

April 24, 2002

**San Juan River Basin
Recovery Implementation Program
Hydrology Committee
January 15, 2002
Conference Call Summary**



Members/Alternates Present:

Ray Alvarado
Ron Bliesner
Rick Cox
Steve Cullinan
Dave Frick
Steven Harris
Errol Jensen, Chairman
Randy Kirkpatrick
John Leeper
Bill Miller
Pat Page
John Simons
Pat Turney
Brian Westfall
John Whipple

Others present:

Shirley Mondy, Program Coordinator
Marilyn Greenberg, Program Assistant
Jason John
Dave King

Representing:

State of Colorado
U.S. Bureau of Indian Affairs
Water Development Interests
U.S. Fish and Wildlife Service
Jicarilla Apache Nation
Water Development Interests
U.S. Bureau of Reclamation
Water Development Interests
Navajo Nation
Southern Ute Indian Tribe
U.S. Bureau of Reclamation
U.S. Bureau of Reclamation
State of New Mexico
U.S. Bureau of Indian Affairs
State of New Mexico

Representing:

U.S. Fish and Wildlife Service
U.S. Fish and Wildlife Service
Navajo Nation
U.S. Bureau of Reclamation

Welcome and Introductions by Pat Page and Errol Jensen.

Review of Agenda Items

There were requests to add discussion of the September 26th Draft Meeting Summary and the Long Range Plan to the agenda. The agenda was approved as amended.

Proposal to have Pat Page replace Errol Jensen as Hydrology Committee Chairman

The Bureau of Reclamation's recommendation to have Pat Page replace Errol Jensen as the Committee Chairman was moved, seconded, and approved. The Hydrology Committee thanked Errol for his leadership and efforts to date.

Discussion of the September 26, 2001 Draft Meeting Summary

Shirley Mondy stated that there were many comments on the September meeting summary, with extensive comments from some people. FWS proposed sending the most current draft out again for review for technical accuracy and adequacy. It was suggested that alternate language and editorial rewrites were not necessary unless the written version was inaccurate. It was suggested that more edits were needed to make sense of the discussion. It was agreed to send the summary to Dave King for clarification and technical editing before it is sent out again to the rest of the Committee. ***John Whipple will fax his original comments to Dave King. FWS will fax the most current summary to Dave King. FWS will work with Dave to get an updated summary out to the Committee.***

Discussion of the November 27, 2001 Hydrology Committee Draft Meeting Summary, correction and approval

Approved as amended. Final version will be sent out to Committee members when revisions have been completed.

Review of Ongoing and Outstanding Action Items

(Note: Action Items Shown Below Correspond to the New Numbering System Set Up to Track AI Status - see Attached Table)

1. All comments received to date have been incorporated into the model documentation. Once John Simons reviews his portion, the model documentation will be posted on the Model website.
2. The letter to the water districts has been sent, including copies to the Hydrology Committee members.
3. Errol Jensen will get a draft Model Progress Report/Summary out to the Hydrology Committee members.
21. The 2002 meeting and conference call dates were set on November 27, 2001.
22. The report on the Navajo Reservoir Operations Low Flow Test is not complete. It will be sent out and/or linked to the San Juan website when it is complete.
24. Reclamation will extend the Arizona and Utah historic irrigated acreage data back to 1929 as needed for the model.
25. The Hydrology Committee agreed that it was appropriate to move forward with the model as proposed at the November 27th meeting.
26. Ray Alvarado will talk with Shirley Mondy regarding irrigated acreage and crop mix prior to putting Colorado's disaggregation study, for both hydrologic inflows and diversions, on the listserve.

27. Dave King will prepare a concise report from the technical subcommittee for the Hydrology Committee to review once he receives comments from New Mexico.

28. Dave King is waiting for comments from Ron Bliesner in order to complete the consolidation of comments from the Hydrology Committee and come up with a reasonable approach for diversion disaggregation. It will be sent out on the listserv when complete.

29. Information on incidental losses was discussed at this meeting. This item is complete.

32. Reclamation is tasked with tracking and managing the Hydrology Committee's schedule and budget. Pat Page and Dave King will work together to send out a monthly status report. The report will also be available on the Model website. Current information was faxed to members for this meeting (Table 3).

