Integrated Nutrient Management Program Work Group  
Minutes December 19, 2003

135 Emerson Hall, 12:00-2:00 p.m.

Attending: Amanda Barber, Quirine Ketterings, Karl Czymmek, Caroline Rasmussen, Greg Albrecht, Shawn Bossard, Brian Aldrich, Janice Degni, Jim Curatolo, Mary Jane Porter, Larry Geohring, Deb Grantham, Susan Darling, Ivy Tan, Beth Boyer, Chris Renschler, Dave Bouldin, Ellen Harrison, Renuka Rao, Dale Dewing, Jeff TenEyck, Brian Richards, Mike McMahon, Danny Fox, Dean Frazier, Harold VanEs, David Griswald.

Nitrate in groundwater in Cortland County – Is there a problem and who’s going to solve it? Presented by Amanda Barber, Cortland Co. SWCD.

History
1930’s USGS measures 1 mg/l NO3 in Homer / Preble Aquifer System  
1970’s - average 4 mg/l with highs of 7 mg/l  
1990’s – average 4 mg/l with highs of 12 mg/l; DEC identifies aquifer as “stressed” for water supply use.  
1996 – Cortland County Health Dept (CCHD) measure 20 mg/l.  
1998 – SWCD blind survey studies Preble Valley aquifer and finds no obvious trend in nitrate levels and that high readings are localized.
2001 - CCHD reveals concern about increasing trend of nitrates in some wells monitored regularly. High readings are consistently high. No obvious point sources. Most wells 40-50 ft. deep. CCHD assumes agriculture is the source. This assumption is based on the season variability of N levels. Question: Need information about the wells, leakage in casing could account for variation in samples.
2002 – SWCD initiates working group to look at groundwater concerns in Preble area.

Groundwater Working Group
- Committee represents community, agriculture, municipality, county legislature, CCHD, SWCD, Cornell (Pete Wright), CCE, USGS, DOT, water providers.
- Goal: work together to lower N / create potable water in high test sites.
- Data: Water quality data evaluated and correlated with other information including well data and precipitation. More data points are needed. Town and CCHD take up to 4 samples / year / site. Some results very high – 20 mg/l. CCHD indicates that water samples at public supplies do not show bacteria BUT sample is tested AFTER treatment. Caffeine did not show up in samples. Pesticide testing has been done but results are not available yet.
- Hydrology: Highly permeable sand and gravel aquifer. Water moves rapidly. Flow is generally toward river. Surface water has higher than average N levels.
- Potential Sources:
  - Old landfills and dumps – one north of Preble;
  - Road de-icing agents – ag byproduct based. DOT has no water quality info on material but NYC watershed has banned use based on P concern. Requested study of N in material.
  - Agriculture – 2 main farms in aquifer are CAFOs. Land use pretty solid agriculture.
- Septic – little recorded well or septic system info indicates older systems.
- High density mobile home park – septic system design is unknown. SWCD would like to study using fluorometer.

**Public Concerns**
- Fall 2002 public information meeting held for residents. About 20-25 people attend. Free water testing offered.
- CCHD needs to take further action - plans to continue monitoring and procure funds to drill new well for high test area.
- CCHD and SWCD receive Freedom of Information Act (FOIL) requests from local media and attorney.
- Local farmers debate the merits of additional insurance.
- Citizen’s action group has web site: PrebleNY.com – negative venting on farmers.
- Jeopardizes agriculture’s position in Cortland. Co.
- Cortland County more vulnerable than many locations as the drinking water is mainly groundwater.

**Questions/Comments**

Q: What is nutrient management on 2 farms?
A: Surface applied manure on sod 1⁄2 in fall and 1⁄2 in spring. Spring application on corn. Generally accepted practices (now).

C: Hot spots are in center away from hillside dilution water, similar to Hartford Farm. N contamination in Long Island (“the enemy is us”) from turf and homeowners – 10 to 20 ppm in sandy soils.

C: Timeframes: plumes may move slowly – over 15 years. Valley historically had cabbage and other veg. production with high fertilization rates. Shallow rooted coles lend themselves to leaching.

Q: Status of FOIL requests?
A: Trying NOT to be defensive but process moves slowly. Have parts of plans for farms that cost share. Plans are NRCS but are in SWCD possession. Currently AEM will not release CNMPs but expect this will be tested.


Q: Atmospheric deposition considered? A: yes 2 mg/l.

Q: Where are sources that are rapidly recharging? Where are sensitive areas? Baseline shift major concern. Answer critics – “glad you are concerned, we need $ for research.” Need to focus on solution, not pointing fingers. A: Yes, need more work. Want to reconvene working group and follow through on proposals.

Q: What kind of risks do these same ground water issues pose at State level? State money available for study and remediation?

**Next Meeting:** January 14, 12:00-1:30. 133 Emerson. Planning meeting for 2004 activities.