

Notes from Upper Rio Grande Basin Water Operations Review Interdisciplinary NEPA Team Meeting; June 10, 2004; 1:00 PM; Corps of Engineers, Albuquerque

In Attendance:

Neal Ackerly, Dos Rios/Corps	Dick Kreiner, Corps
Charles Braden, BIA	Bill Leibfried, SWCA/NMISC
Robert Browning, II, Corps	Colleen Logan, Weston/Corps
Deb Callahan, USBR	Paula Makar, USBR
Art Coykendall, USBR	Bob Mussetter, MEI/NMISC
Ellen Dietrich, SAIC/Corps	Claudia Oakes, SWCA/NMISC
Joseph Fluder, SWCA/NMISC	Garret Ross, USBR
Susan Goodan, SAIC/Corps	Gail Stockton, Corps
Rhea Graham, NMISC	Valda Terauds, USBR
Debbie Hathaway, SSPA/NMISC	Jack Veenhuis, USGS
Ernie Jahnke, Corps	Scott Waltemeyer, USGS
Conrad Keyes, Jr., Consultant to Corps	

- ❖ Gail Stockton chaired the meeting and requested that participants review the draft notes from the May meeting.
- ❖ Bob Mussetter presented a review of the Bank Energy Index and the Sediment Continuity Analysis that was completed by the River Sedimentation and Geomorphology Technical Team.
 - The evaluations were done to understand the factors with the greatest effect on the Rio Grande.
 - Hydrology
 - Sediment supply and transport
 - Local controls, including natural controls like bedrock and topography, and man-made controls such as jetty jacks and diversion structures.
 - The sediment continuity analysis quantifies the relationship between the ability of the river to move sediment and the amount of sediment available.
 - It estimates sediment transport capacity and sediment supply using flow duration curves for 5 locations on the Rio Grande. The analysis was not completed for the Rio Chama.
 - Two different transport equations were used because there is no standard equation that addresses both gravel bed and sand bed reaches. The Rio Grande is a gravel bed river above approximately Bernalillo and a sand bed below Bernalillo.
 - Estimates of aggradation and degradation were used to predict changes in riverbed elevations.
 - To describe recent conditions with the new operations of Jemez Dam, the team calculated the change to existing conditions and modified the historic data accordingly.
 - Results of the analysis showed that under all EIS action alternatives, sediment transport would be less than under existing conditions.
 - The Bank Energy Index (BEI) was developed to quantify the effect of hydrology on bank erosion at representative locations along the Rio Grande and Rio Chama.

- The tech team focused on bends in the rivers, quantifying energy of the flows but not considering streambank composition. They compared the energy at these bends across all of the EIS alternatives.
- The specific locations where bank energy was calculated were used to develop reach-averaged BEI numbers that are dimensionless. For example, if the BEI at a specific location was calculated to be greater than 1, then the energy at that location is greater than the reach average.
- The greatest differences in BEI when comparing the EIS alternatives occurred in the San Acacia Section (Reach 14) due to the operation of the Low Flow Conveyance Channel.
- Question: Were the significant changes in sediment transport compared to the No Action alternative due to model or data inaccuracy in Reach 14?
 - Answer: No, the differences were due to the operation of the LFCC changing the hydrology.
- Question: What was used as the basis of LFCC operations?
 - Answer: It was defined as URGWOM was run, with no diversions to the LFCC.
- ❖ Lt. Colonel Dana Hurst of the Corps of Engineers, Albuquerque District, presented Rhea Graham with a coin as a token of appreciation for her hard work as a Project Manager for the ISC over the past 4 years. Rhea has taken a position as director of water resources for the Pueblo of Sandia.
- ❖ Deadlines and status of analysis by technical teams
 - **All sections for Chapter 4, effects analysis, and technical reports are due by close of business on June 17.** On June 21, the Project Managers will review the submittals at that time and make decisions on how to fill in gaps if any exist. Tech team members submitting sections for the EIS were asked to use filenames that are descriptive of the section and include the date.
 - **The administrative record forms and copies of all references are also required to be submitted.**
 - The Preliminary Draft EIS will be distributed for internal agency review on August 2. For this version, the technical reports will be printed as they are submitted, without additional editing or formatting. However, **for the Draft EIS, tech teams must submit their charts and figures in Excel and their original GIS data so the formats can be made consistent.**
 - Rhea reported that Claudia Oakes will handle the day-to-day Project Management for URGWOPS and Rolf Schmidt-Peterson will most likely continue to represent the head of the ISC, Estevan Lopez, on the Executive Committee.
- ❖ Valda Terauds distributed a handout summarizing the current status of the decision support system rankings to evaluate the alternatives. Rhea commented that the Executive Committee, at its May meeting, was impressed with the DSS and will be interested and engaged in selecting the Proposed Action once all of the scoring based on the effects analyses is complete.
 - Valda pointed out that the current top-ranking alternative, with the current incomplete scoring, is B-3 for all parameters except meeting ecosystem needs. It should be stressed that this ranking is based on input received to date and it is likely that rankings will change as the teams continue to finalize their decision inputs.
 - The current alternatives rankings are based on the anticipated values for each parameter, but providing uncertainty data could generate more difference between the alternatives. Technical teams must provide an evaluation of the uncertainty of their analyses, some of which can be determined through the data quality evaluation that they have been asked to submit. For quantitative data, this can be provided through developing minimum, maximum, average, and standard deviation.

