

FACT SHEET

JANUARY 1999

Garden City Park Industrial Area Investigations
NYS Department of Environmental Conservation
Division of Environmental Remediation
50 Wolf Road, Albany, NY 12233-7010

Environmental Investigations in Garden City Park Industrial Area (GCPIA)

This fact sheet describes the New York State Department of Environmental Conservation's (NYSDEC) hazardous waste site program at the Fulton Avenue Site and other former, current and potential sites in the Garden City Park Industrial Area. A map of the sites is attached.

Citizen Participation

To inform and involve the public in the investigation of the GCPIA, NYSDEC:

- Informs adjacent property owners as well as county and town clerks, of any changes in the classification of the hazardous waste site.
- Meets with local officials and interested community organizations.
- Contributed to an educational workshop on pollution prevention developed, for local residents, by an independent citizens group.
- Distributes *Fact Sheets* giving a summary of the status of investigations and remedial activities in the area.
- Participates with other state and county agencies in public meetings, held in the vicinity of the site. (August 1994, May 1996, and January 1998).
- Ensures that copies of all work plans, investigative reports and decision documents are available for review in local repositories.

Document Repositories: Two locations provide access to information about the site:

NYSDEC, Building 40 - SUNY
Division of Environmental Remediation
Stony Brook, NY 11790-2356
(516) 444-0249
Hours: Mon-Fri 9am-5pm

Mineola Memorial Public Library
195 Marcellus Road
Mineola, NY 11501
(516) 746-8488
M, W & F: 10-9, Tu & Th: 10-6,
Sat: 10-5:30

For More Information. Call or write the following staff:

About NYSDEC's investigation:

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Stony Brook, NY; (516)444-0249 or
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(518)457-9285 Both at:
Albany, New York 12233-7010

About Health-Related Concerns:

Nina Knapp, Health Liaison Program
(800)458-1158 ext. 402 and William
Gilday ext. 305 or (518)458-6305
New York State Department of Health
2 University Place
Albany, NY 12203-3399

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Previous Work

A study entitled "Investigation of Contaminated Aquifer Segments, Nassau County, New York," was conducted by the Nassau County Department of Health (NCDH) in June 1986. As a result, several areas within Nassau County with significant ground water contamination were identified. Subsequently, the NCDH initiated a project to characterize the contamination in these areas. One of the areas so characterized is the Garden City Park Industrial Area (GCPIA).

The Garden City Park Industrial Area is comprised of many diverse businesses within an approximately sixty-five acre area in the Town of North Hempstead in Nassau County, New York. The area is bounded by the Long Island Railroad on the south and Herricks Road on the east. The northern boundary is formed by Park Avenue between Herricks Road and Armstrong Road, and Broadway between Armstrong Road and Court House Road. Nassau Boulevard followed by Court House Road forms the western boundary (see attached maps).

One or more of the facilities in this industrial area has been in operation since 1950. During the above mentioned period, industrial facilities have either illegally discharged waste to the ground or spilled and/or mismanaged various chemicals.

The GCPIA is not considered a site as such, but within its boundaries it contains potential sources and one confirmed hazardous waste disposal site, located at 150 Fulton Avenue. This property is about 0.8 acres and houses a 20,000-square foot one-story building. The premises are owned by Gordon Atlantic Corporation. There have been several previous occupants. KnitFabs, who was an occupant from 1965 until August 26, 1969. From 1969 to 1974, Halperin Knitting Mills occupied the building. From 1975 to 1976 Halknit Finishers, Inc. occupied the building. All three companies owned a dry cleaning machine which used tetrachloroethylene (PCE) as a solvent. Recent investigations found on-site soil and ground water to be contaminated with this chemical.

A 1975 NCDH inspection revealed that the then current tenants, Halknit Finishers, generated waste oils that were produced from a dry cleaning process. The company ran a cutting mill that received knit fabrics in bulk form.

In 1977, Robelan Displays, Inc. leased the property. NCDH inspected the property again in 1978. Robelan Displays, Inc. was reported to have manufactured displays at the facility, and utilized paints and lacquer

thinners in their process. All paints and lacquers were reported to be used up in the process. This facility was inspected two more times; once in 1981 and once again in 1986. No changes were noted since the initial inspection.

