New York State Department of Health
Hudson River Public Water System
2011 Phase 2 Monitoring Program Summary

From June through October 2011, the New York State Department of Health (NYSDOH) collected water samples for polychlorinated biphenyl (PCB) analysis from public water systems on the Hudson River. The monitoring program was developed to provide information about the systems during the dredging of PCB-contaminated Hudson River sediments by the General Electric Company. To help us understand if water quality changed, these samples were compared to samples collected in 2008 prior to dredging, and in 2009 during the first year of dredging. Samples were collected before treatment (raw water) and after treatment (finished water). All samples were found to have a PCB concentration less than the Federal and State drinking water standard of 500 nanograms per liter (ng/L).

As there were no Upper Hudson River systems actively using the river as a water source during the 2011 dredging, we focused on four Lower Hudson River systems: Green Island, Rhinebeck, Port Ewen, and Poughkeepsie. These systems were sampled every two to four weeks.

Two methods were used to analyze the samples for PCBs. One was an Aroclor Method, similar to the USEPA Method 508 that is used by most public water systems for routine testing of PCBs. We required the laboratory to report a lower detection limit than is commonly used. (A detection limit is the smallest amount that can be measured.) We used an Aroclor Method because it allows for a direct comparison to existing data from the water systems. The other method is called the Green Bay Method, which provides more detailed information about specific types of PCBs, called congeners.

Using the Green Bay Method, PCBs in raw water ranged from less than 7.5 ng/L to 84.5 ng/L, and PCBs in finished water ranged from less than 7.5 ng/L to 21.1 ng/L. Using the Aroclor Method, PCBs in finished water ranged from less than 6.1 ng/L to 32.7 ng/L (see Table 1). These data are within the range of the PCB concentrations measured during the 2008 baseline monitoring and the 2009 Phase 1 monitoring. As indicated above, all results are below the drinking water standard of 500 ng/L.

Our 2008, 2009, and 2011 monitoring programs were funded by the USEPA. Dredging of the Upper Hudson River will resume in the spring of 2012.

The NYSDOH will continue to work with water systems, local health departments, the NYS Department of Environmental Conservation, local elected officials, and the USEPA to protect public water systems during dredging. If you have any questions, please contact the NYSDOH Bureau of Water Supply Protection at bpwsp@health.state.ny.us or (518) 402-7650.

Table 1. Results of June – October 2011 Phase 2 Monitoring at Lower Hudson River Public Water Systems.
Data are in nanograms per liter (ng/L).

Location	Finished Drinking Water Aroclor Method				Finished Drinking Water Green Bay Method				Raw Water Green Bay Method			
Lower River	Samples	Average	Minimum	Maximum	Samples	Average	Minimum	Maximum	Samples	Average	Minimum	Maximum
Green Island	4	<6.1	<6.1	<6.1	4	<7.5	<7.5	<7.5	4	<7.5	<7.5	<7.5
Rhinebeck	6	12.9	<6.1	19.3	6	16.0	<7.5	21.1	6	39.5	25.3	84.5
Port Ewen	6	26.0	16.4	32.7	6	13.1	7.6	18.4	6	32.6	20.2	44.3
Poughkeepsie	6	8.5	<6.1	21.7	6	11.5	<7.5	16.6	6	50.6	15.0	82.0

[a]<6.1 indicates the sample (or average of samples) was less than the detection limit of 6.1 ng/L for the Aroclor Method
[b]<7.5 indicates the sample (or average of samples) was less than the detection limit of 7.5 ng/L for GBM.