32 & 42. A percent complete and percent expended table will be provided by Reclamation and Keller-Bliesner and available for a budget and schedule review at the March 26th meeting. (See also #32 above.)

33. New Mexico will need to provide non-irrigated acreage information to Reclamation in March in order for Reclamation to complete the model work in September. New Mexico could not commit to doing so (could only get started in March).

36. The Hydrology Committee Model Disclaimer that John Whipple was referring to was the June 14, 2001 version approved at the June 19, 2001 Coordination Committee meeting. Shirley Mondy will mail it out on the listserv.

38. Many comments regarding the September 26th Draft Meeting Summary have been received. The summary will be sent to Dave King for clarification and technical editing before it is sent out again to the rest of the Committee. John Whipple will fax his original comments to Dave King. FWS will fax the most current summary to Dave King. Then FWS will work with Dave to get an updated summary out to the Committee. 39. A Long Term Hydrology Committee Budget Proposal was requested by the Coordination Committee. Please provide your comments to Errol Jensen. Errol will put the long term budget into a format that is compatible with the work plan and submit it to Shirley Mondy to send out to the Hydrology Committee for comment. The gaging comments can be included. They can be taken off later if the Committee decides to not include that study/proposal in the budget. (See #19)

Added Item:

40. The Hydrology Committee would like to quantify the benefits of continuing to fund USGS for additional gage readings on the San Juan beyond 2002. This could be done by determining whether information from additional readings affects the model decision making, beyond what would be decided based on the normal readings.

Budget and Progress Report

Looking at the original Table 3 and the current 1/9/02 table (attached), it appears that some tasks have slipped. There were concerns about the possible impacts due to targets that have been missed. **Dave King will review the targets and address impacts.** There was a question on the current Table 3, item #15, which shows zero percent complete, but shows that most of the money has been spent. It was clarified that item #15 shows that the money has been obligated, not spent. There was a request to include information (schedule and budget impacts) in addition to the amount spent and obligated. **Dave King and Pat Page will include more detail in the progress reports.**

There were also questions about the January 11, 2002 Model Draft Plan of Approach, page 6, item #3. It was explained that correction of possible gage errors was discussed at the Durango

September 25th technical subcommittee meeting, and presented at the September 26th Hydrology Committee meeting. At that time it was decided to not pursue identification of gage errors any further. Keller-Bliesner could not sufficiently and accurately tie errors to a specific gage, so it could not be corrected without spending a lot more money and effort on the task. The numbers were relatively small per each gage. During the September 26th meeting, the Hydrology Committee also suggested that this issue be revisited after the new model is available.

It was also noted that it looks like 11 percent of the money has been spent and 25 percent of FY 02 has elapsed. Reclamation stated that people will be putting in more time from here on out. Dave King will be free and clear for SJRIP for the rest of the year, and also has a graduate student assistant. John Simons will be more available also. **The Hydrology Committee would like a report at the March 26th meeting so that if that money cannot be used, the Hydrology Committee can use it elsewhere.** The Committee was reminded that unused funds cannot be carried over to the next year.

Task H: Verification of what could and could not be done in RiverWare, such as water rights products and functionality, was done in the summer of 2001. The Hydrology Committee agreed that water rights would not be done in RiverWare (November 27, 2001). Data from Colorado can be inherited from Colorado's model. Task H can be shown as complete. **The Hydrology Committee agreed to include a statement in the model documentation about what has been decided regarding water rights. Dave King and Reclamation will develop this statement.**

Cooperative Agreement between Reclamation and Keller-Bliesner Engineering.

The final cooperative agreement has not been received back from the Bureau of Reclamation Regional Office yet. A \$60,000 agreement for Keller-Bliesner was developed to work on methodologies for dealing with disaggregation, incidental losses, and off-stream depletions. **A copy of the final cooperative agreement, with the Scope of Work, will be sent to Shirley and then out to the Committee.**

Disaggregation Approach

A discussion of the disaggregation options that are presented in Keller-Bliesner's "Draft Plan of Approach" document was held. The Hydrology Committee basically concurred with the hydrology disaggregation methods. Colorado requested that stations that are proposed to be used as index gages be discussed with the Committee.