In 1988, CyMann Designs, Inc. leased the property. The CyMann Designs operation was a furniture distribution warehouse and reportedly did not use any chemicals at the facility. CyMann Designs vacated the property in January 1996. In March of 1998, new tenants - New York Business Systems moved into the building. New York Business Systems is a distributor of office equipment and uses the building for warehousing, equipment servicing, and office functions.

In 1991, a joint investigation was conducted by NCDH and the Nassau County Department of Public Works to further investigate the ground water quality in the GCPIA.

Based on this investigation, a significant plume of volatile organic contaminants (primarily PCE) was detected. Total volatile organic contaminants, measured at concentrations of up to 51,210 ppb (parts per billion), caused widespread ground water contamination. Although no definitive connection has been established, NYSDEC and USEPA have alleged that up to seventeen public supply wells may have been impacted by plumes emanating from the Garden City Park Industrial Area and/or nearby areas. These wells have either been taken out of service or had treatment systems installed to meet stringent drinking water standards. The wells are distributed between five water suppliers, and serve a combined population of about 214,600. All wells which may have been affected by the plume are subject to routine monitoring by the local water district and the NCDH to ensure that the public water entering the residents' homes meets all Federal, State, and local drinking water standards.

In April 1993, the NCDH referred the Garden City Park Industrial Area to the New York State Department of Environmental Conservation (NYSDEC), and hence to the Division of Environmental Remediation or DER (formerly Hazardous Waste Remediation) for further investigation. A Preliminary Site Assessment (PSA) was completed in September 1994. The PSA is NYSDEC's first investigation of a site where hazardous waste has or may have been disposed or spilled, either illegally or improperly. The goal of a PSA is to determine whether the waste disposed or spilled meets the state's definition of hazardous waste and if so, the significance of any threat to public health or the environment. The PSA process, in which the New York State Department of Health (NYSDOH) participates, involves a records search, sampling/surveys and ground water monitoring.

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The NYSDOH, through its own early site investigation and health assessment, identifies potential impacts on public health so that this may be incorporated into the PSA. The NYSDOH also: helps NYSDEC review work plans and reports, contributes to classification discussions at the conclusion of a PSA, and assists in the identification of priority sites. Sites that are designated as a Class 2 site move to the remedial process, usually the Remedial Investigation/Feasibility Study (RI/FS) stage where the full nature and extent of contamination is defined. A Class 2 site is identified as one at which the disposal of a consequential amount of hazardous waste has been confirmed, and this hazardous waste or its breakdown products present a significant threat to the environment or to human health (but does not present an imminent danger of causing irreversible or irreparable damage). However, prior to this, a site may also be referred for an Interim Remedial Measure (IRM) or an early cleanup action to prevent, mitigate or remedy environmental damage.

During the GCPIA PSA, the NYSDEC identified one source area for the PCE (150 Fulton Avenue) and four potential source areas for other volatile organic contaminants. The Fulton Avenue Site was added to the NYSDEC Registry of Inactive Hazardous Waste Sites (the Registry) as a Class 2 site in August 1994.

Based on the PSA, two separate additional investigations were conducted: a focused remedial investigation (RI) for the Fulton Avenue Site, and a combined multi-site PSA to further investigate the four potential sources. In December 1995, during the focused RI, the exact location of a dry well, which proved to be a significant source of the PCE, was found near the northeast corner of the Fulton Avenue property. NYSDEC did not positively identify any additional sources during the multi-site PSA, but the presence of ground water contamination emanating from one or more of the four potential source area properties within the GCPIA was further documented, and an additional potential source was revealed.

In February 1996, the NYSDOH analyzed surface soil samples at the Mineola High School to address citizen's concerns about whether volatile organic compounds identified in the ground water at the GCPIA are found in the surface soil of the school grounds. The results showed that PCE and trichloroethene (TCE), one of its breakdown products, were not detected. Based on those results NYSDEC/NYSDOH concluded that surficial soils at similar non-industrial facilities in the vicinity have not been contaminated by the chemicals of concern at the GCPIA.

