NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
Site Classification Report

7/25/2011

Site Code: 932097 **Site Name:** Forest Glen Subdivision
City: Niagara Falls **Town:** Niagara Falls (c)
Region: 9 **County:** Niagara
Current Classification: 04 **Proposed Classification:** 04
Estimated Size (acres): 39.00 **Disposal Area:** Dump
Significant Threat: Previously **Site Type:** EPA Lead
Priority ranking Score: 120 **Project Manager:** Vivekanandan Nattanmai

Summary of Approvals

Originator/Supervisor: Joseph White	**05/20/2011**
RHWRE: Gregory Sutton / Martin Doster:	**06/09/2011**
BEEI of NYSDOH:	**06/15/2011**
CO Bureau Director: Michael Cruden, Director, Remedial Bureau E:	**05/20/2011**
	06/22/2011
Assistant Division Director: Robert Schick:	

Site Description

Site Location: The site is located in both the Town of Niagara and the City of Niagara Falls, Niagara County is approximately 0.5 miles north of Porter road. The Expressway Village mobile home subdivision is adjacent to the Site's southern boundary. The highway I-190 is adjacent to the site and is to the north and to the east of the site.

Site Features: The 39-acre Site is divided by East Gill Creek, a narrow, low-flowing creek, into separate parcels of land. South of Gill Creek is the now vacant 15-acre Forest Glen Subdivision, consisting of 51 mobile and two permanent residences. Access to the Subdivision is through Edgewood Drive. The southern portion of the Site also includes the Edgewood Drive Wooded Lots, which are two 3-acre undeveloped wooded lots located to the north and south of Edgewood Drive. The northern portion of the Site consists of the 18-acre parcel referred to as the Northern Aspect, which includes a 15-acre undeveloped triangle of land which is bordered on the west by a berm, approximately 11 feet in height. The 1.5-acre Wooded Wetland is on the eastern side of the Northern Aspect.

Current Zoning/Uses: The Site is currently zoned as commercial/light industrial.

Histroical Use(s): During the 1970's, the low areas of the site, including a former creek bed, were filled with unknown materials. Limited soil sampling, performed by the Niagara County Health Department, indicated the presence of phenolic compounds, phenol formaldehyde type resin and polyvinylchloride resins in some samples. Between 1987 and 1989, EPA investigated this site and found it be contaminated with various organic chemicals in high concentrations. Lead and mercury were also found at elevated levels. The site was then placed on the National Priorities List (NPL). The EPA prepared a Focused Feasibility Study in 1989.

Site Code: 932097 **Site Name:** Forest Glen Subdivision

EPA then recommended permanent relocation of residents in this subdivision, based on the Agency for Toxic Substances and Disease Registry (ATSDR) health advisory. The relocation of 150 residents was completed in late 1992. On June 30, 1992 Special Notice was served to the PRP's for the Remedial Investigation/Feasibility Study (RI/FS). All parties refused to sign a Consent Order; therefore the RI/FS was funded by the USEPA. The RI/FS began in November 1994 and the field investigation phase was completed in 1995. The Record of Decision (ROD) for the soil remediation was completed in March 1998 which included the consolidation and capping of the contaminated soils. In early 1999, the site's zoning was changed from residential to industrial/commercial. Because of this change, EPA has changed the soil remedy to in-place capping of contaminated soils. The ROD for groundwater remediation was completed in September 1999. The ROD called for pump and treatment of on-site contaminated groundwater and natural attenuation of off-site contaminated groundwater. This ROD also included a ROD amendment to amend the soil remedy to in-place capping of the contaminated soils. A Remedial Design/Remedial Action (RD/RA) consent order was signed in September 2000 between the PRP and the EPA. Remedial action for the soil remedy began in August 2002 and was completed in 2003. As part of the remedial action a commercial/office building was constructed on top of the capped area. Long term operation, monitoring and maintenance are underway.

Geology and Hydrogeology: The geology of the region consists predominantly of compact and generally impermeable lodgement till and glacial lacustrine clay common to the Niagara Escarpment. The lodgement till is a remnant of the receding glaciers of the last ice age. The resulting topography is generally flat because of the scouring effect of the glacier, and it is poorly drained because of the impermeability of the glacial lacustrine clay and glacial till. The region surrounding the Site exhibits this glacial geomorphology, although evidence of manmade modification is apparent. The regional overburden consists of glaciolacustrine deposits (clay) and clay till deposits overlying the Lockport Dolomite bedrock. The Lockport Dolomite is a karst formation, generally 150 feet of dolostone overlying 120 feet of limestones and shales, including the impermeable Rochester Shale, below which is limestone and sandstone, overlying the Queenstown Shale. The bedrock beneath the Site and throughout the region dips gently to the south at 29 feet per mile.

The Lockport Dolomite is the major water-producing formation of the area. At the Site, the hydrogeology is defined by three hydrostratigraphic zones: perched overburden water, shallow bedrock and deep bedrock. The overburden extends approximately from zero to 20 feet below ground surface (BGS) . Because of the low permeability of the overburden clay and till, perched ground-water conditions were encountered at the Site. The shallow bedrock zone extends from 16 to 28 feet BGS. Ground water in this zone flows both vertically and horizontally through an interconnecting system of closely-spaced joints and bedding plane fractures. The deep bedrock zone is encountered at depths of 40 to 45 feet BGS. There is a zone of competent dolostone between the shallow and deep bedrock zones. It is probable that hydraulic communication occurs between the bedrock zones.

Contaminants of Concern (Including Materials Disposed)	**Quantity Disposed**	
OU 01		
BENZO(A)PYRENE		lb
OU 02		
BENZO(A)PYRENE		
OU 03		
TRICHLOROETHENE (TCE)		

Site Code: 932097 **Site Name:** Forest Glen Subdivision

Analytical Data Available for : Groundwater, Surface Water, Soil, Sediment

Applicable Standards Exceeded for:

Site Environmental Assessment

The review of historical aerial photographs indicates that the site was originally a forested wetland, which was impacted by local construction projects and the subsequent dumping of industrial wastes from the 1950s through 1970s. In 1973, the land was developed into the mobile home subdivision. The sale of the properties to individual landowners began in 1979.

Evidence of past waste disposal was apparent during the installation of utilities which took place as early as 1973. There is also a history of reports indicating that residents encountered waste on their properties. Samples collected by the Niagara County Health Department (NCHD) in 1980 indicated that this waste material included a phenolic resin. In 1987, EPA conducted an initial site investigation at the request of NYSDEC and NCHD. Analytical results of four soil samples which were collected from the northern portion of the Subdivision indicated that volatile and semivolatile organic chemicals, including polycyclic aromatic hydrocarbons (PAHs) and heavy metals, were present at the site at varying concentrations.

An expanded site investigation was conducted in 1988 and 1989 to better characterize the contamination. Based on the results from this investigation, on July 21, 1989, the Agency for Toxic Substances and Disease Registry (ATSDR) issued a Preliminary Health Assessment for the Forest Glen Subdivision which stated that the site posed a significant threat to public health because of possible contact with contaminated soils and wastes and advised that immediate action be taken to relocate residents of the Subdivision, beginning with the most contaminated areas. ATSDR also issued a Public Health Advisory recommending that (1) EPA consider placing the site on the National Priorities List (NPL) and (2) actions be immediately taken to relocate the residents of the mobile home park.

Based on ATSDR's Public Health Advisory, the site was added to the NPL in November 1989. In December 1989, EPA issued a ROD calling for permanent resident relocation. FEMA completed the permanent relocation of the residents in 1992. EPA conducted a Remedial Investigation/Feasibility Study (RI/FS) at the site from 1994 to 1996. A Record of Decision for OU2 (soils) was issued in March 1998 selecting a remedy consisting of soil excavation, consolidation and capping, which was based, in part, on the existing residential zoning of the portion of the site.

A supplemental ground-watcr investigation was performed in 1997 and the Ground-Water Feasibility Study was conducted in 1998.

The site is generally flat with local topographic variations. The geology of the site is characterized by a glacial lacustrine and clay till overburden that is up to 20 feet thick on top of the highly fractured Lockport Dolomite bedrock. The bedrock is divided into two zones: the shallow bedrock zone, which is encountered from 16 to 28 feet below ground surface, and the deep bedrock zone, which is found from 40 to 45 feet below ground surface. These two bedrock zones represent separate, interconnected aquifers.

Site Code: 932097 **Site Name:** Forest Glen Subdivision

Fill was encountered in soil borings and test pits in the northwest section of the Northern Aspect, in all berm samples, in some borings in the Edgewood Drive Wooded Lots and in the northern and central section of the Subdivision. This fill varies in composition and appearance in different parts of the site, but it generally includes black-stained material which is attributed to past dumping activities. Contaminants detected in site soils include several semi-volatile organic, PAHs and volatile organic compounds including aniline; phenothiazine; perylene; benzo(a)pyrene; chrysene; benzo(a)anthracene; benzo(b)fluoranthene; benzo(k)fluoranthene; pyrene and phenol. Heavy metals, including arsenic, cadmium, mercury and lead, were also
detected in surface soil. The primary contaminant of concern at the site is Benzo(a)pyrene, a semi-volatile organic compound.

Based on the results of the investigation, the primary contaminant of concern at the site was determined to be Benzo(a)pyrene, a semi-volatile compound which was predominantly present in soil samples. Based on the RI, the total volume of contaminated soil and sediments at the site that exceed soil cleanup objectives is estimated at 285,200 cy.

Ground water flows both vertically and horizontally through an interconnected system of closely spaced joints and bedding-plane fractures. Two rounds of sampling during the RI indicated that the ground water is contaminated with volatile organic compounds (VOCs) and inorganics. Site soil contamination appears to have migrated vertically to the underlying ground water.

Volatile organic compounds were found in the ground water in exceedance of the standards were vinyl chloride; 1,1-dichloroethane; trichloroethene; 1,2-dichloroethene and 1, 1, 1 –trichloroethane. The inorganic compounds detected were chromium; iron; lead; manganese; and nickel. The inorganic compounds were detected in both rounds of sampling, however, only chromium, nickel and lead exceeded federal drinking-water standards.

In early 1999, the site's zoning was changed from residential to industrial/commercial. Because of this change, EPA has changed the soil remedy to in-place capping of contaminated soils. The ROD for groundwater remediation was completed in September 1999. The ROD called for pump and treatment of on-site contaminated groundwater and natural attenuation of off-site contaminated groundwater. This ROD also included a ROD amendment to amend the soil remedy to in-place capping of the contaminated soils. A Remedial Design/Remedial Action (RD/RA) consent order was signed in September 2000 between the PRP and the EPA. Remedial action for the soil remedy began in August 2002 and was completed in 2003. As part of the remedial action a commercial/office building was constructed on top of the capped area. Long term operation, monitoring and maintenance are underway.

Site Health Assessment

The site is fully remediated, with long term groundwater monitoring underway. The area is served by public water, so exposures to site related contaminants is unlikely.

Remedy Description and Cost

Remedy Description for Operable Unit 01

Site Code: 932097 **Site Name:** Forest Glen Subdivision

Total Cost $16,400,000

Remedy Description for Operable Unit 01A

Total Cost

Remedy Description for Operable Unit 02

DESCRIPTION OF THE SELECTED REMEDY
This Record of Decision (ROD) selects a remedy for contaminated ground water (designated as Operable Unit 3) at the Site , as well as amends the 1998 ROD for soils and sediment (designated as Operable Unit 2). Operable Unit 1 was the subject of a 1989 ROD and addressed the permanent relocation of the residents of
the Forest Glen Subdivision.

Selected Soil/Sediment Remedy (OU2)
The zoning of the Site has changed from residential to commercial/light industrial. The 1998 ROD considered the anticipated future land-use at the Site to be residential. Due to land use change, EPA reevaluated the remedial lternatives for contaminated soil and sediment and selected a new remedy. EPA has determined, upon consideration of the requirements of CERCLA, the results of the RI/FS, the detailed analysis of the various alternatives, and public comments, that Alternative S-3, Capping, is the appropriate remedy for the contaminated soils and
sediments at the Site. This remedy addresses the low-level threat wastes at the Site.

The major components of the selected soil/sediment remedy are as follows:
• Construction of an engineered cover system (landfill cap)over the contaminated soils/sediment at the Site in conformance with the major elements described in 6 New York
Code of Rules and Regulations Part 360 for landfill caps.
Conceptually, the standard Part 360 cap includes: 18 inches of low-permeability soil cover barrier or geomembrane to ensure a permeability of 10-7 cm/sec, six inches of porous
material serving as a drainage layer, 24 inches of soil as a barrier protection layer and six inches of topsoil and grass cover. The areas of the Site to be capped include the Berm and the portions of contaminated soil (above TAGMs)in
the former Subdivision and Edgewood Drive Wooded Lots. Areas of contaminated soil (above TAGMS) located in the Northern Aspect will be excavated and consolidated under the cap, as well as contaminated sediments excavated along East Gill
Creek.
• Implementation of a long-term inspection and maintenance program to ensure cap integrity.
• Removal and off-site disposal of the vacant trailers and two permanent homes to prepare the Site for excavation and capping.

• Taking measures to secure institutional controls in the form of deed restrictions to limit future Site activities, as appropriate, and fencing to limit future access to the capped area.
• Capping the Wooded Wetland with six inches of clean sediment. If the Wetlands Assessment and Mitigation Plan conclude that the addition of six inches of clean sediment would have an adverse impact on the wetland, contamination in the Wooded Wetland would be excavated and the area would be appropriately restored.
• Performance of an investigation in East Gill Creek during Remedial Design to determine if there are upstream sources of contamination that may impact the Site.

