NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BROOKLYN-QUEENS AQUIFER FEASIBILITY STUDY

CITIZENS ADVISORY COMMITTEE MEETING: September 9, 2004

MINUTES

The 21st meeting of the Brooklyn-Queens Aquifer (BQA) Feasibility Study Citizens Advisory Committee (CAC) was held on Thursday, September 9, 2004 at the Hillside Manor Comprehensive Care Center. (See Attachment A for Attendance List.)

Helen Neuhaus, Helen Neuhaus & Associates (HNA), opened the meeting by welcoming everyone back after the summer break. She noted that last minute scheduling conflicts and/or weather conditions prevented Deputy Commissioner Doug Greeley, New York City Department of Environmental Protection (DEP); Dr. Alan Rabideau, State University of New York at Buffalo; and Dr. Leonard Lion, Cornell University, from attending the meeting. She also welcomed Dave Chiusano, Project Manager, New York State Department of Environmental Conservation (DEC), who will be responsible for the West Side Corporation soil remediation program and Keach Hagey, *Queens Chronicle*, who will be replacing Dan Hendricks in covering the BQA project.

Ms. Neuhaus then asked for comments on the Minutes of the May 6th meeting. There were no comments, and the Minutes were adopted unanimously.

Project Update

West Side Corporation (WSC)

Mr. Chiusano introduced himself to the group and described his role as project manager of the soil remediation process at WSC. He thanked DEP for helping secure the resources needed to move forward with cleaning up the site.

Mr. Chiusano explained that the bidding process for contractor selection for WSC clean-up included a 30-day advertising period, during which three contractors submitted bids ranging from $2.9 to $5.3 million. After rejecting the apparent low bidder due to an unsatisfactory proposal, the second lowest bidder, Clayton Group Services was notified of its apparent selection on August 24th. The firm has been asked to submit additional paperwork, including work plans, bonding and insurance forms, and legal documents, which will be reviewed by DEC, the New York State Department of Law, and the Office of the State Comptroller before contract award. Mr. Chiusano explained that the period from notification of contractor selection to start of construction is expected to take 80-90 days, with award anticipated in mid-to-late November. This timeframe is typical for a project of WSC's magnitude and degree of innovation. Commenting that Clayton and its subcontractor, Thermal Remediation Services, are highly professional and motivated firms, he expressed confidence that a superior job will be performed. (Information on both firms is available on the internet.)

Mr. Chiusano continued by explaining that field work is expected to begin within a week after contract award. This initial phase of the work will include setting up the Electrical Resistance Heating (ERH) probes (a 1½-2 month process); operating the probes to remediate soils in the principal area of contamination for a 3-4 month period; and investigating indoor air quality in surrounding homes. Following completion of this phase in the Summer of 2005, soil vapor extraction will begin on less concentrated areas of the site. Mr. Chiusano informed the CAC that DEC has hired the URS Corporation, which was responsible for design work at the site, to conduct oversight of the remediation process.

Once field work begins, DEC will notify the public through a community mailing. Mr. Chiusano emphasized that he will maintain dialogue with the CAC throughout the remediation process. This will include bringing representatives of URS and Clayton Group Services to a future CAC meeting and working with DEP to set up a CAC visit to the WSC site once the remediation is under way.

The following questions and comments were raised in response to Mr. Chiusano's presentation:

- Dr. Paul Lioy, University of Medicine and Dentistry-Robert Wood Johnson Medical School, asked if a significant amount of soil will be removed from the site. Mr. Chiusano stated that no major excavation is planned as part of the remediation, but some minor excavation will be needed for trenchwork and pipe installation. Any soil fit for reuse will be reused; the rest will be removed.
- Manuel Caughman inquired about the disposal of vapors extracted from the soil. In response, Mr. Chiusano explained that the vapors will be drawn through a device that eliminates the perchloroethylene (PCE) using catalytic oxidation technology and then sends the discharge through a stack. The vapors released through the stack will be monitored in accordance with existing air quality regulations. Mr. Chiusano noted that as PCE concentrations in the soil decrease over time, DEC will begin using granular activated carbon (GAC) units to extract contaminants. All monitored data will be documented and available for review upon request.
- In a follow-up question, Linda Caleb Hazel asked if the system includes an automatic shut-off function. Mr. Chiusano confirmed that the system would automatically shut down in the event of a malfunction in the treatment process. He also noted that staff will be on site 3-4 times per week to monitor the process.

