



Brooklyn-Queens Aquifer

FEASIBILITY STUDY UPDATE

City of New York
Department of Environmental Protection

Summer 2005

Michael R. Bloomberg, Mayor
Emily Lloyd, Commissioner

DEP and Community Celebrate Project Milestones

Working closely with members of the community and public officials, the New York City Department of Environmental Protection (DEP) reached two exciting milestones in the Brooklyn-Queens Aquifer (BOA) Feasibility Study over the past year. Last November, representatives of DEP; the New York State Department of Environmental Conservation (DEC); Queens Community Boards #12 and #13; civic organizations; and federal, state and local elected officials broke ground for the long-awaited clean-up of the West Side Corporation (WSC) hazardous waste site. In January, the project team presented a preliminary architectural model of the Station 6 Groundwater Treatment Plant to neighbors of the facility at a public meeting designed to seek community input on the new plant.

Neither of these achievements would have been possible without the hard work of the project's Citizens Advisory Committee (CAC), whose members have spent long hours reviewing documents, discussing technical issues and advocating for their community. Thanks to their dedication, the BOA Study has made significant advances toward three vital goals: producing high quality drinking water from groundwater, reducing flooding in southeast Queens, and cleaning up a hazardous waste site that has long been a blight on the neighborhood.

This newsletter, the third in a series of community updates, will provide you with information about all of these issues. We hope that it will inspire you to become involved as well!

Community and Agencies Offer Guidance on Station 6

As the cornerstone of the BOA project, the new Station 6 treatment plant (164-21 110th Avenue, Jamaica) will produce high quality drinking water and reduce groundwater flooding while providing educational resources and community meeting space in a state-of-the-art facility.

A three-level design is proposed for the treatment plant. The lower level, which will be slightly below ground, will include pumps, motors and other machinery. The middle level will house equipment to perform water treatment processes, including the removal of iron and manganese (non-toxic metals that affect the color and taste of water); contaminants, including gasoline additives and perchloroethylene (PCE), a solvent used in the dry cleaning process; and calcium and magnesium (naturally-occurring minerals that cause hardness in water). This level will also include DEP offices, a visitor's center and community meeting space. The top level will feature a walkway and an area from which the public can view the treatment processes.

Last January, the project team and CAC met with members of the community to present the conceptual design for the plant. Co-hosted by DEP and Councilman Leroy Comrie, this public meeting was attended by representatives of elected officials and civic associations, along with local residents. The design received enthusiastic response and DEP obtained important input, especially from neighboring residents who acknowledged that although they were originally skeptical about the project, they left the meeting with confidence in the project team and approach, and support for the proposed architecture.



Model of Proposed Station 6 Groundwater Treatment Plant.

Throughout design of the facility, DEP will continue to seek the input of these critical constituencies.

DEP has also met with several city agencies regarding the proposed design and treatment processes. Last November, the project team presented the plant's conceptual design to the New York City Art Commission, which is responsible for reviewing the "aesthetic merit" (Continued on back page)

West Side Corporation Site Clean-Up is Under Way

Wearing hardhats and big grins, elected officials, agency representatives and community leaders broke ground last November for the long-awaited clean-up of the WSC site (107-10 180th Street, Jamaica). Once a storage and distribution center for PCE, a dry cleaning fluid, the WSC closed

in 1982, leaving behind a property contaminated by spills and storage tank leaks. Today, a slow-moving plume of PCE-contaminated groundwater threatens groundwater supplies beyond the original site.

Community and Worker Health and Safety

ERH and SVE have been safely used on major remediation projects around the country. At the WSC site, a number of protective measures will be implemented throughout construction and operation of the systems. These are detailed in the WSC Site Community Protection Plan (CPP) and Worker Health and Safety Plan (HASP), which were finalized in Spring 2005. The CAC and its Scientific Review Panel (SRP) reviewed drafts of the CPP, providing comments on contingency plans and public notification in the unlikely event of an incident at the site. The SRP also focused on these issues during its review of the draft HASP.

Site safety and protection measures outlined in the CPP include the following:

- **Site Security:** The immediate work area, as well as the entire WSC property, is fenced. Security personnel are on site 24 hours a day, 7 days a week, to monitor the work area and equipment and prevent unauthorized access.
- **Air Quality and System Performance:** During construction, air quality levels are monitored daily. To date, there have been no air quality incidents reported at the site perimeter or in the community. Once the system is operational, air monitoring will be performed weekly. Sensors will continuously monitor system performance, alerting the project team in the event of a malfunction.
- **Soil Disposal:** Soil generated during construction is being removed for off-site disposal at permitted landfills. Trucks will use non-residential streets to access the Van Wyck Expressway.
- **Collaboration with Local Emergency Personnel:** Local police, fire, and emergency response authorities were advised of the remediation work prior to construction. Coordination with these groups is ongoing. In the unlikely event of an incident, authorities would immediately assess the situation and, if necessary, issue instructions to persons in the affected area.

Reference copies of the CPP and HASP are available at DEC's WSC document repository (Queens Borough Public Library, 89-11 Merrick Boulevard - 2nd floor). The CPP is also available on the BOA project website (see contact box on back page). If you have any questions regarding the soil remediation, or notice any problems at the site, please call (718) 206-2423 (weekdays, 7 AM - 4 PM), or (718) 206-0424 (all other times).

