

GROUNDWATER RESEARCH SUBCOMMITTEE MEETING RECORD

TIME AND DATE:

9:00 AM, Wednesday January 21, 2009

LOCATION:

Texas Commission on Environmental Quality Campus Building F, Room 2210, 12100 Park 35 Circle, Austin, TX 78753

PURPOSE OF MEETING:

Second quarter regular business meeting

AGENCIES/ENTITIES REPRESENTED:

Bureau of Economic Geology [BEG]
Texas AgriLife Extension Service [TAES]
Texas AgriLife Research [TAR]
Texas Commission on Environmental Quality [TCEQ]
Texas Department of Agriculture [TDA]
Texas Water Development board [TWDB]
United States Geological Service [USGS]

ATTENDEES:

B.L. Harris	TAR, Co-chair of the GW Research Subcommittee of the TGPC
Bridget Scanlon	BEG, Co-chair of the GW Research Subcommittee of the TGPC
Cary Betz	TCEQ, Chairman of TGPC
Radu Boghici	TWDB
Bruce L. Cutright	BEG
Alan Cherepon	TCEQ
Richard Eyster	TDA
Lynne Fahlquist	USGS
Bruce Lesikar	TAES
Joseph L. Peters	TCEQ
David Villarreal	TDA

Handout: Mr. Boghici provided and handout on the subject of Authorization to Publish a Request for Statements of Qualifications on 2009 Priority Water Research Topics

MEETING SUMMARY:

Call to Order and Introductions

Dr. Bridget Scanlon called the meeting to order at about 9:05 AM. Her first order of business was to have everyone introduce themselves. Dr. B. L. Harris was present to replace Dr. Allan Jones, who will no longer be serving as co-chair. It was not certain whether Dr. Harris would be the permanent replacement for Dr. Jones.

Discussion of Sources of Funding and Current Calls for Proposals

The discussion started with the perchlorate problems in the Panhandle and perchlorate in general. Dr. Scanlon brought up the fact that a newspaper article indicated that EPA was planning on reevaluating their standards on perchlorate and supporting some new research on the ion as well. Recent studies at Texas Tech have been showing high concentrations of perchlorate in milk. Dr. Scanlon explained that rangeland studies have shown that perchlorate from atmospheric sources builds up in the unsaturated zone from rainfall, and, when the range land is converted to cropland, the perchlorate gets washed down into the groundwater.

Dr. Scanlon asked Mr. Betz if he had heard anything recent about the nonpoint source program. He responded that there should be an update at the afternoon's TGPC meeting. Dr. Scanlon asked if there might be more of a focus on groundwater in the nonpoint source program, and Mr. Betz answered in the affirmative. The discussion moved to the problem of pathogen contamination of groundwater from septic tanks. Mr. Cutright explained that their interest at BEG was in the issue of survival of pathogens in groundwater, which pathogens survive, and the implications. Dr. Harris asked if they were considering regrowth. Mr. Cutright responded that they were interested in regrowth, but that they were not addressing it specifically as of yet. Dr. Harris commented that at TWRI they had projects addressing regrowth in surface water, but none yet in groundwater. Some research addressing regrowth in groundwater would be highly desirable. One specific concern in surface water and groundwater is, once a water meets a discharge standard, etc., what is the potential for pathogens then to regrow to deteriorate the quality of the water to below the standard.

There was some discussion on the Federal stimulus proposals and how it might influence availability of funding for groundwater research activities. Ms. Fahlquist mentioned that water and the environment seemed to be high on the list of priorities in the stimulus, and that perhaps the USGS would be getting some increase in funding. Mr. Betz mentioned that he heard that Congress would be considering a bill that would fund the USGS to enable it to develop a comprehensive groundwater monitoring program. Ms. Fahlquist responded that she had heard something of the proposal, and that she would find out more about it for our next meeting. Dr. Scanlon asked how this program would interface with what the TWDB, and other entities are already doing. Mr. Betz responded that the Subcommittee on Groundwater of the Advisory Committee on Water Information (a committee established by the Secretary of the Interior as an advisory committee to help implement the Water Information Coordination Program at the national level) has developed a framework document on groundwater monitoring for the nation, which was met with some enthusiasm by Dr. Mace of the TWDB. This framework document was developed in anticipation of the proposed comprehensive groundwater monitoring legislation. The USGS would be a key player in this groundwater monitoring program.

Ms. Fahlquist, at this point, explained a project on which the USGS was cooperating with the TCEQ Public Drinking Water Section. It's related to the pathogen issue. It's called the Micro Particulate Project. The project consists of USGS going out and sampling selected water supply wells after storms. This includes some pathogen sampling including *Cryptosporidium*.

