

MEMORANDUM

To: Groundwater Advisory Council
From: H. Bokuniewicz
Concerning: Minutes of the meeting of 22 December 2003
Date: January 16, 2004

PRESENT

N. Bartilucci
H. Bokuniewicz
W. Dorsch
S. Jones
D. Mancuso
R. Mazza
J. Milazzo
M. Nofi
D. Paquette
W. Prospect
W. Spitz

REGRETS

L. Koppelman
B. Nemickas
G. Proios
S. Robbins
K. Roberts
K. Willis

1. Minutes from the last meeting were not available yet.
2. There is to be a hearing of the Environmental Conservation Committee of the New York State Assembly (Tom DiNapoli, Chair) at Long Beach City Hall on 23 January 2004. Morris Kramer (an environmentalist in Nassau County) has been requesting such a meeting with concerns over salt-water intrusion and the use of the Lloyd aquifer by, for example, NYC. The purpose of the hearing, however, is not entirely clear at this point.
3. We believe that the resolution of the Suffolk County Legislature to create a water quality database has been passed. I had met with Robert Donnelly, Director of Suffolk County Information Services for an initial discussion of formats, relational databases and other issues. We will get a copy of the resolution and begin to set up other meetings to decide on how best to implement the database.
4. A brief status report was given on the student project for dating groundwater. Three methods are being tried. These are (a) tritium-helium, (b) freons, and (c) carbon-14. Samples for the tritium-helium method have been taken at the well on the North Fork in which perchlorate has been detected. We expect to have initial results in January. The equipment has been assembled to process samples for C-14 but we are not yet ready to take these samples. More water (150 liters) is needed for this process. We are still considering the best way to obtain the freon results.

We will explore also sampling other wells. The well on South Spur Drive in East Northport is one possibility. Because of nitrate this well which pumps 2400 gallons/minute is blended with 600 gallons/minute. The age of the nitrate contamination may help to identify the source. A well in Nassau County will also be considered. There is nitrogen contamination found in the deep Magothy in places that is expected to be due to old farming practices. Ray Mazza will look into some possibilities. Another issue where dating may help is to test some of the SWAP results. In some cases it seems that the travel times are suspect – too short in some instances and too long in others.

5. Doug Paquette and Bill Dorsch presented an overview and status report on groundwater remediation at Brookhaven National Laboratory. Ten treatment systems are in place and about 4000 pounds of VOC's have been removed since 1997. Seven new systems are in construction and expected to be operational in 2005. It's estimated that about 26,000 pounds will be removed over the next 20 years. The treatment systems include air spraying and soil vapor extraction (one system); seven pumps and treat using activated carbon filters; four air stripping; one pump and recharge systems for the tritium plume; and two pump and treatment with ion exchange resin for Strontium-90.

TVOC plumes with concentrations greater than 5 ppb extend south across the LI Expressway but several show noticeable reduction in size at the treatment sites on the north side of the expressway. One EDB plume originates south of BNL's boundary and also heads south under the expressway. All radionuclide plumes tritium and strongtium are much smaller and contained in BNL property. Attenuation of the tritium plume is proceeding as predicted. The Sr-90 plume is not expected to migrate off-site but the ion exchange resin is being employed at a rate higher than expected which substantially increases the cost of treatment.

6. The next meeting will be held on **TUESDAY 20 January** (the day after Martin Luther King Day) at the offices of Dvirka and Bartilucci in Woodbury 9:30 to 11 AM.