DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

Facility Name:	**General Electric Main Plant**
Facility Address:	**1 River Road** **Schenectady, New York 12345**
Facility EPA ID:	**NYD002084135**
Facility NYSDEC ID:	**447004**

BACKGROUND

Definition of Environmental Indicators (for RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While final remedies remain the long-term objective of the RCRA Corrective Action program, the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

EI (CA725) DETERMINATION

Facility Description:

The General Electric (GE) Main Plant facility is located at 1 River Road in the city of Schenectady and the town of Rotterdam, Schenectady County, New York. The property is zoned "heavy industrial" and encompasses approximately 628 acres. The property is bordered to the north and east by Interstate 890; to the south by the Poentic Kill and the Delaware and Hudson Railroad; and to the west by the Poenties Kill, an unnamed wetland, and the Rotterdam Square Mall. Properties to the north, east, and west are zoned for industrial and commercial uses. Properties to the south are zoned for residential use. The residential area is separated from the site by the railroad track and the steep, wooded Bellevue Bluffs, which rise approximately 50 to 100 feet above the site.

The GE Main Plant has been in operation since 1886, when Thomas Edison purchased two vacant factory buildings at the site. Information on activities at the site prior to GE was not available. The area was originally the Mohawk Flats wetlands and was heavily filled, an activity that continued up until 1947. Initially, landfilling took place south of the Erie Canal. Since 1886, over 240 buildings and other structures have been constructed on the site. Over the years, the plant has manufactured a variety of products, including electrical motors and generators, steam and gas turbines, insulated wire and cable, insulating materials, and microwave tubes.

The surrounding area both currently and historically supported numerous industrial activities, including the Erie Barge Canal's Schenectady Port, handling bulk coal and petroleum products; railroad sidings that linked the Main Plant to the former American Locomotive facility for transport of machine parts; a fuel oil distribution center at the Stark Oil site; a jewelry manufacturer; two major recycling centers for steel, paper, and plastic; a municipal waste transfer station; a maintenance center for an electrical and natural gas utility; numerous automotive service stations; a chemical manufacturing plant for insulated materials; and a sewage treatment plant.

Manufacturing activities are conducted in the central and eastern parts of the property. As of August 2001, approximately 45 buildings were present on site. The western area of the property includes three former landfill areas (the former Binnie Kill Landfill, the former East Landfill, and the former West Landfill) and wetlands.

GE used the former landfills for disposal of waste and debris beginning in the mid-1940s and continued into the 1980s. Most of the former East Landfill is currently covered with six to eight inches of cover material and is overgrown with vegetation. In some areas, the cover is up to two feet thick. Soil cover at the former West Landfill is generally between two and five inches thick, up to one foot in some areas. GE covered the former Binnie Kill Landfill in 1997 with three feet of clean fill and six inches of topsoil, which is now well vegetated.

Bedrock under the site is composed of the Ordovician Schenectady Formation, which consists of shales with some sandstone and siltstone interbeds. The bedrock topography under the site generally slopes to the north. The bedrock is overlain by 80 to 100 feet of the following unconsolidated sedimentary deposits consisting of six mappable units (in descending order): fill, floodplain deposits, channel fill deposits, glaciolacustrine sediments, deltaic deposits, and glacial till.

The glacial till is found just above the bedrock and forms a relatively thin layer beneath much of the site. Its thickness ranges from zero to about 30 feet across most of the site, with one area reaching 90 feet at the south-central area of the site. The distribution of this layer does not significantly affect groundwater conditions at the site.

The deltaic deposits are the least abundant at the site, and occur only at the western-most end of the property. The deltaic deposits interfinger with the glaciolacustrine sediments east of the Schenectady/Rotterdam well field. The glaciolacustrine sediments, consisting of varved clays, silts, and deltaic sands, were deposited after the retreat of the continental ice sheet, when the area became inundated by glacial Lake Albany.

Channel fill deposits form a permeable, water-bearing unit of river-deposited sands and gravels. This stratigraphic unit transports large volumes of groundwater off site, and is considered the primary water-bearing unit beneath the site. The channel fill deposits are thickest near the Mohawk River and reach 80 feet in places. The most significant groundwater

transport mechanism within the channel fill has been identified as the thick band that extends from southwest of Building 285 towards the river.

The floodplain deposits consist of low-permeability, very fine-grained sands, silts, and clays. The floodplain deposits are thickest (up to 30 feet) near former Building 285 and generally thin to the south near Bellevue Bluff.

The fill material was deposited in order to reclaim the floodplain during phases of development on the property and consists of sediments, sands, gravel, cinders, bricks, coal, wood, ash, mica, porcelain, construction debris, and reworked natural material. The fill ranges up to fifty feet thick, with the thickest areas near the former landfills, the wastewater treatment plant, and inside the former Binnie Kill Channel.

Hydrology at the site and in the region of the site is well understood. Groundwater flow at the site is generally from south to north, toward the Mohawk River. The water table contours generally run parallel to the River. A hydrogeologic divide exists to the west of the site, which separates groundwater under the site from the Schenectady/Rotterdam municipal well field that lies 3200 feet west and northwest of the site.

The floodplain and glaciolacustrine layers act as semi-confining layers, due to their lower permeability. Groundwater migrates from the semi-confining layers into the channel fill layer, and to some extent the fill material. Approximately 98 percent of the groundwater that flows toward the river from the site flows through the channel fill, while the other two percent migrates through the fill and floodplain deposits. Flow is mainly horizontal within the fill and channel fill and vertical within the floodplain deposits. While there is a downward gradient from the fill to the channel fill deposits throughout most of the site, there is an upward hydraulic gradient present in two areas: the first is at the north side of the site along the river, and the second is along the Poentic Kill. In these two areas, groundwater migrates upward from the channel fill deposits into the Poentic Kill and Mohawk.

Most of the site is covered with low-permeability surfaces, including pavement, buildings, and various foundations. The site is also graded so that precipitation is directed to storm sewers. Therefore, direct rainfall recharge to the fill material is limited.