In closing, Mr. Chiusano again thanked DEP for its cooperation and dedication regarding the WSC clean-up and expressed his enthusiasm about moving the project forward.

Station 24

Don Cohen, Malcolm Pirnie, began his presentation by providing a brief recap of the issues regarding permits at Station 24. Mr. Cohen announced that Station 24 permitting issues have been resolved and that monitoring requirements have been determined. With the permits now in place, the project team has shifted its focus back to design of the treatment facility. He reported that full design of the facility is in progress, following DEP's approval of the preliminary design report this Summer.

Referring to a diagram of Station 24, Mr. Cohen showed the locations of the PCE source area and plume. He indicated that the first recovery well, which is already installed, is located on the axis of the plume near 178th Street. A second well will be installed to pump from the outer edge of the plume. Once operational, the two wells will pump between 500-1500 gallons per minute. Mr. Cohen explained that during the treatment process, water will run through three pairs of on-site GAC units (each 10' wide and approximately 20' high). The first tank in each pair will remove the bulk of contaminants; the second tank will serve as a backup. The treated water will then be discharged to the storm sewer at 177th Street and subsequently flow to Jamaica Bay. Mr. Cohen reiterated that the goal at Station 24 is to hydraulically contain the plume through pumping, treatment and disposal of contaminated water. This work will be easier as DEC remediates the soil, thereby preventing additional PCE from seeping into the groundwater.

Mr. Cohen anticipates that design will be finished within 4-6 weeks. Upon completion, it will be reviewed by DEP and then the New York City Department of Law. Following approval, a bidding process to select a contractor will be initiated. Construction at Station 24 is expected to start in approximately one year. This timeframe is optimal, as it allows DEC to make significant headway in soil remediation before DEP begins remediation of the groundwater. With less PCE seeping into the groundwater, the GAC units at Station 24 will require less frequent replacement of spent carbon, which will lower costs and minimize disruption to the neighborhood.

In a related item, Mr. Cohen reported that the project team continues to meet with the New York City Department of City Planning (DCP) to review the application map required to de-map streets at Station 24. This de-mapping is needed because 177th and 178th Streets and 109th Avenue appear as through streets on official City maps, even though they dead-end at the property's edge. Mr. Cohen stated that a revised application map, prepared in accordance with DCP's requirements, was recently forwarded to DEP for further review. The final map will be submitted to DCP as part of the Uniform Land Use Review Procedure (ULURP) application, which is currently being prepared. Because completion of the ULURP process is lengthy (up to a year), an application will also be submitted to the New York City Board of Standards and Appeals requesting permission to allow construction pending completion of the de-mapping procedure. Mr. Cohen also informed the CAC that the project team will be meeting with the New York City Department of Transportation to discuss any changes in emergency access that might result from the de-mapping proposal.

In response to a question from Dr. Gilbert Hanson, State University of New York at Stony Brook, regarding the length of time required to remediate the site, Mr. Cohen indicated that the recovery wells will run indefinitely, since DEP can only contain the plume but never completely remove the residuals.

Station 6

Mr. Cohen's report on the status of permitting issues for the Station 6 Plant specifically emphasized permitting related to discharge from the reverse osmosis (RO) portion of the treatment process. He explained that although RO is a very effective method of softening water, it results in high concentrations of nitrates in the "reject stream." After meeting with DEC to discuss discharge options and looking into possible use of an existing sanitary sewer to transport the flow to the Jamaica Water Pollution Control Plant (WPCP), DEP has decided to build a new

relief sanitary sewer. This new sewer will be large enough to handle discharge from Station 6, as well as to relieve pressure on surrounding sewers. Construction of this project, at a cost of approximately $20 million, will be under the jurisdiction of the New York City Department of Design and Construction (DDC).

