

GROUNDWATER RESEARCH SUBCOMMITTEE MEETING RECORD

TIME AND DATE:

9:00 AM, November 10, 2005

LOCATION:

Texas Commission on Environmental Quality Campus, Building F, 2nd Floor, Meeting Room
2210, 12100 Park 35 Circle, Austin, Texas 78753.

PURPOSE OF MEETING:

Regular business meeting

AGENCIES/ENTITIES REPRESENTED:

Bureau of Economic Geology [BEG]
Texas Commission on Environmental Quality [TCEQ]
Texas State Soil and Water Conservation Board [TSSWCB]
Texas Water Development Board [TWDB]
Texas Water Resources Institute [TWRI/TAES]
United States Geological Survey [USGS]
Steve Walden Consulting

ATTENDEES:

Allan Jones	TWRI, Co-chair of the GW Research Subcommittee
Bridget Scanlon	BEG, Co-chair of the GW Research Subcommittee of the TGPC
Mary Ambrose	TCEQ, Chairman of TGPC
Radu Boghici	TWDB
Alan Cherepon	TCEQ
Richard Egg	TSSWCB
Lynne Fahlquist	USGS
Joseph L. Peters	TCEQ

IN AUDIANCE:

Steve Walden Steve Walden Consulting

MEETING SUMMARY:

Dr. Scanlon called the meeting to order at about 9:03 AM. The meeting started with self introductions of everyone present.

The meeting started with Mr. Boghici asking if he could hand out a map showing locations of carbon 14 and Tritium samples taken by the TWDB in the Gulf Coast Aquifer. The map shows the locations for all samples taken during the year through October 2005. The samples have not yet been analyzed, and therefore, results are not yet available.

Ms. Ambrose brought up a request for research ideas by the TWDB. The deadline was October 31st. Dr. Scanlon had put in one research idea. Ms. Ambrose commented that we need to have white papers ready for such situations.

As an illustration for the types of white papers that need to be developed, Dr. Scanlon referred to a project the BEG just completed for TCEQ, the implementation of which brought to light some research needs. The project consisted of a reconnaissance evaluation of surface water and groundwater interactions (See **References:** below.). The components included hydrograph separation, the co-location of wells and stream gauge stations, water quality issues, and riparian effects. From performing this project some research needs became apparent. Two of these included the need to install wells near stream gauge stations to study the effects of stream stage and stream quality on groundwater levels and groundwater quality (and vice versa) and the need for more detailed mapping of riparian vegetation. Dr. Jones mentioned some projects that the TWRI was associated with concerning the effect of salt cedar, juniper, and mesquite on groundwater levels near the riparian zone.

There was some discussion about the issue of the effects of brush removal, reforestation, etc. on groundwater levels and long term stream flows and the long term data gathering and the research needed to get a good theoretical basis of the effects under any given set of circumstances.

Dr. Jones mentioned that he was trying to obtain some data from the early part of the twentieth century, from gain and loss studies conducted by the USGS on streams around San Angelo and other places in West Texas. Mr. Cherepon mentioned the existence of an early USGS report (1915 to 1918) that spoke of how all the streams and creeks in the Panhandle area would flow all year long, during the time before widespread irrigation. The groundwater levels were within five feet of the ground surface. Dr. Jones also mentioned that there are no good pumping data indicating how much water was diverted from the river for irrigation during the early 1900's. Tom Green County was known to have been the second largest irrigation county in the state during that time. Only El Paso had more irrigation. This was irrigation from surface water.

Ms. Ambrose brought up the point that there was no real debate about the need for salt cedar eradication, though there is an ongoing debate about the need for juniper and mesquite eradication. Dr. Jones added that the debate with salt cedar is not whether it wastes water but how much water it wastes. After a little more discussion about studies and situations in other places such as New Mexico, the need for additional data and research was reiterated.

There was also some discussion of studies on Honey Creek and Government Canyon and Dr. Jones suggested that we need to get someone to give us a presentation on the project.

Ms. Fahlquist had a question as to where in the state this ET research would be conducted. It was suggested that it could be tailored to be either state wide or more in the West depending on what the interest of the funding source would be.

The discussion then turned to who would be involved in the study. It was suggested that it should be a combined project of the TSSWCB, TWDB, and TCEQ with a Federal component.

The Universities should also be involved. Dr. Jones has put together a first draft effort on a white paper for a research project on water conservation for the Edwards Plateau. This would be a good project for combined agency and university effort. Mr. Egg suggested that we should get some of the River Authorities and Groundwater Districts involved as well. It needs to be a combined effort to get the attention of the Legislature. Ms. Ambrose reminded us, also, that the purpose of the Groundwater Research Subcommittee was to foster multi agency efforts in groundwater research. Dr. Jones reiterated that he thinks this project (The Edwards Plateau Project) should be done next. The Rio Grand and the Ogallala are being done and this one needs to be next. The Ogallala is being studied root zone and up. It still needs to be studied below the root zone.

Dr. Jones suggested that we need to flush out and complete the Edward Plateau white paper, including Dr. Scanlon's groundwater-surface water interaction material, so that all the potentially involved agencies could use it during the February and March time frame when most agencies make a trip to Washington to solicit federal monies.

Dr. Jones brought up the subject of an update of a document entitled **Desalination Research at Texas Universities – A Brief Overview**. The update was written by Mr. Ric Jensen, who is on Dr. Jones's staff. The motivation of the update was the desalination discussion we had at our last meeting. The document was originally done for the TWDB a year and half ago. Because of our recent discussions it seemed like it would be useful for the GWRS to edit it and put it out again. Some significant things have happened since it was first written. Dr. Jones invited anyone to participate in the continued revision of the document. It was suggested that the document could be put on the GWRS website or a link could be provided to whatever website would have the document.

Dr. Jones indicated that Mr. Ric Jensen has offered, if this subcommittee so charges him, to put together drafts of white papers for items 5 and 6 on the list of priority research related needs from the *Report to the Legislature*.

5. Research on Characterization of Brackish Water and Disposal of Desalination Reject Water in Saline Aquifers and Depleted Oil and Gas Reservoirs
6. Collaborative Agricultural and Hydrogeologic Studies on Nitrate in Texas Groundwater

Dr. Jones said that the drafts could be ready by the next meeting.

The meeting ended at approximately 10:12 AM.

Information Item: The decision was made at the TGPC meeting in the afternoon that the next meeting date for the TGPC, the ACS, and the GWRS will be February 2, 2006. The GWRS meeting will take place at 9:00 AM, at the Texas Commission on Environmental Quality Campus, Building F, 2nd Floor, Meeting Room 2210, 12100 Park 35 Circle, Austin, Texas 78753.

Minutes prepared by Joseph L. Peters, January 25, 2006

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References: *Activities of the Texas Groundwater Protection Committee – Report to the 79th Legislature*

Scanlon, B. R., Tachovsky, J. A., Reedy, R., Nicot, J. P., Keese, K., Slade, R.M., Merwade, V., Howard, T., Wells, G. L., Mullins, G. J., and Ortiz, D. M., 2005, Groundwater — Surface Water Interactions in Texas: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for Texas Commission on Environmental Quality, under contract no. 7 UT-07 70830, 240 p. [PDF: http://www.beg.utexas.edu/staffinfo/pdf/scanlon_gwswr2005.pdf]