

# Notes from the URGWOPS Technical Team Working Meeting to Develop Plans of Study; November 9, 2000; 10:00 AM to 4:00 PM; Corps of Engineers, Albuquerque District Conference Room

## *In attendance:*

Jon Ambrose, NMSLO	Clay Mathers, Corps
Scott Anderholm, USGS	Tracy Matthews, NMISC
Karen E. Browne, NMED/SWQB	Lucy Moore, Facilitator
Lawrence Cata, San Juan Pueblo Environmental Department	Claudia Oakes, SWCA/NMISC
William DeRagon, Corps	Robert Padilla, Bureau of Reclamation
Ellen Dietrich, SAIC	Steve Piper, Bureau of Reclamation
Richard Fike, Corps	Gary Rutherford, Corps
Kevin Flanigan, NMISC	Nabil Shafike, NMISC
Hector Garcia, Bureau of Reclamation	Gail Stockton, Corps
Rhea Graham, NMISC	Carole Thomas, USGS
Conrad Keyes, Jr., EWRI of ASCE	Dick Thomas, Sandia Labs
Ron Kneebone, Corps	Leann Towne, Bureau of Reclamation
Bill Leibfried, SWCA/NMISC	Julie Tsatsaros, NMED/SWQB
Charles Lujan, San Juan Pueblo Environmental Department	Rae Van Hoven, NMSHTD
Julie Maitland, NMDA	Doug Wolf, Corps
Mike Marcus, SWCA/NMISC	Mark Yuska, URGWOM/Bureau of Reclamation

- ❖ In the morning, the technical teams met in their team groups to review and further develop their study plans.
- ❖ At lunch, Gail Stockton discussed some of the information that she learned at the NEPA Training Workshop attended by all three Project Managers.
  - The No Action alternative, otherwise known as the Future without Project, provides a way to document how the existing operation of Corps and Reclamation facilities in the basin. How the Corps and the Bureau of Reclamation work together has never been formally described before. Protocol for the Future without Project would be another alternative.
  - Gail distributed a handout that outlines a possible way to organize and describe the alternatives for the EIS. The alternatives could be built by starting with a relatively simple, single protocol, then increase in complexity by adding changes to other water operations.
  - It would also be possible to have individual water operations as separate alternatives.

- This will be discussed further by the ID NEPA Team, but it was intended to encourage technical team members to begin thinking about developing alternatives.
- ❖ In the afternoon, Lucy Moore facilitated the discussions and asked that each technical team representative present an overview of its study plan. She took notes on the study plans on flip charts that were saved. She also asked that, at the end of the presentation, each team state when their next team meeting is scheduled and who will make the presentation of the study plan to the Steering Committee on December 6.
- ❖ The Project Managers discussed the information that should be included in the study plans and the upcoming scheduled deadlines for technical teams to meet project milestones.
  - Study plans should include information on what existing data teams intend to use, what data must be collected, an indication of data quality, and a budget.
    - An evaluation of data quality is essential to be completed before technical teams finalize their determinations of what data must be collected and what modeling or other analysis will be conducted.
    - The basic objective of the Water Operations Review and EIS is to develop integrated water operations in the basin. Remember that the only water operations changes that will be evaluated are those within the existing authorities of the lead agencies. This is important to determine what criteria each technical team will use to evaluate the alternatives.
  - At the Las Cruces scoping meeting, people identified the need to address how agriculture will be affected. They were concerned that farming and ranching interests were not represented on this project. **The technical teams should consider how they would address agricultural issues and impacts.** The Project Managers are considering having a review of the project at different stages by an agricultural group.
  - All technical teams can recommend two different levels of analysis in their study plans and include the cost of implementing both options in their budgets. If data collection or modeling might be needed, these can be proposed. Teams should remember that the analysis they do should answer specific questions to evaluate the impacts of the alternatives.
  - Presenters at the Steering Committee meeting should be prepared to respond to questions on what they are proposing and how it relates to the EIS. The study plans should also state the value of the tasks being proposed.
  - Will all technical teams have access to study plans from the other technical teams? The Project managers will distribute them to all technical teams after the **final plans are submitted in December.**
  - Upcoming schedule for technical teams includes the following.
    - **12/1: Summary (1-2 pages) of study plan must be submitted** to the Project Managers by each technical team.
    - 12/6: Technical team representatives will present study plans to the Steering Committee, **Drafts of study plans, including proposed budgets, must be completed** by this date and brought to the meeting.
    - **12/6: Steering Committee meeting will be held at the Hyatt Hotel in Albuquerque at 3:00 p.m.** Be prepared to answer questions about the study plans. The Steering Committee will provide feedback to the Executive Committee who will also attend.

