

Notes from Upper Rio Grande Basin Water Operations Review Interdisciplinary NEPA Team Meeting; October 9, 2003; 1:00 PM; Corps of Engineers Conference Room, Albuquerque

In Attendance:

Neal Ackerly, Dos Rios Consultants/Corps
John Branstetter, USFWS
Robert Browning, II, Corps
Deb Callahan, USBR
Tim Darden
Ellen Dietrich, SAIC/Corps
Darrell Eidson, Corps
Susan Goodan, SAIC/Corps
Debbie Hathaway, SSPA/NMISC
Mark Horner, Corps
Ernie Jahnke, Corps
Jon Kehmeier, SWCA/NMISC
Conrad Keyes, Jr., Consultant to Corps
Bill Leibfried, SWCA/NMISC

Colleen Logan, Weston/Corps
Clay Mathers, Corps
Claudia Oakes, SWCA/NMISC
Jim O'Brien, Tetra Tech/Corps
Brian Ortiz, USFWS
Jesse Roach, Sandia National Labs
Michael Roedel, NMDGF
Tim Seaman, NMHPD
Gail Stockton, Corps
Valda Terauds, USBR
Vince Tidwell, Sandia National Labs
Nancy Umbreit, USBR
Jack Veenhuis, USGS
Scott Waltemeyer, USGS
Doug Wolf, Tetra Tech/Corps

- ❖ Gail Stockton chaired the meeting and requested that participants review the draft notes from the September meeting.
- ❖ Don Gallegos showed the results from the URGWOM Planning Model base run and one alternative. The Planning Model is running properly so all the preliminary alternatives should be done soon and the final alternatives should be selected within the next few weeks.
 - Claudia Oakes distributed sample graphs of aggregated base run data to demonstrate the types of data analyses that can be done for or by the tech teams.
 - Two alternatives are left to be run: one with waivers at Heron Reservoir and one with 10,000 cfs flows below Cochiti.
 - In the runs completed so far, the maximum amount of conservation water stored at Abiquiu was approximately 140,000 acre-feet.
 - The Biological Opinion (BO) for the silvery minnow was not modeled in any of the alternatives because it only applies to the first ten years and the entire 40-year modeling run cannot be adjusted to accommodate this.
 - **Question:** After the alternatives have been modeled, would it be possible to use the Planning Model to determine how the BO would affect the preferred alternative?
 - **Answer:** This could be run through a portion of the sequence. Another option is to look at the number of days that flows would meet the requirements of the BO under each alternative, which is available from current model outputs.

- Don displayed model outputs from preliminary Alternative B (dry option) for storage and outflows at each reservoir, as well as the flows in selected reaches and at some gages.
 - The channel capacity below Abiquiu (1800 cfs) was met about $\frac{3}{4}$ of the years between April and July.
 - He noted that a few adjustments to the base run might be necessary for the operation of the Low Flow Conveyance Channel.
- The Water Operations Tech Team will process the model outputs from the runs of each of the 13 preliminary action alternatives and select 4 to 5 final alternatives for analysis by the tech teams. The team will document why some alternatives are dropped.

➤ In preparation for impact analysis, **tech teams should use the sample URGWOM output that they received this week to facilitate a review of the status of the data they plan to use.**

- Data gaps could involve missing data or data of such poor quality that it should not be used.
- Some of the tech teams may need to obtain streambank erosion data from the Geomorphology Tech Team. If so, they should identify this as a data need.
- The 3 months to conduct the impact analyses is a short period of time to accomplish everything that must be done. For this reason, it is essential that tech teams are ready to begin analysis when the model data for the final action alternatives are provided. At the next team meeting, each tech team should discuss final data needs and ensure that all critical data are available for impact analysis. **If there are any critical data gaps, these should be identified immediately and conveyed to one of the Project Managers as soon as possible.**

❖ Mark Horner updated the group on the data quality forms provided by tech teams. Most have been submitted, with a few revisions made since the last ID NEPA Team meeting.

- The GIS Tech Team will complete their forms at their next meeting. They will also discuss how the information in all of the data quality forms will be organized and processed to make it available for all tech teams. This may include inputting the information in each field into a database.
- Most tech teams would like electronic copies of the data quality forms in their current format until a decision is made on how the information will be handled. **Mark offered to zip the forms from all teams and e-mail them to tech team members upon request.**
- Ellen Dietrich reported that a new FTP site has been set up for GIS and other large files that should be shared among tech teams. The site will be available for data files and interim products that are too large to put on Team Link. The Project Managers will determine the protocol and procedures for using this site. After that, **all tech teams will receive information on how to access the site.**

❖ Tech Team reports

- URGWOM Integration/Water Operations—Don Gallegos
 - The team will meet within the next few weeks (sooner than their regularly scheduled meeting) to review the model runs and select the final alternatives.
- Aquatic Systems—Bill Leibfried
 - The team met last Tuesday (10/7). They are preparing for impact analyses, using the sample URGWOM data, and have adequate data to do the work.
 - They are using the study plan to organize their technical report.
 - USBR will provide ecological statistical software to evaluate their analyses.

