

MEMORANDUM

To: Groundwater Advisory Council
From: H. Bokuniewicz
Concerning: Minutes of the meeting of 29 September 2003
Date: October 20, 2003

PRESENT

N. Bartilucci
H. Bokuniewicz
R. Mazza
J. Milazzo
B. Nemickas
D. Paquette
G. Proios
W. Prospect
P. Ramirez
S. Robbins
K. Roberts
W. Spitz
K. Willis

REGRETS

S. Jones
L. Koppelman
M. Nofi
M. Schoonen
P. Witkowski

1. The minutes of the last meeting had been mailed to all members. There were no comments to date.
2. A draft of the proceedings of the Groundwater Symposium (6 June at BNL) is being prepared. I hope to have it, at least in draft, for the next meeting.

One of the issues that drew audience response at the meeting was the lack of USGS monitoring in Nassau County. The USGS monitored some 150 wells in Nassau and streamflow but their program was terminated in 2000. Currently, they have a project only in Manhasset. The County maintains their own monitoring of selected streams and several hundred monitoring wells (which are, at least in part, different from the USGS well set). These are examined twice a year to define the water table. It may be expanded to cover the Magothy and Lloyd.

State funding to the USGS lab has decreased even though the need is recognized, as by Senator Lavalley's Environmental Roundtable; monitoring is rather poorly done on a statewide basis. The Suffolk County Water Authority is funding the USGS monitoring in Suffolk at a cost of about \$110,000 with a 50/50 local/federal match. The new formulation for Federal matching money now requires a 70/30 (local/Federal) match, but the number of wells that would need to be monitored in

Nassau are lower than the number in Suffolk. Streams cost about \$10,000 each for monitoring. Match can also be “in-kind” services, at least in part, and, if the County sampling and analysis protocols can be compatible with those of the USGS, local monetary commitment might be brought close to 50/50 with an “in-kind” supplement.

A second issue raised at the Symposium was the need for a forum on policy issues; what are the impediments to implementation? To what use will the SWAP results be put? How can water concerns be included in zoning issues? It may be helpful to learn from the experiences of people from other places where plans have been successfully implemented. While there is definitely a need to address such questions, this is probably not entirely appropriate for the Institute but maybe the proper arena for another group at the University (like the Harriman School). I will inquire about possible interest.

The SWAP results have been sent to the Water Purveyors but we do not believe that they have been sent to municipalities. The limited distribution seems to be based on security concerns. Other outlets might be needed if groups like zoning boards are to be reached. Perhaps the NEMO program might be such an outlet. I will try to meet with Sea Grant and the Cornell Extension to consider this.

3. Ron Entinger has left the NYS Department of Health Services and is now in the DEC’s Total-maximum-daily-load program for watersheds. There do not appear to be any immediate plans to replace Ron in Health; that bureau is one of three and it is now under the purview of John (Jack) Dunn. Apparently, there is a SWAP coordinating committee meeting being planned in Binghamton on 27 October.
4. The EPA working group on groundwater is preparing a PowerPoint presentation for capture zone analysis. They examined two “pump-and-treat” sites, but couldn’t confirm capture. There is a need for some education on this issue; hence the PowerPoint. They will meet in a few weeks in Niagara Falls. Part of that meeting will be a discussion of geophysical techniques. Bernice Cooper, John Willison (USGS) and Mr. Kolkowski will participate in a discussion. (Mr. Kolkowski has been critical of geophysical techniques).

Standards are likely to be set at 6 ppb on 1-4 Dioxane. MTBE standards are still undetermined; MTBE is not demonstrably dangerous (cancer), but has a low threshold of odor and taste. Gas storage facilities on Long Island are changing to ethanol.

5. I have the rainfall data (that we discussed last year) tabulated and have provided it to a few inquiries but I haven’t had the time to get it in shape for the web. I’d like to get a student to take it out of EXCEL and put it in a relational database (ACCESS).
6. The modeling clearinghouse was discussed. I had discussed this briefly earlier with Sy Robbins and with Bruno Nemickas and Jodi Eimers. The need for such a facility has been raised several times in the past, notably at a conference run by Mr. DiNapoli’s offices with Senator Marcellino and Mr. Englebright a few years ago. One of the principal benefits is the cost avoided in “reinventing the wheel” and duplication of effort for modeling done under the new superfund reauthorization and other state programs. The Clearinghouse would facilitate the use of work done by the

private sector with public funding in excess of \$15 million. Such an effort is also especially timely with the recent completion of SWAP; Sy is now arranging with CDM to convert the files used for the SWAP modeling into generic ARCSHAPE files (with money from the Water Conference) but a repository is still needed.

The Clearinghouse would be established at the University and implemented at a technical level with an MOU with the USGS. We estimate the annual cost for the establishment of the Clearinghouse at \$600,000 for the first three years and thereafter at a base level of \$200,000/yr, for staff and dedicated equipment.

The Clearinghouse would have responsibilities:

- a. To maintain the availability, quality and timeliness of the input data, including precipitation, hydraulic heads, and hydrogeologic parameters
- b. To be able to provide the code for the principal models (DYNFLOW and MODFLOW) as well as specialized components as may be available
- c. To archive metadata. These would be standard model results for the region run on an annual basis which could serve as boundary conditions for site specific models as well as such subregional results that may be available
- d. To maintain an Advisory Board that would meet regularly to review new data and current model usage. Student associates to the Board would be assigned specific projects to assess model sensitivity and comparably

There can be no question of the technical and scientific authority of the USGS. The University would complement this expertise by a focus on (a) technology transfer, (b) regional service, and (c) basic research. The University is, by definition, a repository of knowledge and, by obligation, a servant of the community. The basic resources for the Clearinghouse would be magnified by access to expertise already available within the University system, which would be marshaled to address this regional problem.

7. The "Citizens for a more beautiful Port Washington" has produced a booklet on "Safeguarding sustainable water supply". (A copy has been mailed to the Council members). The document is aimed at "encouraging" a more stringent enforcement of the water caps.

The issues were discussed at our last meeting. The water companies are utilities and cannot deny available water (i.e. they cannot deny the fair use of private property). Base water demand has stayed level (or even declined), even though the number of households served has increased, with the notable exception of lawn sprinkling. The proliferation of lawn sprinklers, not new construction, seems to be the cause of rises in demand. (A senior's housing development only uses about 64 gallons/person/day or about one-third the average annual usage per capital in Suffolk County).

8. The DEC is about to issue a draft groundwater standard for discharges (not drinking water) for metachlor of 50 ppb. This is a metabolite but the daughter doesn't behave like the parent (yeah, I have a daughter like that), which has a standard of 7 ppb.

An MTBE standard of 10 ppb is likely to be coming from the Health Department.

9. The new superfund and Brownfield reauthorization emphasizes new soil-cleanup guidelines based, in part, on the future use of the site. The DEC is required to come up with a plan to manage contaminated aquifer segments and an appropriate GIS format. Currently, however, there is no funding to initiate what would undoubtedly be a substantial effort.

The Brownfield legislation hopes to convince the owners to, voluntarily, clean up the site, but the Business Council opposes the legislation because of open clauses.

10. County legislators Bishop, Foley and Alden has proposed an Environmental Database funded at a level of \$200,000 to be established by the Institute. This could be used as part of the foundation of the Modeling Clearinghouse. The SCWA is the ultimate source of the funding, but the bill is still in the Environmental Committee and the legislature won't meet until November.