Some additional ground water monitoring well samples were taken in June 1996 and the results were used by the

United States Environmental Protection Agency's (EPA) consultant to develop the Fulton Avenue site's Hazardous Ranking Score. Based on this, EPA placed the Fulton Avenue site on the National Priorities List (NPL) in March of 1998.

The NYSDOH collected indoor air samples at 150 Fulton Avenue in June 1998 to evaluate the extent of PCE contamination. This solvent was detected in all samples. Previous indoor air sampling in the 1996 focused RI found no detectable levels. In the June 1998 event, concentrations were detected above the NYSDOH air guideline of 100 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) for PCE. However, remedial activities including a soil removal IRM (see below) that will reduce PCE concentrations at and around the property are in progress. Periodic indoor air samples will be collected to assess current conditions and the effectiveness of the remedial activities.

Current Initiatives

As of January 1999, several initiatives are underway concerning the GCPIA and the Fulton Avenue site. These initiatives include the design and implementation of the following:

1. A Soil IRM;
2. A Remedial Investigation & Feasibility Study (RI/FS);
3. A Ground Water IRM; and
4. A continued investigation within the GCPIA to further evaluate other potential sources of ground contamination within the GCPIA.

In September 1997, a consent order which incorporates the soil IRM and a RI/FS was executed between NYSDEC and Genesco Inc. (Genesco) who was the parent company of KnitFabs during 1965-1969. Genesco became responsible for design and implementation of the RI/FS, and the soil IRM. NYSDEC will continue to be responsible for the Ground Water IRM and continued investigation to evaluate other potential sources of ground water contamination within the GCPIA.

Soil IRM

The Soil IRM involves: the cleanup of the contaminated soil at the Fulton Avenue property via excavation and backfilling of the former drywell, followed by the installation of a treatment system that combines soil vapor extraction (SVE) and air sparging of the shallow portion of the ground water table. The SVE system reduces subsurface soil contamination by enhancing the volatilization of the contaminants through the use of

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blowers/vacuum pumps. This process is supplemented by injecting air below the ground water.

During August 1998, the contaminated sediment/soil from within the dry well was excavated and the dry well was properly abandoned via backfilling with clean soil. The construction of the Soil IRM treatment system was initiated immediately following backfill of the former drywell. The Soil IRM treatment system construction and start-up testing was completed in October 1998. The Soil IRM treatment system is now operating.

Remedial Investigation/Feasibility Study

The Ground Water IRM (described in the following section) currently focuses on the remediation of the most highly contaminated ground water near to the site. All the contaminated ground water that has spread further downgradient of the GCPIA will also have to be addressed via a Remedial Action. This will be done after an area-wide RI/FS is completed.

During October 1998, NYSDEC approved the Final RI/FS Work Plan documents prepared by Genesco and its contractor. Copies of the final documents will be placed in the document repositories listed on page 1. The Final RI/FS Work Plan documents contain a defined initial scope of work which was agreed to by NYSDEC and Genesco Inc.

The objectives of the RI/FS will be to:

- determine the extent of this contamination (length, depth and width of contamination) in the Upper Glacial aquifer and the Magothy aquifer (deeper ground water aquifer, in which the public wells are emplaced) with respect to the Fulton Avenue site's contribution;
- predict the future fate and transport (migration pathways) of ground water contamination leaving the GCPIA area;
- assess the impacts and risks posed by the ground water contaminant plume to the public health and the environment; and
- consider feasible options for a long-term ground water remediation plan.

The RI field investigation commenced in early December 1998, and will continue for several months.

The RI/FS will be conducted in a phased manner whose approach and scope takes into consideration that:

- substantial soil and ground water investigative efforts have previously been conducted within and downgradient of the GCPIA, and
- because of the size of the plume, there are physical constraints that will make delineation and/or remediation of the plume difficult. Specifically, these physical constraints are:
 - the plume has allegedly migrated a distance of 3 to 5 miles from the site to depths of up to 500 feet to allegedly affect up to 17 public supply wells
 - the area that encompasses the 17 public supply wells is approximately 12.5 square miles within Nassau County, and
 - the current land usage within this 12.5 square mile area of Nassau County is highly urbanized making installation of test borings, ground water monitoring wells, recovery wells, conveyance piping and/or a treatment plant difficult.

