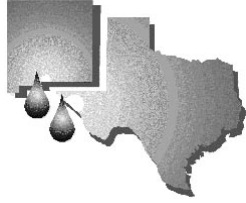


# New Mexico – Texas Water Commission



## *Public Entities in Partnership for Sustainable Water Resources*

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### **MEETING OF THE NEW MEXICO –TEXAS WATER COMMISSION**

**El Paso Water Utilities (EPWU)  
Public Service Board Room, Fourth Floor  
1154 Hawkins Blvd.  
El Paso, TX 79925  
Telephone: (915) 594-5681  
November 14, 2005  
8:30 A.M.**

Michael Fahy of EPWU welcomed everyone and chaired the meeting. A copy of the sign-in-sheet is attached as “**Exhibit A.**” Mike welcomed April Sanders and Lesley McWhirter from the Albuquerque office of the US Army Corps of Engineers (COE), along with Tammy Beeman of the El Paso office of the Rio Grande Compact Commission. Mike also introduced Bert Juarez, EPWU’s Chief Technical Officer. Those Commission members attending the meeting were as follows:

Karl Wood – NMSU-WRRI

Michael Fahy – EPWU

Tony Tarquin – UTEP

Gary Esslinger – EBID

Ari Michelsen-TAMU

Sue Padilla – Dona Ana County

#### **I. Review and Approval of Minutes from September 15, 2005 Commission Meeting (Commission Members)**

Mike asked if anyone had comments on the September 15, 2005 Commission meeting minutes. Mike mentioned that he had previously made a few minor, grammatical revisions at Ari’s request. Karl moved to accept the minutes as revised and Tony seconded the motion. The motion to approve the minutes as revised was passed and accepted unanimously by the Commission.

## **II. Introduction of the New Program Coordinator for the Paso del Norte Watershed Council (PdNWC) (Ari Michelsen, TAMU)**

Ari introduced Irene Tejada as the new Program Coordinator for the PdNWC. Ms. Tejada is also the Executive Secretary for the Paso del Norte Water Task Force (PdNWTf). She will be working approximately 5 to 10 hours per week for the PdNWC, and will be working from her PdNWTf office at UTEP/CERM as well as from her part-time office at TAMU.

## **III. Progress of the PdNWC and Update of the New Mexico 319 Grant Funding Proposal Submitted to the NM Dept. of Environment (Sue Watts, PdNWC Chair)**

Sue Watts announced that the proposal was submitted by the PdNWC to the New Mexico Department of Environment (NMED) by the due date of September 16, 2005. No response had been received to date from NMED. The members of the NM-TX Water Commission will be updated regarding the proposal review and selection status at the upcoming Commission meetings as determined at the September 15, 2005, Commission meeting at NMWRRI.

Sue announced that the annual luncheon meeting of the PdNWC was scheduled that day (11/14) at 11:30 at the Great American Land and Cattle Company in Vinton. All participants at the Commission meeting were invited.

## **IV. Report on EBID's End of 2005 Irrigation Season (Gary Esslinger, EBID)**

“**Exhibit B**” contains the Cropping Report and Diversion and Delivery data for EBID for the end of the 2005 Irrigation Season. Gary explained that this information must be submitted to the New Mexico Department of Agriculture each year. The information is then compiled into statewide and nationwide reports. Over the last four years EBID's irrigated acreage has averaged 78,000 acres. EBID noticed a large drop in irrigated acreage in 2003. A large part of this drop may be the result of the deterioration of older wells that were not needed over the past 23 years, due to an ample surface water supply. The high cost of \$ 25,000 to \$ 125,000 to rehabilitate a deteriorated well is a discouragement to returning an old well to service, except in the case of very high-value produce.

Gary related that the three major crops in EBID are cotton, pecans and alfalfa. The table in Exhibit C shows an average water use in EBID of 3.04 AF/A. However, this value may be underestimated for pecans due to ground water pumping. Gary also commented that the actual acreage in pecans in EBID may be closer to 23,000 acres, rather than the 19,000 acres shown in the table. He added that EBID's price of \$ 25.00 per AF for the fourth AF of surface water is considerable higher than the estimated cost of \$ 18.00 per AF to pump ground water. This adds to the likelihood that water consumption represented on the table is underestimated in terms of the real AF/A water demand, especially for pecans. As a result, EBID is revising its pricing structure to encourage more consumption of surface water versus ground water. EBID estimates that their program to enclose and to line selected canals is saving approximately 10,000 AFY.

## **V. Year 2006 Irrigation Season, Early Snowpack and Precipitation Forecast (Wayne Treers, USBR)**

Wayne Treers' comprehensive presentation is attached as "**Exhibit C**" and contains multiple slides comparing drought and runoff conditions and projections for the 2006 Irrigation Season allocation. The slides indicated that the Snow Water Equivalent for the watershed for the period from October 2004 through July 2005 represents one of the wettest periods in the last ten years. Flow at the San Marcial Gage during 2005 totaled nearly twice the 30-year average during the period of spring runoff, and peaked in late June. However, the fall of 2005 has been unusually warm for the region, which poses the question "Is the drought over?"

Wayne commented and showed graphics to indicate that unusually wet years often occur during periods of serious drought. Most of the staff at USBR are taking a "wait and see" approach before answering that question. The National Weather Forecast for November 2006 through January 2006 shows above normal temperatures and below normal precipitation. The NOAA Forecast for October 2005 through January 2006 shows no observable trend for the Rio Grande Project area. Several consecutive wet, high runoff years will be necessary to conclusively determine that the drought has ended.

