GOWANUS FIELD WORK COMPLETED

In early December 2009, the U.S. Environmental Protection Agency (EPA) began its remedial investigation (RI) of the Gowanus Canal Superfund site. The primary goals of the investigation were to:

- Characterize the nature and extent of contamination in the Gowanus Canal to the degree necessary to evaluate the human health and ecological risks and to develop a remedy to reduce these risks;
- Determine the human health and ecological risks from exposure to contamination in the canal;
- Identify the sources of contamination to the Gowanus Canal, including ongoing sources of contamination that need to be addressed so that a sustainable remedy can be developed and implemented;
- Determine the physical and chemical characteristics of the canal that will influence the development, evaluation, and selection of cleanup alternatives.

The field activities that were conducted included a bathymetric (underwater depth) study, collecting sediment, surface water, air, and ground water samples as well as collecting fish and crab samples. In addition, EPA sampled the combined sewer overflows (CSO) and all other outfalls impacting the canal. The investigative field work was completed by late summer 2010.

RESULTS OF THE REMEDIAL INVESTIGATION

The results of the RI along with the results of the human and ecological risk assessment show that chemical contamination in the Gowanus Canal sediments present an unacceptable ecological and human health risk, primarily due to exposure to polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and metals (barium, cadmium, copper, lead, mercury, nickel and silver). All of these contaminants are thought to have been deposited in the canal as a result of current and historical discharges to the canal. High PAH concentrations are found in coal tar waste adjacent to the three former Manufactured Gas Plant sites.
along the canal. EPA also found PAHs and metals in the CSOs that discharge into the canal. Contaminated sites adjacent to the canal and discharges from outfalls are ongoing sources of contamination to the canal.

HUMAN HEALTH AND ECOLOGICAL RISK

The human health risk assessment has found that people are at risk from exposure to PCBs if they consume fish or crab caught in the canal. In addition, persons who come into regular contact with water or sediment from the canal could be at risk from exposure to PAHs. There are a host of serious health effects associated with PCBs and PAHs. PCBs are a suspected human carcinogen, a substance capable of causing cancer, and also cause neurological effects. Some PAHs are reasonably expected to be carcinogens as well.

As part of the RI, EPA also conducted air monitoring, both at canoe and street level. While the air sampling results indicated the presence of volatile organic compounds (VOCs) and PAHs, the levels were typical of what you find in urban environments.

The ecological risk assessment revealed that organisms living in the sediment are at risk because of contamination in the sediment. Ducks are also at risk to exposure from PAHs in the sediment, while heron may be at risk from exposure by eating contaminated fish.

NEXT STEP, THE FEASIBILITY STUDY

Based on the results of the RI and risk assessments, EPA will work on the feasibility study (FS). The FS will identify and evaluate cleanup alternatives to address contamination at the site. The FS is expected to be completed in late 2011. The proposed plan, which assesses many viable options to address contamination in the canal, and also includes EPA’s recommended cleanup alternative will be made available to the community for public comment in 2012. It is anticipated that EPA will select a remedy to address the contamination in the Canal in 2012.

PUBLIC MEETING

A public meeting to discuss the RI and risk assessments will be held at PS 32 (317 Hoyt Street) on Wednesday, February 23, 2011 from 6:30 pm – 9:00 pm.