- **12/14:** The next **ID NEPA Team meeting** will include discussion of the draft plans of study that were presented to the Steering Committee.
- ➔ ▪ **1/11: The January ID NEPA Team** meeting will involve integrating the technical team study plans into an overall project study plan. Technical team members other than the team leader are welcome to attend.
- ❖ Highlights and discussion of the Technical Team study plans are summarized below.
  - Aquatic Systems Technical Team, Richard Fike
    - Study plan is about 2/3 complete. The team is using the designated geomorphic reaches to organize the analysis.
    - Principal issues:
      - Flow regime—dam releases, peak and base flows, timing and duration
      - Water surface elevations—altering aquatic habitat, duration, effects on spawning
      - Habitat fragmentation—dams, entrainment barriers, Low Flow Conveyance Channel
    - The team plans to coordinate with the Water Quality Technical Team to determine changes in water quality that would affect fish.
    - They will also coordinate with the Water Operations Technical Team to characterize habitat related to reservoir water levels. Identify habitat characteristics in reservoirs with NM Game and Fish.
    - Questions and answers:
      - Will you determine existing conditions first? Yes.
      - What hydraulic model will be used? The RMA2 model in SMS.
    - Next technical team meeting: 11/30, 9:00 a.m. to 12:00 noon, at the Corps.
    - Have not yet determined who will make the presentation to the Steering Committee.
  - Cultural Resources—Clay Mathers
    - Technical team leader will soon be changing.
    - Principal issues:
      - Site distribution and density, size, condition, and importance
    - Analysis will include:
      - Characterization of existing conditions will include determining the location of previous Rio Grande channels to see how that affects site distribution. GIS will be used to predict where the river channel will migrate in the future to identify sites that are threatened. Interaction with the Geomorphology Technical Team will be needed.
      - Timing of reservoir releases could affect cultural activities. Coordination with tribes and acequias will be important.
    - Questions and answers:
      - What site sizes will be used to determine the impacts on sites with the help of hydraulic modeling? What resolution or spatial scale will be needed? Usually

they will be considering either clusters of sites or the larger sites because they are considered to be more significant. Impacts to individual small sites will not be modeled.

- What is the degree of confidence in the site locations available in GIS? The degree of confidence relates to the period of data collection and the site type, which can be displayed through GIS.
  - The next team meeting has not yet been scheduled, nor has a representative been selected to present the study plan to the Steering Committee.
- Water Quality—Julie Tsatsaros
- Principal issues:
    - Historic and current reservoir and river water quality.
    - New Mexico and tribal water quality standards.
    - Cumulative effects of water operations on point and nonpoint source discharges and on irrigation diversions and discharges.
  - Analysis will consider:
    - Either modeling or qualitatively evaluating the effects on water quality for each alternative.
    - Identifying any increases in sediment transport that would affect turbidity, total dissolved solids, and nutrients. They will coordinate this with the Geomorphology Technical Team.
    - Diversion of flows into canals and the effects of changing reservoir and river water levels.
    - Coordinate with the Aquatic Systems Technical Team the evaluation of changes in reservoir release timing.
    - How increased flows would affect TMDLs for metals.
    - How increased water levels in reservoirs would affect biota, in coordination with the Aquatic Habitat Technical Team.
    - How withdrawals from the bottom of reservoirs affect dissolved oxygen levels.
    - How changes in velocity of flows upstream from reservoirs affect water quality.
  - Questions, answers, and other discussion:
    - How will the team obtain data from Colorado and Texas? They may need to have the Project Managers contact staff from the other states to obtain data.
    - Will the team use the 1996 New Mexico standards? They will use the new standards that were accepted October 12 by the NM Water Quality Control Commission, with some exceptions. They intend to use the most sensitive standards to evaluate the impacts of alternatives in each reach.
    - The team needs input from other technical teams to help them determine whether it makes sense to model (forecast) water quality or extrapolate future water quality from existing conditions and established trends.

- ◆ Leann Towne suggested that the team should recommend the best method of analysis because they are the experts in water quality. If they decide to conduct some modeling, they should include the costs in the study plan and an explanation of the consequences of not doing it.
- ◆ They could include two different approaches in the study plan, with and without modeling, and list the cost of the both efforts.
- The team has a similar concern about whether they should include some monitoring of water quality in order to fill in data gaps. Monitoring water quality downstream from the reservoirs can be expensive.
- Their next team meeting will be held on November 27, 1:00 p.m., at the USGS office in Albuquerque. They will select a representative to attend the Steering Committee meeting at that time.
- River Geomorphology, Sedimentation and Mechanics Technical Team—Robert Padilla
  - Principal issues:
    - How will changes to federal operations affect river geomorphology in the 17 designated reaches?
    - Indicators to be used include flow, sediment, bank erosion potential, and channel geometry.
  - Analysis will include:
    - Quantifying the threshold discharge or velocity that would affect bank stability.
    - Predicting geomorphology for the future without project condition, by either qualitative or quantitative means.
    - Determining the channel widths that would occur in response to changes in discharge. Also identifying other influences on the river channel.
    - Evaluating the sediment yield and sediment transport capacity for each reach. This would help other technical teams in their analyses.
  - Questions and answers:
    - In addition to bank erosion potential, will the team identify areas of potential levee failure? This should be addressed under either mitigation measures or cumulative impacts, and not part of the impact analysis of the alternatives.
    - Can you consider the middle Rio Grande proposed activities in the analysis if they are implemented before the EIS is completed? This would be at a more site-specific level than this EIS will address.
  - The next meeting is scheduled for November 27, 1:30-3:30 p.m., at the Bureau of Reclamation building. The Hydrology and Hydraulics Technical Team will meet with this technical team. Robert will make the presentation to the Steering Committee.
- Riparian and Wetlands Technical Team—William DeRagon
  - Primary issues are the effects on riparian vegetation, wetlands, wildlife, and threatened and endangered species, and special ecological areas of changes in:
    - Discharge timing and flow duration;

