

MEMORANDUM

To: Groundwater Advisory Council
From: H. Bokuniewicz
Re: Minutes of the meeting of 19 December 2005
Date: January 12, 2006

PRESENT

M. Alarcon
N. Bartilucci
H. Bokuniewicz
S. Colabufo
B. Nemickas
M. Nofi
D. Paquette
S. Robbins
K. Roberts
W. Spitz

REGRETS

S. Jones
L. Koppelman
R. Liebe
R. Mazza
K. Willis
P. Witkowski

1. There were no comments on the minutes of the last meeting.
2. A brief review of the Institute's activity in 2005 was presented (see: Highlights attached). We usually have the final meeting of the year in Stony Brook, but classes are still in session and an appropriate room wasn't available.

We had seven graduate students and six Stony Brook Faculty members actively involved in groundwater research last year, resulting in sixteen publications. This included two master's thesis. We had one EPA STAR fellowship and have one pending for 2006. In addition, John Rapaglia completed a Fulbright fellowship for study of submarine groundwater discharge in Venice. John is a Ph.D. student who had participated in the (international) experiment done on Shelter Island in 2002. He is now working on a project funded by the Sea Grant Institute on groundwater discharge in Jamaica Bay.

The Institute will continue to co-sponsor the Pine Barrens Research Forum. The Pine Barrens Twinning program was also discussed. The Pine Barrens is formally "twinned" with a park in Pisa, Italy. We've had several exchange visits by specialists in both parks and, most recently I gave a series of presentations there. While the twinning was based on terrestrial ecology, it became clear that water issues were also important. The park in Italy is low-lying, and in part, polarized so drainage and groundwater quality are important issues.

After a brief discussion, it seems that the Institute will continue to facilitate a few special training sessions such as the PEST workshop done in '05. Some of these are run by consulting firms who charge registration fees, but, as long as, Institute

expenses are met, it seems like a useful service to facilitate these professional opportunities.

3. Erin O’Leary (Department of Preventative Medicine at Stony Brook University) published a paper on pesticide exposure and breast cancer on Long Island (attached) and is now beginning a follow up study. It was suggested that she examine the SWAP report and the pesticide study recently completed by the Suffolk County Department of Health Services. It was also suggested that studies might be better done in the southern US or the tropics where pesticide applications are more extensive than on Long Island. Apparently, fish in fish tanks would sometimes be killed by pesticide spraying.
4. There is a Stony Brook undergraduate who hopes to study groundwater-surface water interaction in Lake Ronkonkoma. There is an old report on the lake done by the Planning Board and it was pointed out that Smithtown completed a drainage project there with a recharge basin and overflow sumps to the north of the lake. Wetlands were also constructed on the eastern shore perhaps 20 years ago for the purpose of biofiltration and pollution reduction.
5. There was a recent meeting convened by the Sea Grant Institute on the occurrence of Brown Tide in the Peconics. Groundwater issues were raised. It seems that submarine groundwater discharge supplies nitrogen to the bay under normal conditions, but, during droughts, the normal algal populations are deprived of nitrogen and the Brown-tide organisms can better take advantage of other nitrogen sources (remineralized nitrogen) to outcompete other species.
6. The idea of a symposium on the Lloyd Aquifer was discussed. I had reserved a lecture room for 20 January, but it seems that such an imminent date is premature.

The Institute’s continuing efforts towards developing a Groundwater Clearinghouse includes models and modeling as important components. We held a modeling workshop of practitioners in June. The concept of a Lloyd symposium would be to review the most recent, technical results in the Lloyd (extent, recharge, hydraulic head, water quality, salt water interface, integrity of the confining layer, storage, permeability, transmissivity, etc.). The Lloyd, however, is at the heart of a few controversies (aquifer recharge in NYC, an application for a new well in Northport, and the security of the water supply for Long Beach and the necks in Nassau County). Concerns are not only technical issues but their environmental, social, economic and political ramifications. The proposed symposium, however, is intended to just address the technical issues in a scientific and academic manner. How to do this, however, is problematic because, aside from the USGS, most of the new studies were done by people with a particular agenda and because social or political opinions are not appropriate to an assessment of the technical parameters characterizing the aquifer. We will continue to try to craft an unbiased, technical forum. We suspect that a clinical assessment of the state-of-knowledge may point to the need for an island-wide study and additional research to determine the position of the salt-water interface offshore. There may be enough information in some areas, perhaps out east, but important gaps in other areas. *Essayons.*