Total Cost $12,454,000

Remedy Description for Operable Unit 03

DESCRIPTION OF THE SELECTED REMEDY
This Record of Decision (ROD) selects a remedy for contaminated ground water (designated as Operable Unit 3) at the Site , as well as amends the 1998 ROD for soils and sediment (designated as Operable Unit 2). Operable Unit 1 was the subject of a 1989 ROD and addressed the permanent relocation of the residents of the Forest Glen Subdivision.

Selected Ground-water Remedy (OU3)
The major components of the selected ground-water remedy include:
• Extraction of contaminated ground water from the on-property plume;
• Transportation of the extracted ground water via sanitary sewer to the City of Niagara Falls Wastewater Treatment Plant;
• Construction of an on-site, 12-hour holding tank, as required by the City of Niagara Falls Wastewater Treatment Plant;
• Sampling of the storage tank effluent as required by the City of Niagara Falls Wastewater Treatment Plant;
• Implementation of a Long-Term Ground-Water Monitoring Program to assess whether the remedy is functioning as designed;
• Performance of a Monitored Natural Attenuation Study, including a baseline investigation and ground-water modeling, to evaluate intrinsic biodegradation and other natural attenuation processes. If monitoring indicates that natural attenuation is not effective in remediating the off-property ground-water contamination, active remedial measures will be considered.

The Remedial Action Objective for ground water is to restore the potable aquifer underlying the Site to drinking-water quality. It is expected that the contaminated ground water underlying the property will be restored to drinking-water standards in approximately 7 years. Also, it is expected to take approximately 12 to 14 years for the off-property contaminated ground water to achieve drinking-water standards.

7/25/2011

Site Code: 932097 **Site Name:** Forest Glen Subdivision

Total Cost $3,723,000

OU	Site Management Plan Approval:	Status:

Basis for Classification Change

This site is currently an NPL site.

- Operable Unit 01 was the subject of a 1989 ROD and addressed the permanent relocation of the residents of the Forest Glen Subdivision and the remedy was implemented at that time.
- Operable Unit 02 addressed soils and sediment and selected consolidation and capping as the remedy for the soils and sediment as included in the amended 1999 ROD.
- Operable Unit 03 addressed groundwater contamination and selected pump and treatment of on-site groundwater and natural attenuation of off-site contaminated groundwater. The 1999 ROD included the remedy for the groundwater.

The remedial design for the remediation of contaminated soil was completed in June 2002. The remedial design for the remediation of groundwater was completed in September 2003. The remedial action for both the contaminated soil and groundwater was successfully completed in early 2004. Currently the on-site contaminated groundwater is extracted and disposed off-site. The off-site groundwater contamination is monitored for natural attenuation. The operation, monitoring and maintenance for the site will continue until remediation goals are met or modified.

NYSDEC, in consultation with the USEPA, has determined that all appropriate responses under CERCLA have been implemented and that no further response by the responsible parties is required to protect the human health or the environment for the site.

Therefore, the site shall be reclassified from Class 2 to Class 4.

Additional information for the site is available on e-docs.

New York State Department of Environmental Conservation

PUBLIC NOTICE | **State Superfund Program**

Receive Site Information by Email. See "For More Information" to Learn How.

Site Name: Forest Glen Subdivision **July 20, 2011**
Site No. 932097 **Tax Map No.** 145.06-1-6
Site Location: Service Road, City of Niagara Falls, 14304, Niagara County

Inactive Hazardous Waste Disposal Site Classification Notice

The Inactive Hazardous Waste Disposal Site Program (the State Superfund Program) is the State's program for identifying, investigating, and cleaning up sites where the disposal of hazardous waste may present a threat to public health and/or the environment. The New York State Department of Environmental Conservation (Department) maintains a list of these sites in the Registry of Inactive Hazardous Waste Disposal Sites (the "Registry"). The site identified above, and located on a map on the reverse side of this page, was recently reclassed on the Registry as a Class 4 site as it no longer presents a significant threat to public health and/or the environment for the following reason(s):

> Contaminated soils have been consolidated under a cap and a commercial building with subslab vapor protection was constructed on the cap. Currently the on-site contaminated groundwater is extracted and disposed off-site. The off-site groundwater contamination is monitored for natural attenuation. The operation, monitoring and maintenance for the site will continue until remediation goals are met or modified. The site is secured and public water serves the area.
>
> NYSDEC, in consultation with the USEPA, has determined that all appropriate responses under CERCLA have been implemented and that no further response by the responsible parties is required to protect human health or the environment for the site.

If you own property adjacent to this site and are renting or leasing your property to someone else, please share this information with them. If you no longer wish to be on the contact list for this site or otherwise need to correct our records, please contact the Department's Project Manager listed below.

FOR MORE INFORMATION

Additional information about this site can be found using the Department's "Environmental Site Remediation Database Search" engine which is located on the internet at: www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=3

Comments and questions are always welcome and should be directed as follows:

Project Related Questions
Mr. Vivek Nattanmai, Project Manager
NYS Department of Env. Conservation
Division of Environmental Remediation – Bureau E
625 Broadway, 11th Floor
Albany, NY 12233-7013
vrnattan@gw.dec.state.ny.us
518-402-9814

The Department is sending you this notice in accordance with Environmental Conservation Law Article 27, Title 13 and its companion regulation (6 NYCRR 375-2.7(b)(6)(ii)) which requires the Department to notify all parties on the contact list for this site of this recent action.

Approximate Site Location
Forest Glen Subdivision
Site ID: 932097
Service Road
Niagara Falls, NY 14304
Niagara County

Receive Site Updates by Email
Have site information such as this public notice sent right to your email inbox. NYSDEC invites you to sign up with one or more contaminated sites county email listservs available at the following web page: www.dec.ny.gov/chemical/61092.html . It's *quick*, it's *free*, and it will help keep you *better informed*.

As a listserv member, you will periodically receive site-related information/announcements for all contaminated sites in the county(ies) you select.

You may continue also to receive paper copies of site information for a time after you sign up with a county listserv, until the transition to electronic distribution is complete.

Note: Please disregard if you received this notice by way of a county email listserv.

Electronic copies:

D. Desnoyers, Director, Division of Environmental Remediation
A. English, Director, Bureau of Technical Support
K. Lewandowski, Chief, Site Control Section
M. Cruden, Director, Remedial Bureau E
J. White, Chief, Section C
M. Doster, RHWRE, Region 9
G. Sutton, RHWRE, Region 9
D. Denk, Regional Permit Administrator, Region 9
M. Gollwitzer, Regional CPS, Region 9
S. Bates, NYSDOH
L. Ennist, DER, Bureau of Program Management
V. Nattanmai, Project Manager
B. Anderson, Site Control Section