In consideration of these factors, the project scope and phased-approach has been tailored to include:

- the utilization of all existing available data to the fullest extent possible;
- ground water vertical profiling task using temporary wells to further define the extent of ground water contamination within the Upper Glacial aquifer and the Magothy aquifer, and to select permanent ground water monitoring well locations and screen settings;
- installation of permanent ground water monitoring wells to act as permanent monitoring and/or compliance points within the Upper Glacial aquifer and the Magothy aquifer;
- collection of ground water samples from a total of 51 ground water monitoring wells (13 new and 38 existing wells owned by the NCDPW, the NCDH and United States Geological Survey (USGS));
- collection of several rounds of synoptic ground water level data;
- a three-dimensional ground water flow computer model;
- a risk assessment for ground water; and
- a feasibility study for ground water.

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Ground Water IRM

The NYSDEC will continue to be responsible for design and implementation of the Ground Water IRM. The Ground Water IRM currently focuses on the remediation of the most highly contaminated ground water near to the site, by use of an in-well air-stripping system. In the case of this technology, pressurized air is injected below the water table to produce aerated, less dense water that rises and draws additional water through a lower well screen. The contaminants in the water volatilize into bubbles, and this bubble-water mixture rises to an upper screen, where the contaminants, in vapor form, are released. These vapors are treated aboveground. This ground water remedy has replaced the originally proposed pump and treat system, largely due to problems associated with properly dealing with the large volume of treated water that would be generated. Discharging to Nassau County's nearby recharge basin, which would ultimately reach the town of North Hempstead's storm water collection system, was a concern because of past flooding in this area during times of heavy rainfall. Since, in the present system, the ground water will not be pumped aboveground, flooding will not be an issue. Moreover, NYSDEC anticipates that the new system will be more cost-effective.

Other Source Investigations

As discussed in the Previous Work section, in addition to the initial four potential source areas, *Town Sheet Metals*, was identified as fifth potential source. The initial four potential source sites have not been listed on the Registry by NYSDEC. However, some questions still remain regarding one of the initial four: *Precision Fabricators*. A supplemental PSA designed to gather further information about both the *Town Sheet Metals* and *Precision Fabricators* sites is ongoing. This would help us resolve the uncertainties about both of these sites.

In addition to the above mentioned additional work, Jackson Steel, located at 435 First Street, Mineola, was recently added to the NYS Registry of Inactive Hazardous Waste Sites with a Class 2 designation. This property is situated just outside the boundaries of the GCPIA. However, based on the chemical found in on-site dry wells, and the associated groundwater contamination, this facility is another potential contributor to the public supply well contamination.

