

GROUNDWATER RESEARCH SUBCOMMITTEE MEETING RECORD

TIME AND DATE:

2:00 PM, November 25, 2002

LOCATION:

Library Conference Room, Building 130, Bureau of Economic Geology, J. J. Pickle Research Center Campus, 10100 Burnet Road, Austin, Texas

PURPOSE OF MEETING:

Regular business meeting

AGENCIES REPRESENTED:

Bureau of Economic Geology [BEG]
Texas Commission on Environmental Quality [TCEQ]
Texas Department of Agriculture [TDA]
Texas Department of Health [TDH]
Texas State Soil & Water Conservation Board [TSSWCB]
Texas Water Development Board [TWDB]
Texas Water Resources Institute [TWRI]
United States Geological Survey [USGS]

ATTENDEES:

Allan Jones	TWRI, Co-chairman of the GW Research Subcommittee of the TGPC
Bridget Scanlon	BEG, Co-chairman of the GW Research Subcommittee of the TGPC
Mary Ambrose	TCEQ, Chairman of TGPC
Jay Bragg	TSSWCB
Chet Clark	TCEQ
Alan Dutton	BEG
Lynne Fahlquist	USGS
Donna Long	TSSWCB
Ruben E. Ochoa	TWDB
Ken Ofunrein	TDH
Jeanette O'Hare	TDA
David Parmer	TCEQ
Joseph L. Peters	TCEQ

MEETING SUMMARY:

Dr. Scanlon called the meeting to order and had all the attendees introduce themselves. She then asked if there were any comments on the meeting notes from the last meeting. There were none. The meeting continued with the first agenda item.

I. Review of Research Issues for Various State Agencies:

Mr. David Parmer provided a copy of the Strategic Assessment to most of the attendees. Mr. Parmer gave a brief summary of the document. The assessment of groundwater with respect to the four constituents of TDS, arsenic, nitrate, and radioactivity, was based on TWDB groundwater data. The importance of determining what we mean by an ambient monitoring program and the need to do more than simply characterize which aquifers are available for drinking water were discussed. Mr. Parmer mentioned that pesticides have not yet been well characterized through USGS's NAWQA work or through TCEQ monitoring. The need for expanding ambient groundwater monitoring was emphasized. Mr. Parmer stated that the Commission has given their approval of the Strategic Assessment and that implementation should proceed. There is a commitment to set up an office of Research Director. Present work by internal staff is in determining if and when elements should be prioritized and what elements should be retained in-house. Most of the implementation is to be done by contract. Ms. Mary Ambrose mentioned the need of identifying a funding source for up-dating the next strategy, doing analysis for identifying threats to groundwater quality, obtaining a better data system that would facilitate data analysis, etc.

At this point Mr. Chet Clark discussed the need for a better data management. Even though the TCEQ's remediation program, and other programs, gather a lot of groundwater quality data, at the present time, there is no convenient way to analyze the data. Most of the data goes into paper files. An electronic system is needed with the ability to load data from a number of different program sources. The State of New Jersey is using a database management system called the Environmental Quality Information System (EQuIS). This system can receive a wide variety of data -- hydrologic, geological, chemical, etc. -- from a wide variety of sources -- private contractors, responsible parties, research entities, etc. -- and make it available in an organized database from which information can be extracted for GIS and other types of analysis. \$25,000 has been set aside for a pilot program to evaluate this type of data management system.

Some discussion followed as to whether groundwater data could go into the database that the Clean Rivers Programs is trying to incorporate for their data. Then, for example, modelers could draw from this one database to perform surface water / groundwater interface studies. It is not known yet whether this combined database is possible.

Discussion of some other projects began. Ms. Ambrose mentioned that a contract is being negotiated with Texas A&M to identify naturally occurring high arsenic and radio nuclide areas, so that educational outreach can be focused on the problem areas. Mr. Parmer mentioned some sources of groundwater radioactivity studies, including especially the TWDB's ongoing groundwater monitoring program. However there hasn't yet been an attempt to show comprehensively where the geology is that might be associated with radioactivity in groundwater. Under the TWDB planning process, there may be areas that do not have suitable groundwater available because of radioactivity. Mr. Parmer mentioned also that there also needs to be a study of health issues. He also indicated that the new school of Rural Public Health might be able to help in identifying some funding areas for groundwater radioactivity studies.

Ms. Lynne Fahlquist explained that some gross alpha, gross beta, uranium, radium, and radon analyses were conducted in conjunction with the NAWQA work in the Trinity Cycle 2, in the Houston area, but that she did not know if this work was to continue. In the NAWQA work in the high plains only Radon was determined. These are the type of studies where an additional source of money would enable a little more work with radio nuclides.

Another problem, that was brought up by Ms. Ambrose, is the disposal of sludges by public drinking water suppliers that are treating water with radioactive constituents. The sludge, in many cases, is considered a low level radioactive waste. The drinking water people need help in solving some of these problems.

Some discussion followed on various options of using grant money, such as from EPA, to perform studies on radioactivity in groundwater, or to expand other studies to include radioactivity.

Mr. Clark informed everyone of the soil contamination that was being discovered from samples taken from formerly agricultural lands that were being developed. Arsenic is being found in places, and Chlordane is being found on sites where formerly there were structures. Former military bases are also a problem. The discussion then expanded to the research needed to meet these problems, such as determining typically expected contamination levels at these sites and using technologies such as microbes to treat the site.