BLACKWINDS PET SUPPLIES
6001 PORTER RD
NIARGARA FALLS, NY 14304

WHIT MIL TOWN APTS INC
3107 BELLRENG DR
NIAGARA FALLS, NY 14304

ULTRAMATIC SLEEP OF AMERICA INC
6001 PORTER RD
NIAGARA FALLS, NY 14304

SKIZZORS
5885 PORTER RD
NIAGARA FALLS, NY 14304

NIAGARA MILLWORK
5823 PORTER RD
NIAGARA FALLS, NY 14304

WAL MART
5555 PORTER RD
NIAGARA FALLS, NY 14304

SPECTRUM COMPUTER TECHNOLOGIES
5540 PORTER RD
NIAGARA FALLS, NY 14304

JBM RETAIL
5535 PORTER RD
NIAGARA FALLS, NY 14304

ALWAYS A PARTY LIMO & TUXEDO
6003 PORTER RD
NIAGARA FALLS, NY 14304

LYLE K BAKER
6152 N WHITHAM DR
NIAGARA FALLS, NY 14304

SILVANO BARBARICO
5610 TOWNLINE RD
SANBORN, NY 14132

RONALD BASSHAM
6312 S WHITHAM DR
NIAGARA FALLS, NY 14304

DANTE J & TERESA BAZZANI
3511 JARAULD AVE
NIAGARA FALLS, NY 14304

WILLIAM A BLAZEJEWSKI
6300 S WHITMAN DR
NIAGARA FALLS, NY 14304

MARY BOYD
6401 EDGEWOOD DR
NIAGARA FALLS, NY 14304

JEROME BRINSON
6000 PORTER RD
NIAGARA FALLS, NY 14304

ROBERT F BROKS
6001 EDGEWOOD DR
NIAGARA FALLS, NY 14304

TIMOTHY R BRONSON
6110 EDGEWOOD DR
NIAGARA FALLS, NY 14304

ELWOOD R BUCK
5600 PORTER RD
NIAGARA FALLS, NY 14304

FRANK J & JUNE D BUFFONE
431 67TH ST
NIAGARA FALLS, NY 14304

CHARLES BURGIO
6306 S WHITHAM SR
NIAGARA FALLS, NY 14304

OTTO J CALDERONE
31 W MAIN ST
LOCKPORT, NY 14094

ALFRED & JOAN CANDELLA
351 37TH ST
NIAGARA FALLS, NY 14301

CHARLES & MARY CANDELLA
5610 PORTER RD
NIAGARA FALLS, NY 14304

DEBORAH A CANDELLA
5600 PORTER RD
NIAGARA FALLS, NY 14304

JOSEPH S CANDELLA
6309 MANOR RD
NIAGARA FALLS, NY 14304

SANTO & ADELINE CANDELLA
334 YOUNSTOWN LOCKPORT RD
YOUNGSTOWN, NY 14174

LAWRENCE CARELLA
6330 S WHITHAM DR
NIAGARA FALLS, NY 14304

CHRIS SCHMIT
CITY HALL
745 MAIN ST, RM 347
NIAGARA FALLS, NY 14301

CITY ADMINISTRATOR
710 MAIN ST
NIAGARA FALLS, NY 14302

CITY DESK
BUFFALO NEWS
PO BOX 100
BUFFALO, NY 14240

LEIGE J CLARE
3103 DELL DR
NIAGARA FALLS, NY 14304

RICHARD J COLLINS
6138 N WHITHAM DR
NIAGARA FALLS, NY 14304

RICHARD J COLLINS
6138 N WHITHAM DR
NIAGARA FALLS, NY 14304

COSMO A COMMISSO
6321 S WHITHAM DR
NIAGARA FALLS, NY 14304

H COSTELLO
3164 DELL DR
NIAGARA FALLS, NY 14304

LARRY COTY
6310 EDGEWOOD DR
NIAGARA FALLS, NY 14304

JOHN CZAPLAK
5920 EDGEWOOD DR
NIAGARA FALLS, NY 14304

MARK E DAVIS
5910 EDGEWOOD DR
NIAGARA FALLS, NY 14304

MICHAEL & THERESA
DEFRANCO
5963 HEWITT DR
LEWISTON, NY 14092

M J DELANCEY
3140 DELL DR
NIAGARA FALLS, NY 14304

NICK J DELGROLICE
6167 N WHITHAM DR
NIAGARA FALLS, NY 14304

ASSEMBLYWOMAN
FRANCINE DELMONTE
1700 PINE AVE
NIAGARA FALLS, NY 14301

MR ROBERT DELVECCHIO
2826 MACKLEM
NIAGARA FALLS, NY 14305

V DEMONICO
5820 PORTER RD
NIAGARA FALLS, NY 14304

JOSEPHINE C DEPADRE
6311 EDGEWOOD DR
NIAGARA FALLS, NY 14304

MR TOM DESANTIS
CITY OF NF/PLANNING DEPT
745 MAIN ST/CITY HALL
NIAGARA FALLS, NY 14302

MA DIEZ
5720 PORTER RD
NIAGARA FALLS, NY 14304

LOUIS M & ANNIE DIMEO
526 21ST STREET
NIAGARA FALLS, NY 14301

MS VIRGINIA DIMEO
446 22ND STREET
NIAGARA FALLS, NY 14301

MS ROBERT DOMINGUEZ
6343 S WHITHAM DR
NIAGARA FALLS, NY 14304

ROBERT J DORATO
6305 S WHITHAM DR
NIAGARA FALLS, NY 14304

S A DUGAN
6289 S WHITHAM DR
NIAGARA FALLS, NY 14304

EDITORAL REPORTER
NIAGARA GAZETTE
310 NIAGARA ST
NIAGARA FALLS, NY 14303

FLOYD EISENMAN
3143 BELLRENG DR
NIAGARA FALLS, NY 14304

EXPRESSWAY VILLAGE INC
9 UNION AVE
BALA CYNWYD, PA 19004

MATTHEW FEDAK
6151 N WHITHAM DR
NIAGARA FALLS, NY 14304

B L FISHER
6415 MANOR RD
NIAGARA FALLS, NY 14304

BOB FISHER
6245 MANOR RD
NIAGARA FALLS, NY 14304

MR BRAD FRANK
MILLENNIUM BUSINESS GROUP
1803 16TH STREET
NIAGARA FALLS, NY 14305

MS ANITA GABALSKI
NYS DOH CTR
ENVIRONMENTAL HEALTH
FLANIGAN SQ 547 RIVER ST
TROY, NY 12180

ANDREW Z GALARNEAU
THE BUFFALO NEWS
8353 NIAGARA FALLS BLVD
NIAGARA FALLS, NY 14304

RICHARD A GRANTO
5700 PORTER RD
NIAGARA FALLS, NY 14304

ANDREW GRINNEN
6176 N WHITHAM DR
NIAGARA FALLS, NY 14304

MS MARGARET GUILLIANA
4800 KLINE RD
NIAGARA FALLS, NY 14304

HOWARD L GULLETT
6210 EDGEWOOD DR
NIAGARA FALLS, NY 14304

TERESA HARDENSTIN
2216 WESTON AVE
NIAGARA FALLS, NY 14304

THOMAS HARRIS
3110 DELL DR
NIAGARA FALLS, NY 14304

JOHN W HARTWIG
6127 N WHITHAM DR
NIAGARA FALLS, NY 14304

LAWRENCE A HARTWUG
6127 N WHITHAM DR
NIAGARA FALLS, NY 14304

ROBERT F HENDRICKS
6355 S WHITHAM DR
NIAGARA FALLS, NY 14304

TAMMY & ED HERMAN
3109 DELL DR
NIAGARA FALLS, NY 14304

JEFFREY & DEBORAH HILLMAN
6300 EDGEWOOD DR
NIAGARA FALLS, NY 14304

MR MICHAEL HINTON
NYS DEC
270 MICHIGAN AVE
BUFFALO, NY 14304

FRANK A HOMISZCZAK
6294 S WHITHAM DR
NIAGARA FALLS, NY 14304

HELEN HOMISZCZAK
3144 SADLO DR
NIAGARA FALLS, NY 14304

KAREN HOWARD
5620 PORTER RD
NIAGARA FALLS, NY 14304

FREDERICK A HUTCHINSON
6164 N WHITHAM DR
NIAGARA FALLS, NY 14304

IVY B IORIO
5901 EDGEWOOD DR
NIAGARA FALLS, NY 14304

KATHRYN JAHN
NRDA SPECIALIST
3817 LUKER RD
US FISH & WILDLIFE SERVICE
CORTLAND, NY 13045

RUDOLPH M JANESE
6265 S WHITHAM DR
NIAGARA FALLS, NY 14304

ROBERT G JOHNSON
3157 DELL DR
NIAGARA FALLS, NY 14304

SUSAN & RANDALL KARRISON
6301 EDGEWOOD DR
NIAGARA FALLS, NY 14304

DAVID G KERRISON
6309 S WHITHAM DR
NIAGARA FALLS, NY 14304

ROBERT G KERRISON
6320 EDGEWOOD DR
NIAGARA FALLS, NY 14304

ROBERT E KING
335 WHEELER RD
FREWSBURG, NY 14738

GARY R/ DIANNE L KITCHO
6201 EDGEWOOD DR
NIAGARA FALLS, NY 14304

SHANDAE KOZLOWESKI
3178 DELL DR
NIAGARA FALLS, NY 14304

ROBERT J LACOUCEUR, JR
806 PIERCE AVE
NIAGARA FALLS, NY 14305

ROBERT & DIANE LACOUNTE
7408 GREENVIEW DR
NIAGARA FALLS, NY 14304

ROBERT J LADAUCEUR, JR
6321 EDGEWOOD DR
NIAGARA FALLS, NY 14304

ROBERT P LEPOSA
6158 N WHITHAM DR
NIAGARA FALLS, NY 14304

MICHAEL LIBASSI
3133 DELL DR
NIAGARA FALLS, NY 14304

LOCKPORT UNION SUN & JOURNAL
170 EAST AVE
LOCKPORT, NY 14094

HAROLD W LORENZ
5800 PORTER RD
NIAGARA FALLS, NY 14304

CJ LOTEMPIO, III
6700 PORTER RD
NIAGARA FALLS, NY 14304

CA LOWE
3104 DELL DR
NIAGARA FALLS, NY 14304

PATRICIA LUCAS
5110 ISHERWOOD DR
NIAGARA FALLS, NY 14305

MR PAULMACCLENNAN
85 WEST OAKWOOD PLACE
BUFFALO, NY 14214

W E MANNERBERT
3158 DELL DR
NIAGARA FALLS, NY 14304

B & K MANNING
6202 EDGEWOOD DR
NIAGARA FALLS, NY 14304

PAUL MARION
6211 EDGEWOOD DR
NIAGARA FALLS, NY 14304

PETER & ALDO MASCARO
6893 JOANNE CIRCLE SOUTH
NIAGARA FALLS, NY 14304

SENATOR GEORGE D MAZIARZ
62ND SENATE DISTRICT
2578 NIAGARA FALLS BLVD, SUITE 600
WHEATFIELD, NY 14304

RAY E MCGRANOR
3145 DELL DR
NIAGARA FALLS, NY 14304

MS MARGE MENDOLA
510 71ST STREET
NIAGARA FALLS, NY 14304

FRED & CONCETTA
543 73RD STREET
NIAGARA FALLS, NY 14304

GINA & CHRISTINA MOLINARO
826 SIMCOE ST
N OSHAWA ON L1G 4V8

MS GERALDINE MONDI, SECRETARY
N FALLS CITY COUNCIL/CITY HALL
745 MAIN ST, RM 202
PO BOX 69
NIAGARA FALLS, NY 14302

NIAGARA CO. HEALTH DEPT
DICISION OF ENVIR. HEALTH
5467 UPPER MOUNTAIN RD
LOCKPORT, NY 14094

SANDY S NICOSIA
6408 MANOR RD
NIAGARA FALLS, NY 14304

MR LOU PAONESSA
TIME WARNER CABLE
2604 SENECA ST
NIAGARA FALLS, NY 14305

SAM S PAONESSA
2713 WOODLAWN AVE
NIAGARA FALLS, NY 14301

WALTER J PARFINSKI
6271 S WHITHAM DR
NIAGARA FALLS, NY 14304

MAYOR PAUL DYSTER
CITY OF NIAGARA FALLS
PO BOX 69
NIAGARA FALLS, NY 14302

DEANNA PENQUE SMITH
6121 EDGEWOOD DR
NIAGARA FALLS, NY 14304

CARL J PHILLIPS
3172 DELL DR
NIAGARA FALLS, NY 14304

ANOTHONY S PITONYAK
6283 S WHITHAM DR
NIAGARA FALLS, NY 14304

FLOYD W POPE
3101 BELLRENG DR
NIAGARA FALLS, NY 14304

MR & MRS EDWARD P REILLY
6188 WHITHAM DR
NIAGARA FALLS, NY 14304

FRANK RENDA
2649 FAIRWAY DR
NIAGARA FALLS, NY 14305

RESIDENT
435 RIVER RD
N TONAWANDA, NY 14120

RESIDENT
6171 N WHITHAM DR
NIAGARA FALLS, NY 14304

MS MARIE RICE
WIVB TV
2077 ELMWOOD AVE
BUFFALO, NY 14207

ANTHONY RIZZOTTO
6100 EDGEWOOD DR
NIAGARA FALLS, NY 14304

MR FABIAN ROSATI, CHAIRMAN
TOWN OF NIAGARA ENV COMM
7105 LOCKPORT RD
NIAGARA FALLS, NY 14305

JOHN SANTORO
6325 S WHITHAM DR
NIAGARA FALLS, NY 14304

SEN CHARLES E. SCHUMER
US SENATE
313 HART SENATE BLDG
WASHINGTON DC 20510

SENATOR CHARLES SHUMER
UNITED STATES SENATE
620 FEDERAL BLDG
111 W HURON ST
BUFFALO, NY 14202

LOUISE SLAUGHTER
CONGRESSWOMAN
3120 FEDERAL BLDG
ROCHESTER, NY 14614

RESIDENT
20 EXPRESSWAY VILLAGE
NIAGARA FALLS, NY 14304

RESIDENT
6324 S WHITHAM DR
NIAGARA FALLS, NY 14304

RESIDENT
6349 S WHITHAM DR
NIAGARA FALLS, NY 14304

CALVIN RICHARDS
6116 GRAUER RD
NIAGARA FALLS, NY 14304

WILLIAM H ROBINS
3128 DELL DR
NIAGARA FALLS, NY 14304

THOMAS ROTELLA
2927 SENECA AVE
NIAGARA FALLS, NY 14305

JANICE SAWMA
5920 PORTER RD
NIAGARA FALLS, NY 14304

MS SUE SENECAH
C/O SENATOR MAZIARZ
915 LEGISLATIVE OFFICE BLDG
ALBANY, NY 12247

JOSPEHINE C SIEJKA
6311 EDGEWOOD DR
NIAGARA FALLS, NY 14304

MR. PAUL DORF
NIAGARA FALLS WATER BOARD
5815 BUFFALO AVE
NIAGARA FALLS, NY 14304-3832

RESIDENT
3108 SADLO DR
NIAGARA FALLS, NY 14304

RESIDENT
3163 DELL DR
NIAGARA FALLS, NY 14304

RESIDENT
54 EXPRESSWAY VILLAGE
NIAGARA FALLS, NY 14304

JAMES R RICHMER
7100 PORTER RD
NIAGARA FALLS, NY 14304

M RODGERS
6005 EDGEWOOD DR
NIAGARA FALLS, NY 14304

MR MICHAEL SALORT
WKBW TV
7 BROADCAST PLAZA
BUFFALO, NY 14202

EDWARD & HELEN SCARPINSKI
6175 N WHITHAM DR
NIAGARA FALLS, NY 14304

JUSTINE SHAMMOT
1517 NORTH AVE
NIAGARA FALLS, NY 14305

LOUISE SLAUGHTER
CONGRESSWOMAN
465 MAIN STREET
BUFFALO, NY 14203

MR. STEVEN T. RICHARDS
NIAGARA WATER IMPROVEMENT AREA
TOWN OF NIAGARA
7105 LOCKPORT ROAD
NIAGARA FALLS, NY 14305

LAWRENCE W SMITH
6414 MANOR RD
NIAGARA FALLS, NY 14304

M SMITH
5810 PORTER RD
NIAGARA FALLS, NY 14304

MR JOHN SNOWDEN
WOODARD CURRAN
41 HITCHINS DR
PORTLAND, ME 04102

GUY T SCOTTILE
949 MCKINLEY AVE
NIAGARA FALLS, NY 14305

JOHN SULLIVAN
6111 EDGEWOOD DR
NIAGARA FALLS, NY 14304

SUPERVISOR
TOWN OF NIAGARA
7105 LOCKPORT RD
NIAGARA FALLS, NY 14304

WILLIAM R TONI
6421 EDGWOOD DR
NIAGARA FALLS, NY 14304

MARK VAN DEUSEN
CENTER OF ENVIRONMENTAL HEALTH
FLANIGAN SQ, 547 RIVER STREET
TROY, NY 121870

ELIZABETH E VANDEBURGH
6202 EDGEWOOD DR
NIAGARA FALLS, NY 14304

DANIEL VICKI
3121 DELL DR
NIAGARA FALLS, NY 14304

JAMES H WADDELL
6295 S WHITHAM DR
NIAGARA FALLS, NY 14304

ROBERT L WAGNER
3102 SADLO DR
NIAGARA FALLS, NY 14304

HULBERT WAGONER
6318 S WHITHAM DR
NIAGARA FALLS, NY 14304

HUEY P WALKER
6313 S WHITHAM DR
NIAGARA FALLS, NY 14304

WILLIAM WENSLEY
3116 DELL DR
NIAGARA FALLS, NY 14304

A A WHITCHER
3127 DELL DR
NIAGARA FALLS, NY 14304

J WILLIAMS
6133 N WHITHAM DR
NIAGARA FALLS, NY 14304

RONALD L WILSON
3122 DELL DR
NIAGARA FALLS, NY 14304

SUSAN H WOJASINSKI
6163 N WHITHAM DR
NIAGARA FALLS, NY 14304

R WOLF
6200 EDGEWOOD DR
NIAGARA FALLS, NY 14304

MR ZIELINSKI
6127 N WHITHAM DR
NIAGARA FALLS, NY 14304

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Technical Support, 11th Floor
625 Broadway, Albany, NY 12233-7020
Phone: (518) 402-9553 • Fax: (518) 402-9547
Website: www.dec.ny.gov

Joe Martens
Commissioner

June 30, 2011

Susan Langdon, Director of Project Development
Niagara County Center for Economic Development
6311 Inducon Corporate Drive
Sanborn, NY 14132-9099

Scott Freeman
Cherokee Investment Partners
702 Oberlin Road
Suite 150
Raleigh, NC 27605

New Path International Holdings
2900 Service Road
Niagara Falls, NY 14304

Dear Sir/Madam:

As mandated by Section 27-1305 of the Environmental Conservation Law (ECL), the New York State Department of Environmental Conservation (Department) must maintain a Registry of all inactive disposal sites suspected or known to contain hazardous waste. The ECL also mandates that this Department notify the owner of all or any part of each site or area included in the Registry of Inactive Hazardous Waste Disposal Sites as to changes in site classification.

Our records indicate that you are the owner or part owner of the site listed below. Therefore, this letter constitutes notification of change in the classification of such site in the Registry of Inactive Hazardous Waste Disposal Sites in New York State.

DEC Site No.: 932097
Site Name: Forest Glen Subdivision
Site Address: Service Road, Niagara Falls, Niagara County
Classification change from: Class 2 to Class 4

The reason for the change is as follows:

Contaminated soils have been consolidated under a cap and a commercial building with subslab vapor protection was constructed on the cap. Currently the on-site contaminated groundwater is extracted and disposed off-site. The off-site groundwater contamination is monitored for natural attenuation. The operation, monitoring and maintenance for the site will continue until remediation goals are met or modified. The site is secured and

public water serves the area.

NYSDEC, in consultation with the USEPA, has determined that all appropriate responses under CERCLA have been implemented and that no further response by the responsible parties is required to protect the human health or the environment for the site. Therefore, the site shall be reclassified from Class 2 to Class 4.

Enclosed is a copy of the Department's Inactive Hazardous Waste Disposal Site Report form as it appears in the Registry. An explanation of the site classifications is available at http://www.dec.ny.gov/chemical/8663.html. The Law allows the owner and/or operator of a site listed in the Registry to petition the Commissioner of the New York State Department of Environmental Conservation for deletion of such site, modification of site classification, or modification of any information regarding such site, by submitting a written statement setting forth the grounds of the petition.

Such petition may be addressed to:

Honorable Joseph J. Martens
Commissioner
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-1010

For additional information, please contact Vivek Nattanmai, the project manager at 518-402-9814.

