

## MEMORANDUM

To: Groundwater Advisory Council  
From: H. Bokuniewicz  
Re: Minutes of the meeting of March 21, 2016  
Date: March 22, 2016

### PRESENT

N. Bartilucci  
H. Bokuniewicz  
S. Colabufo  
T. Fuller  
T. Leung  
D. Paquette  
J. Pilewski  
M. Scorca  
S. Terracciano  
J. Touchet  
J. Wanless

### REGRETS

P. Granger  
L. Koppelman  
A. Rapiejko  
H. Walker

1. There were not comments on the minutes of the last meeting (December 7, 2016).
2. LICAP's State-of-the-Aquifer report is being prepared for internal review by LICAP's voting members. We understand that it is fairly technical with reference to basic USGS reports. Fifteen other LICAP reports are being prepared and rough drafts of ten of them are being revised. There will be a full LICAP meeting on Wednesday (23 March). Subcommittees are expected to meet later in April.
3. Ty Fuller reported on a project he is undertaking with Jim Touchet (SCWA's GIS Department) mapping water-quality data in Nassau and Suffolk counties. Almost all the water districts have provided water-quality data for their supply wells for 2015. The analyses are done primarily by two laboratories, the SCWA lab and Pace Labs. The data are reported on EXCEL spreadsheets and displayed in a GIS geodatabase. DEC "N" and "S" numbers are used as the common identifier for database queries. The DEC is continuing to map well locations as they come on line for every "S" and "N" number. For the SWAP mapping, CDM had well locations but new wells may not have been added. Since 2009, SCWA alone has added some 40 new wells.

As an example, a GIS layer showing wells with nitrate levels greater than 5 mg/L displayed wells probably due to legacy contamination in Nassau County and in agricultural areas in eastern Suffolk. Maps of chloride contamination (>80 mg/L) revealed about 20 wells showing impacts of upconing in Montauk, saltwater intrusion along Nassau's north shore, and locations contained by road salt often near salt storage facilities or recharge basins. TCE concentrations highlighted the impact of known plumes at, for example, Bethpage, Plainview, Claremont and Manhasset/Lakeville. Some "legacy" TCE may have come from dry cleaners. Iron concentrations (>0.3 mg/L) too show expected patterns. Concentrations tended to be high near

the south shore and at isolated locations near wetlands or composting facilities perhaps. Acidic pH's tended to be concentrated around the Nassau/Suffolk border.

It is hoped that the districts not represented in this database can be convinced to share their data. There are 19 Water Commissioner Districts in Nassau County, two of which (Cathedral Gardens and Glenwood) do not have supply wells. The two purchase water from neighboring water suppliers for distributions. Nick Bartilucci may be able to encourage the additional cooperation needed.

A web-based version is being considered but there are serious, security concerns about the accessibility of infrastructure information especially well locations. On the web, location data may be obscured; the Pesticide Program (Suffolk County Department of Health Services) used the location of the population control of census blocks for publically accessible data.

The database potentially could be extended to include monitoring wells. Through Suffolk County's Pesticide Program about 180 wells are monitored in clusters of about 50 per year. (They hope to re-establish 400 monitoring wells in total). EPA is also proceeding with a superfund database on a site-by-site basis (Katie Mishkin is the project coordinator). This database is not based on "N" or "S" numbers and it includes data throughout New Jersey, New York, and Puerto Rico. Bob Alvey (EPA) has worked with Brookhaven labs on including their database of monitoring wells and the other EPA hydrogeologists and Remedial Project Managers have had data entered for over 95 sites in EPA Region 2. In addition, we discussed problems that could arise with incorporating data from many other laboratories. Consultant reports may or may not have compatible data if they can be found at all.

The question of who "owns" the geodatabase was raised and who will (should) have access to it. It was developed to answer some specific questions by LICAP members but has progressed further than the original request. People (the public) does need to understand the extent of the problem but there is concern that data could be misused and misinterpreted. (Thirty years ago, a report "Toxics on Tap" was done implicating Nassau County alone simply because the data was available for Nassau which wasn't available for other NY counties).

User must be aware of on-going treatment (i.e. the difference between tap water and groundwater) the QA/QC inherent in the data and its limitations. Maintaining and expanding such a database requires sustained funding and a professional staff, perhaps at the USGS or the State. For public accessible data, we would hope for some "happy medium" between transparency and protection of sensitive data. All data is FOILable and some specific legal definitions of "critical infrastructure" would help.

Ty and John are to be congratulated. This is long overdue. Often the first time you can see such data is in a printed table in the newspaper.

4. The governor intends to provide \$6 million over five years available to the USGS for an aquifer study of the entire Island (Brooklyn, Nassau, Queens and Suffolk). A proposal is being prepared which may include synoptic, island-wide modeling, some deep wells to better resolve the hydrogeology, the issue of salt-water intrusion, an examination of the continuity of the Raritan Clay a confining unit and other gaps in our data. Included also may be improvements to the USGS sentinel monitoring wells to document the water quality of recharge.
5. Gil Hanson will be holding the 23<sup>rd</sup> Conference on the Geology of Long Island and Metropolitan New York on Saturday 16 April 2016, in the ESS Lecture Hall at Stony Brook University.

Following the conference there will be a field trip to the glaciotectonic feature on campus known as the wall and an opportunity to visit the new setting for the RIS4E Team Lab. Titles and some abstracts of the presentations and a description for the RIS4E Team Lab can be found at: [http://www.geo.sunysb.edu/lig/Conferences/abstracts\\_16/4-16.titles.htm](http://www.geo.sunysb.edu/lig/Conferences/abstracts_16/4-16.titles.htm). There is no charge, no need to register, you can receive letters of attendance for professional development and a free light lunch.

6. In the interest of time, the following agenda items were tabled:
  - a. A SUNY-wide Water Network is being established to organize the expertise of the University and foster large multidisciplinary research projects as well as to enhance graduate programs on broadly framed water issues. A functioning SUNY Water Network is envisioned as a multi-campus group of SUNY faculty collaborating on transdisciplinary research, personnel training and publication goals.
  - b. Hydrogeology Program. A revision to the Hydrogeology MS program was prepared last years to allow Geosciences to continue to offer the program with existing resources. The University has submitted the revisions to Albany for approval but approval is still pending. We do not want to lose this program but clearly something must be done to revive it. It was suggested that Civil Engineering be approached to help.
  - c. There is still interest on Permeable Reactive Barriers. (We understand that the Cornell Cooperative Extension is looking into some installations in East Hampton).
  - d. The recent SCDHS report on contamination associated with composting facilities, however, raises potential issues of “pollution swapping”.
  
7. The next meeting will be on **May 16, 2016** at the offices of D&B Engineers and Architects, P.C. in Woodbury.