Mr. Cohen then briefly reviewed the process design for Station 6, which will include oxidizing iron and manganese from the groundwater to create particles large enough to be filtered out; removing Volatile Organic Compounds (including PCE and methyl tert-butyl ether [MTBE]) through the use of air strippers; and softening the water via the RO unit. With the permits in place, the team is now able to continue work on design of the physical structure. Referring to a diagram of Station 6, Mr. Cohen explained that a three level design is proposed, which will include resources for the community. The lower level, which will be recessed 5 feet below ground, will house pumps, motors and other machinery. The middle level will include the ozone unit, ultra filters, air strippers and RO unit, as well as offices and a visitor center. The top level will feature a walkway and viewing decks for watching the processes taking place on the middle level. Mr. Cohen remarked that due to security concerns, viewing windows will be installed to prevent visitors from touching the machinery.

In conclusion, Mr. Cohen reported that the Station 6 plant is projected to treat 7½ million gallons of water per day (MGD) during normal operation, but may be built to handle 10-12 MGD, if adequate space is available. Nicole Brown, Malcolm Pirnie, added that retrofitting the plant in the future would be more costly than planning for inclusion of extra equipment at this time. Additional equipment would provide the redundancy needed to operate continuously during maintenance and repair events.

Other questions and comments raised in response to Mr. Cohen's presentation are summarized below:

- In response to a question from Irving Hicks, Mr. Cohen confirmed that the Jamaica WPCP, located on the western edge of JFK Airport, discharges to Bergen Basin and eventually Jamaica Bay. Mr. Cohen explained that while the route of the new relief sewer has not yet been decided, it will begin at Station 6 and generally head south towards the plant. The exact sewer route will be coordinated with DDC at a later date.
- In response to Dr. Hanson's concern that discharge from Station 6 could corrode sewer pipes, Bill Yulinsky, DEP, explained that since the nitrates in the reject stream will not be in the form of ammonia, they will not disrupt the operation of the Jamaica WPCP. Ms. Brown added that the reject stream from Station 6 will be relatively clean, as compared to the sewage entering the plant. It was also noted that the Jamaica WPCP is currently processing 9,000 pounds of nitrates below its limit per day; Station 6 will only add 400-500 pounds per day.
- Dr. James Kilduff, Rensselaer Polytechnic Institute, inquired about the flow and recovery rates of the RO reject stream. The project team noted that the flow rate will be approximately 1 MGD while the RO recovery rate will be high, about 95%. In response to a follow-up question, Mr. Cohen stated that the Jamaica WPCP can handle 100 MGD, but does not have nitrate removal capabilities. Mark Lanaghan,

DEP, noted that nitrate removal improvements will soon be incorporated at several plants, including the 26th Ward WPCP.

- Both Ms. Hazel and Jeff Diggs commended DEP for planning a new relief sewer, noting that the BQA project has led to the remediation of several long-term environmental issues in the community. Mr. Cohen underscored the importance of community feedback in contributing to this decision, citing the community outreach component of the overall project as a model to follow in future projects. Mr. Yulinsky added that Commissioner Greeley was the driving force behind expanding the project beyond Station 6 to Station 24 and WSC clean-up. Mr. Caughman remarked that this project is a classic example of how state and city agencies should collaborate with the local community to solve a problem.
- In response to a question from Earl Roberts, Mr. Cohen described a 4-5 year schedule for completion of the Station 6 facility. This includes a 3-year construction period and a one-year start-up and testing phase. In addition, it was reiterated that Station 6 cannot begin pumping until Station 24 has been fully operational for one year and has significantly contained the plume.
- Dr. Lioy suggested that a composite project timeline (for WSC clean-up, work at Stations 6 and 24, and construction of the relief sewer) be prepared to help the community understand the interface of specific project elements and the reasons for delays. The CAC agreed that a timeline would be useful. Mr. Chiusano added that the contractor's detailed schedule will be provided for inclusion in the timeline, as soon as it is available.