Sincerely,

Kelly A. Lewandowski, P.E.
Chief
Site Control Section

KAL/ BA /ss
Enclosures

ec: D. Desnoyers
D. Weigel
A. English
K. Lewandowski

bec: w/Enc.
S. Bates, NYSDOH
M. Cruden, Director, Remedial Bureau E
J. Charles, Regional Attorney, Region 9
D. Denk, Regional Permit Administrator, Region 9
G. Sutton, RHWRE, Region 9
B. Anderson, Originator

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
Inactive Hazardous Waste Disposal Report

Site Code	932097				
Site Name	Forest Glen Subdivision	**Address**	Service Road		
Classification	04	**City**	Niagara Falls	**Zip**	14304
Region	9	**County**	Niagara	**Town**	Niagara Falls (c)
Latitude	43 degrees, 6 minutes, 51.90 seconds			**Estimated Size**	39.0000
Longitude	-79 degrees, 0 minutes, 0.12 seconds				
Site Type	EPA	**Disposal Area**	Dump		

Site Description

Site Location: The site is located in both the Town of Niagara and the City of Niagara Falls, Niagara County is approximately 0.5 miles north of Porter road. The Expressway Village mobile home subdivision is adjacent to the Site's southern boundary. The highway I-190 is adjacent to the site and is to the north and to the east of the site.

Site Features: The 39-acre Site is divided by East Gill Creek, a narrow, low-flowing creek, into separate parcels of land. South of Gill Creek is the now vacant 15-acre Forest Glen Subdivision, consisting of 51 mobile and two permanent residences. Access to the Subdivision is through Edgewood Drive. The southern portion of the Site also includes the Edgewood Drive Wooded Lots, which are two 3-acre undeveloped wooded lots located to the north and south of Edgewood Drive. The northern portion of the Site consists of the 18-acre parcel referred to as the Northern Aspect, which includes a 15-acre undeveloped triangle of land which is bordered on the west by a berm, approximately 11 feet in height. The 1.5-acre Wooded Wetland is on the eastern side of the Northern Aspect.

Current Zoning/Uses: The Site is currently zoned as commercial/light industrial.

Histroical Use(s): During the 1970's, the low areas of the site, including a former creek bed, were filled with unknown materials. Limited soil sampling, performed by the Niagara County Health Department, indicated the presence of phenolic compounds, phenol formaldehyde type resin and polyvinylchloride resins in some samples. Between 1987 and 1989, EPA investigated this site and found it be contaminated with various organic chemicals in high concentrations. Lead and mercury were also found at elevated levels. The site was then placed on the National Priorities List (NPL). The EPA prepared a Focused Feasibility Study in 1989. EPA then recommended permanent relocation of residents in this subdivision, based on the Agency for Toxic Substances and Disease Registry (ATSDR) health advisory. The relocation of 150 residents was completed in late 1992. On June 30, 1992 Special Notice was served to the PRP's for the Remedial Investigation/Feasibility Study (RI/FS). All parties refused to sign a Consent Order; therefore the RI/FS was funded by the USEPA. The RI/FS began in November 1994 and the field investigation phase was completed in 1995. The Record of Decision (ROD) for the soil remediation was completed in March 1998 which included the consolidation and capping of the contaminated soils. In early 1999, the site's zoning was changed from residential to industrial/commercial. Because of this change, EPA has changed the soil remedy to in-place capping of contaminated soils. The ROD for groundwater remediation was completed in September 1999. The ROD called for pump and treatment of on-site contaminated groundwater and natural attenuation of off-site contaminated groundwater. This ROD also included a ROD amendment to amend the soil remedy to in-place capping of the contaminated soils. A Remedial Design/Remedial Action (RD/RA) consent order was signed in September 2000 between the PRP and the EPA. Remedial action for the soil remedy began in August 2002 and was completed in 2003. As part of the remedial action a commercial/office building was constructed on top of the capped area. Long term operation, monitoring and maintenance are underway.

Geology and Hydrogeology: The geology of the region consists predominantly of compact and generally impermeable lodgement till and glacial lacustrine clay common to the Niagara Escarpment. The lodgement till is a remnant of the receding glaciers of the last ice age. The resulting topography is generally flat because of the scouring effect of the glacier, and it is poorly drained because of the impermeability of the glacial lacustrine clay and glacial till. The region surrounding the Site exhibits this glacial geomorphology, although evidence of manmade modification is apparent. The regional overburden consists of glaciolacustrine deposits (clay) and clay till deposits overlying the Lockport Dolomite bedrock. The Lockport Dolomite is a karst formation, generally 150 feet of dolostone overlying 120 feet of limestones and shales, including the impermeable Rochester Shale, below which is limestone and sandstone, overlying the Queenstown Shale. The bedrock beneath the Site and throughout the region dips gently to the south at 29 feet per mile.

The Lockport Dolomite is the major water-producing formation of the area. At the Site, the hydrogeology is defined by three hydrostratigraphic zones: perched overburden water, shallow bedrock and deep bedrock. The overburden extends approximately from zero to 20 feet below ground surface (BGS) . Because of the low permeability of the overburden clay and till, perched ground-water conditions were encountered at the Site. The shallow bedrock zone extends from 16 to 28 feet BGS. Ground water in this zone flows

both vertically and horizontally through an interconnecting system of closely-spaced joints and bedding plane fractures. The deep bedrock zone is encountered at depths of 40 to 45 feet BGS. There is a zone of competent dolostone between the shallow and deep bedrock zones. It is probable that hydraulic communication occurs between the bedrock zones.

Contaminants of Concern (Including Materials Disposed)	Quantity
OU 01	
BENZO(A)PYRENE	lb
OU 02	
BENZO(A)PYRENE	
OU 03	
TRICHLOROETHENE (TCE)	

Analytical Data Available for : Groundwater, Surface Water, Soil, Sediment

Applicable Standards Exceeded for:

Site Environmental Assessment

The review of historical aerial photographs indicates that the site was originally a forested wetland, which was impacted by local construction projects and the subsequent dumping of industrial wastes from the 1950s through 1970s. In 1973, the land was developed into the mobile home subdivision. The sale of the properties to individual landowners began in 1979.

Evidence of past waste disposal was apparent during the installation of utilities which took place as early as 1973. There is also a history of reports indicating that residents encountered waste on their properties. Samples collected by the Niagara County Health Department (NCHD) in 1980 indicated that this waste material included a phenolic resin. In 1987, EPA conducted an initial site investigation at the request of NYSDEC and NCHD. Analytical results of four soil samples which were collected from the northern portion of the Subdivision indicated that volatile and semivolatile organic chemicals, including polycyclic aromatic hydrocarbons (PAHs) and heavy metals, were present at the site at varying concentrations.

An expanded site investigation was conducted in 1988 and 1989 to better characterize the contamination. Based on the results from this investigation, on July 21, 1989, the Agency for Toxic Substances and Disease Registry (ATSDR) issued a Preliminary Health Assessment for the Forest Glen Subdivision which stated that the site posed a significant threat to public health because of possible contact with contaminated soils and wastes and advised that immediate action be taken to relocate residents of the Subdivision, beginning with the most contaminated areas. ATSDR also issued a Public Health Advisory recommending that (1) EPA consider placing the site on the National Priorities List (NPL) and (2) actions be immediately taken to relocate the residents of the mobile home park.

Based on ATSDR's Public Health Advisory, the site was added to the NPL in November 1989. In December 1989, EPA issued a ROD calling for permanent resident relocation. FEMA completed the permanent relocation of the residents in 1992. EPA conducted a Remedial Investigation/Feasibility Study (RI/FS) at the site from 1994 to 1996. A Record of Decision for OU2 (soils) was issued in March 1998 selecting a remedy consisting of soil excavation, consolidation and capping, which was based, in part, on the existing residential zoning of the portion of the site.

A supplemental ground-water investigation was performed in 1997 and the Ground-Water Feasibility Study was conducted in 1998.

The site is generally flat with local topographic variations. The geology of the site is characterized by a glacial lacustrine and clay till overburden that is up to 20 feet thick on top of the highly fractured Lockport Dolomite bedrock. The bedrock is divided into two zones: the shallow bedrock zone, which is encountered from 16 to 28 feet below ground surface, and the deep bedrock zone, which is found from 40 to 45 feet below ground surface. These two bedrock zones represent separate, interconnected aquifers.

Fill was encountered in soil borings and test pits in the northwest section of the Northern Aspect, in all berm samples, in some borings in the Edgewood Drive Wooded Lots and in the northern and central section of the Subdivision. This fill varies in composition and appearance in different parts of the site, but it generally includes black-stained material which is attributed to past dumping activities. Contaminants detected in site soils include several semi-volatile organic, PAHs and volatile organic compounds including aniline; phenothiazine; perylene; benzo(a)pyrene; chrysene; benzo(a)anthracene; benzo(b)fluoranthene; benzo(k)fluoranthene; pyrene and phenol. Heavy metals, including arsenic, cadmium, mercury and lead, were also detected in surface soil. The primary contaminant of concern at the site is Benzo(a)pyrene, a semi-volatile organic compound.

Based on the results of the investigation, the primary contaminant of concern at the site was determined to be Benzo(a)pyrene, a semi-volatile compound which was predominantly present in soil samples. Based on the RI, the total volume of contaminated soil and sediments at the site that exceed soil cleanup objectives is estimated at 285,200 cy.

Ground water flows both vertically and horizontally through an interconnected system of closely spaced joints and bedding-plane fractures. Two rounds of sampling during the RI indicated that the ground water is contaminated with volatile organic compounds (VOCs) and inorganics. Site soil contamination appears to have migrated vertically to the underlying ground water.

Volatile organic compounds were found in the ground water in exceedance of the standards were vinyl chloride; 1,1-dichloroethane; trichloroethene; 1,2-dichloroethene and 1, 1, 1 –trichloroethane. The inorganic compounds detected were chromium; iron; lead; manganese; and nickel. The inorganic compounds were detected in both rounds of sampling, however, only chromium, nickel and lead exceeded federal drinking-water standards.

In early 1999, the site's zoning was changed from residential to industrial/commercial. Because of this change, EPA has changed the soil remedy to in-place capping of contaminated soils. The ROD for groundwater remediation was completed in September 1999. The ROD called for pump and treatment of on-site contaminated groundwater and natural attenuation of off-site contaminated groundwater. This ROD also included a ROD amendment to amend the soil remedy to in-place capping of the contaminated soils. A Remedial Design/Remedial Action (RD/RA) consent order was signed in September 2000 between the PRP and the EPA. Remedial action for the soil remedy began in August 2002 and was completed in 2003. As part of the remedial action a commercial/office building was constructed on top of the capped area. Long term operation, monitoring and maintenance are underway.

Site Health Assessment

The site is fully remediated, with long term groundwater monitoring underway. The area is served by public water, so exposures to site related contaminants is unlikely.

Owners

Current Owner(s)

Susan Langdon, Director of Project Development

Niagara county Center for Economic Development

6311 Inducon Corporate Drive

Sanborn NY 14132-9099

Scott Freeman

Cherokee Investment Partners

702 Oberlin Road

Raleigh NC 27605

New Path International Holdings

2900 Service Road

Niagara Falls NY 14304

Operators

NEW YORK
state department of
HEALTH

Nirav R. Shah, M.D., M.P.H.
Commissioner

Sue Kelly
Executive Deputy Commissioner

June 15, 2011

Mr. Michael Cruden, Bureau Director
NYS Dept. of Environmental Conservation
Division of Environmental Remediation
625 Broadway – 11th Floor
Albany, NY 12233-7020

Re: Site Reclassification Package
Forest Glen Subdivision
Site #932097
Niagara Falls (C), Niagara County

Dear Mr. Cruden:

Staff reviewed the site re-classification package for the Forest Glen Subdivision site, located in the City of Niagara Falls, Niagara County, that proposes reclassifying the site from a Class 2 to a Class 4. Based on that review, I understand that the site is a 21 acre parcel that was used for the disposal of volatile and semi-volatile chemicals, and solid wastes. Contaminated soils have been consolidated under a cap and a groundwater remediation system was installed to address contaminated groundwater. Construction of a large commercial building with subslab vapor protection was completed after remediation: however, it remains unoccupied. A deed restriction is on file and site management activities are ongoing. The site is bounded by a mobile home park to the south, Interstate 190 to the east, and CSX rail yards to the west and north. The site is secured and public water serves the area. With this information, I concur with the proposal to reclassify the site as a Class 4.

If you have any questions, please contact Mr. Fedigan at (518) 402-7860.

Sincerely,

Steven M. Bates, Acting Director
Bureau of Environmental Exposure Investigation

ec: A. Salame-Alfie, Ph.D.
K. Anders/ R. Fedigan/file
M. Forcucci, WRO
K. Lewandowski/A. Daniels, DEC Albany
J. Devald, NCHD
G. Sutton, DEC Region 9

P:\Bureau\Sites\Region_9\NIAGARA\932097\Crudenltr.doc

DECLARATION FOR THE RECORD OF DECISION

SITE NAME AND LOCATION

Forest Glen Subdivision Superfund Site

City of Niagara Falls and Town of Niagara

Niagara County, New York

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for the Forest Glen Subdivision Site, which was chosen in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), and to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan. This decision, document explains the factual and legal basis for selecting the remedy for this Site.

The New York State Department of Environmental Conservation (NYSDEC) concurs with the selected remedy. A letter of concurrence from the NYSDEC is attached to this document (Appendix IV).

The information supporting this remedial action decision is contained in the administrative record for this Site. The index for the administrative record is attached to this document (Appendix III).

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from the Forest Glen Subdivision Site, if not addressed by implementing the response actions selected in this Record of Decision, may present an imminent and substantial endangerment to the public health or welfare, or to the environment.