- The technical teams must consider how to incorporate and document the qualitative aspects of their effects analyses in the scoring for the effects of each alternative.
- There was considerable discussion on why the No Action alternative is ranked so highly at this point.
 - In the Riparian Technical Team evaluation, higher flows for overbank flooding are desirable.
 - Due to the way the No Action alternative was modeled in URGWOM without any diversion to the LFCC, while all action alternatives had some diversion to the LFCC, the action alternatives resulted in less overbank flooding in Reach 14, which is critical for its riparian habitat.
 - The No Action alternative actually includes up to 2,000 cfs of diversion into the LFCC, and technical teams should consider what effect these diversions would have when they conduct their analyses, even though the model output does not incorporate this option.
 - The team assumed that any conservation storage under the action alternatives would not be available to augment peak flows for the purpose of increasing overbank flooding for riparian habitat.
 - The Aquatic Systems Technical Team assumed that half of the median amount of conservation storage would be available each year to supplement low river flow in Reach 14.
 - The new MODFLO data may change URGWOM results in Reach 14, but may not change the relationship across the alternatives.
 - It was suggested that the team consider how the recent drought agreement was implemented to supplement flows as a way to understand how conservation storage might be used.
 - Other considerations include considering how mitigation measures would modify impacts of the action alternatives. This includes explaining how a change in the Heron waiver date can modify impacts. Rhea pointed out that the technical teams need to ensure that the alternatives are compared fairly and equally and that any variations be identified as mitigation measures. Teams should not adjust the operations and effects of one alternative without doing the same to all. The DSS can aid in selecting appropriate mitigation measures.
- ❖ Once the effects analyses have been completed, technical teams must complete the data quality forms by adding the new datasets that they derived during their analysis. Mark Horner will be contacting the team leaders to set up a time to ensure that the information about the original datasets that were used in analysis is complete, as well as adding information on derived datasets created for analysis.
- ❖ Tech team representatives at the meeting were asked to briefly summarize what they are working on and what data gaps they are filling.
 - Neal Ackerly reported that the Cultural Resources Technical Team will complete the DSS criteria and scoring, and is working to complete the effects analysis.
 - Joseph Fluder reported that the Water Quality Technical Team is finishing their Chapter 4 section and technical report.
 - Bill Leibfried reported that the Aquatic Systems Technical Team is missing information on the impacts to habitat in the overbank flooding areas. Other than that, they are completing their analysis and technical report.

- Claudia Oakes reported that the Riparian and Wetlands Technical Team is missing the riparian vegetation mapping from San Marcial to the powerline above Elephant Butte, but this should be complete within a week.
- The Water Operations Technical Team is up to date with their effects analysis and will complete their technical report.
- Robert Browning reported that the Land Use, Recreation, Agriculture, and Environmental Justice Technical Team has all the data and needs to complete the Chapter 4 sections and technical report.
- The Project Managers have scheduled a meeting next week with Chuck Braden of the BIA to review the sections on Indian Trust Assets and to request that they complete the scoring for the DSS. Tribes and Pueblos will receive advance copies of the Draft EIS to begin tribal consultation. The State Engineer plans to fill the tribal liaison position, so that person should be included in the tribal consultation meetings on the DEIS.
- ❖ Rhea thanked everyone for their hard work on this project and said that all agencies are stronger for having worked together on this URGWOM and URGWOPS effort.
- ❖ **The next meeting of the Interdisciplinary NEPA Team will be held on July 8 in the Corps conference room.**