

**San Juan River Basin
Recovery Implementation Program
Biology Committee
September 15, 2003
Conference Call Summary**

Biology Committee Members on the Call:

Bill Miller, Chairman
Ron Bliesner
Jim Brooks
Paul Holden
Vince LaMarra
Chuck McAda
Dave Propst
Tom Wesche

Representing:

Southern Ute Indian Tribe
U.S. Bureau of Indian Affairs
U.S. Fish And Wildlife Service – Region 2
Jicarilla Apache Nation
Navajo Nation
U.S. Fish And Wildlife Service – Region 6
State of New Mexico
Water Development Interests

Others on the Call:

Mike Buntjer
Jason Davis
Bob Krakow
Steve McCall
Pat Page, Hydrology Committee Chair
Steve Platania
John Reber
Dale Ryden
Melissa Trammell
Brent Uilenberg
John Whipple
Shirley Mondy, Program Coordinator

U.S. Fish And Wildlife Service – Region 2
U.S. Fish And Wildlife Service – Region 2
U.S. Bureau of Indian Affairs
U.S. Bureau of Reclamation
U.S. Bureau of Reclamation
University of New Mexico
U.S. National Park Service
U.S. Fish And Wildlife Service – Region 6
U.S. National Park Service NPS
U.S. Bureau of Reclamation
State of New Mexico

Bill Miller welcomed everyone to the Biology Committee Conference Call. The agenda was modified to add a discussion about the recent flood flows on the San Juan.

Coordination Committee August 26, 2003 Meeting Update:

Bill Miller reviewed the discussion of the August 26, 2003 Coordination Committee meeting.

- The Trophic Relationships and Population Model scopes of work were approved as placeholders. If the Biology Committee approves them, they will not have to go back to the Coordination Committee for further review. The dollar amounts for both of these scopes of work were included in the budget that was approved for FY04.

- There were questions on the costs of the Service - Region 6 proposals (Adult Monitoring and Razorback Sucker Monitoring). The Coordination Committee would like a written statement on why the costs increased on the proposals. Chuck McAda explained that the costs increased because the Grand Junction reviewed their actual costs and revised the scope to accurately reflect the changes.
- Dave Propst has adjusted the Secondary Channel Scope of Work budget for Fiscal Year 04 to handle sorting fish by habitat. The Biology Committee discussed the pros and cons of sampling every backwater. Dave Propst said that he has been sampling them all because there have been so few in the river. Are there ways to maintain the intent of the habitat sampling without doing sampling all of the backwaters? The Monitoring Protocol says that sampling should be done in proportion to what you see in the river. This question should be reviewed during the integration. There was a clarification from Dave Propst that they changed the sampling for two years but will collect by habitat this fall.
- Cloud seeding – There were questions on how the cloud seeding topic came up before the Coordination Committee and then the Hydrology Committee. Bill Miller explained that the Coordination Committee tasked the Hydrology Committee with looking at finding alternative sources of water for the endangered fish. Cloud seeding was one of those options.

Currently, there is a cloud seeding program in Durango. If the Hydrology Committee thought that it was a good idea, the Program would have to act quickly to be added to the existing cloud seeding effort. Part of the task from Tom Pitts is to look at a whole array of options – cloud seeding, and others.

- Rearing larger size pikeminnow – Dale Ryden sent out a questionnaire to the hatchery folks about the pros and cons of growing of larger pikeminnow. He is waiting for a response. When he receives one, he will forward it to the Biology Committee for review. The questionnaire that Dale sent was forwarded to the Committee by email.

Integration schedule

Bill Miller is currently reformatting New Mexico's data and hopes to be finished this week. There is a mid-October meeting (15th-16th) planned for Vince LaMarra, Ron Bliesner and Bill Miller to be held in Logan. Dale Ryden is unable to attend at that time due to his fall monitoring trip. The meeting will proceed without Dale and will work on the statistics. It is planned from noon on the first day until 3 on the second day.

The next ***full Integration meeting will be on November 12-13 in Albuquerque*** and the FWS-New Mexico Ecological Services Office (2105 Osuna NE). It will begin at 9 am on the 12th and will end by noon on the 13th. The integration team hopes to have a fairly detailed outline distributed before the meeting. It is anticipated that something will be distributed on what the data is showing as well. The Draft Integration Report is targeted for completion by mid December.

Other upcoming information

Keith Gido and Dave Propst are available to give an update on the trophic study. It will be approximately 1/2 hour presentation, 1/2 hour for question and answer.