Surface water at the site includes unnamed wetlands, the Poentic Kill, the Poenties Kill, and the Mohawk River. The Poentic Kill (previously known as the Tellers Kill) formerly flowed eastward through the East Landfill and discharged to the Mohawk River. In 1947, a new stream channel was excavated to divert the flow to the north of the landfill before it rejoined the natural stream channel near the edge of the property. The Poentic Kill is generally a gaining stream, although it becomes a losing stream across some reaches. The Poenties Kill flows through a poorly defined channel through the wetlands west of the former West Landfill. During wet periods, it flows approximately along the western property line. It passes through a culvert under Old River Road and joins the Poentic near the northern edge of the former landfill area. During development of the adjacent property in the late 1980s, both the Poentic and Poenties Kills were rechanneled near the property line with the construction of flood-control weirs and impoundments.

The Erie Canal was active during early plant operations, but was decommissioned and transformed into a water storage reservoir sometime in the early 20th century. The channel of the former Canal was backfilled in the early 1950s. The Canal was constructed above ground in most places near the Main Plant, with a wall height of approximately 11 feet. The historic Canal does not appear to have been excavated into the floodplain deposits, and the fill beneath the Canal does not appear to be a preferred pathway for transporting contaminants east or west across the site.

The Binnie Kill was an arm of the Mohawk River that ran through the site prior to site development. The channel was 200 to 300 feet wide, and about 25 feet deep below the current ground surface. In the early 1900s, the channel was partitioned and converted into a series of holding ponds for cooling water. In general, the ponds have since been filled with material similar to that used at the rest of the site. One former 80- by 280-foot pond, the last unfilled portion of the channel, located east/northeast of the former Building 259 in Sector R became vegetated and is now classified as a wetland.

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

__X___ If yes - check here and continue with #2 below.

_____ If no - re-evaluate existing data, or

_____ if data are not available skip to #6 and enter"IN" (more information needed) status code.

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **"contaminated"**[1] above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	Yes	No	Rationale / Key Contaminants
Groundwater	_x_	___	Analytical data
Air (indoors)[2]	___	_x_	Analytical data
Surface Soil (<2 ft)	_x_	___	Analytical data
Surface Water	_x_	___	Analytical data
Sediment	_x_	___	Analytical data
Subsurf. Soil (>2 ft)	_x_	___	Analytical data
Air (outdoors)	___	_x_	Analytical data

_____ If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

__X_ If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

____ If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale:

Summary of Contamination

The site has been an active manufacturing plant for over a century, and common industrial contaminants are found throughout the site. Therefore, Areas of Concern (AOCs) at the site have been defined as site-wide, media-based areas, rather than specific release areas. The GE Main Plant had been divided into two zones (Zones 1 and 2). The geometry of the zones was based on the hydrogeology beneath the site. Zone 1 is located in the central portion of the site over a south-north trending area of permeable channel fill deposits. Zone 2 has two portions: the eastern part of the site (Zone 2-East) and the western part of the site (Zone 2-West). Each Zone has been divided into "sectors". Of the twenty sectors, D, E, G, H, P, and Q are in Zone 1. Sectors B, C, F, I, J, K, L, M, R, and S are in Zone 2. Portions of Sectors N, O, and T are in both Zones.

Site data have been compared to Applicable or Relevant and Appropriate Standards (ARARs) and Standards Criteria and Guidance (SCGs) for conceptual response scenarios. Groundwater and surface water SCGs and surface and subsurface soil cleanup goals are the primary SCGs for the site. Site-specific cleanup goals for two metals and polychlorinated biphenyls (PCBs) were established in the Interim Remedial Measure Work Plan, Sector R, Holding Pond (3-29-2001), which was approved by the New York State Department of Environmental Conservation (NYSDEC). In this report,

cleanup goals for lead were set at 500 mg/kg, for mercury at 10 mg/kg, and for PCBs at 10 mg/kg (with clean cover).

Groundwater

Groundwater is the primary AOC at the site, and the groundwater in the channel fill deposits is the primary component of this AOC. Modeling predicts that most of the contamination at the site is held above the low permeability floodplain deposits. Where present, the floodplain deposits act as a semi-permeable barrier that greatly retards the downward migration of contaminants from the fill to the channel fill groundwater. Groundwater in the fill and floodplain deposits either flows downward into the channel fill deposits, migrates to the Poentic Kill, or converges toward the northern portion of the site. There is a well-defined hydrologic divide to the west of the property boundary, so that the groundwater beneath the site (east of the divide) flows toward the Mohawk River, not towards the Schenectady/Rotterdam well field.
Elevated concentrations of VOCs and semivolatile organic compounds (SVOCs) have been detected in the shallow groundwater (fill and floodplain) at the site. VOCs were found in channel fill or glaciolacustrine deposits at concentrations greater than NYS groundwater standards. Specific areas of groundwater contamination are discussed below. Because of the groundwater divide to the west of the site, the VOCs present in the groundwater do not adversely effect the municipal water supplies. Groundwater data have been compared to NYSDEC SCGs.

GE's consultants have concluded, based on 1999 data, that groundwater conditions beneath the site promote natural attenuation and biodegradation of the VOCs. This has been confirmed through monitoring of the site's extensive network of monitoring wells.

City Water Main Area

In December 1997, the City of Schenectady began replacing 7,500 feet of water main pipe along River Road. Weathered gasoline light non-aqueous phase liquid (LNAPL) was discovered in the excavation trench northwest of Building 81 in Sector H, approximately eight feet below ground surface (bgs) and about three feet above the groundwater. The LNAPL appeared to be limited in area.

Most of the VOCs in the shallow groundwater near the City Water Main area are benzene, toluene, ethylbenzene, and xylenes (BTEX) and other petroleum compounds. Benzene and isopropylbenzene were detected at maximum concentrations of 1,960 µg/L and 130 µg/L, respectively from temporary well GPWM-7 in September 2000.

Waste Water Treatment Plant Area

Prior to the 1970s, the area of Sector Q where the Waste Water Treatment Plant (WWTP) is now located contained unlined sludge basins. Historic operations at the WWTP, including the sludge beds, suggested the possibility of a source area. Floodplain deposits are thin or missing in this area and there is a thick zone of fill beneath the WWTP.