DESCRIPTION OF THE SELECTED REMEDY

This Record of Decision (ROD) selects a remedy for contaminated ground water (designated as Operable Unit 3) at the Site , as well as amends the 1998 ROD for soils and sediment (designated as Operable Unit 2). Operable Unit 1 was the subject of a 1989 ROD and addressed the permanent relocation of the residents of the Forest Glen Subdivision.

Selected Ground-water Remedy (OU3)

The major components of the selected ground-water remedy include:

- Extraction of contaminated ground water from the on-property plume;

- Transportation of the extracted ground water via sanitary sewer to the City of Niagara Falls Wastewater Treatment Plant;

- Construction of an on-site, 12-hour holding tank, as required by the City of Niagara Falls Wastewater Treatment Plant;

- Sampling of the storage tank effluent as required by the City of Niagara Falls Wastewater Treatment Plant;

- Implementation of a Long-Term Ground-Water Monitoring Program to assess whether the remedy is functioning as designed;

- Performance of a Monitored Natural Attenuation Study, including a baseline investigation and ground-water modeling, to evaluate intrinsic biodegradation and other natural attenuation processes. If monitoring indicates that natural attenuation is not effective in remediating the off-property ground-water contamination, active remedial measures will be considered.

The Remedial Action Objective for ground water is to restore the potable aquifer underlying the Site to drinking-water quality. It is expected that the contaminated ground water underlying the property will be restored to drinking-water standards in approximately 7 years. Also, it is expected to take approximately 12 to 14 years for the off-property contaminated ground water to achieve drinking-water standards.

Selected Soil/Sediment Remedy (OU2)

The zoning of the Site has changed from residential to commercial/light industrial. The 1998 ROD considered the anticipated future land-use at the Site to be residential. Due to land use change, EPA reevaluated the remedial alternatives for contaminated soil and sediment and selected a new remedy.

EPA has determined, upon consideration of the requirements of CERCLA, the results of the RI/FS, the detailed analysis of the

various alternatives, and public comments, that Alternative S-3, Capping, is the appropriate remedy for the contaminated soils and sediments at the Site. This remedy addresses the low-level threat wastes at the Site.

The major components of the selected soil/sediment remedy are as follows:

- Construction of an engineered cover system (landfill cap) over the contaminated soils/sediment at the Site in conformance with the major elements described in 6 New York Code of Rules and Regulations Part 360 for landfill caps. Conceptually, the standard Part 360 cap includes: 18 inches of low-permeability soil cover barrier or geomembrane to ensure a permeability of 10-7 cm/sec, six inches of porous material serving as a drainage layer, 24 inches of soil as a barrier protection layer and six inches of topsoil and grass cover. The areas of the Site to be capped include the Berm and the portions of contaminated soil (above TAGMs)in the former Subdivision and Edgewood Drive Wooded Lots. Areas of contaminated soil (above TAGMS) located in the Northern Aspect will be excavated and consolidated under the cap, as well as contaminated sediments excavated along East Gill Creek.

- Implementation of a long-term inspection and maintenance program to ensure cap integrity.

- Removal and off-site disposal of the vacant trailers and two permanent homes to prepare the Site for excavation and capping.

- Taking measures to secure institutional controls in the form of deed restrictions to limit future Site activities, as appropriate, and fencing to limit future access to the capped area.

- Capping the Wooded Wetland with six inches of clean sediment. If the Wetlands Assessment and Mitigation Plan conclude that the addition of six inches of clean sediment would have an adverse impact on the wetland, contamination in the Wooded Wetland would be excavated and the area would be appropriately restored.

- Performance of an investigation in East Gill Creek during Remedial Design to determine if there are upstream sources of contamination that may impact the Site.

The Remedial Action Objective for contaminated soils and sediments is to contain the source area and to prevent further migration of contaminants to the ground water to the extent practicable.

A developer is interested in building a commercial development at the Site. If the Site is commercially developed, the engineered cover system (cap) covering the contaminated soils/sediments may not consist of the components listed in 6 NYCRR Part 360, but it would need to meet the requirements of an equivalent design, as specified in 6NYCRR, Section 360-2.13(w) of the New York State regulations.

The selected soils/sediment remedy is based on the anticipated future use of the Site as commercial/light industrial. If the proposed development fails to be implemented in a timely manner and the property is then promptly rezoned for residential use, EPA expects that it would issue a public notice changing the OU2 soils/sediment remedy back to the remedy selected in the 1998 ROD.

DECLARATION OF STATUTORY DETERMINATIONS

The selected remedy meets the requirements for remedial actions set forth in CERCLA § 121, 42 U.S.C. § 9621. It is protective of human health and the environment, complies with Federal and State requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost-effective. The selected remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable, given the scope of the action. However, the remedy does not satisfy the statutory preference for remedies that employ treatment that reduces toxicity, mobility, or volume of contaminants as their principal element.

Because this remedy will result in hazardous substances remaining on the Site above health-based levels, a review will be conducted within five years after commencement of the remedial action, and every five years thereafter, to ensure that the remedy continues to provide adequate protection of human health and the environment.

Jeanne M. Fox
Regional Administrator

Sept. 30, 1999
Date

Remedial Action Report

Remedial Work Elements 1 and 2 (Soil and Groundwater) Forest Glen Subdivision Site Niagara Falls, New York

The Goodyear Tire & Rubber Company

April 2004

O'BRIEN & GERE
ENGINEERS, INC.

5540/31425

Remedial Action Report

Remedial Work Elements 1 and 2
(Soil and Groundwater)
Forest Glen Subdivision Site
Niagara Falls, New York

The Goodyear Tire & Rubber Company

James R. Heckathorne, P.E.
Vice President

April 2004

O'BRIEN & GERE
ENGINEERS, INC.

1. Introduction

1.1. General

This Remedial Action Report (RAR) presents a summary of the work completed at the Forest Glen Subdivision Superfund Site in Niagara Falls, N.Y. The work was completed in compliance with the requirements of the Statement of Work (SOW) included as part of the Consent Decree in the matter of United States v. The Goodyear Tire & Rubber Company (Goodyear) et. ano., Civil Action No. 960CV-07215 S (H). The Consent Decree was entered in the United States District Court for the Western District of New York on June 7, 2001.

The SOW established two remedial work elements for the Site. Remedial Work Element 1 (RWE-1) was established to address soils and sediments at the Site, while Remedial Work Element 2 (RWE-2) was established to address ground water.

1.1.1. RWE-1 (soil & sediment)

As presented in the 1999 Record of Decision (ROD), two remedial action objectives (RAOs) were established for RWE-1, including:

- Prevent direct contact with contaminated soils and sediments
- Mitigate the potential for contaminants to migrate from the soil and sediments into the ground water

In general, the RWE-1 remedy included the following measures to accomplish these RAOs:

- Construction of an engineered cover system over the consolidated waste fill and soils exceeding the New York State Department of Environmental Conservation (NYSDEC) Technical Guidance and Administrative Memorandum (TAGM) 4046 established clean up objectives in the subdivision. The ROD required that the cover be designed and constructed in conformance with the major elements described in New York Code of Rules and Regulations, Title 6, Part 360 (6 NYCRR Part 360). The limits of the engineered cover system (Part 360 cap) are presented on the Record Drawings prepared by Clear Creek Surveyors provided in Appendix A. The covered areas

include the northern half of the former subdivision and the Edgewood Drive north and south wooded lots. The remedy includes implementation of a long-term inspection and maintenance program to maintain cover integrity, and requires the implementation of institutional controls in the form of deed restrictions, to limit future activities on-site.

- Excavation of sediments along East Gill Creek as shown on Record Drawing G-4. The excavated sediments were consolidated within the area covered with the Part 360 cap. The excavation along East Gill Creek was then backfilled with clean topsoil from off-site.

- Excavation of the earthen berm formerly located along the west side of the Northern Aspect, and excavation of soils exhibiting greater than 61 µg/kg of benzo(a)pyrene (BaP) present below and along the berm and in the "hot spot" formerly located in a portion of the Northern Aspect. The limits of excavation for both areas are shown on Record Drawings G-3 and G-4. The soils comprising the berm and "hot spot" were consolidated within the area covered by the Part 360 cap. Afterward, verification samples were collected from these excavations at locations depicted on Record Drawings G-3 and G-4.

  The verification sampling included analyses for Target Compound List (TCL) Volatile Organic Compounds (VOCs); TCL Semi-Volatile Organic Compounds (SVOCs) including aniline, phenyl isothiocyanate, diphenylamine, 2-mercaptobenzothiazole, perylene, N,N-diphenyl-1,4-benzenediamine, phenothiazine, and benzo-thiazole; and Target Analyte List (TAL) metals. Although the ROD also required the verification sampling to include 2-anilinobenzothiazole, a laboratory standard for this compound was not available and the USEPA agreed during a meeting on September 10, 2002 that this compound could be removed from the verification program.

  The verification sampling results were compared to the TAGM clean up objectives that the remaining soils exhibit less than 500 mg/kg of total SVOCs, less than 10 mg/kg of total VOCs, and metals less than two-times background. The results of the final verification sampling were also reviewed by the USEPA and NYSDEC and compared to the other TAGM clean up objectives.

  Following the achievement of the clean up objectives, the excavations were backfilled with clean material from off-site to match surrounding grades in the Northern Aspect.

- Excavation of sediments exhibiting greater than 61 µg/kg of BaP from the Wooded Wetland located in the southeast corner of the Northern Aspect. The limits of excavation are shown on Record Drawing G-4. The excavated sediments were consolidated within the area covered by the Part 360 cap. The excavation was then

backfilled with clean material from off-site and the area was restored as a wooded wetland.

Each element of the RWE-1 remedy summarized above is discussed in greater detail in Sections 3 through 6 of this report.

In addition to the remedial elements identified above, a significant volume of buried cardboard waste was encountered next to the east side of the berm during the project. As described in Section 3.2, the cardboard waste was removed and disposed off-site at Modern Landfill in Model City, New York.

1.1.2. RWE-2 (ground water)

As presented in the ROD, two RAOs were established for RWE-2, including:

- Reduce or eliminate the threat to human health and environment posed by ground water contamination by remediating ground water to maximum contaminant levels (MCLs)

- Reduce or eliminate the potential for migration of contaminants to potential receptors

In general, the RWE-2 remedy included the following measures to accomplish these RAOs:

- Extraction of impacted ground water from the on-site plume. This is being accomplished using two ground water recovery wells (RW-1 and RW-2) that were constructed on-site, as shown on the Record Drawing of Final Site Conditions prepared by Clear Creek Surveyors (Appendix A).

- Transfer of the extracted ground water via sanitary sewer to the City of Niagara Falls Wastewater Treatment Plant. The discharge point permitted by the Niagara Falls Water Board is at sanitary sewer manhole MH-3B, as shown on the Record Drawings.

- Implementation of a Long-Term Ground Water Monitoring Program to assess whether the remedy is functioning as designed.

The first two elements of the RWE-2 remedy summarized above are discussed in greater detail in Section 8. The third element of the RWE-2 remedy is described in the USEPA-approved *Long-term Ground Water Monitoring Plan* dated September 2003 (O'Brien & Gere, 2003d), which is bound separately.

REPORT

RWE-1 Operation and Maintenance Manual Forest Glen Superfund Site Niagara Falls, New York

The Goodyear Tire & Rubber Company

April 2004

O'BRIEN & GERE
ENGINEERS, INC.

5540/31425

REPORT

RWE-1 Operation and Maintenance Manual
Forest Glen Superfund Site
Niagara Falls, New York

Goodyear Tire & Rubber Company

James R. Heckathorne, P.E.
Vice President

April 2004

O'BRIEN & GERE
ENGINEERS, INC.

1. Introduction

This document provides guidelines and procedures for managing and maintaining the Part 360 cover constructed at the Forest Glen Site located in Niagara Falls, New York (Figure 1). This operation and maintenance (O&M) manual has been prepared in accordance with the requirements of the Statement of Work (SOW) for Remedial Work Element 1 (Soil) and the 1999 Record of Decision (ROD) for Operable Unit 2 (OU2). The SOW and ROD are contained in the Consent Decree entered between Goodyear and the United States Environmental Protection Agency (USEPA). The Consent Decree (Civil Action No. 96-CV-07215S(H)) was lodged in the United States District Court for the Western District of New York on June 7, 2001.

This O&M Manual is applicable to the following components of the RWE-1 remedy at the Site:

- Part 360 cover
- Surface water runoff facilities

Necessary operation and maintenance activities at the Forest Glen Site include:

- Routine inspection and maintenance of constructed features, including the Part 360 cover (both the vegetated and paved areas), surface water runoff facilities, foundation, passive venting system, and
- Record keeping and reporting.

1.1. Site description

The Site is located in Niagara County, New York, partly in the City of Niagara Falls and partly in the Town of Niagara. It lies in the northwest quadrant of the intersection of Interstate Highway 190 and Porter Road. It is accessed from Service Road, off Porter Road. The Site is approximately 29 acres. The boundary between the City and Town runs

REPORT

RWE-2 Ground Water Systems Operations Plan Forest Glen Superfund Site Niagara Falls, New York

The Goodyear Tire & Rubber Company

April 2004

O'BRIEN & GERE
ENGINEERS, INC.

5540/31424

REPORT

RWE-2 Ground Water Systems Operations Plan Forest Glen Superfund Site Niagara Falls, New York

Goodyear Tire & Rubber Company

James R. Heckathorne, P.E.
Vice President

April 2004

O'BRIEN & GERE ENGINEERS, INC.