Mr. Cherepon suggested that a good study might be looking at aquifers in the vicinity of the monitoring wells that were drilled in South Texas for the purpose of investigating uranium deposits. It would be interesting to compare aquifer conditions before and after investigation. Dr. Scanlon asked about the Texas State Soil and Water Conservation Board (TSSWCB) proposals. Dr. Harris responded that he was of the understanding that they would be considered

by TSSWCB within a month or a month and a half, and then the recommendations will go to EPA for final approval. This would mean that it would be about two to three months till final project selection.

Dr. Scanlon brought up the subject of recent nitrate studies by the BEG in the Southern High Plains. The studies showed that under original rangeland conditions there is very little nitrate in the underlying aquifer, but when the land is brought under cultivation the nitrogen locked up in organic matter in the soil is released as nitrate and migrates down to the aquifer. The BEG has put in a proposal to the TSSWCB for a project to look at this phenomenon in more detail. Dr. Harris brought up the possibility that a similar phenomenon might be occurring in the Lipan Aquifer, East of San Angelo.

Dr. Harris suggested that we should come up with a source of funds to support the basic studies that such as determining the source of nitrates in the Southern High Plains. The studies would be aimed at problems that may or may not be parts of a known NPS problem. Basic knowledge about the cause of some of these problems could serve as a preventative to avoid the worst of these potential groundwater problems. Dr. Harris stated that the TCEQ and the TWDB need to provide some funding for some of these types of issues that are not related to any current NPS issues under focus and that would fall under current 319 eligibility. Dr. Scanlon mentioned that TCEQ has done some funding along these lines in the past, just like the study that showed that contamination from agricultural arsenic use in the Southern High Plains was confined to the top soil layer and was not the source of the arsenic in the groundwater.

Dr. Scanlon mentioned that some information that she heard at a recent irrigation meeting in Amarillo indicates that the groundwater in the Southern High Plains will last only about another thirty years if irrigation continues at the same level as at present. Dr. Harris responded that the High Plains Groundwater Conservation District No. 1 was looking at increasing well spacing and other measures that would sustain the use of irrigation beyond this thirty year period. Dr. Harris added that long term economic studies need to be done to determine the feasibility of importing water for aquifer recharge. This is certainly worth considering since the land in the Southern High Plains is some of the most productive land in the world and the potential is there for huge production of food.

At this point there was some discussion of desalination. Ms. Fahlquist indicated that the USGS did not have any projects along this line at present. Mr. Boghici commented on the TWDB proposal for the characterization of brackish water. Dr. Scanlon commented that with the stimulus package, this would be one project that would be worth pursuing.

There was some discussion on brush control. Dr. Harris indicated that it was still being supported at about a five-million-dollar-a-year level. This is a small amount considering the large part of the state with brush problems. A relatively large portion of this money at this time is going toward juniper control in the central part of the state. There are also cost sharing salt cedar removal projects along the Colorado and Pecos. Mr. Cherepon mentioned that he heard that EPA was providing funds – a total of about 58 million dollars for the whole nation – granted directly to individual producers, to support projects that would increase water quality and quantity. Brush control projects should be eligible for these funds. Mr. Betz mentioned that the Eightieth Legislature instructed the TCEQ to contract with Texas Tech to undergo a study of the effectiveness of brush control, and that the TCEQ had recently received the report on that study.

The report basically indicates that the effectiveness of brush control is highly variable and dependent on the individual conditions encountered.

Dr. Harris brought up the subject of sources of funding. Mr. Betz informed us that most of the BEG and USGS projects, that TCEQ has funded over the last eight or so years, have been funded from unspent CWA Section 106 grant money that EPA had returned to us as supplemental grants. This money can no longer be used directly by TCEQ but must be passed through to other entities for various projects. The amount of money available for these supplemental grants has slowly been diminishing. Mr. Betz expressed his wish that, with the call for a national water inventory and perhaps the availability of some stimulus funds, we get more funds for the support of groundwater research projects. Dr. Harris informed us that the latest stimulus bill had over a billion dollars designated for state federal relations water/waste water programs. So hopefully the TWDB and TCEQ will receive a sizable portion of this money. So, we need to be vigilant to make sure that groundwater would get its share of this money. Of course, according to the requirements this money is to be granted to “construction ready” projects.

Dr. Scanlon asked Dr. Harris if A&M had a program on climate and water. Dr. Harris responded that A&M had been discussing projects, has even put together some unsolicited proposals, and has been pursuing funding from every known source; yet, to date, has not achieved any success in getting any projects funded. Dr. Scanlon said that she was thinking of putting together a one-day short course or similar event on climate and water in Texas. Dr. Harris agreed that it would be a good idea and would be willing to help in bringing it about.

Mr. Boghici announced that the TWDB is beginning to monitor for dissolved oxygen in their groundwater monitoring activities.

The meeting adjourned at 10:07 AM.

Minutes prepared by Joseph L. Peters, March 31, 2009

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