The highest perimeter concentrations of VOCs in groundwater have been detected about 100 feet west of the 96-inch diameter WWTP effluent line. Concentrations have decreased from about 700 µg/L in June 1993 to about 360 µg/L in August 2000. Vinyl chloride and 1,2-dichloroethene (DCE) were detected at DM-303I in 1999 at 120 µg/L and 140 µg/L, respectively.

Chlorinated VOCs (dichloroethene and vinyl chloride) and BTEX were found in the shallow groundwater at the southeastern portion of the WWTP. Vinyl chloride, DCE, xylenes, and benzene were found at maximum concentrations of 1,010 µg/L, 606 µg/L, 187 µg/L, and 128 µg/L, respectively.

In 2000, the highest total chlorinated VOC concentration in the channel fill deposits at the WWTP were found just north of the WWTP at GE-214D (89.2 µg/L) and included chlorobenzene, DCE, and vinyl chloride. Higher concentrations of total VOCs (up to 360 µg/L) were detected at DM-303I, north and
downgradient of the WWTP. Concentrations of total VOCs at DM-408CF, south of the WWTP and upgradient of DM-303I, were detected at 26 µg/L. Groundwater with elevated concentrations of chlorinated VOCs has likely migrated along a narrow pathway to reach DM-303I, perhaps via the bedding material of the WWTP effluent line, or another location where the floodplain deposits are missing.

Former Wire Mill Area

The wire mill in Sector I was operated from 1916 to 1987. There are no channel fill deposits in the area near former Building 109, so the floodplain deposits are directly on top of the glaciolacustrine silts and clays. However, the glaciolacustrine layer is found at the same general elevation as the channel fill, and the two layers are hydrologically connected. This area has been identified as the source of the chlorinated volatile organic compounds (VOCs) found in the channel fill deposits at the northern boundary of the site.

VOCs including trichloroethene (TCE), DCE, and vinyl chloride were detected in the shallow groundwater at maximum concentrations of 101 µg/L, 30 µg/L, and 45 µg/L, respectively. In the deeper groundwater, concentrations of total VOCs, primarily TCE and cis-1,2-DCE, ranged from 1.7 µg/L to 8,610 µg/L. The source of the VOCs is constrained to an area north of the former Building 109. The highest concentrations run east-west along the road area north of the former Wire Mill. Storm sewer or bedding material may have contributed to the distribution of VOCs from this area.

Former East and West Landfills

Groundwater under the Former East Landfill, located in Sector K, tends to mound and flow radially from the center towards the Poentic Kill and to the east. The mounding results from the temporarily perched water table above the floodplain deposits. Fill at the southern portion of the former landfill and the former tank farm consists of larger pieces of construction debris, such as concrete slabs and bricks. The groundwater mound and the large void spaces in the fill provide a water source and preferred pathway for seeps.

In the former West Landfill, which spans Sectors L and S, shallow groundwater flows radially away from three major groundwater mounds towards the Poentic Kill to the south and east, the Poenties Kill to the north, and the wetlands to the west. There are areas in the landfill where the floodplain deposits are thin or missing. In these areas, groundwater can migrate downward from the fill into the channel fill more readily. There is a downward gradient beneath most of the former landfill, except near the Poentic Kill. Throughout most of the former West Landfill, the water table is within the floodplain deposits.

VOCs, primarily BTEX and other petroleum hydrocarbons, have been detected in shallow groundwater in the southern portion of the former East Landfill. Maximum detected concentrations of benzene, ethylbenzene, xylenes, and toluene were 101 µg/L; 7,300 µg/L; 34,500 µg/L; and 73,000 µg/L, respectively. Polynuclear aromatic hydrocarbons (PAHs) detected in the southern portion of the landfill included dibenzofuran (maximum concentration 27 µg/L), naphthalene (1,100 µg/L), fluoranthene (10 µg/L), phenanthrene (13 µg/L), acenaphthalene (11 µg/L), and 2-methylnaphthalene (45 µg/L). LNAPL was detected in December 2000 at a location between GW-IRM-3 and GW-IRM-4B. The LNAPL was a combination of No. 4 fuel oil, gasoline, and lubricating oil. GW-IRM-4 also contained PCBs at 4.7 mg/kg.

In the former West Landfill, VOCs were detected, including benzene (7.73 µg/L), which exceeded the NYSDEC groundwater standard of 1 µg/L. Arsenic (73.1 µg/L) and antimony (6.12 µg/L) also exceeded their groundwater standards of 25 µg/L and 3 µg/L, respectively.

Building 113/Chip Pad Area

Building 113 is a garage that was used for storage and repair of heavy equipment, located in the northwestern part of the site in Sector K. Materials used and stored in drums in this building included motor oil, hydraulic fluid, antifreeze, and water-based solvent/detergent. As part of the maintenance procedure, equipment was cleaned prior to repairs via steam cleaning in an area southwest of the building. Wastewater was discharged to the ground surface. A degreaser unit was also used here.

Building 113 was also used for metal chip reclamation from the 1970s until the late 1980s. Metal chips with waste coolant and soil residues were stored on a concrete pad east of the building and on the ground south of the building. Chips are no longer stored here, but the concrete pad is still in place. The former Poentic Kill channel is located beneath this area, and Seep 8 is downgradient of Building 113.

Total VOCs, primarily BTEX (2,560 µg/L), chlorobenzenes (115 µg/L), and chlorinated VOCs (242 µg/L) were detected in shallow groundwater near the Chip Pad Area at Building 113. PAHs detected included: acenaphthalene (31 µg/L), dibenzofuran (25 µg/L), fluorene (31 µg/L), 2-methylnaphthalene (17 µg/L), naphthalene (48 µg/L), and phenanthrene

(34 µg/L). Lubricating oil LNAPL with 288 µg/L of PCBs was detected at P-PK-5 in March 2001.

Building 49/53 Area

Underground oil tanks and distribution lines were located in the area between Buildings 49 and 53, which are located in Sector G. Fuel oil LNAPL was detected in 1981 on the water table in this area.