<u>Other Business</u>

- Mr. Cohen announced that construction of a new water main along 110th Street has been delayed for one year.
- Mr. Diggs inquired about the influence of recent hurricanes on the water table. In response, Mr. Cohen explained that groundwater systems react to extremes in weather much more slowly than reservoir systems. He elaborated by saying that groundwater levels may move only fractions of an inch during heavy rainfall. In addition, it was noted that because recent rains have fallen very quickly, they have resulted in significant stormwater runoff, rather than seepage into the groundwater system.
- In response to Mr. Roberts' concern about residential basement flooding, Mr. Cohen explained the need to determine whether the flooding is a groundwater or stormwater-related issue. Stormwater flooding might necessitate the repair or replacement of physical components in the house or street, whereas groundwater-related flooding would require a solution that lowers the water table.
- Mr. Roberts remarked that several residents in Cambria Heights (in the vicinity of 114th Avenue and 224th Street) have complained about discolored water from their faucets. After mentioning that the problem was reported to DEP without any apparent response, Mr. Lanaghan and Lillie Farrell, DEP, agreed to follow up on the issue.
- Mr. Roberts observed that the grass surrounding a water tank in Cambria Heights has not been cut for quite some time. Mr. Yulinsky responded that the landscape contractor hired by the City was fired but would soon be replaced.
- Referring to *WaterNews*, a newsletter of the U.S. Environmental Protection Agency, Ms. Hazel announced that the 32nd year of the Clean Water Act will be celebrated next month.

Festivities will include the testing of many waterways worldwide. Ms. Hazel offered to provide more information to anyone who was interested.

- Mr. Hicks reported that water from his neighbor's faucet has been discolored and emits a chlorine odor. Mr. Lanaghan and Ms. Farrell also promised to follow up on this issue.
- Mr. Caughman commended DEP on the level of outreach on a recent water main construction project on Farmers Boulevard in his neighborhood. He specifically noted that DEP gave advance and detailed notice to residents on when and how to shut off their water.

The next CAC meeting is scheduled for **Thursday, October 7, 2004 at 7 p.m.** at the Hillside Manor Comprehensive Care Center, 188-11 Hillside Avenue, Jamaica Estates.

Follow-Up List

1. Provide the CAC and SRP with a schedule that shows the timeline for all project elements (Stations 6, 24, WSC, relief sewer). Responsibility: Malcolm Pirnie.
2. Invite representatives of URS and Clayton Group Services to CAC meeting after initiation of WSC clean-up. Responsibility: Dave Chiusano, DEC; HNA.
3. Schedule visit(s) to WSC site once clean-up is under way. Responsibility: DEP, DEC, Malcolm Pirnie, HNA.
4. Investigate water quality problems in Cambria Heights (vicinity of 114th Avenue and 224th Street--Earl Roberts) and on 177th Street, between 109th and 110th Avenues (Irving Hicks). Responsibility: Mark Lanaghan, Lillie Farrell, DEP.
5. Forward copy of WSC contract specifications to local elected officials (Manny Caughman). Responsibility: Dave Chiusano, DEC.

Attachment A

Brooklyn-Queens Aquifer Feasibility Study
Citizens Advisory Committee
Thursday, September 9, 2004

Attendance List

CAC Members/Alternates

Linda Caleb Hazel
A Better Day Inc./St. Benedict The Moor/
St. Bonaventure

Manuel Caughman
Community Board #12/Brinkerhoff
Action Association

Jeff Diggs
Councilman Leroy Comrie

Richard Hellenbrecht
Community Board #13

Irving Hicks
Brinkerhoff Action Association

Sarah Hicks
Resident

Earl Roberts
113th Precinct Council

SRP Members

Gilbert Hanson
State University of New York
at Stony Brook

James Kilduff
Rensselaer Polytechnic Institute

Paul Lioy
University of Medicine and Dentistry
of New Jersey

Media

Keach Hagey
Queens Chronicle

Project Team

Nicole Brown
Malcolm Pirnie, Inc.

David Chiusano
New York State Department of
Environmental Conservation

Don Cohen
Malcolm Pirnie, Inc.

Lillie Farrell
New York City Department of
Environmental Protection

Mark Lanaghan
New York City Department of
Environmental Protection

Helen Neuhaus
Helen Neuhaus & Associates Inc.

Andrea Wong
Helen Neuhaus & Associates Inc.

Denise Woodin
Helen Neuhaus & Associates Inc.

Anita Wright
Helen Neuhaus & Associates Inc.

Bill Yulinsky
New York City Department of
Environmental Protection