

Minutes

MEETING OF THE NEW MEXICO/TEXAS WATER COMMISSION MANAGEMENT ADVISORY COMMITTEE (MAC) AND REGIONAL SUSTAINABLE WATER PROJECT STEERING COMMITTEE (SC)

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September 15, 2003
1:30 P.M.

Welcome

Ari Michelsen opened and chaired the meeting. Mr. Archuleta was unable to attend today's meeting. A copy of the sign-in sheet is attached as **Exhibit "A"**. Those members attending from the Commission's MAC/SC were as follows:

Mike Fahy – For Ed Archuleta, EPWU
Karl Wood - NMWRRRI
Dan Santantonio – City of Las Cruces
Conrad Keyes, Jr. – PdNWC

Tony Tarquin (UTEP)
Ari Michelsen (TAMU)
Gary Esslinger (EBID)

I. Review and Approval of Minutes from MAC/SC Meeting on 8/15/03 (MAC/SC)

Ari Michelsen asked if anyone had comments on the August 15th MAC/SC meeting minutes. No one had comments and the minutes were approved as written.

II. Discussion of Revisions and Approval of the Paso del Norte Water Shed Council's (PdNWC's) Integrated Watershed Proposal for Federal Grant Funds (MAC/SC)

Ari asked if there were any discussion, revisions or approval of the PdNWC Integrated Watershed proposal for federal grant funds. There were no discussions or questions from the committee. Ari asked whether it should be put to a vote for approval. The MAC members agreed to do so and subsequently approved the grant proposal.

III. Update on the Desalination and Water Purification Technology Roadmap (Lorenzo Arriaga, BuRec- El Paso) and the Multi-State Salinity Coalition Initiative (Mike Fahy, EPWU).

Lorenzo Arriaga distributed copies of the Desalination and Water Purification Technology Roadmap in hard copy, and of the presentation (copy attached as **Exhibit “B”**). He mentioned that this was a study facilitated under congressional authorization to the Bureau of Reclamation (BuRec) and Sandia National Laboratories. Lorenzo explained that a road map is a strategic plan, a look into the future. As an example, he stated that while multiple agencies are just now looking into desalination, the BuRec has been looking into desalination for 20 -30 years. The primary factors fueling such investigations are population growth and water demand, scarce resources, water quality, environmental impact, climate change and drought, particularly in the 17 western states. In 1902 the population of the southwestern United States was 11 million. In the year 2000 the population was 91 million and still growing. The expected population could be 126 million by the year 2025. Future water demands could also be met by employing re-use. At the present time the Southwest is in a definite drought.

Lorenzo offered desalination as a solution. He displayed a map which depicted potentially usable water from US saline aquifers. The aquifers are quite vast throughout the eastern and mostly central portion of the United States. Examples of major users for desalination technologies are major metropolitan areas, rural and Native Americans, and industries requiring high quality water, and lastly, agriculture.

Next, Lorenzo stated that, although desalination costs are rather high, trends show costs are closing in on other water treatment methods. He demonstrated the contrast between sea water desalination and brackish water desalination:

*Sea Water Desalination: \$650 to \$1000/ac-ft versus Brackish Desalination: \$325 to \$650/ac-ft

*(Brackish water desalination costs are a function of the chemical make up of the brackish source water).

Lorenzo stated that although seawater has a higher energy cost, brackish ground water generally exhibits higher disposal costs at inland locations.

The economics and success of desalination will depend on the following:

- Customer’s wiliness to pay
- Large diversity of source water chemical constituents
- High quality needs of industry

The disposal costs of brine concentrate will also be important factors. More creative planning, co-location with existing power plants, economies of scale, more competition in the industry, and improved technologies through R&D and technology transfers were cited as methods to reduce the costs of desalination.

By 2020, desalination and water purification technologies will contribute significantly to ensuring a safe, sustainable, affordable, and adequate water supply for the United States because of the following advantages:

Safety:

- Meeting drinking water standards
- Meeting agriculture and industry standards
- Enhanced water security

Sustainability:

- Meeting today's need without comprising our future supplies

Affordability:

- Providing future water at a cost comparable to today's

Availability:

- Assure local and regional availability through periods of episodic shortages (droughts)

Lorenzo then cited several case studies ranging from the basic needs for inland urban areas, coastal urban communities, rural inland communities, to the Mid Atlantic and oil, gas and coal basins, and explained their current challenges and desalination needs.

According to Lorenzo, the long term goal is to:

- Stretch existing water supplies to meet unmet demands in the most cost effective and least threatening manner possible.
- Address present and future challenges to meet increased demands
- Prevent water conflicts across the West
- Continue to serve traditional users and adhere to state water law

Further Roadmapping activities include a National Research Council (NRC) review on May 13, 2003 and a management plan to prioritize projects, and lastly, a 2004 Budget for the Western Water Initiative.