PAHs were detected in shallow groundwater in the vicinity of Building 49/53, primarily benzo(b)fluoranthene (11.4 µg/L), fluoranthene (14 µg/L), pyrene (19.5 µg/L), fluorene (25.9 µg/L), 2-methylnaphthalene (142 µg/L), and phenanthrene (29.8 µg/L). PAHs detected north of Building 57 included acenaphthalene (10 µg/L), dibenzofuran (12 µg/L), fluorene (14 µg/L), phenanthrene (14 µg/L), and 2-methylnaphthalene (90 µg/L). GE's consultants have determined that the main source of fuel oil in the subsurface was underground fuel tanks east of Building 63. Wells GE-104 and GE-115A contained 0.10 feet of free product as recently as August 2001.

Former Stark Oil Facility

The former Stark Oil facility, an oil distribution center, is located just past the far east corner of the Main Plant property, near Sectors M and B, at Wells GE-120 through GE-123 (Ref. 1, App. A, Fig. A-2). Petroleum products and solvents were stored in underground and aboveground storage tanks and drums, with a storage capacity of 76,500 gallons. A 1987 investigation indicated the presence of VOCs and a 1991 study detected the presence of gasoline and kerosene in groundwater at the former Stark Oil Facility.

Contamination was discovered at this area in 1986. Low levels of tetrachloroethylene (PCE) and DCE were detected in shallow groundwater at the former Stark Oil Facility, but the majority of VOCs detected were BTEX compounds, including benzene (719 µg/L), ethylbenzene (1,190 µg/L), and xylenes (1,360 µg/L). The highest concentrations of BTEX were detected at the northwest corner of the area. Free product was observed in area monitoring wells as recently as February 2001.

Former Insulated Materials Product Section

GE used a variety of industrial materials, including resins and solvents, in the former Insulated Materials Product Section (IMPS) area, which was primarily located near former Buildings 67 and 73, east of Building 81 in Sector H. Groundwater here is approximately 10 feet bgs. Groundwater flow is altered in this area by man-made features, such as sewer lines and pipelines. Chlorinated VOCs were detected at one location in the channel fill deposits near the former IMPS area in 1999.

LNAPL was detected at GE-45 in the early 1980s. VOC concentrations greater than 100 µg/L were found in the channel fill deposits at one location. Concentrations of DCE and vinyl chloride ranged from 3.7 µg/L to 248 µg/L.

Building 262 Area

Building 262 is located in Sector Q, in the north-central portion of the facility and to the southwest of the WWTP. The buildings in Sector Q have historically been used by the turbine development laboratory and the WWTP. In 1999, VOCs were detected in channel fill deposits northwest of Building 262.

LNAPL was discovered at Building 262 during a foundation study for an addition to the building in 1991. Remedial measures were implemented in 1992. However, VOCs, primarily chlorinated benzenes, were detected northwest of Building 262 in the channel fill (up to 162 µg/L) and fill and floodplain deposits (130.5 µg/L) as recently as 1999.

Former Binnie Kill (Sector R) Holding Pond

PCBs in groundwater (up to 3.8 µg/L at DM-405F) collected from fill material around the holding pond in 1999 have been associated with suspended particles, rather than dissolved contaminants in the groundwater. No PCBs were detected in channel fill groundwater collected at DM-405CF, which screens the channel fill deposits.

Total VOCs in the shallow groundwater were detected as high as 131 µg/L at DM-405F. Benzene (35 µg/L), xylenes (22 µg/L), and chlorobenzene (71 µg/L) exceeded their respective groundwater standards of 1 µg/L, 5 µg/L, and 5 µg/L. In the channel fill groundwater at DM-405CF, total VOCs concentrations were 103 µg/L, with 1,2-DCE (16 µg/L), vinyl chloride (25 µg/L), chlorinated benzenes (60 µg/L), and benzene (1.75 µg/L), which exceeded their standards of 5 µg/L, 2 µg/L, 5 µg/L, and 1 µg/L. DM-405 was the only location near the holding pond area that exceeded groundwater standards. No PPL metals exceeded groundwater standards in this area.

Surface Water and Seeps

Surface water at the site is considered an AOC because it receives water from other AOCs (groundwater and seeps) and because of its potential to carry contaminants off site. There are two on-site streams (the Poentic and Poenties Kills) and two wetlands (one west and one south of the former West Landfill). Both Kills flow generally north through the site, toward the Mohawk River.

Beneath the former East Landfill, the water table is above the floodplain deposits. Some of this shallow groundwater flows laterally and appears as seeps along a half-mile long stretch of the eastern bank of the Poentic Kill as it passes the East Landfill (Ref. 6, Fig. 3-2). This segment of the Kill was excavated into the floodplain sediments when it was re-routed in 1947. The eight seeps are identified as an AOC at the site. Since the completion in September 2001 of the streambank armoring project, which included planting hundreds of deep-rooted trees in the area, Seep-1 has been dry. The cumulative discharge of Seep 1 through Seep 4 is significantly greater than Seep 5 through Seep 8, which are typically dry during the summer months.

In general, surface water in the Poentic and Poenties Kills falls within state standards. VOCs, SVOCs, PCBs, and PPL metals have been detected in surface water samples, but have either been below surface water standards or other conservative benchmarks, or have been associated with compounds absorbed to suspended particles.

The concentrations of vinyl chloride (120 µg/L) and 1,2-DCE (140 µg/L) discharging to the Mohawk River in 1999, based on sampling data from the perimeter wells, were more than 10 times (but less than 100 times) their groundwater standards of 2 µg/L and 5 µg/L, respectively. The total perimeter concentrations appear to be decreasing, however the concentration of vinyl chloride is increasing. No site-related VOCs were detected in the Mohawk River.