- Reservoir operations and levels;
  - Water operations on designated wildlife management objectives.
  - Analysis will include:
    - Qualitative evaluation of plant community health and vegetative recruitment.
    - Determination of changes to habitat correlated to use by wildlife.
    - Identification of the impacts to suitable habitat for wildlife, including nesting habitat for willow flycatchers, overwintering habitat for bald eagles, and other wildlife habitat.
    - Identify impacts to species of cultural significance, in coordination with the Cultural Values Technical Team.
    - The team will use the Flo-2D model with GIS overlays of vegetation to understand the effects on habitat from changes in velocity, flow duration, and discharge timing.
  - The team needs to know what type of reservoir modeling would be recommended and plans to work with the Aquatic Habitat and Water Quality Technical Teams to model and apply the results.
  - The next team meeting will be on November 20, 8:00 a.m., at the Bureau of Reclamation building. Art Coykendall will make the presentation to the Steering Committee.
- Land Use, Socioeconomics, and Environmental Justice Technical Team—Steve Piper
- Primary issues:
    - Irrigated agriculture and farm budgets;
    - Reservoir and river recreation use and benefits;
    - Municipal and industrial water supplies;
    - Fish and wildlife not associated with recreation, in coordination with the Aquatic Habitat and Riparian and Wetlands Technical Teams;
    - Environmental justice;
    - Flood control;
    - Hydropower.
  - Analysis will include:
    - How will changes in water deliveries affect agricultural economics and cropping patterns?
    - With the Recreation Technical Team, determine the regional impact to socioeconomics from changes in tourism due to changes in water operations.
    - Changes in population and number of businesses and regional impacts.
    - Correlation of impacts with the distribution of population and demographics.
    - Estimates of the cost of flood damages and local economic impacts.
    - Evaluation of the impacts to power generation from hydroelectric plants.

- Questions, answers, and discussion:
  - Analysis of hydropower should address the potential effects on other private hydro power plants. It would help if the fact sheets on each facility under study in the basin, developed by the Water Operations Technical Team, were made available to all of the technical teams. **Leann will make sure that the fact sheets are distributed by e-mail to the technical teams.**
- The next team meeting will be January 11, before the ID NEPA Team meeting, at the Corps building. Because the team members are not located near each other, they often communicate by e-mail. Rhea Graham asked that, if teams are meeting or communicating by e-mail, they tell the Project Manager assigned to them, and keep copies of correspondence.
- Steve Piper will make the presentation to the Steering Committee.

- ❖ General technical team discussions on information needed to develop and evaluate the alternatives in the EIS follows.
  - It would help technical teams to develop criteria for analysis if they knew what the life of the project is. For example, the ISC might require a 40-year project life because that is what is required in their water plans.
  - An important factor affecting criteria for analysis and the modeling by some of the support teams is the range of flows in the river to be modeled. If the Hydrology and Hydraulics Technical Team, for example, knows what discharges would be needed in each reach to provide data to technical teams, modeling could begin.
    - Gail Stockton recommended that technical teams include the evaluation of impacts in abnormal years, wet and dry.
    - The periods of recorded flow data for development of the Planning Model in URGWOM are under discussion.
    - URGWOM could generate flows and storage from the 1985-1999 period with additional inputs possibly collected by technical teams to determine the range of flows needed. For operations, releases may be limited to a maximum of 10,000 cfs.
  - The alternatives will be developed by the Interdisciplinary NEPA Team, with support from the URGWOM Integration/Water Operations Technical Team. This group should set the flow limits for evaluation of the alternatives.
  - It was agreed that each **technical team leader should attend the next Water Operations Technical Team meeting on November 30 at 1:00 p.m. at the Corps** to begin discussing the development of alternatives and the appropriate ranges of flows for impact analysis.
- ❖ **The next meeting of the Interdisciplinary NEPA Team will be held on December 14 at 1:00 p.m. at the Corps building in Albuquerque.**