1. Introduction

1.1. General

This document provides guidelines and procedures for operating the ground water recovery system constructed at the Forest Glen Site located in Niagara Falls, New York (Figure 1). This operation plan (O&M Manual) has been prepared in accordance with the requirements of the Statement of Work (SOW) for Remedial Work Element 2 (ground water) and the 1999 Record of Decision (ROD) for Operable Unit 2 (OU2). The SOW and ROD are contained in the Consent Decree entered between The Goodyear Tire & Rubber Company (Goodyear) and the United States Environmental Protection Agency (USEPA). The Consent Decree (Civil Action No. 96-CV-07215S(H)) was lodged in the United States District Court for the Western District of New York on June 7, 2001.

This O&M Manual is applicable to the following components of the RWE-2 remedy:

- The ground water recovery system, located on site as shown on the Record Drawing of Final Site Conditions prepared by Clear Creek Surveyors (Appendix A), including:
    - Ground water recovery wells RW-1 and RW-2, each equipped with a submersible pump and ground water level sensor. The level of each recovery well is monitored by a 2-wire submersible pressure transmitter, which provides a 4-20mA DC signal for each well to the pump control panel.
    - The effluent metering station housing two flow meters and a refrigerated automatic sampler.
    - The pump control panel, located west of the paved area behind the building, housing the combination motor starters, digital panel meters, selector switches, and auto dialer with data logging capabilities.
    - The radio telemetry panel, located inside the building electric utility room, housing the master telemetry unit (MTU) and radio transceiver. The disconnect switch for the electric service and Niagara Mohawk meter for RWE-2 is located inside the building electric utility room as well.

- The off-site electrical enclosure at Regulator 8, on Royal Avenue in Niagara Falls, housing the power disconnect switch, Radio Frequency (RF) admittance probe electronics, and Remote Telemetry Unit (RTU).

Each of these components of the RWE-2 remedy is described in more detail in Section 2 of this manual.

The RWE-2 infrastructure also includes monitoring wells MW-1S, MW-1D, MW-2S, MW-2D, MW-4S, MW-4D, MW-5S, MW-5D, MW-6S, MW-6D, MW-6DD, MW-7S, MW-7D, MW-7DD(2), MW-8S, MW-8D, MW-8DD, MW-9S, MW-9D, MW-10S, MW-10D, MW-11S, MW-11D, MW-11V, MW-12S, MW-12D, MW-12V, MW-13S, MW-13D, MW-14S, and MW-14D. The locations of the wells are shown on Figure 2 and construction details are summarized in Table 1.

Necessary operation and maintenance activities at the Forest Glen Site include:

- Periodic sampling and analyses of the discharge to the publicly owned treatment works (POTW), in accordance with the Significant Industrial User (SIU) discharge permit issued by the Niagara Falls Water Board (Exhibit 1). These requirements are summarized in Section 3.

- Periodic sampling and analyses of the monitoring well network, in accordance with the Long Term Ground Water Monitoring Plan (Appendix B).

- Routine inspection and maintenance of constructed features as outlined in Section 4.

- Record keeping and reports as required by Section 5.

1.2. Site description

The Site is located in Niagara County, New York, partly in the City of Niagara Falls and partly in the Town of Niagara. It lies in the northwest quadrant of the intersection of Interstate Highway 190 and Porter Road. It is accessed from Service Road, off Porter Road. The Site is approximately 29 acres. The boundary between the City and Town runs north and south through the Site with the City on the west and the Town on the east. There are approximately 21.5 acres in the City and 7.5 acres in the Town. The Site is bounded on the north by property owned by the Niagara Junction Railway Company, to the east by Interstate Highway

REPORT

2009 Annual Report
Remedial Work element 2 (Groundwater)
Forest Glen Subdivision Site
Niagara Falls, New York

The Goodyear Tire & Rubber Company

May 2010

O'BRIEN & GERE
www.obg.com

REPORT

5540 | 44667

2009 Annual Report
Remedial Work Element 2
(Groundwater)
Forest Glen Subdivision Site

Niagara Falls, New York

Prepared for:
The Goodyear Tire & Rubber Company

SWIATOSLAV W. KACZMAR, PH.D.
VICE PRESIDENT/CHIEF SCIENTIST

EXECUTIVE SUMMARY

This document is the 2009 Annual Report for Remedial Work Element 2 (groundwater) (RWE-2) for the Forest Glen Superfund Site in Niagara Falls, New York. The Record of Decision (ROD) of 1999 established two remedial action objectives (RAOs) for RWE-2 including:

- Reduce or eliminate the threat to human health and the environment posed by groundwater contamination by remediating groundwater to maximum contaminant levels (MCLs)
- Reduce or eliminate the potential for migration of contaminants to potential receptors

To achieve these goals, the USEPA selected a two part approach for Operable Unit 3 (OU3) - Groundwater. The first component includes extraction of contaminated groundwater from the on-property plume and transfer of the extracted groundwater via sanitary sewer to the City of Niagara Falls Wastewater Treatment Plant. The second component for RWE-2 includes monitored natural attenuation (MNA) of the off-property plume. The OU3 remedy was completed to complement the Remedial Work Element 1 (Soil) (RWE-1) remedy selected by the USEPA for Operable Unit 2 (soil) which consisted of construction of a 6 NYCRR Part 360 low-permeability geomembrane cap over the suspect source of VOCs in overburden soil. The construction of both RWE-1 and RWE-2 was completed, and operation of the groundwater recovery system started, during 2003.

Groundwater concentrations observed since completion of the construction indicate that the groundwater extraction remedial measure is effective in providing for contaminant removal from the on-site property plume, and groundwater level measurements indicate the creation of inward hydraulic gradients from downgradient off-Site areas toward the groundwater extraction wells. Shallow and deep bedrock groundwater elevations subsequent to landfill capping and operation of the groundwater extraction system have been lowered compared to elevations prior to these remedial measures. These data indicate that dewatering of the shallow and deep bedrock groundwater zones near the extraction wells has occurred and is being maintained.

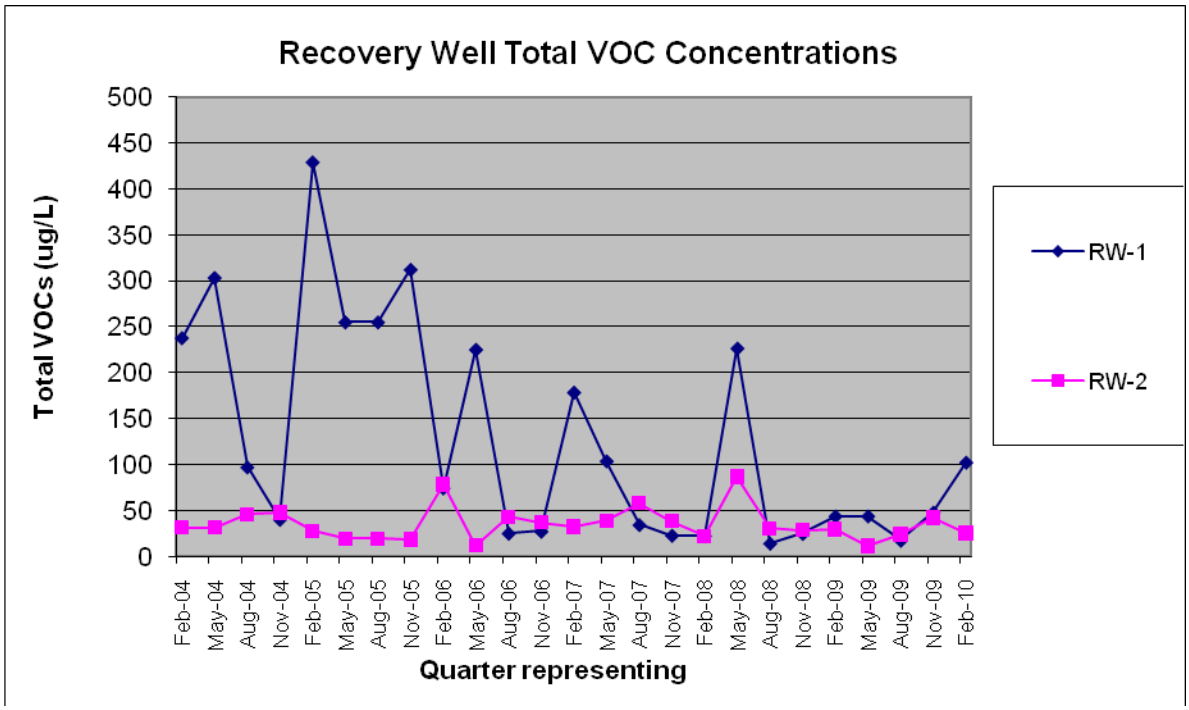
Natural attenuation was the second part of the approach selected by the USEPA, to address the plume extending off-site that exhibits VOCs slightly above the Class GA groundwater standards. As a component of this part of the remedy, the USEPA requires monitoring to be performed to assess water quality and evaluate if the remedial approach remains protective of potential receptors.

As part of the monitoring program, samples of groundwater were collected from 17 monitoring wells on one occasion during October 2009 in accordance with the USEPA-approved Long-Term Groundwater Monitoring Plan dated September 2003 (revised March 24, 2004) (O'Brien & Gere, 2004). The samples were analyzed for VOCs as well as natural attenuation indicator parameters. The table below presents a summary for these monitoring wells and observed trends over the last 6 years since completion of the RWE-1 and RWE-2 construction.

Monitoring Wells		Observed Trends
On-Site Wells		
Shallow bedrock aquifer	MW-4S, MW-5S, MW-6S, and MW-10S	VOC data from the on-Site shallow bedrock source, as monitored by MW-5S, continue to indicate declining or stable concentrations of TCE, cis-1,2-DCE and vinyl chloride. VOC concentrations in most shallow and deep bedrock monitoring wells located outside of the source area continue to be either non-detect or below Class GA groundwater standards. VOC concentrations in on-Site shallow and deep bedrock monitoring wells MW-6S and MW-6D continue to fluctuate within a consistent historic range at levels above groundwater standards. TCE, cis-1,2-DCE, and vinyl chloride have consistently been detected within deeper bedrock groundwater on-Site (MW-6DD). TCE has not been detected at concentrations exceeding Class GA groundwater standards. Stable concentrations of cis-1,2-DCE have been observed since April 2006. Vinyl chloride concentrations have generally fluctuated within a narrow concentration range (approximately 10 µg/l to 20 µg/l) between November 2003 and October 2009.
Deep bedrock aquifer	MW-4D, MW-5D, MW-6D, and MW-10D	
Deeper bedrock aquifer	MW-6DD	
Off-Site (downgradient) Wells		
Shallow bedrock aquifer	MW-7S	TCE and cis-1,2-DCE continue to be detected but at concentrations below their Class GA standards, while vinyl chloride continues to be non-detect.
	MW-8S	TCE, cis-1,2-DCE, and vinyl chloride concentrations have remained below their Class GA standards since September 2005, August 2004, and February 2004, respectively.
Deep bedrock aquifer	MW-7D	TCE continues to be detected but at concentrations below the Class GA standard, and cis-1,2-DCE and vinyl chloride concentrations continue to indicate decreasing or stable trends fluctuating from slightly above to slightly below the respective Class GA standards.
	MW-8D	TCE continues to be non-detect. Cis-1,2-DCE concentrations have declined to levels below the Class GA standard. Vinyl chloride concentrations had shown an increasing trend from February 2004 through May 2008, Since May 2008, vinyl chloride concentrations have decreased, reversing the previous increasing trend. Vinyl chloride was detected during October 2009 at the Class GA groundwater standard.
Deeper bedrock aquifer	MW-7DD(2), MW-8DD	TCE and cis-1,2-DCE have not been detected at concentrations exceeding Class GA groundwater standards in MW-7DD or MW-8DD. Vinyl chloride has not been detected in MW-7DD since April 2005, and has only been detected during one of the 16 sampling events (February 2004) above the Class GA groundwater standard. Vinyl chloride has been detected in MW-8DD during three of 16 sampling events (July 2003, September 2005, and November 2007) at concentrations above the Class GA groundwater standard. A stable vinyl chloride concentration trend has been observed since the February 2004 sampling event.

In general, review of the groundwater quality data collected for the Site through 2009 shows improvement and a decreasing trend toward the attainment of the RAOs. The improvements observed in groundwater quality were most significant during the early years, compared to trends over the most recent years. Although the trend in general continues to indicate improving groundwater quality, the rate of improvement is slowing and potentially becoming asymptotic.

A slowing rate of progress toward the RAOs is also indicated by quarterly samples of the groundwater collected from the two recovery wells, RW-1 and RW-2, located in the source area. The graph below presents the concentrations of total VOCs detected in each recovery well during the last 6 years.