VOCs, SVOCs, PCBs, and metals have been detected in water from the seeps. In 1998, VOCs, including benzene (29 µg/L), 1,2-DCE (8 µg/L), isopropylbenzene (7.42 µg/L), methylene chloride (6,060 µg/L), n-propylbenzene (5.6 µg/L) and xylene (6 µg/L) were detected at concentrations greater than their respective NYSDEC surface water quality standards of 10 µg/L, 5 µg/L, 2.6 µg/L, 5 µg/L, 5 µg/L, and 65 µg/L, with the majority of exceedences occurring at Seep 4. Low levels of VOCs at Seep 8 (1,2-DCE at 8 µg/L) have been associated with the Building 113/Chip Pad area. PCBs have been associated with suspended particles. GE's consultants have concluded that the only detected compound that affects surface water quality in the Poentic Kill is iron, which has ranged from 290 µg/L at TE-2 in 1983 to 2,760 µg/L at PTK-7 in July 2000. Filtered samples from all eight seeps contained iron and manganese at levels above the state groundwater standard of 300 µg/L. In general, concentrations upstream of the site are also above 300 µg/L.

In the on-site wetlands, VOC concentrations ranged from 1.61 µg/L to 6.9 µg/L. None of the samples collected contained VOCs at levels greater than state surface water standards. One sample, collected in 2000 from the standing water in the swale south of the former East Landfill, contained PCBs at a concentration of 0.067 µg/L, which exceeds the NYSDEC surface water standard for wildlife protection of 0.00012 µg/L. Other than bis(2-ethylhexylphthalate), a common laboratory contaminant, no SVOCs were detected in wetland surface water at levels greater than the NYSDEC surface water standards. Wetland surface water samples contained detectable concentrations of metals, including arsenic, chromium, copper, lead, nickel, and zinc. No sample exceeded the surface water standard for arsenic. Chromium, copper, lead, nickel, and zinc did not exceed the standards, based on a calculated average hardness of 210 mg/L.

Surface and Subsurface Soils

Soils at the site, specifically surface soils, are considered an AOC due to the potential for direct contact, inhalation, and incidental ingestion of compounds of concern by humans. However, the human health risk assessment, included in the Zone 1 Remedial Investigation (RI) Report, indicated that soils at the site do not pose a significant health risk to employees, construction/excavation workers, or trespassers.

Native soils in the area contain high concentrations of iron (up to 30,000 mg/kg or 3%) and manganese (up to 950 mg/kg).

Soil data for the site have been compared to NYSDEC's Standards, Criteria, and Guidance (SCGs) including the Recommended Soil Cleanup Objectives (RSCOs), found in the NYSDEC Division Technical and Administrative Guidance Memorandum: TAGM (Determination of Soil Cleanup Objectives and Cleanup Levels).

PCBs have been detected in surface soils at various locations at the site, with a maximum of 133 mg/kg (former East Landfill). Most of the locations were at levels below the NYSDEC's SCG of 1 mg/kg. Locations where PCBs were detected in surface soils include the following:

- Near former Building 29. This area was covered with soil and a walking path in 2000.
- Near former Building 259.
- Areas of the former East Landfill.
- Areas of the former West Landfill.
- Near the WWTP.
- Near former Building 80.

PCBs in subsurface soil samples have generally been less than 10 mg/kg. Two samples collected near the former East Landfill contained PCBs at levels greater than 10 mg/kg. These samples were collected from the southern portion of the landfill, near the access road.

Surface soil samples have not contained total VOCs at concentrations greater than the state soil cleanup goal of 10 mg/kg.

Total VOCs, primarily petroleum constituents, have been detected in subsurface soil samples at levels ranging from 0.0018 mg/kg at 16 to 18 feet bgs, up to 1,780 mg/kg at 9 to 13 feet bgs. Six general areas have been identified where total VOC concentrations in subsurface soils exceed 10 mg/kg:

- Former Wire Mill with TCE (140 mg/kg) and DCE (10 mg/kg) at 16 to 18 feet bgs.
- Former IMPS with xylenes (1,410 mg/kg) and ethylbenzene (370 mg/kg) at 9 to 13 feet bgs.
- Former East Landfill with xylenes (166 mg/kg) at 2 to 4 feet bgs.
- City Water Main IRM area with 2-butanone (45.6 mg/kg), isopropylbenzene (19.6 mg/kg), and n-butylbenzene (15.9 mg/kg) at 8 to 12 feet bgs.
- WWTP with xylenes (26 mg/kg), and ethylbenzene (4.3 mg/kg) at 6 to 8 feet bgs.
- Former Binnie Kill channel with 1,1,2-trichloroethane (4.8 mg/kg), xylenes (3.8 mg/kg), and chlorobenzene (3.6 mg/kg) at 8 to 14 feet bgs.

SVOCs, mainly PAHs, have been detected at trace to low levels throughout the site. In general, total SVOCs in surface soil samples were at levels less than the state guidance level of 500 mg/kg.

In the subsurface soils, concentrations of SVOCs have ranged from 0.003 mg/kg at DM-402FP (8 to 10 feet bgs), to 1,433 mg/kg at DM-2-3 (0 to 4 feet bgs), near Building 2. DM-2-3 is the only sample that contained total SVOCs at levels exceeding 500 mg/kg, as reported from January 1998.

Metals have been detected at elevated levels at the site, specifically in the fill used to reclaim the floodplain during development. Also, 1996 sampling results showed metals in surface soils at the West Landfill (locations 3 and 5) exceeded NYSDEC SCGs. Detected metals included chromium (48 mg/kg), copper (28 mg/kg), mercury (0.14 mg/kg), zinc (39 mg/kg), and beryllium (0.54 mg/kg), which exceeded the NYSDEC SCGs of 10 mg/kg, 25 mg/kg, 0.1 mg/kg, 20 mg/kg, and 0.16 mg/kg, respectively.

Sediments

Sediments in surface water bodies at the site, including the Poentic Kill, Poenties Kill, and on-site wetlands, are considered an AOC. Sediment is also present in the former Binnie Kill holding pond, which is now a wetland. Sediments in the pond consisted of channel fill sands or fine-grained sediments that collected in the holding ponds. During the 1950s through the early 1990s, the pond was used to collect surface water runoff, which came from both sheet flow and from several pipes, including storm and sanitary sewer lines that connected to nearby buildings. All of those buildings have been removed. From 1974 to the 1990s, the pond water was piped to the on-site WWTP.