- The aquatic habitat model is ready for processing of the URGWOM and FLO-2D model outputs of the final alternatives.
- Cultural Resources—Neal Ackerly
 - The team has the reach-specific archaeological site data that they will use to generate average site densities per reach. This will be used to predict potential impacts to archaeological sites once the areas of impact are identified by FLO-2D.
 - The tech team will work with the Geomorphology Team to determine the potential for streambank erosion in the vicinity of sites. This is a data gap but the locations will not be known until the modeling runs have been completed.
 - No responses to requests for information from any of the pueblos have been received.
 - Ellen reported that the BIA has reviewed the digitized boundaries of the pueblos in the middle valley. As a result, a few corrections will be made. At that time, anyone who would like a copy of the coverage should contact Ellen.
- Land Use, Economics, Agriculture, Recreation, Environmental Justice—Robert Browning and Susan Goodan
 - It is difficult for the members of this team to meet because they are scattered across several states. However, they communicate by e-mail.
 - They obtained the census data necessary for evaluating impacts as they relate to environmental justice.
 - For the most part, the team is waiting for model outputs to proceed with analyses.
- Water Quality—Jon Kehmeier
 - All of the data has been entered into the database. The team has primarily been adjusting the water quality model in preparation for analysis.
 - The tech team may need information on streambank erosion from the Geomorphology team.
- Hydrology and Hydraulics—Nabil Shafike and Doug Wolf
 - The two models created by this team are ready to go: FLO-2D and the Groundwater/Surface Water Model for the San Acacia to Elephant Butte reach.
 - **Question:** Can FLO-2D provide the channel configuration in the middle valley to the Riparian Tech Team (Deb Callahan) so they can identify the streambanks and calibrate the vegetation mapping so it corresponds to the FLO-2D output? Having this information will help the team to evaluate the quality of the model output as compared to the vegetation mapping.
 - **Answer:** Doug and Jim O'Brien should be able to provide the spatial data from the cross-sections that they used to generate the grid. There are 400 cross-sections in 173 miles of river, so the resolution is fairly coarse, although some interpolation was done between the cross-sections. Deb will work with Doug to determine the best format and dataset for her needs.
- Riparian and Wetlands—Claudia Oakes
 - The team has been working on the analytical processing of the URGWOM output. Examples are shown on the handouts that Claudia distributed.
 - A data gap identified by the team is the lack of predicted areas of inundation in the riparian areas in the narrows at Elephant Butte. The FLO-2D grid does not extend into this area so this is a data gap that may not be filled.

- The team is interested in the area at the upper end of Elephant Butte Reservoir because they wanted to determine the effects of different alternatives on southwest willow flycatcher habitat.
- GIS—Clay Mathers
 - The main emphasis recently has been on the document management system, which is now ready for input. **All technical teams should submit reference documents to Clay for scanning.**
 - The team needs to discuss how much synthesis of the data quality matrix entries is needed and how the synthesis and organization of the information should be done.
 - The GIS workload is dependent on other technical teams for analysis and document presentation tasks. To plan ahead, the team will soon meet to develop a task list and assign priorities that will be shared with the Project Managers and other technical teams.
 - Clay attended a meeting with the Paso del Norte Watershed Council to discuss possible collaboration on data collection in the southern part of the basin planning area.
- Geomorphology, Sedimentation, River Mechanics—Darrell Eidson
 - The next team meeting is scheduled for October 27, 1:00-3:30 p.m., at the Corps.
 - Another USBR person may replace Robert Padilla as team leader. The decision has not been finalized.
 - The team would like to meet with those resource teams interested in obtaining information on streambank erosion to determine the locations of the areas of interest. They will use the locations of potential cultural resource impacts along streambanks to help them determine where to evaluate the erosion potential in detail.
- ❖ Valda Terauds gave a slide presentation to summarize one approach for organizing the results of the impacts analyses for each resource using resource evaluation matrices and a decision support process. The Project Managers have been seeking different ways to help the decision makers select a preferred alternative while ensuring that they document the process and choices used to get to the decision. With the complex mixture of quantitative and qualitative information from each technical team that will characterize the effects on each resource under each alternative, it is important to develop clear ways to summarize the impacts to help the decision makers make a reasonable decision, while enabling the public to understand their selection. The main points in Valda's presentation are summarized below.
 - The preferred alternative is not necessarily optimal for all criteria and all resources. It is ultimately based on value judgments by the decision makers (Executive Committee) and involves tradeoffs.
 - The decision support system is one way to establish a decision making framework using selected criteria. It moves the process from problem identification to alternatives development to impact evaluation to a decision matrix.
 - The decision matrix is developed using weights and preferences identified and documented by the decision makers. The outcome of the process is a ranking system that helps the decision makers to compare the overall effects of each alternative.
 - Data quality differences and the sources and types of uncertainty should be made known to the decision makers through a risk assessment process.
 - In order to develop the weights and preferences, the technical teams should identify significant or threshold variables (criteria) that would be affected under each alternative.
 - Effects and outcomes of each alternative should be defined by the probability of occurrence.

- To develop the resource evaluation matrix, each technical team should develop a single-issue matrix of effects based on indicators and technical criteria. The evaluation of the technical performance of the alternatives should be determined by each technical team, and the criteria and values assigned to weight the impacts would be assigned by the decision makers.



- Valda asked each **resource team to develop the criteria and complete the single-resource matrix**. Much of the information can be drawn mainly from their study plans, but the weights should be developed through discussions with the team. **Valda will post the matrix form on Team Link so the team leaders can download it for use at their next team meetings.**
- ❖ **The regularly scheduled November Interdisciplinary NEPA Team meeting will be replaced by the Upper Rio Grande Basin Water Operations Review Steering Committee meeting. ID NEPA Team members should plan to attend. It is scheduled for November 13 from 1:00 p.m. to 4:00 p.m. in the Corps' conference room.**