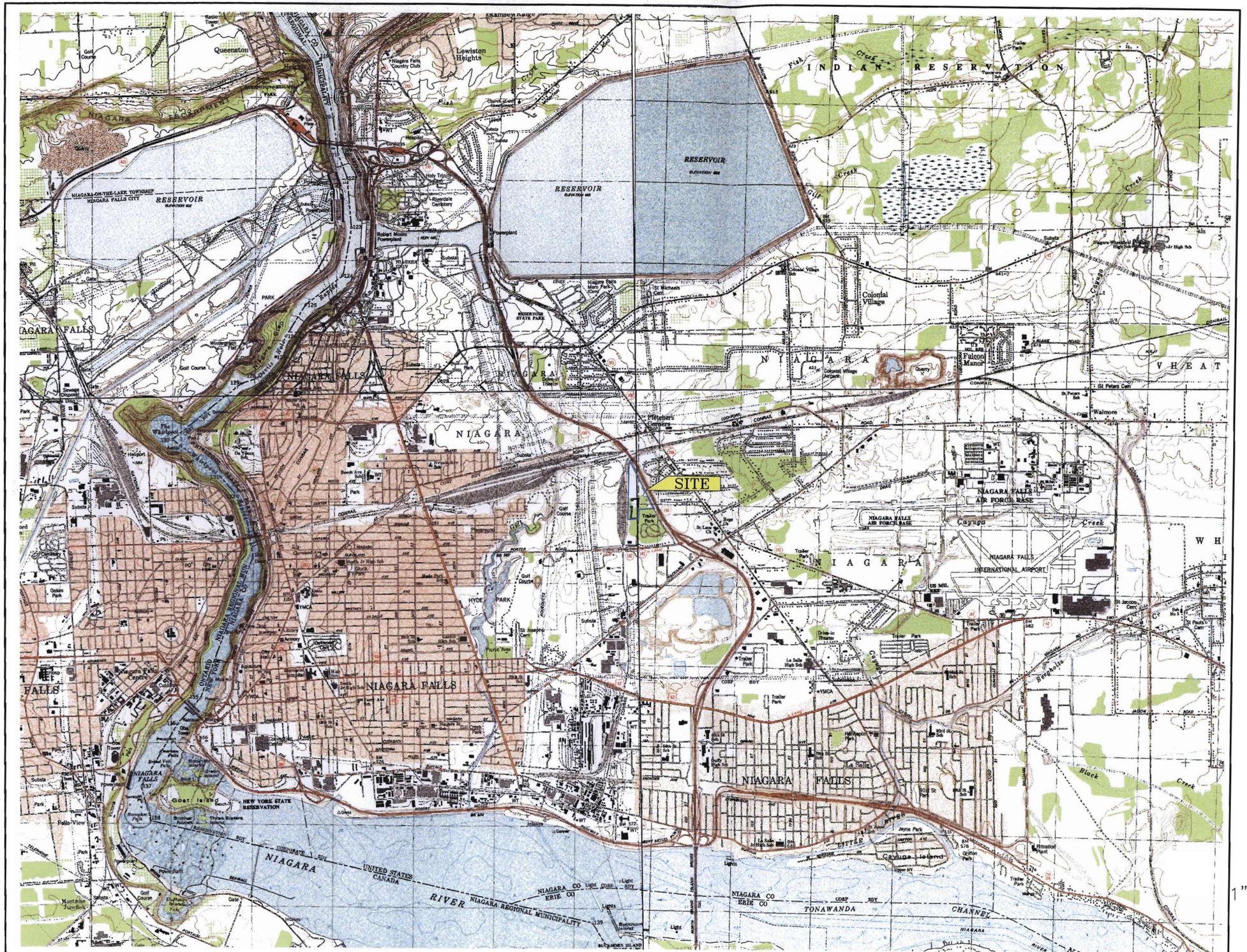


The monitoring program, which has included annual analysis of natural attenuation indicators since completion of construction 6 years ago, has documented that favorable conditions for natural attenuation continue to exist for the reduction of concentrations of VOCs in groundwater. The VOC data and geochemical data provide evidence of the attenuation of downgradient off-Site shallow and deep bedrock VOCs. This attenuation is likely the result of both physical and biological processes. The strongest evidence for attenuation by biologic processes is the relatively low TCE concentrations and concurrent presence of degradation products of TCE such as cis-1,2-DCE and vinyl chloride.

DWG PATH: I:\DIV71\PROJECTS\5540\31425\DWGS\004.DWG SF=1

PLOT DATE: 1/14/04

FIGURE 1



ADAPTED FROM: TONAWANDA WEST, RANSOMVILLE, NIAGARA FALLS & LEWISTON U.S.G.S. 7.5 MINUTE QUADRANGLES OF NEW YORK.

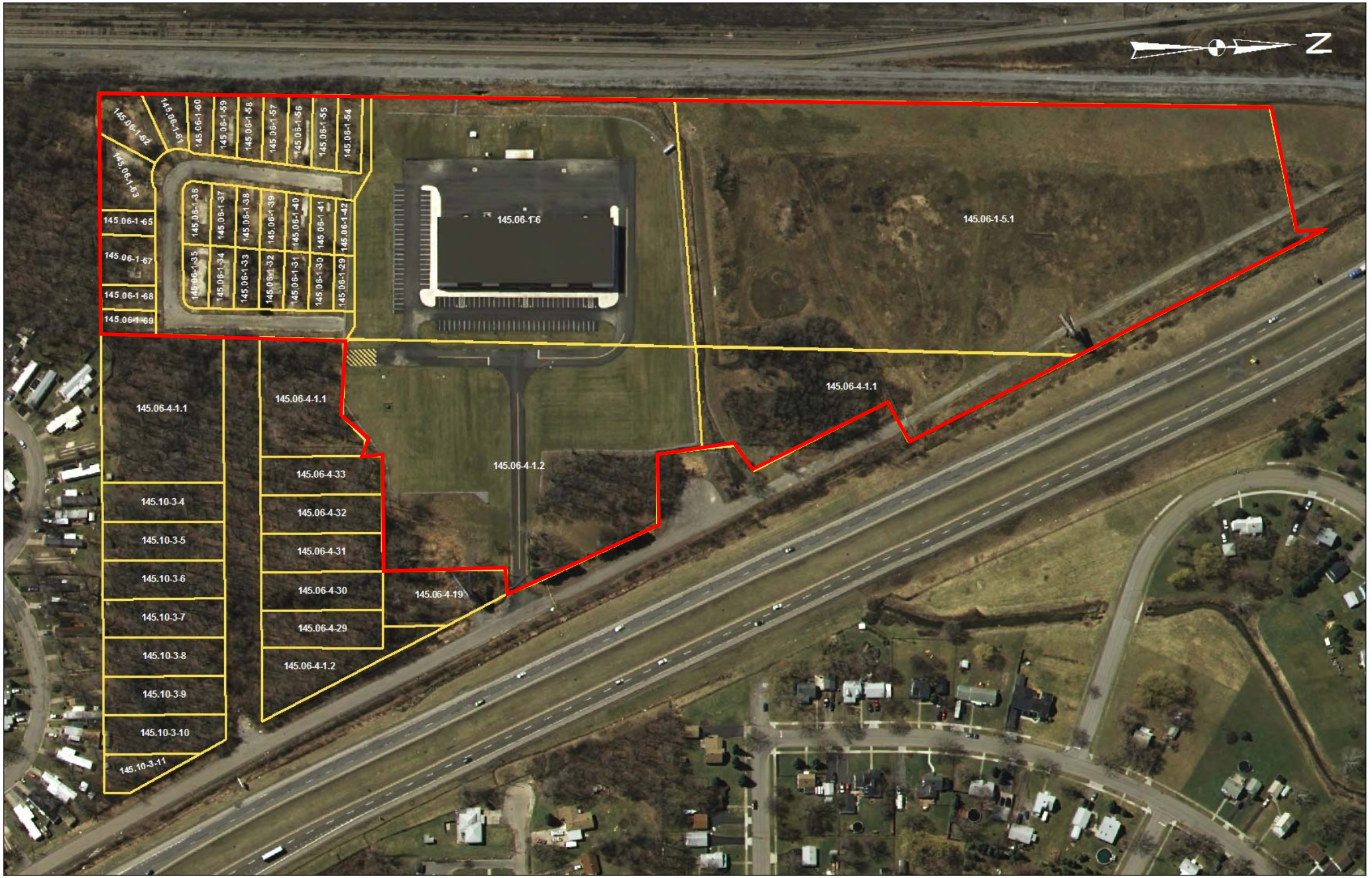
FOREST GLEN
SUBDIVISION SITE
NIAGARA COUNTY, NEW YORK

SITE LOCATION
MAP

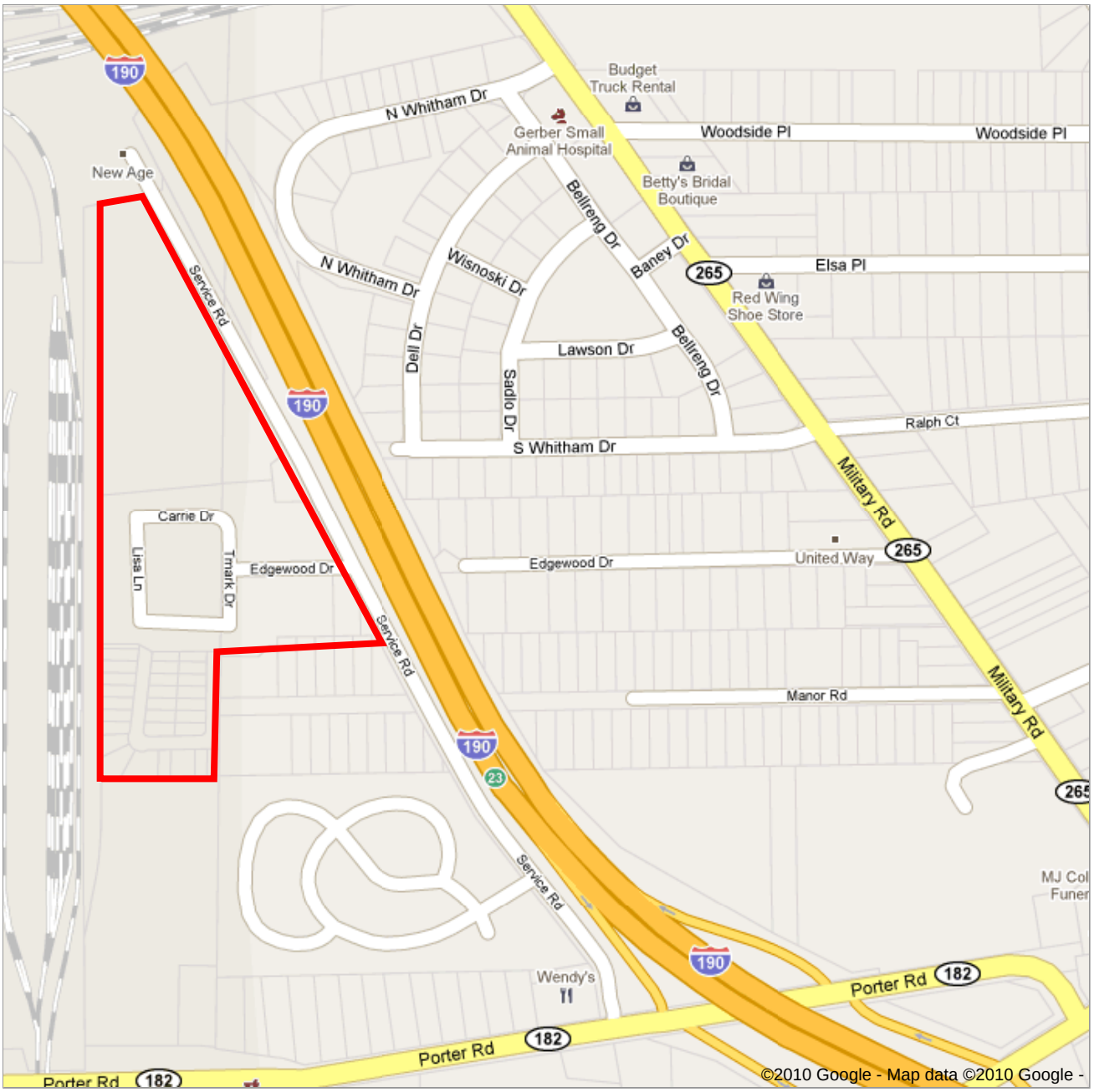
4000 0 4000
1"=4000'

FILE NO. 5540.31425.004
JANUARY 2004

O'BRIEN & GERE
ENGINEERS INC.


N
145.06-1-62
145.06-1-61
145.06-1-60
145.06-1-59
145.06-1-58
145.06-1-57
145.06-1-56
145.06-1-55
145.06-1-54
145.06-1-63
145.06-1-65
145.06-1-67
145.06-1-68
145.06-1-69
145.06-1-36
145.06-1-37
145.06-1-38
145.06-1-39
145.06-1-40
145.06-1-41
145.06-1-42
145.06-1-35
145.06-1-34
145.06-1-33
145.06-1-32
145.06-1-31
145.06-1-30
145.06-1-29
145.06-1-6
145.06-1-5.1
145.06-4-1.1
145.06-4-1.1
145.06-4-1.2
145.06-4-33
145.06-4-32
145.06-4-31
145.06-4-30
145.06-4-19
145.06-4-29
145.06-4-1.2
145.10-3-4
145.10-3-5
145.10-3-6
145.10-3-7
145.10-3-8
145.10-3-9
145.10-3-10
145.10-3-11

Google maps Address **Niagara Falls**
7000 McLeod Rd
Niagara Falls, ON L2G 7K3, Canada