Public Health Assessment

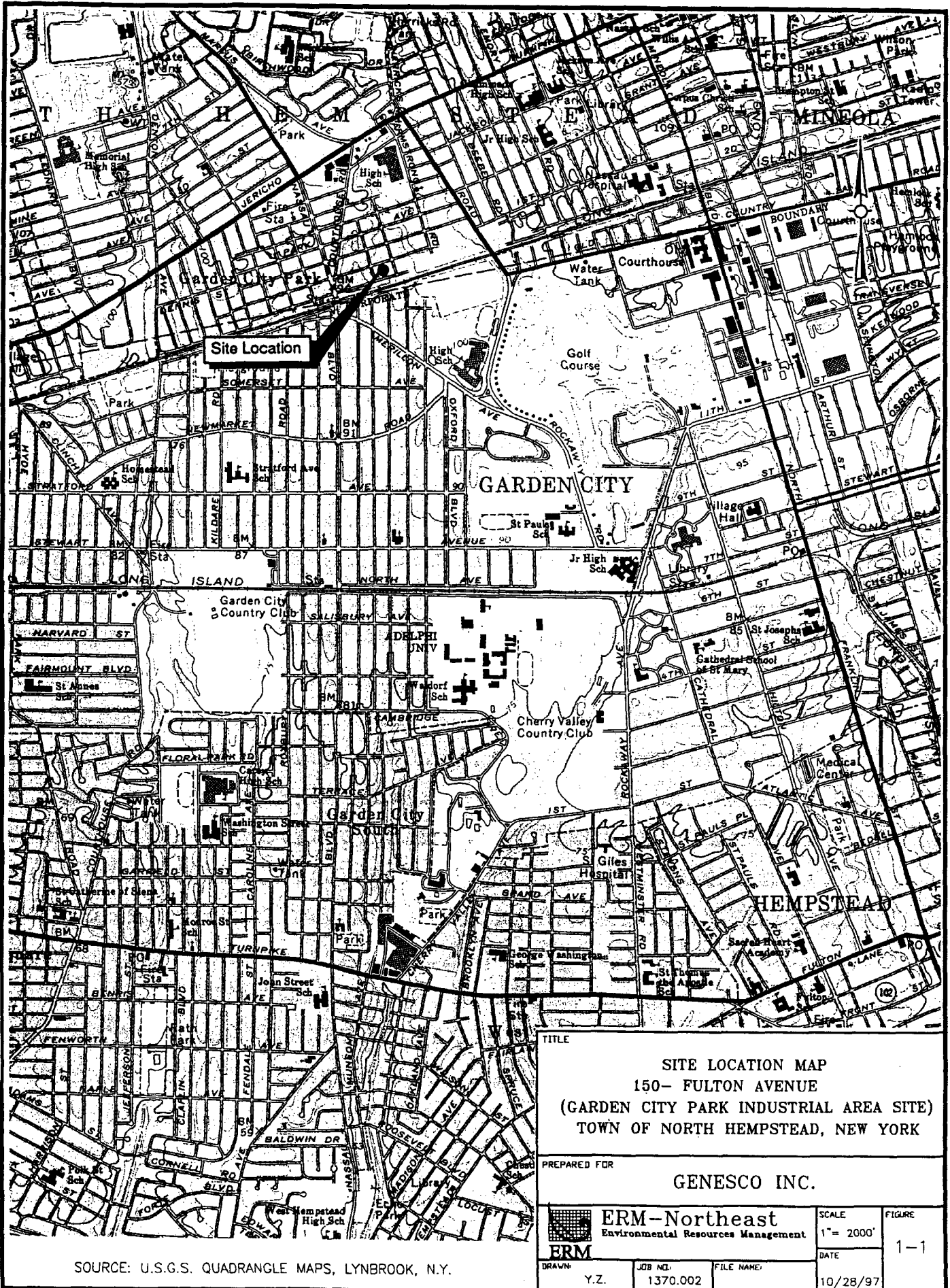
The NYDOH in conjunction with the US Dept. of Health and Human Services has prepared an initial Public

Health Assessment for the Fulton Avenue Site. The final release will be made public in early 1999.

Public Supply Wells

The NYSDEC DER is also working with the Village of Garden City with regard to remediation of their well #9, which was apparently contaminated by the hazardous waste emanating from the Fulton Avenue source area. The village will be reimbursed for the capital and construction costs associated with the design and installation of an air-stripper for the well. The air-stripper was designed as a long-term solution/remedy to insure that the water being used for drinking meets all applicable federal and state drinking water standards. Construction of the stripper began in January 1997. Its installation should be completed in early 1999, and well #9 will be put back into service at that time.

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SOURCE: U.S.G.S. QUADRANGLE MAPS, LYNBROOK, N.Y.