With respect to conditions at Elephant Butte (EB) Reservoir, EB storage peaked at 561,000 AF in June 2005. Storage on November 14 equaled 362,600 AF, so the reservoir is still under Article 7 restrictions. Wayne expects these restrictions to be lifted by December 21 when storage should exceed 400,000 AF. The projected end of October credit water volume equaled 478,339 AF. Although USBR declared a full allocation in August 2005, EBID left approximately 139,000 AF in EB for the year, and EP# 1 left approximately 131,000 AF.

A full allocation is anticipated for the 2006 Irrigation Season if runoff equals 100% of normal for the year. For runoff equal to 50% of normal, the projected total Project allocation is 676,000 AF. Wayne anticipates that declaration of 50% of a full supply is likely by the end of February 2006.

Exhibit B also contains a graphic comparison of monthly total, cumulative drain flows for the La Mesa, Del Rio, East and Montoya Drains for 2005 compared to several prior years. This graph shows that the flows for 2005 were extremely low compared to prior selected years. The reasons for this condition that were provided by Ari and Gary Esslinger are that ground water levels in the Mesilla Valley are generally low now due to the drought, and the effect on the drain flows caused by the reduced irrigated acreage, also a consequence of the drought. They provided an estimate that approximately 20,000 acres in EBID was fallowed in 2005, compared to prior years.

## **VI. Report on Closure of Phase II, COE-Coordinated Database Project, and Update on Phase III; both COE and Water 2025 Projects (Zhuping Sheng, TAMU and Bobby Creel, NMWRI)**

This presentation is attached as "**Exhibit D**" which depicts the completion of Phase II, including a review of prior hydrologic models, development of the conceptual URGWOM model for the major river reaches of the Rio Grande Project, and improvements to the data portal linkage

between URGWOM and the Coordinated Database. This presentation also describes the work plan and schedule for Phase III of the Corps of Engineers (COE) Project.

Prior models, including MODFLOW for the Mesilla and Hueco Bolsons, BESTSM for the Rio Grande, and others were evaluated in general for their purpose, geographic extent, simulation periods, methodologies and other parameters. BESTSM and URGWOM were compared in detail as shown on one of the slides. Using the river reach from Caballo Dam to Leasburg Dam as an example, Zhuping demonstrated that diversions from the river constitute the single, most influential variable affecting surface and ground water interactions, as measured by drain flows and gains and losses from the river.

Gary remarked that a previously accepted limitation on using the URGWOM model, is the restriction from running the Operational Model in the Rio Grande Project area. Bobby clarified the position of the COE and PdNWC by conveying the need to develop the base model as a starting point, and the general requirement of accounting for flows, releases and deliveries, regardless of the purpose for using URGWOM. Gary also added that there are a total of 33 arroyos below Caballo Dam that affect the river and that currently none of these are monitored for their contribution to the flows in the river. The estimated average cost to instrument these is approximately \$ 3,000 each.

Phase III for the COE Project is scheduled to start in August 2005 and be completed by the end of September 2006. The defined scope of work items include compilation of water quality data, assessing data availability to expand the URGWOM model, developing the Riverware physical model, performing a training workshop, and providing technical assistance in developing the FLO-2D Model. April Sanders explained that the COE will continue to work with all of the watershed agencies to develop a better understanding of surface water-ground water interactions.

## **VII. Other Business -**

Woody Irving of USBR announced that the NEPA-Categorical Exclusion (CE) has been completed for the three Water 2025 Projects, and Conrad Keyes asked that the document be posted to the Web Page of the Commission. Gary explained that EBID has been waiting for delivery of the CE to start equipment purchase and installation, and anticipates that EBID will be able to catch up with the original project schedule by installing the gages and related equipment during the winter when their regular work load is slow. EBID has purchased new software developed by CH2M Hill to collect and report the flow and water quality data in a user-friendly manner for the both the EPWU and EBID Water 2025 Projects. Daniel B. Stephens & Associates has been hired to oversee Quality Control and Quality Assurance.

Zhuping and Bobby Creel related that they were working on compiling the mailing list for invitations to participate in the User Needs Assessment Survey. Methods to be used to distribute the survey will include e-mail, postal mail using post cards, and group demonstrations. Mike added that a good starting point would be the invitation list for the prior two GIS-Coordinated Database Workshops.

Mike distributed copies of the program (attached as **Exhibit "E "**) from the Multi-State Salinity Coalition (MSSC) describing the upcoming Summit in Albuquerque on December 8 and 9, and requesting sponsorship funds for the event. Both Mr. Archuleta and Mike Fahy will be making presentations, and Karl Wood will be announcing one of the keynote speakers.

### **VIII. Next Meeting/Location/Topics**

The next meeting will be held on January 19, 2006 at the Old Dona Ana County Courthouse. Topics mentioned for possible discussion included a summary report from EP# 1 on their 2005 Irrigation Season, the regular update from USBR on the projected allocation for the 2006 Irrigation Season, a progress report from the US Army Corps of Engineers on their FLO-2D modeling for the Rio Grande Project area, the final water supply strategies approved for El Paso County by the Far West Texas Regional Water Planning Group to meet the demands for the next 50-years, and possibly a brief review of study topics considered by CHIWAWA, the Consortium for High-Technology Investigations in Water and Wastewater. Four of the member agencies of the Commission are also members of CHIWAWA. The November 14 meeting was adjourned at 10:30 a.m.