workshop, remote PIT tag reader, USGS online database, habitat workshop in 2011, and National Park Service involvement in the Lake Powell SOW.
- 24-25 February 2011 meeting will be in Farmington to discuss preliminary results from 2010. Plan for meeting from 8am to 5pm both days. The Peer Reviewers should be present at this meeting. Dates for the May meeting can be discussed at this meeting.

BIOLOGY COMMITTEE ACTION ITEM LOG						
(Updated November 23, 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		Pls to Program Office	Annually by June 30		
9	T&E Species Data		BC to Program Office	Annually by		

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(Updated November 23, 2010)						
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	2/2011 – provide update and extend as needed	ongoing	

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Item No.*	Action Item	Meeting/Origination Date	Responsible Party(s)	Due Date	Revised Date	Date Completed
16	Provide specifics of selenium sampling procedures and analysis – Sampling completed as of 11/17/10, but still need to analyze samples	1/26/09	BIA/FWS	2/18/2009	on going	
17	Develop a detailed outline for San Juan River Recovery Program case history manuscript	11-5-08	Propst/Miller			On hold
18	Remote PIT tag reader white-paper	BC 13 may 2009	McKinstry			11/10/10
19	Non-native fish stocking procedure to States and Tribes	11/5/09	BC provide recommendations to States	12/1/09	ongoing	
20	Pursue effects study on Hg/pikeminnow with other groups/programs	1/14/10	Program Office lead	ongoing		
21	PIT tag protocol SOP	1/14/10	Davis/Furr	2/17/10	5/14/10	8/1/10
22	Blank database structure for data integration	1/13/10	Durst	3/23/10	2/24/11	

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Item No.*	Action Item	Meeting/Origination Date	Responsible Party(s)	Due Date	Revised Date	Date Completed
23	Compile list of references and literature available at Program Office - post list on website and send an email reminder to BC, consider periodically updating	1/13/10	Program Office	3/23/10	12/13/10	
24	Discussion of what is the appropriate number of fish to stock	3/23/10	BC	ongoing		
25	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	12/13/10	
26	Evaluate stocking locations upstream of Animas confluence	3/24/10	Davis, Furr	6/30/10	12/31/10	
27	Archive completed items from Action Item Log to San Juan website	5/10/10	Durst	8/2010		8/10
28	Develop a process to distribute archived documents – just use phone or email	5/10/10	PO	8/2010		8/10
29	Create a list of archived documents to determine what is available and what is missing – same as previous #23	5/10/10	PO	8/2010		8/10
30	Sufficient Progress Report	5/10/10	PO	6/2010	ongoing	

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31	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	2/24/10	
32	Southern Ute funding of Population Model	5/10/10	Miller	11/2010	ongoing	
33	Work with I&E Coordinator to determine feasibility of brochures and signs	11/10/10	PO	2/24/11		
34	Develop species specific catch curves using adult monitoring dataset	11/10/10	Durst and Ryden	2/24/11		
35	Draft SOW for population model	11/10/10	Miller and Lamarra	2/24/11		
36	What does Dexter need from the BC in terms of a recommendation for the 2010 pikeminnow stocking class	11/10/10	Davis	12/13/10		
37	Prioritized integration analysis	11/10/10	Integration sub-group	1/31/11		
38	Tom Fresques presentation of Yellow Jacket Canton to BC	11/10/10	Gustina	12/13/10		
39	Additional details of USGS online database	11/10/10	McKinstry	12/13/10		

BIOLOGY COMMITTEE ACTION ITEM LOG						
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Item No.*	Action Item	Meeting/Origination Date	Responsible Party(s)	Due Date	Revised Date	Date Completed
40	Pros and cons of stocking 3,000 age-2 and 300,000 age-1 pikeminnow in addition to other stocking in 2011	11/10/10	BC	12/13/10		

* 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