Low levels of PCBs and PAHs have been detected in sediments of the Poentic Kill. One sample collected immediately downgradient of the Seep 2 through Seep 4 area (PTK-6) contained PCBs above the 1.0 mg/kg standard at 1.068 mg/kg. This location also contained the highest levels of VOCs in sediments in the Poentic, with ethylbenzene at 0.66 mg/kg and xylenes at 2.2 mg/kg. The maximum level of lead (411 mg/kg) in the Poentic was also detected downstream of Seeps 3 and 4 at sampling location PTK-6. The maximum total SVOCs concentration was downstream of Seep 8 at 8.91 mg/kg from PTK-3 in 1999.

The Poenties Kill sediment samples contained PCBs from non-detect levels up to 0.370 mg/kg (PTE-2). Total VOCs were detected at a maximum concentration of 0.030 mg/kg at the same location, which included benzene at 0.003 mg/kg. This was slightly greater that the NYSDEC screening criteria of 0.0026 mg/kg. SVOCs, primarily PAHs, were detected up to 2.93 mg/kg at PTE-2. However, it does not appear that SVOCs in the Poenties Kill sediments impact the surface water quality. Nickel at PTE-2 (53 mg/kg) exceeded the NYSDEC sediment screening severe effect level (SEL) criteria of 50 mg/kg. SELs are defined in NYSDEC's TAGM.

PCBs in wetland sediments ranged from 0.146 mg/kg at WETLANDS-00-2 (west of the former East Landfill) to 1.84 mg/kg at OPD-00-01 (the swale south of the former East Landfill). SVOCs detected were primarily PAHs, which ranged from non-detect levels up to 2.3 mg/kg at SED-00-8 (east of the West Landfill and north of the Poentic Kill) for total PAHs. Benzo(a)anthracene (0.214 mg/kg) exceeded the NYSDEC screening criteria of 0.15 mg/kg at this location. Nickel exceeded the NYSDEC SEL in one sample at OPK-00-01.

Sediments in the former Binnie Kill channel holding pond contained elevated levels of PCBs (14,800 mg/kg) and metals, including arsenic (10 mg/kg), cadmium (3.28 mg/kg), chromium (375 mg/kg), copper (354 mg/kg), lead (312 mg/kg), mercury (8.81 mg/kg), nickel (123 mg/kg), and zinc (589 mg/kg).

Ambient Air

Ambient air is considered an AOC at the site. However, based on the Human Health Risk Assessment, ambient air conditions at the site do not pose a threat to employees, trespassers, construction workers, or potential future recreational users or residents.

Footnotes:

[1] "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

[2] Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

	Potential **Human Receptors** (Under Current Conditions)						
"Contaminated" Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food[3]
Groundwater	No	Yes	No	Yes	No	No	No
Air (indoors)	No	Yes	No	No	No	No	No
Soil (surface, <2 ft)	No	Yes	No	Yes	Yes	Yes	No
Surface Water	No	No	No	No	Yes	Yes	No
Sediment	No	No	No	No	Yes	Yes	No
Soil (subsurface >2 ft)	No	Yes	No	Yes	No	No	No

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated") as identified in #2 above.

2. Enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("___"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

____ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

__X__ If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

_____ If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code

Rationale:

Contaminated Groundwater: On-site, potentially complete exposure pathways to groundwater may exist for construction workers; however, it is expected that any construction activities will be governed by the use of personal protective equipment, which will effectively eliminate any potential exposure. The primary concern for off-site groundwater is its potential use as a potable water supply. Several studies conducted on-site indicate that a hydrological divide exists between the West Landfill and the Schenectady/Rotterdam Well Field, which precludes the possibility of groundwater flow from the Main Plant to the municipal well field. Therefore, the use of groundwater as a potable drinking water source is not considered to be a complete exposure pathway for off-site residents. Groundwater to the east of this divide, which includes all groundwater beneath the Main Plant, flows north-northwest, toward the Mohawk River. Potential exposure to contaminants in the Mohawk River is discussed in the "Surface Water" section of this report.

There is no daycare facility on site. Regarding trespasser and recreational access, the site is surrounded by fencing with security guards at the access points, so access is limited at best. Should an individual gain access, the site is still mostly paved, preventing access to contaminated soils. No food is grown on site.

Indoor Air: Potentially complete exposure pathways to constituents in indoor air may exist for onsite workers. Exceedances of screening criteria for the migration of constituents to indoor air have occurred in areas of the site where buildings are known to exist, and are used for industrial purposes. Therefore, the potential exists for workers at the site to be exposed to contamination via indoor air. The Human Health Risk Assessment indicates that a low lifetime incremental cancer risk (1.43E-06) could exists for commercial workers in at least one site building, due to the presence of vinyl chloride in shallow groundwater. Soil gas and indoor air sampling has not been done because the buildings that might be subject vapor intrusion are active manufacturing buildings, and therefore the domain of the Occupational Safety and Health Administration. There will be a site management plan in the final remedy for this site that will require evaluation of the potential for vapor intrusion prior to new construction on site or new use of existing buildings. See above for notes regarding daycare facility, trespasser and recreational exposures, and food.

Contaminated Surface Soil: Although construction worker and onsite worker receptors may contact surface soil, it is expected that onsite activities for these receptors will be governed by the use of personal protective equipment, which will effectively eliminate any potential exposure. PCBs have been detected in surface soils in several areas of the site. VOCs and SVOCs have not been detected at concentrations greater than state standards. Metals have been detected at various locations across the site, primarily in areas where fill was used to reclaim land during development, but there does not appear to be a trend toward elevated levels in any one area of the site.

Based on the results of the Human Health Risk Assessment, exposure to contaminants in surface soil is not expected to result in risk or hazard greater than target risk levels for employees, construction/excavation workers or trespassers. Paving and landscaping conducted as part of the site-wide beautification and restoration project limits receptor contact with surface soil in many areas of the plant. In addition, implementation of the final remedy will likely include limited surface soil removal from the former East Landfill area, containment and treatment of surface soils at the former landfill areas and enhancement of ground cover, which will further reduce the potential for adverse human health effects due to exposure to contaminants in surface soil.

There is no contaminated soil off site. See above for notes regarding daycare facility, trespasser and recreational exposures, and food.