In the Spring of 2005, the first phase of clean-up began with installation of the Electrical Resistance Heating (ERH) System - an innovative technology that uses underground electrical probes to convert PCE into vapors, which are then captured and treated on site. The ERH system is expected to be operational in the Fall of 2005 and will continue through early 2006. A Soil Vapor Extraction (SVE) system, which will begin operation in 2006, will further remediate PCE that is already in a vapor state. A significant advantage of these technologies is that the majority of soil clean-up takes place underground, minimizing human exposure to contaminants and transport of contaminated soil through local streets.



DEP and DEC are joined by elected officials and the CAC at the WSC groundbreaking on November 22, 2004.

The second phase of clean-up at the WSC site involves remediation of the PCE-contaminated groundwater. Two recovery wells, located adjacent to the WSC site at DEP's Station 24 facility, will capture the plume, which will then be treated using a Granular Activated Carbon (GAC) system. Construction of this system is expected to begin in Fall 2006. Water treated at Station 24 will not be used for drinking purposes; following treatment, it will be discharged to the storm sewer.

Last December, DEP and DEC hosted a public meeting to provide community members with detailed information about the remediation program, including the technologies and safety measures to be used, construction impacts and projected timeline. Among the concerns raised were questions about potential health hazards to nearby residents and employees of the Atlantic Express Bus Company, which is located on the WSC site. Project team members assured the audience that comprehensive protective measures will be taken to ensure the health and safety of the community and on-site workers (see box at left). The meeting ended on an optimistic note with expressions of support and relief that the clean-up is finally beginning!

CAC Continues to Play Central Role in Outreach

Since its formation 3½ years ago, the CAC's scope of involvement has extended far beyond monthly meetings. Special activities and committees include the following:

■ Hillview Reservoir and Van Cortlandt Valve Chamber Tour

In April 2004, CAC members traveled north to DEP's Hillview Reservoir and Van Cortlandt Valve Chamber for a rare glimpse of New York City's drinking water infrastructure, which delivers vast quantities of water to millions of people every day. This tour was part of a larger effort to foster public understanding of the City's complex water supply system and related environmental issues.



CAC and project team members on the Hillview Reservoir and Van Cortlandt Valve Chamber Tour.

■ New Environmental Science Laboratory at I.S. 59

One exciting spin-off of the BQA Study is the environmental science laboratory that is being planned for I.S. 59 in Jamaica. Joining representatives of Queens School District 29 and community volunteers, CAC members and the project team are coordinating plans to establish a special classroom, which is intended to be a template for similar facilities at other schools. Conceptual plans include a variety of hands-on activities, including use of a flow table (to be donated by DEP) to simulate groundwater and stream flow patterns; curriculum enrichment through data collection and geological and ecological research; and introduction of materials to help students develop mini-ecosystems.

■ West Side Corporation Site Clean-Up

A natural outgrowth of the CAC's ongoing involvement in plans for remediating the WSC site is the group's representation at bi-weekly WSC progress meetings. CAC members attend these meetings, held at Station 24, on a rotating basis, to hear first-hand status reports and participate in detailed discussions with project staff.

■ Station 6 Art Issues

As the CAC continues to discuss all aspects of the new Station 6 plant, its members have shown special interest in ensuring that the facility showcases the plant's pioneering efforts and importance to residents of Jamaica, while reflecting the community's cultural and aesthetic values. In addition to working with the Percent for Art program, proposals being considered include hosting a community-wide art competition and collaborating with art programs at local schools.

In Spring 2005, the CAC formed a subcommittee to address all art-related issues. The subcommittee is currently planning a workshop (tentatively scheduled for November 2005) to introduce local artists to the Station 6 project and assist them in completing the Percent for Art registry application process. Art subcommittee activities and outreach will support the CAC and project team in keeping local residents engaged in exploring art initiatives for Station 6.

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of architecture, landscape architecture and works of art located on city-owned property. Commission members praised the project team on the design and building concept, as well as its community outreach program. They also offered suggestions for enlivening the blank back wall that faces several residences with artwork, landscaping and/or additional design features.

In January 2005, the project team participated in a week-long Value Engineering (VE) workshop, which is required by the New York City Office of Management and Budget for city projects budgeted at \$20 million or more. The VE process provides suggestions for increasing operational efficiency and decreasing project costs. The workshop involved an intense evaluation of every project component by a team of independent engineers and architects and

resulted in over 30 specific recommendations that were addressed by the project team. An upcoming meeting between the project and VE teams will finalize the engineering and design components of the facility.

At the March 2005 CAC meeting, representatives of the New York City Department of Cultural Affairs (DCA) gave a presentation on the Percent for Art program. Established in 1983, Percent for Art requires that participating city agencies spend one percent of their budget for publicly accessible capital construction projects (up to a maximum of \$400,000) on public art. CAC members learned that the program selects artists from around the world who exhibit the talent and professionalism required for large-scale public art projects. Expressing their preference for Queens-based artists, CAC members are now trying to involve local artists in the Percent for Art program.

BQA Project Receives Awards for Excellence

In April 2005, the BQA project was presented with two prestigious awards: The Diamond Award for Engineering Excellence in Planning, given by the New York chapter of the American Council of Engineering Companies (ACEC), and the Grand Prize for Planning, a national award from the American Academy of Environmental Engineers (AAEE). These awards celebrated the holistic approach of the project, which expanded beyond groundwater treatment at Station 6 to include remediation of the WSC site, neighborhood sewer improvements and an extensive community outreach program.



AAEE and ACEC Awards.

Contact Information

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