

MEMORANDUM

To: Groundwater Advisory Council
From: H. Bokuniewicz
Re: Minutes of the meeting of 27 February 2006
Date: March 10, 2006

PRESENT

M. Alarcon
R. Alvey
N. Bartilucci
H. Bokuniewicz
S. Meyland
B. Nemickas
D. Paquette
S. Robbins
K. Roberts

REGRETS

S. Colabufo
S. Jones
L. Koppelman
R. Liebe
M. Nofi
G. Proios
W. Spitz
K. Willis

1. The minutes of the last meeting were distributed. There were no comments on previous minutes. Corrections or revisions can be sent to me.
2. Michael Alarcon introduced Sarah Meyland who is the Director of the Nassau County Planning Federation. Previously, she had been co-director of the State Water Resources Commission on eastern Long Island. She had worked for the SCWA. Sarah is an Attorney and Professor at the NY Institute of Technology.

The Nassau County Planning Federation was established in the Office of Economic Development in the County Executive's Office by Mr. Suozzi. The Federation works with the Planning Commission, the Office of Real Estate and the local government of 64 villages, 2 cities and 3 towns in Nassau County including zoning and review boards. For example, they are now running an architectural competition to design a "green" building for affordable housing on county land. They are also involved in the county-wide trail system.

We had thought that the Planning Federation might have encountered cases where SWAP results had been used in zoning decisions, but this seems not to have been the case.

3. Robert Alvey was in attendance on behalf of Kevin Willis. Rob is a geologist with the EPA Technical Support Team. He has worked with Sy, Sarah and others on various projects.
4. The Suffolk County Comprehensive Water Management Study is still in the early stages. Existing laws and regulations are being examined to try to answer various questions, like: Are they sufficient? How are they implemented? Are they being misapplied?

The SWAP results from 30 wells will be reviewed. These are all shallow (Glacial or Upper Magothy), supply wells in unsewered areas near groundwater divides. These are wells where there is some discrepancy as between the presence or absence of contaminants and the potential sources in the SWAP-designated source-water areas. For example, at Bellerose Avenue there are elevated levels of PERC (Paul Stackleburg's data) but the SWAP travel-time is 25 years. There also seems to be some questions raised by the SWAP results concerning the Lloyd aquifer on the east end and the quantity of underflow on both the north and south shores (compared to the USGS estimates done for the Long Island Sound Study).

Where there's a clear trend in, say, nitrate, the relationship to development is intended to be examined to try to revise the loading factors for land use. These will be used, then to evaluate development plans for the ten Suffolk county towns. The impacts of small sewage systems and potential TDR programs will be considered and results are expected in three-to-six months.

5. It is unclear how the responsibilities of SCHP county hydrologists will be handled in the future, especially since there is now a new county Department of Environment and Energy headed by Mike Deering. (This was essentially the old Real Estate office).
6. Kevin Willis had provided an EPA memo dated January '06 reaffirming the action level on perchlorate under CERCLA (Comprehensive Environmental Response Compensation and Liability Act) at 18 ppb. For clean-ups, the drinking water equivalent level is 24.5 ppb. The State has a secondary action level of 5 ppb. There is detailed information on the EPA's IRIS (Integrated Information System) website. There was also an EPA report on perchlorate remediation technology available. The report has sections on ion exchange, bioremediation, activated carbon, composting (for soil), *in-situ*, permeable reactive barriers, phytotechnology, and members.

At the "fireworks site" on LI activated carbon is being used to remove perchlorate. Perchlorate detections in the west may be the result of old agricultural practices but it is also a component in bleach, added to chlorinated water. Some attempts have been made at remediation using plants (phytotechnology). For example, the Indian Mustard plant and sunflowers, apparently, absorb lead. Confining free roots in deep casings may be a way to reach deeper plumes. There is an issue, however, with the harvesting and disposal of contaminated plants. The USGS may have some basic data.

7. The Long Island Geologists' Conference will be held at Stony Brook on 22 April. There will be presentations on the Lloyd by both the SWAP modelers and the USGS. (Digression: Apparently, someone at BNL is looking into aquifer storage projects, perhaps for Bay Park and Oakdale. We'll look into this; based on a suggestion by Gus Guerrero?).
8. The Pine Barrens Commission is considering having a technical meeting on sand-mining exposing groundwater and the proposed Water Park on the former Grumman Property. In general, something on the hydrology of coastal ponds might be useful. This came up in the Pine Barrens Plan and was raised by TNC. Questions raised include: Should there be buffer areas around coastal ponds? Is flow in or out of the

ponds? The situation could be fairly complicated by rainfall and near-by supply wells.

9. 1-4 Dioxane is a suspected human carcinogen found in solvent spills. It is used as an antioxidant in many products but there is no standard and analyses for it have not been widely done. However, the EPA has correlated its occurrence with TCA and has established analytical procedures. It may be regulated under the generic 50-ppb rule but it may have also been specifically excluded by some states (NY?). It may especially be a concern for water re-use since it does not strip-out easily, but it seems that some tests were done at BNL using permagnate to remediate TCA plumes (Building 96).
10. There was discussion about “reinventing” the Institute. In general, the primary goal is to establish an active link between researchers at the University and groundwater professionals on Long Island. The Director raised several questions: Are the activity of the Institute becoming too scattered? How can the interest of university faculty, regulators and water purveyors be best maintained? Should we place renewed emphasis on a research agenda? In discussion the following points were raised:
 - a. Some sort of organizational chart would be useful.
 - b. Perhaps, researchers at other academic institutions should be included somehow.
 - c. The range of previously suggested research topics should be reviewed.
 - d. Current work with storm water recharge should be considered. In Suffolk, there is a project being done at the Cornell Cooperative Extension and, in Nassau, there have been discussions with EPA on contamination in dry wells, by SVOC’s. Questions about the management of dry wells were raised. Will an effort to install filtering systems in catch basins improve water quality?
 - e. What are the roles of Groundwater Institutes in other states?
 - f. Perhaps, sewerage projects should be re-examined. What might be the cumulative impacts of “package plants”? Nitrate might be meeting standards but other components in sewage may be causing problems.
11. The next meeting will be Monday, 27 March at the SCWA in Oakdale.