Contaminated Surface water:

Potentially complete exposure pathways to significant surface water bodies are not expected to exist for any receptor based on the absence of significant contaminant concentrations in surface water bodies on or near the facility. In general, surface water does not appear to be adversely impacted by site-related constituents. However, surface water in the Poentic Kill, Poenties Kill and Mohawk River receive groundwater from beneath the GE Main Plant that is contaminated with VOCs. In addition, the shallow contaminated ground water breaches the ground surface at the Seeps, thus potentially completing an exposure pathway for trespassers on site. Future contamination may be reduced by implementing the final remedy, which calls for treatment of shallow groundwater and seeps along the former East Landfill. See above for notes regarding daycare facility, trespasser and recreational exposures, and food.

Contaminated Sediment: Potentially complete exposure pathways to constituents in sediment may exist for trespassers and recreational users of water bodies. Site-related constituents have impacted sediments in the Poentic Kill and Poenties Kill. However, GE has indicated that contaminated sediments are not impacting surface water quality. Future contamination may be reduced by implementing the final remedy, which calls for the treatment of shallow groundwater, one of the sources of sediment contamination. In addition, sediments on the west side of the Poentic Kill have not been adequately investigated. See above for notes regarding daycare facility, trespasser and recreational exposures, and food.

Contaminated Subsurface soil: Potentially complete exposure pathways to constituents in subsurface soil are not expected to exist for any receptor. Although construction worker receptors may contact subsurface soil, it is expected that onsite activities for these receptors will be governed by the use of personal protective equipment, which will effectively eliminate any potential exposure. VOCs and metals in subsurface soil have been detected in several areas of the site at concentrations that exceed state standards. Metals are primarily detected in areas where fill was used to reclaim land during development, and there does not appear to be a trend toward elevated levels of metals in any one area

of the site. Two samples exceeded cleanup goals of 10 mg/kg for PCBs in subsurface soil. Both of these samples were located near the East Landfill access road. Contaminants in subsurface soil may potentially migrate downward to channel fill groundwater. GE also proposes further investigation of subsurface soil in areas of the facility where constituents are detected at concentrations greater than state standards. See above for notes regarding daycare facility, trespasser and recreational exposures, and food.

Outdoor Air: Constituents are not expected to be present in ambient air at concentrations that will pose a risk to human health. Constituents are not present in surface soil at concentrations that are likely to result in potential exposure to human receptors via airborne particulates. Constituents volatilizing from groundwater are not expected to pose a health risk to on-site receptors, based on the fact that only a low level of risk exists for on-site receptors based on exposure to VOCs migrating from groundwater to indoor air. It is anticipated that VOCs in ambient air will disperse more freely, and on-site receptors will be exposed to a lower concentration of any constituents.

Food: The potential for exposure pathways to exist through the consumption of food is currently unknown. A Screening Level Ecological Risk Assessment (SLERA) was conducted, and was included as part of the Zone 1 RI Report. The SLERA concluded that insufficient information was available to fully characterize whether ecological receptors are adversely affected by contaminants originating at the GE facility. The SLERA recommends further evaluation of the potential effects of site COPCs on ecological receptors.

[3] Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **"significant"**[4] (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

__X__ If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

_____ If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

_____ If unknown (for any complete pathway) - skip to #6 and enter "IN" status code

Rationale: As noted in Section, several potential exposure pathways for human exposure exist at the Main Plant. In the Human Health Risk Assessment, potential exposure pathways and scenarios were evaluated and risks quantified for the following:

- current and future residents in areas northwest of the Main Plant
- potential current or future users of the Mohawk River as a source of drinking water
- current and future employees working at the site
- potential trespassers and occasional users of the former landfills
- potential future workers who perform subsurface work, construction, or maintenance on the property
- potential recreational users of the former landfill areas

Cancer risk estimates were calculated for the potential scenarios. Cancer risk refers to the probability that an individual in a specific population could develop cancer from site-related exposures. The risk calculations indicate that exposures to GE Main Plant contaminants do not pose a human cancer risk threat greater than the target cancer risk of one in one million (sometimes represented as $1x10^{-6}$).

The primary concern for area residents is the potential use of groundwater as drinking water source. The site is located over the Schenectady Aquifer, a highly productive sole-source aquifer. The part of the aquifer in the immediate site area is not currently used for public water supply. The City of Schenectady and Town of Rotterdam wellfields are located approximately 3,000 feet to the northeast. Due to a well-established groundwater divide, shown on Figure 13, groundwater from the site is not currently affecting nor is it expected to affect in the future these public wells or any other known drinking water supplies.

Based on the results of the Remedial Investigation and a number of years of monitoring data, the groundwater beneath the Main Plant does not flow toward or otherwise affect the City of Schenectady or Town of Rotterdam wellfields located to the northwest of the site. No known users of site-related groundwater are located in areas downgradient of the site or within the contaminated plume areas on the site. No off-site contamination (soil, surface water, or groundwater) was found during the course of site investigations.

No site-related chemicals of concern have been detected in the Mohawk River. Conservative assumptions were used to estimate potential future concentrations of chemicals of concern in surface water (primarily through the potential discharge of vinyl chloride from the shallow groundwater plume to the surface water along the northern boundary of the site). The potential concentrations were determined to be well below drinking water standards.

The primary potential exposure pathway for employees is through migration of volatile organic chemicals into indoor air from shallow contaminated groundwater. Results of soil gas sampling from the RI and the use of a conservative groundwater to air transfer model indicate that conditions at the site do not pose a significant or unacceptable carcinogenic or non-carcinogenic health risk to employees in all parts of the plant, assuming a future industrial use scenario.

Potential exposure pathways for trespassers include ingestion of soil and sediment, skin contact with soil and sediment, inhalation of particulate matter, or direct contact with surface water. Risks calculated for these pathways indicate that the site does not pose a significant or unacceptable risk of carcinogenic or non-carcinogenic health effects to potential trespassers.

Under reasonably foreseeable future conditions, site workers may be exposed to soil via incidental ingestion, dermal contact with soil, and inhalation of particulate matter. Risks calculated based on soil concentrations in the developed areas of the site indicate no significant or unacceptable risks to potential construction workers.