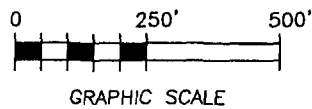
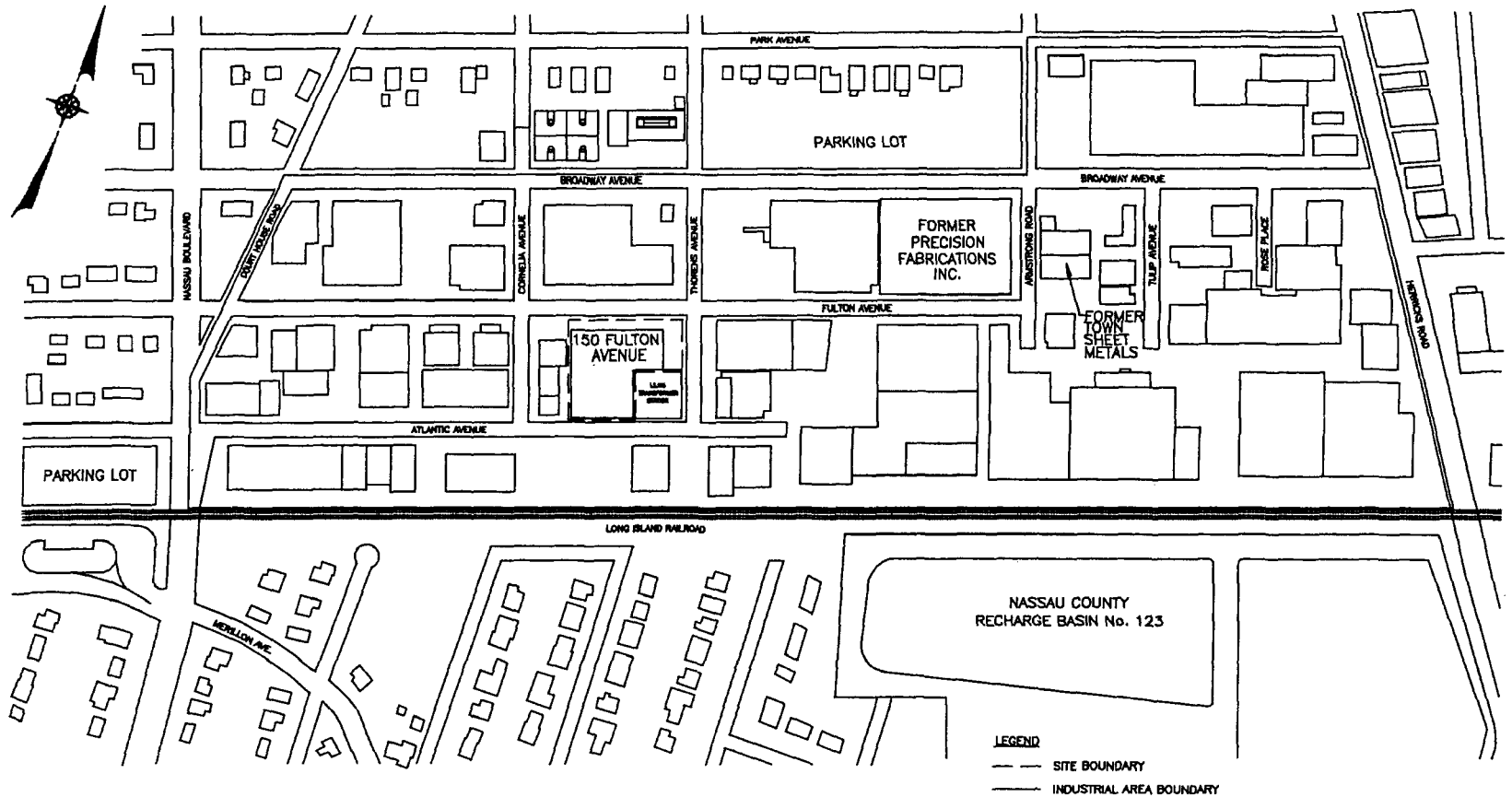
TITLE

SITE LOCATION MAP
 150- FULTON AVENUE
 (GARDEN CITY PARK INDUSTRIAL AREA SITE)
 TOWN OF NORTH HEMPSTEAD, NEW YORK

PREPARED FOR

GENESCO INC.

 ERM-Northeast Environmental Resources Management ERM	SCALE	FIGURE
	1" = 2000'	1-1
DRAWN	JOB NO.	FILE NAME
Y.Z.	1370.002	
	DATE	
	10/28/97	



SOURCE: DVIRKA & BARTILUCCI 10/29/96

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GARDEN CITY PARK INDUSTRIAL AREA			
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ERM-Northeast Environmental Remediation Management		SCALE GRAPHIC	FIGURE
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