There may be a meeting scheduled in mid-January to look at the population model. The Committee could also review the draft integration report at that time. It was decided to meet January **27-28, 2004 in Farmington**. The meeting will start at 8 am on the 27th and will end at 3 pm on the 28th.

The *winter Biology Committee meeting is scheduled for February 24-25 in Farmington*. The meeting will begin at 8 am on the 24th and will end at 3 pm on the 25th.

Treatment of Hidden Pond

There are several options for treating Hidden Pond now that they are dry. Mechanical removal appears to be a better option than chemical removal. Dave Propst's colleagues suggest that if it dries out completely, the neonates will not survive. Fences need to be put up after everything has had time to move out. They suggested using 24" material and putting it 12" in the ground. Dale Ryden is worried about the primary productivity if water isn't put in this fall. The productivity should be ok if the bottom isn't scraped. The pond could also be fertilized. It would be best for the available labor to install the fence in late November. ***Dave Propst will check about having someone from New Mexico Game and Fish Department going out to take a look at that time to see if there are any salamanders there.***

Propagation

Chuck McAda indicated that Manual Ulibarri from the Dexter National Fish Hatchery and Technology Center has approximately 1000 – 2-3" YOY razorback suckers from Lake Mohave that will be available this fall. Chuck would like to put them in the ponds this fall. There are several options for the fish. They could be split into the two Avocet ponds or the Hotchkiss National Fish Hatchery also has ponds available for raising razorback suckers. They indicated that they would spend their own money to raise the fish and take care of them. Chuck and Dale Ryden didn't know if there were any disease issues. The ponds would be a nursery pond unless we wanted to use them differently. The Program could use the ponds to help raise fish to put in all of the nursery ponds. It has never been a problem getting larvae; it is getting the larger fish that becomes a problem. The site manager is still firming up water rights, but is currently pursuing it. They do not have enough ponds to cover our entire need for additional pond space, but it is a way to help. The water temperature will be a little cooler which may mean the fish will have to be stocked at a lower density. The Hotchkiss National Fish Hatchery is not asking for money from the Program. The Biology Committee thinks it is worth a try to stock the fish at Hotchkiss.

Maintenance flows

The Coordination Committee has asked the Biology Committee to determine what flows would maintain the listed fish, not recover them? They also want to know what a maintenance flow would mean to the recovery of the fish. It was decided to start with the discussion points from last year's winter flow language that was never utilized. This allowed a minimum winter flow of 350 cfs in the critical habitat.

Ron Bliesner indicated that if Reclamation releases 250 cfs out of the dam, it probably won't go below 400 cfs in the critical habitat. John Whipple suggested a change the dam release to 250 cfs or whatever the inflow is (whichever is less). So, there is a chance that releases could go below out of the dam. Should it be eight weeks at not lower than 400 cfs in the critical habitat and the rest of the time would be 500 cfs? The record indicates that there have never been consecutive weeks at below 400 cfs. The record indicates there have been consecutive days, but not whole months. So to go below that is very different than the record indicates. Looking at last year, releasing 350 from the dam, they were 650 in the critical habitat.

What do we recommend for next summer? For the shortage sharing in 2003, the Biology Committee said the flows could go down to 250 cfs in the critical habitat using the three gauge rule. There were 5 days total that dropped below 300 cfs; 16 days below 350 cfs; and right now, the flows are at 370 cfs in the critical habitat. Pre dam, there were many days below 400 cfs in the summer months. For September, 8% of the years had greater than 25 days less than 350 cfs.

What effect did the lower flows have on the fish? From the small bodied monitoring, there is a greater survival of non-natives (red shiners, fat head minnow, and carp). Was it due to the lack of spring peak or just low flows? A big spring peak usually decreases the population for a short while, but the non-natives rebound pretty fast if they have low flows. We don't know how much of an effect the presence of these non-natives has on the listed species.

The stocked razorbacks don't get transported as far downstream. Lower flows pack more, larger bodied fish in a smaller area. This could be a stressor for the fish. What is effect of higher temperatures? The lower the flows, the warmer it is higher up the river. Do we have any information to suggest that flows in the 300 – 350 cfs range have an effect on native fish? The Committee really hasn't analyzed the data yet. Utah was doing sampling before the flood this year. They were doing seining, so hopefully they have a data point at the end of the low flow that will help us out with the effects of lower flows on the fish.