New Mexico expressed reservations regarding disaggregation of daily depletions, the effect of rainfall and other anomalies upon operations, and the effect of daily computations upon return flow availability. Ron Bliesner pointed out that we are not attempting to model irrigation systems, but to improve the knowledge of the water supply and demand so that better matched releases are made. Daily operations should be more detailed, but perhaps not more accurate.

The Committee requested additional time to review the proposals. **The Committee is requested to provide additional comments to Ron Bliesner or John Simons by January 29, 2002.**

Discussion on How Incidental Losses are Going to be Handled

Incidental losses are those depletions that are associated with man made depletions due to canal seepage, return flows, and other factors. The new decision model needs to treat incidental losses consistently with the natural flow model. The Second Generation model uses incidental losses of 10% in New Mexico and the Type I Study values in Colorado - which range from 5 - 17 percent.

Colorado's StateMod, which will be used to compute the new natural flows, does not presently use any incidental losses. Colorado essentially captures incidental losses in the gain-lose computations and efficiency estimates. However, incidental losses that should be used can be incorporated into their natural flow model. The same incidental losses should and would be used in the new decision model.

Keller-Bliesner recommends that incidental losses be included for newer projects such as NIIP. New Mexico will probably continue to use 10% for other New Mexico projects because they do not have consistent acreage irrigated from the whole period. NIIP incidental losses will be computed from available data.

Another loss, associated with sprinkler irrigation projects, is evaporation during water application. The present model includes sprinkler evaporation as a function of headgate diversion. Keller-Bliesner recommends that it be included as part of the incidental loss rate or the evapotranspiration rate. This is a more justifiable approach. The Hydrology Committee recommended that the following formula be used to calculate depletion requests:
Depletion Request = (Irrigated Area * ET rate) * (1 + Incidental Loss Rate + Sprinkler Evaporation Rate)

Offstream depletions

Offstream depletions are man-made depletions that occur on ungaged tributaries and cannot demand water out of the river. The states will determine where/what offstream depletions would be included. The decision model will include or exclude depletions consistent with the natural flow model. Include off stream depletions (approximately 5% of total depletions) in the reach losses, rather than account for them directly. New depletions would have to be assessed and their impact addressed and accounted for in the model. The consumptive irrigation requirement (CIR) would use what the states agree to. It was requested that this be clearly stated in the draft plan of approach.

Reclamation requested that Colorado extend their climate data back to 1929 using the data that was developed for the existing model. Currently, Colorado's climate data only goes back to 1970. There was a question about how to extrapolate the data back to 1929. Reclamation will submit something to Colorado and Ray Alvarado will look at it and get back with them.

Progress Report on Work Completed Since Last Progress Report

Discussed. See "Review of Ongoing Action Items" above.

Data needed to complete modeling work

New Mexico will provide irrigation acreage data for review in February, and will begin work on other data in March, 2002.

Review of New Action Items

40. The Hydrology Committee would like to quantify the benefits of continuing to fund USGS for additional gage readings on the San Juan beyond 2002. This could be done by determining whether information from additional readings affects model decision making, beyond what would be decided based on the normal readings.

41. The November 27, 2001 Hydrology Committee Draft Conference Call Summary was reviewed for corrections and approved as amended. The final version will be sent out to Committee members when the revisions have been completed.

42. Dave King will review the budget and progress report targets and address the impacts of missed targets. Dave King and Pat Page will include more detail, such as impacts, in the progress reports.

43. The Hydrology Committee agreed to include a statement in the model documentation about what has been decided regarding water rights. Dave King and Reclamation will develop the statement.

44. The Committee is requested to provide additional comments on Keller-Bliesner's 1/11/02 "Draft Plan of Approach" to Ron Bliesner or John Simons by 1/29/02.

Other

Long Range plan

The Committee asked what Pat's role will be on the Long Range Plan. It is anticipated that Pat will be working with Jim Brooks and the Biology Committee, but information is needed from Jim before work can begin.

The next meeting will be March 26th from 8:30 a.m. - 3 p.m., at Durango to accommodate the technical meeting on March 25th. *Pat Page and Shirley Mondy will determine the location.*

The Scope of Work for other items to be contracted for will be sent out from Pat before next meeting.