The potential use of the former landfill areas for recreation was evaluated. Exposure scenarios include surface soil in the former landfills, sediment in the Poentic Kill and Poenties Kill, and surface water in the Poentic Kill. Given the concentrations and the calculated potential average daily exposures, it was determined that the site does not pose a significant or unacceptable risk for carcinogenic or non-carcinogenic health effects to future recreational users.

[4] If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

5. Can the "significant" **exposures** (identified in #4) be shown to be within **acceptable** limits?

_____ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

_____ If no (there are current exposures that can be reasonably expected to be "unacceptable")- continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

_____ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

Rationale:

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

__X__ YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

____ NO - "Current Human Exposures" are NOT "Under Control."

____ IN - More information is needed to make a determination.

Completed by: _____ Date: 09/29/04

Martin D. Brand
Remedial Project Manager, Remedial Section C, Remedial Bureau D
NYSDEC Div. of Environmental Remediation
(EPA Region II - New York State)

Supervisor: _____ Date: 9/29/04

Michael Komoroske, P.E.
Supervisor, Remedial Section C, Remedial Bureau B
NYSDEC, Division of Environmental Remediation
(EPA Region II - New York State)

Bureau Director: _____ Date: 9/30/04

Edwin Dassatti
Director, Bureau of Hazardous Waste and Radiation Management,
NYSDEC, Division of Soild & Hazardous Materials
(USEPA Region II - New York State)

References: Revised Remedial Investigation Report
GE Main Plant, Schenectady, New York
Prepared by URS Corporation for General Electric Company, May 2004

Revised Feasibility Study Report
GE Main Plant, Schenectady, New York
Prepared by URS Corporation for General Electric Company , May 2004

Attachments: Figure 1 Site Location Map
Figure 2 General Site Features

Locations where References may be found:

New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, New York 12233-7013

Contact telephone and e-mail numbers

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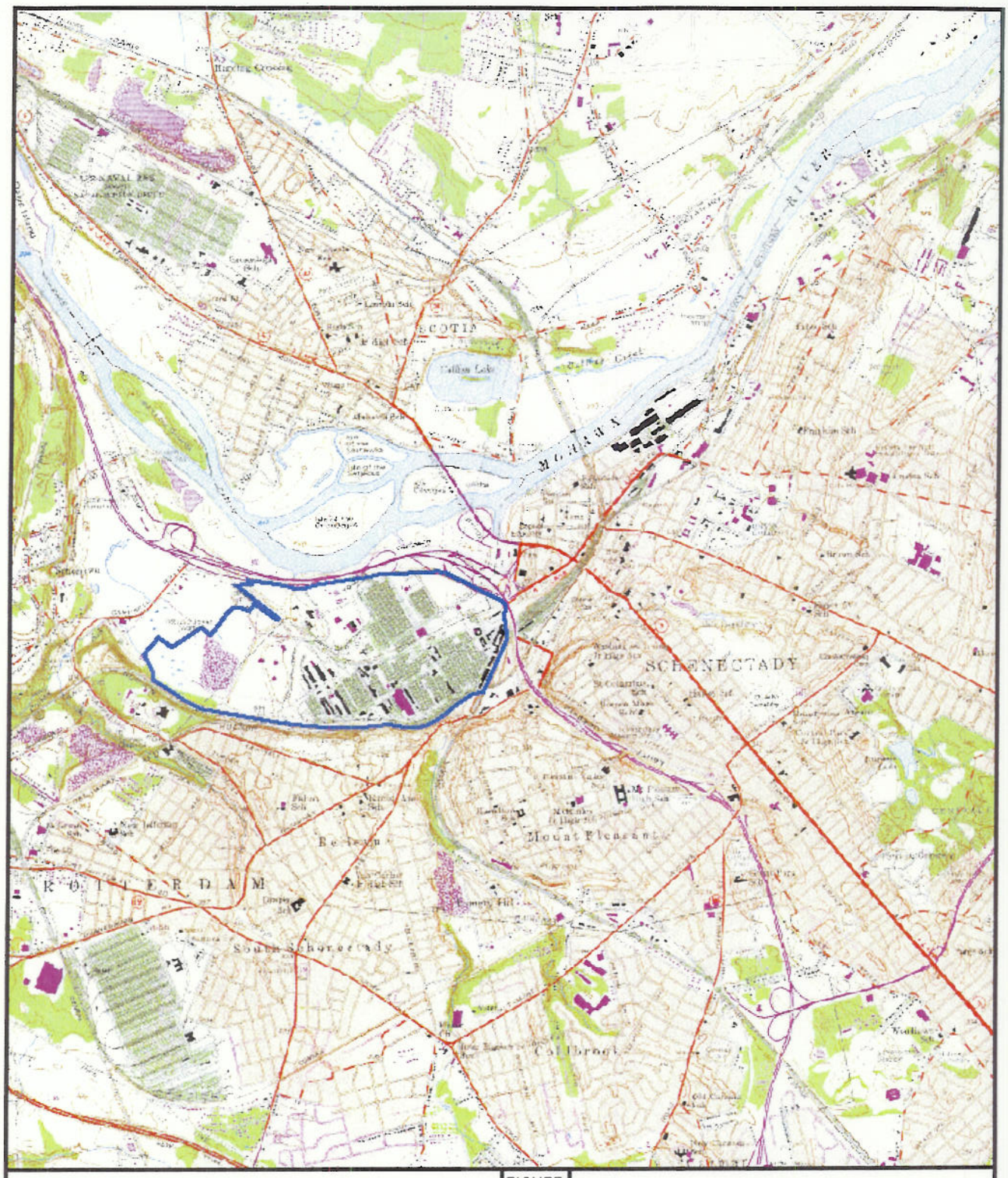
FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.



GRAPHIC SCALE (FEET)

0 0.5 1 MILE

Property Boundary

USGS Schenectady, NY 15' Quadrangle, 1954 (Photorevised 1980)

FIGURE 1-1

SITE LOCATION MAP

GENERAL ELECTRIC COMPANY
MAIN PLANT
SCHENECTADY, NEW YORK

URS

646 PLANK ROAD SUITE 202
CLIFTON PARK, NEW YORK 12065

FIGURE 1

Site Location Map