John Whipple wanted to clarify what the question was that came from the Coordination Committee. He indicated that Reclamation is projecting that Navajo Reservoir will be out of active storage at the end of 2003. No carryover storage means that everyone will be completely dependent on inflow to meet all of the water demands (irrigation, fish and storage). Watershed conditions are so dry that it is highly likely that runoff would only be 70-80% of average, even if we had average snowfall. Can we look at maintenance flows vs. recovery flows (go below the 500 cfs in the critical habitat)? What would be the effect of providing maintenance flows for the fish? Would it delay recovery for one year? Two years? Several years?

Ron Bliesner indicated that there is a 20% probability of a shortage (less than 500 cfs in the habitat). There is a 10% probability that we would have a 25 % shortage (375 cfs). There is a 5% probability that we would have a 50% shortage. There is also a 20 % probability that the reservoir would fill and we would have a spring release. Winter flow – Ron thinks that we shouldn't change what was developed last year (350-400 cfs in the habitat).

Do we have any biological information that says we should do anything different? The Biology Committee doesn't have much on the razorback sucker or the Colorado pikeminnow.

Researchers have seen lower numbers of native suckers in the seining, and higher numbers of carp. Dave Propst says there is a strong correlation between non-native fish and lower flows. There is a negative correlation between natives and lower flows in secondary channels. The correlation also relates to the primary channel.

There is a negative biological evidence for summer flows below 500 cfs. Do we have any water temperature data that shows a lethal limit for the endangered fish? Dave Propst indicated a midday temperature of 24-25 degrees Celsius in the lower flows. It is normally in the 22-23 degree range. There was a report early on that indicates that the fish were still growing at temperatures of 30 degrees Celsius.

Tom Wesche doesn't see a biological reason why to go (or not to go) to 400 cfs or 350 cfs or 250 cfs. We are using only hydrological data. It would be good to come up with habitat data or water temperature to tie the decision too. What happens to fish passage when flows get below 350 cfs? Will riffles become impassable for adult fish? Dale Ryden saw the stripers in the 250 cfs range. Researchers had to push the boats and the fish were crowded into available habitat area. The flow was 206 cfs last week at Hogback, which would have made it impassable for fish. The lower flows may delay reproduction which would result in more than one year delay in recovery because there is also a loss of recruitment.

The Coordination Committee is looking for some figure that could be used to help maintain the fish in the river at a lower level than what the flow recommendations suggest. Dale Ryden doesn't like getting close to 300 cfs because of crowding of fish, clearer water (avian predation), and fish passage would be limited. These are the observations that need to be added into the memo.

The Biology Committee needs to ensure that this memo would only be for the extreme condition this year and we don't want to see it become standard flow recommendations. What is the maximum time we would deal with 250 cfs – a week, a month, an hour? The fish can handle very low flows for very short periods of time. There were three days in 2003 below 250 cfs at Bluff, one day in 2002, and several times pre-dam that it went below 250 cfs, but not for many days. In July, 11% of years have flows less than 300 cfs. The memo could be written to show that flows can be below 250 x days, below 350 x days, etc. In order to save water, we could have the base flow in the critical habitat set at 400 cfs, and then take shortage from the 400 cfs, and then say no days lower than 250 cfs. Is there a way to say that the water we save would be used for fish flows later? Ron Bliesner said the model isn't set up that way. Can the water we save be used for a spring release and not by irrigators?

Are the fish taking more of a shortage than anyone else? There is a possibility that the base flow for the fish could be reduced to 400 cfs and everyone else would get their full allotment, but if the memo is written like suggested earlier, the fish would also have a minimum flow and no one else would. If the fish start at 400 cfs and nobody is shorted, would the 500 cfs be reinstated? The memo could state that if the 900,000 af storage requirement is met at the end of July (which meets all the demands of the irrigators), then the flows would revert back to 500 cfs in the

critical habitat. This could mean that the fish are shorted and no one else is or the irrigators are shorted a tremendous amount and the fish can only go down to a certain amount.

Ron Bliesner will take develop the hydrology part of the memo and Bill Miller will add in the biology aspect (recruitment, crowding, disease, predation, water temperature) and then will get it back out to Biology Committee for review. Ron will complete his portion by September 17th; Bill will add his portion and then will circulate the draft on September 18th. The Biology Committee will need to provide feedback to Bill by September 26th. The memo will be finalized and sent to the Coordination Committee on September 26th.