Next, Mike Fahy provided a brief presentation (**Exhibit "C"**) on the Multi-State Salinity Coalition (MSSC). Mike informed the audience that the MSSC is an informal coalition, which requires no fees or dues, nor utilizes any bylaws. It is loosely structured after the U.S. Desalination Coalition which does require annual dues, but mainly emphasizes Sea Water Desalination. Mike went on to explain that the purpose of the MSSC is to:

- Explore technological advancements in desalination and salinity control to enhance water quality and quantity.

The participants mainly stem from the Southwestern United States. They include El Paso Water Utilities, Southern Nevada Water Authority, Salt River Project, Cities of Phoenix, Scottsdale and Tucson, Southern California Metropolitan Water District, Bureau of Reclamation, Sandia Labs and others

Mike added that the next MSSC monthly meeting will take place in October in Phoenix. There will be a 2003 National Salinity Management and Desalination Summit in Las Vegas, Nevada on

December 8-9, and the NM-TX Water Commission Members will be notified further about this event. Presentations are by invitation. EPWU has been asked provide an update on the Ft Bliss/EPWU Joint Desalination Facilities Project. Other topics will include Sea Water Desalination, Brackish Ground Water Desalination, Concentrate Disposal and Source Water Evaluations.

Ari asked about the procedures for joining the MSSC and whether the MAC or the commission should participate. It was decided that the MAC should participate in the MSSC and that Mike Fahy will forward the names of the panel on to MSSC. EPWU will represent the Commission at future MSSC meetings.

Mike advised that if anyone is interested in the MSSC, the contact is Michael Gritzuk, Director of Phoenix Water Services. He can be reached at michael.gritzuk@phoenix.gov or 602-262-6627.

IV. Other Business

Ari announced that The Paso del Norte Watershed Council elected a new Executive Committee today. He thanked Conrad Keyes for his service over the last several years. Ari then recognized Sue Watts as the new Chair. Sue introduced the new executive officers and members. Julie Maitland is the new Assistant Co - Chair, Ari Michelson will continue as Treasurer and Valerie Provencio is the new Secretary. There are now 20 members of the Executive Committee which Sue named:

1. Jennifer Montoya (WWF)
2. Carlos Rincon (Environmental Defense)
3. Zuping Sheng (TAMU)
4. Marilyn Taylor (Private Citizen)
5. Kevin Bixby (Southwest Environmental Center)
6. Chris Brown (NMSU)
7. Inga Groff (League of Women Voters)
8. Ed Hamlyn (UTEP)
9. Brian Hanson (US Fish & Wildlife)
10. Keith Landreth (Fort Bliss)
11. Julie Maitland (NM Dept. of Agriculture)
12. Ari Michelsen (TAMU)
13. Dan Santantoinio (City of Las Cruces)
14. Rosemary Staley (City of El Paso)
15. Jim Stefanov (US IBWC)
16. Tim Darden (NM Department of Agriculture)
17. Miguel A.Flores (Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias)
18. Alfredo Granados (Universidad Autonoma de Cuidad Juarez)
19. Beatriz Vera (Rio Grande/Rio Bravo Basin Coalition)
20. Sue Watts (Private Citizen)

Ari asked if there was any other business. Mike Landis provided a brief update on the Rio Grande project on the behalf of Wayne Treers. He informed the audience that Elephant Butte

Dam will be shut down as of Friday the 19th. The last delivery date will be on the 23rd of September. Elephant Butte, which holds approximately 2.1 million AF when full, is currently at 147,900 AF content. Caballo Dam content is at 9,500 AF. Mike related that last year was the eighth worst snow runoff on record. At this point, Ari produced a graph (**Exhibit D**) by TX A&M and Bureau of Reclamation which describes the reservoir levels.

Suggested topics for the next meeting include:

- Regional Water Plan for the LRGWUO
- BuRec. – Update on the Year-End Water Supply
- EBID Grant Financing for Lining Canal/Piping of the Raw Water Supply
- UTEP’s Desalination Concentrator Research at the EPWU/Fort Bliss Pilot Plant Site
- Update on EPWU’s Hosting of the Commission’s Web Page

IX. Schedule Next Meeting

The next MAC meeting will be on October 23rd at 9 am at the Elephant Butte Irrigation District Office in Las Cruces.

Adjourn for the Workshop of the PdNWS – GIS Coordinated Database (Chris Brown, NMSU)

Dr. Christopher Brown led a workshop demonstration on the availability use and of the new Coordinated Water Resources Database Geographic Information System (GIS) for the Paso del Norte Watershed (**Exhibit “E”**). He also distributed. the Final Project Report, “Paso del Norte Watershed Council, Cooperative Water Resources Database Project”. Chris demonstrated that the database and GIS unite historical and real-time data from federal, state, local agencies and private organizations for future use in water planning and management along the Rio Grande. The workshop received comments and suggestions which Chris will take under future consideration to help improve future phases of the project.