Mr. Ochoa presented the interest of the TWDB in linking the databases of their WAM and GAM projects. This will probably be done internally. Dr. Jones mentioned that there was a small project funded by the Corp of Engineers, that is undertaking the linking of several models including GAM through ArcHydro from ESRI. The project is being carried out by the Water Shed Consortium, which is basically made up of A&M and UT. Perhaps this same project could achieve the TWDB goal of linking WAM and GAM. The linking of surface water models and groundwater models could also be facilitated through this endeavor. This project is trying to achieve something very similar to what the EQUIS software can do. Mr. Clark stated that the TCEQ is evaluating EQUIS. He also stated that the EQUIS people have offered the river authorities EQUIS for free if one of the major state agencies, such as TCEQ, purchases it. This would put in place a data network.

II Review of Potential Funding Sources:

At this point Dr. Scanlon directed the discussion toward funding sources. Ms. Ambrose pointed out that one problem was that some of the federal grants programs are out of sync with state budget planning. There was some discussion about the 305b list. Only surface water problems are required to be listed. However, some states, like Texas and Illinois, which have high groundwater use, include groundwater problems. There are some arguments going on at EPA as to whether or not groundwater falls under the Clean Water Act.

The discussion turned to two bills that passed Congress, the Farm Bill and another concerning the High Plains Coalition. Both of these bills, it was believed, had provisions for matching funds

that could be used for groundwater research. Dr. Jones stated that on the Senate's version of the bill for the High Plains Coalition, Texas A&M, Texas Tech, ARS, and Kansas would receive \$900,000 to perform work on the Ogallala. Most of it would be water conservation rather than water quality.

Dr. Scanlon brought up the problem of research that develops more efficient irrigation methods, which then induces more people to irrigate, resulting in the use of more water rather than less. Dr. Jones indicated that groundwater conservation districts, the TWDB, and others are moving toward looking more at incentives to reduce the use of water, rather than continuing to develop more and more efficient irrigation systems.

Dr. Jones at this point described a couple of projects that were in the works. One involves the USGS, Texas A&M, New Mexico State, and Sandia National Laboratories in California. The proposal is an additional \$8,000,000 to be put into the USGS budget to take a look at binational water resources on the US/Mexican boarder, mostly in the West Texas/El Paso area. 95% of the money would pass to the universities. The second project involves Texas A&M, UT, Mexico State, and Montana State. Called "Fresh Water for the West", it requests an earmark of \$3,000,000 in the EPA budget to work with cleaning up polluted or naturally low quality groundwater and making it available for appropriate uses. Dr. Scanlon asked Ms. Fahlquist about the funding for continued NAWQA work in the Ogallala. She responded that the work will be completed this year but that there may be some additional work in FY04, funded at the discretion of the USGS, depending on the amount of USGS funding received from Congress.

There was some discussion on Homeland Security related projects such as real-time detection of biological agents and a system for the nationwide monitoring of the sale of certain agents or items that could be indicators of terrorist activity.

Dr. Jones brought up the need to put together good RFPs in a timely manner, that it is difficult to come up with good proposals at the last minute. He offered to contribute some staff from the Water Resources Institute. Perhaps three or four major proposals could be put together each year. Mr. Parmer added that we need a schedule of when certain moneys are available and the due dates for the corresponding proposals. Ms. Fahlquist suggested that the schedule also be prioritized to indicate which moneys or which projects should be pursued first.

One source of funds will be the 106 supplemental, which is around \$3,000,000 for FY03. It is unknown what it will be for FY04. But, it was pointed out, we need to be prepared to make proposals whatever the amount.

There was some discussion on the research of septic system problems and sources of funds to carry out the research. Funds are available from EPA and the Onsite Wastewater Research Institute. There was also some discussion about matching funds. Dr. Jones stated that the Water Resources Institute administers moneys from TAES and TCE. He indicated that these moneys could be used to provide matching funds for certain projects. There was some discussion about the research on brush control; however, brush control involves water quantity considerations more than water quality.

Dr. Scanlon brought up the question as to whether the Groundwater Research Subcommittee needed to make any kind of report to the Legislature. Ms. Ambrose answered that, no, the primary purpose of the Subcommittee, as described in the charge, is to facilitate the type of discussions we've been having in the meetings, discussions between the various agencies about the process of identifying needed groundwater research and how to fund it. The End-of-the-Year Interagency Research Needs Report will be prepared for the TGPC. Dr. Jones suggested that Ms. Jane Gurstein of his staff be enlisted to write some of the document. She's a science writer and understands a lot of the issues being discussed.

Ms. Ambrose brought up the importance of identifying of which agency should be the sponsoring agency for any particular proposal. It should be one with a fairly straight forward contracting process.

Dr. Jones at this point mentioned that some people are working with NSF to start a large hydrology program. The proposal is for it to be a couple of hundred million dollars a year. Ms. Ambrose added that the TCEQ is trying to include under this program the support of work to develop sampling methods. The appropriate sampling methods, for instance, that can be used to determine what the load is going into the Edward's Aquifer from storm water and urban development and what is ultimately coming out of the springs or domestic wells.

The meeting ended with the mention, by Dr. Scanlon, of the Jackson School Initiative and its hydrological observatory component, and Ms. Ambrose suggesting that at the next meeting we identify some specific issues that are of common enough interest among the various agencies that can be put into the white paper.

HANDOUT:

Strategic Assessment

Prepared by Joseph L. Peters, March 12, 2003

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