Site Contact List - Forest Glen Subdivision, SiteID 932097

Name	Organization	Street Address	City/Town_ST_Zip
	Always A Party Limo & Tuxedo	6003 Porter Rd	Niagara Falls NY 14304
	Blackwinds Pet Supplies	6001 Porter Rd	Niagara Falls NY 14304
	JBM Retail	5535 Porter Rd	Niagara Falls NY 14304
	Niagara Millwork	5823 Porter Rd	Niagara Falls NY 14304
	Skizzors	5885 Porter Rd	Niagara Falls NY 14304
	Spectrum Computer Technologies	5540 Porter Rd	Niagara Falls NY 14304
	Ultramatic Sleep of America Inc	6001 Porter Rd	Niagara Falls NY 14304
	Wal Mart	5555 Porter Rd	Niagara Falls NY 14304
	Whit Mil Towne Apts Inc	3107 Bellreng Dr	Niagara Falls NY 14304
Baker, Lyle K		6152 N Whitham Dr	Niagara Falls NY 14304
Barbarico, Silvano		5610 Townline Rd	Sanborn NY 14132
Bassham, Ronald		6312 S Whitham Dr	Niagara Falls NY 14304
Bazzani, Dante J & Teresa		3511 Jerauld Ave	Niagara Falls NY 14305
Blazejewski, William A		6300 S Whitham Dr	Niagara Falls NY 14304
Boyd, Mary		6401 Edgewood Dr	Niagara Falls NY 14304
Brinson, Jerome		6000 Porter Rd	Niagara Falls NY 14304
Broks, Robert F		6001 Edgwood Dr	Niagara Falls NY 14304
Bronson, Timothy R		6110 Edgewood Dr	Niagara Falls NY 14394
Buck, Elwood R		5600 Porter Rd	Niagara Falls NY 14304
Buffone, Frank J & June D		431 67th St	Niagara Falls NY 14304
Burgio, Charles		6306 S Whitham Dr	Niagara Falls NY 14304
Calderone, Otto J		31 W Main St	Lockport NY 14094
Candella, Alfred & Joan		351 37th St	Niagara Falls NY 14301
Candella, Charles & Mary		5610 Porter Rd	Niagara Falls NY 14304
Candella, Deborah A		5600 Porter Rd	Niagara Falls NY 14304
Candella, Joseph S		6309 Manor Rd	Niagara Falls NY 14304
Candella, Santo & Adeline		334 Youngstown Lockport Rd	Youngstown NY 14174
Carella, Lawrence		6330 S Whitham Dr	Niagara Falls NY 14304
Chris Schmidt		City Hall/745 Main St/ Rm 347	Niagara Falls NY 14301
City Administrator		710 Main St	Niagara Falls NY 14302
City Desk	Buffalo News	PO Box 100	Buffalo NY 14240
Clare, Leige J		3103 Dell Dr	Niagara Falls NY 14304
Collins, Richard J		6138 N Whitham Dr	Niagara Falls NY 14304
Commisso, Cosmo A		6321 S Whitham Dr	Niagara Falls NY 14304
Costello, H		3164 Dell Dr	Niagara Falls NY 14304
Coty, Larry		6310 Edgewood Dr	Niagara Falls NY 14304
Czaplak, John		5920 Edgewood Dr	Niagara Falls NY 14304
Davis, Mark E		5910 Edgewood Dr	Niagara Falls NY 14304
DeFranco, Michael & Theresa		5963 Hewitt Dr	Lewiston NY 14092
DeLancey, M J		3140 Dell Dr	Niagara Falls NY 14304
Delgrolice, Nick J		6167 N Whitham Dr	Niagara Falls NY 14304
DelMonte, Francine	Assemblywoman	1700 Pine Ave	Niagara Falls NY 14301
Delvecchio, Mr Robert		2826 Macklem	Niagara Falls NY 14305
DeMonico, V		5820 Porter Rd	Niagara Falls NY 14304
DePadre, Josephine C		6311 Edgewood Dr	Niagara Falls NY 14304
DeSantis, Mr Tom	City of NF/Planning Dept	745 Main St / City Hall	Niagara Falls NY 14302
Diez, MA		5720 Porter Rd	Niagara Falls NY 14304
DiMeo, Louis M & Annie		526 21st St	Niagara Falls NY 14301
DiMeo, Ms Virginia		446 22nd St	Niagara Falls NY 14301
Dominguez, Robert		6343 S Whitham Dr	Niagara Falls NY 14304
Dorato, Robert J		6305 S Whitham Dr	Niagara Falls NY 14304
Dorf, Paul	Niagara Falls Water Board	5815 Buffalo Ave.	Niagara Falls, NY 14304-3832
Dugan, S A		6289 S Whitham Dr	Niagara Falls NY 14304
Editorial Reporter	Niagara Gazette	310 Niagara St	Niagara Falls NY 14303
Eisenman, Floyd		3143 Bellreng Dr	Niagara Falls NY 14304
Expressway Village Inc		9 Union Ave	Bala Cynwyd PA 19004
Fedak, Matthew		6151 N Whitham Dr	Niagara Falls NY 14304
Fisher, B L		6415 Manor Rd	Niagara Falls NY 14304
Fisher, Bob		6425 Manor Rd	Niagara Falls NY 14304
Frank, Mr Brad	Millennium Business Group	1803 16th St	Niagara Falls NY 14305

Site Contact List - Forest Glen Subdivision, SiteID 932097

Name	Organization	Street Address	City/Town_ST_Zip
Gabalski, Ms Anita	NYS DOH Ctr Environmental Health	Flanigan Sq/ 547 River St	Troy NY 12180
Galarneau, Andrew Z	The Buffalo News	8353 Niagara Falls Blvd	Niagara Falls NY 14304
Granto, Richard A		5700 Porter Rd	Niagara Falls NY 14304
Grinnen, Andrew		6176 N Whitham Dr	Niagara Falls NY 14304
Guilliani, Ms Margaret		4800 Kline Rd	Niagara Falls NY 14304
Gullett, Howard L		6210 Edgewood Dr	Niagara Falls NY 14304
Hardenstein, Teresa		2216 Weston Ave	Niagara Falls NY 14301
Harris, Thomas		3110 Dell Dr	Niagara Falls NY 14304
Hartwig, John W		6127 N Whitham Dr	Niagara Falls NY 14304
Hartwig, Lawrence A		6127 N Whitham Dr	Niagara Falls NY 14304
Hendricks, Robert F		6355 S Whitham Dr	Niagara Falls NY 14304
Herman, Tammy & Ed		3109 Dell Dr	Niagara Falls NY 14304
Hillman, Jeffrey & Deborah		6300 Edgewood Dr	Niagara Falls NY 14304
Hinton, Mr Michael	NYS DEC	270 Michigan Ave	Buffalo NY 14203
Homiszczak, Frank A		6294 S Whitham Dr	Niagara Falls NY 14304
Homiszczak, Helen		3144 Sadlo Dr	Niagara Falls NY 14304
Howard, Karen		5620 Porter Rd	Niagara Falls NY 14304
Hutchinson, Frederick A		6164 N Whitham Dr	Niagara Falls NY 14304
Iorio, Ivy B		5901 Edgewood Dr	Niagara Falls NY 14304
Jahn, Kathryn NRDA Specialist	US Fish & Wildlife Service	3817 Luker Rd	Cortland NY 13045
Janese, Rudolph M		6265 S Whitham Dr	Niagara Falls NY 14304
Johnson, Robert G		3157 Dell Dr	Niagara Falls NY 14304
Karrison, Susan & Randall		6301 Edgewood Dr	Niagara Falls NY 14304
Kerrison, David G		6309 S Whitham Dr	Niagara Falls NY 14304
Kerrison, Robert G		6320 Edgewood Dr	Niagara Falls NY 14304
King, Robert E		335 Wheeler Rd	Frewsburg NY 14738
Kitcho, Gary R/ Dianne L		6201 Edgewood Dr	Niagara Falls NY 14304
Kozloweski, Shandae		3178 Dell Dr	Niagara Falls NY 14304
Lacouceur, Robert J Jr		806 Pierce Ave	Niagara Falls NY 14305
Lacounte, Robert & Diane		7408 Greenview Dr	Niagara Falls NY 14304
LaDouceur, Robert J Jr		6321 Edgewood Dr	Niagara Falls NY 14304
LePosa, Robert P		6158 N Whitham Dr	Niagara Falls NY 14304
Libassi, Michael		3133 Dell Dr	Niagara Falls NY 14304
Lockport Union Sun & Journal		170 East Ave	Lockport NY 14094
Lorenz, Harold W		5800 Porter Rd	Niagara Falls NY 14304
LoTempio, C J III		6700 Porter Rd	Niagara Falls NY 14304
Lowe, CA		3104 Dell Dr	Niagara Falls NY 14304
Lucas, Patricia		5110 Isherwood Dr	Niagara Falls NY 14305
MacClennan, Mr Paul		85 West Oakwood Place	Buffalo NY 14214
Mannerbert, W E		3158 Dell Dr	Niagara Falls NY 14304
Manning, B & K		6202 Edgewood Dr	Niagara Falls NY 14304
Marion, Paul		6211 Edgewood Dr	Niagara Falls NY 14304
Mascaro, Peter & Aldo		6893 Joanne Circle South	Niagara Falls NY 14304
Maziarz, Senator George D	62nd Senate District	2578 Niagara Falls Blvd / Suite 600	Wheatfield NY 14304
McGranor, Ray E		3145 Dell Dr	Niagara Falls NY 14304
Mendola, Ms Marge		510 71st St	Niagara Falls NY 14304
Merante, Fred & Concetta		543 73rd St	Niagara Falls NY 14304
Molinaro, Gina & Christina		826 Simcoe St	N Oshawa ON L1G 4V8
Mondi, Ms Geraldine/Secretary	N Falls City Council/City Hall	745 Main St/ Rm 202/PO Box 69	Niagara Falls NY 14302
Niagara County Health Dept	Division of Environmental Health	5467 Upper Mountain Rd	Lockport NY 14094
Nicosia, Sandy S		6408 Manor Rd	Niagara Falls NY 14304
Paonessa, Mr Lou	Time Warner Cable	2604 Seneca St	Niagara Falls NY 14305
Paonessa, Sam S		2713 Woodlawn Ave	Niagara Falls NY 14301
Parfinski, Walter J		6271 S Whitham Dr	Niagara Falls NY 14304
Paul Dyster, Mayor	City of Niagara Falls	PO Box 69	Niagara Falls NY 14302
Penque Smith, Deanna		6121 Edgewood Dr	Niagara Falls NY 14304
Phillips, Carl J		3172 Dell Dr	Niagara Falls NY 14304
Pitonyak, Anthony S		6283 S Whitham Dr	Niagara Falls NY 14304

Site Contact List - Forest Glen Subdivision, SiteID 932097

Name	Organization	Street Address	City/Town_ST_Zip
Pope, Floyd W		3101 Bellreng Dr	Niagara Falls NY 14304
Reilly, Mr & Mrs Edward P		6188 Whitham Dr	Niagara Falls NY 14304
Renda, Frank		2649 Fairway Dr	Niagara Falls NY 14305
Resident		20 Expressway Village	Niagara Falls NY 14304
Resident		3108 Sadlo Dr	Niagara Falls NY 14304
Resident		435 River Rd	N Tonawanda NY 14120
Resident		6324 S Whitham Dr	Niagara Falls NY 14304
Resident		3163 Dell Dr	Niagara Falls NY 14304
Resident		6171 N Whitham Dr	Niagara Falls NY 14304
Resident		6349 S Whitham Dr	Niagara Falls NY 14304
Resident		54 Expressway Village	Niagara Falls NY 14304
Rice, Ms Marie	WIVB TV	2077 Elmwood Ave	Buffalo NY 14207
Richards, Calvin		6116 Grauer Rd	Niagara Falls NY 14304
Richards, Steven T.	Niagara Water Improvement Area, Town of Niagara	7105 Lockport Rd	Niagara Falls, NY 14305
Richner, James R		7100 Porter Rd	Niagara Falls NY 14304
Rizzotto, Anthony		6100 Edgewood Dr	Niagara Falls NY 14304
Robins, William H		3128 Dell Dr	Niagara Falls NY 14304
Rodgers, M		6005 Edgewood Dr	Niagara Falls NY 14304
Rosati, Mr Fabian/Chairman	Town of Niagara Env Comm	7105 Lockport Rd	Niagara Falls NY 14305
Rotella, Thomas		2927 Seneca Ave	Niagara Falls NY 14305
Salort, Mr Michael	WKBW TV	7 Broadcast Plaza	Buffalo NY 14202
Santoro, John		6325 S Whitham Dr	Niagara Falls NY 14304
Sawma, Janice		5920 Porter Rd	Niagara Falls NY 14304
Scarpinski, Edward & Helen		6175 N Whitham Dr	Niagara Falls NY 14304
Schumer, Sen Charles E.	US Senate	313 Hart Senate Bldg	Washington DC 20510
Senecah, Ms Sue	c/o Senator Maziarz	915 Legislative Office Bldg	Albany NY 12247
Shammot, Justine		1517 North Ave	Niagara Falls NY 14305
Shumer, Senator Charles	United States Senate	620 Federal Bldg/111 W Huron St	Buffalo NY 14202
Siejka, Josephine C		6311 Edgewood Dr	Niagara Falls NY 14304
Slaughter, Louise	Congresswoman	465 Main St	Buffalo NY 14203
Slaughter, Louise	Congresswoman	3120 Federal Bldg	Rochester NY 14614
Smith, Lawrence W		6414 Manor Rd	Niagara Falls NY 14304
Smith, M		5810 Porter Rd	Niagara Falls NY 14304
Snowden, Mr John	Woodard Curran	41 Hutchins Dr	Portland ME 04102
Sottile, Guy T		949 McKinley Ave	Niagara Falls NY 14305
Sullivan, John		6111 Edgewood Dr	Niagara Falls NY 14304
Supervisor	Town of Niagara	7105 Lockport Rd	Niagara Falls NY 14304
Toni, William R		6421 Edgewood Dr	Niagara Falls NY 14304
Van Deusen, Mark	Center for Environmental Health	Flanigan Sq/547 River St	Troy NY 12180
Vandeburgh, Elizabeth E		6202 Edgewood Dr	Niagara Falls NY 14304
Vicki, Daniel		3121 Dell Dr	Niagara Falls NY 14304
Waddell, James H		6295 S Whitham Dr	Niagara Falls NY 14304
Wagner, Robert L		3102 Sadlo Dr	Niagara Falls NY 14304
Wagoner, Hulbert		6318 S Whitham Dr	Niagara Falls NY 14304
Walker, Huey P		6313 S Whitham Dr	Niagara Falls NY 14304
Wensley, William		3116 Dell Dr	Niagara Falls NY 14304
Whitcher, A A		3127 Dell Dr	Niagara Falls NY 14304
Williams, J		6133 N Whitham Dr	Niagara Falls NY 14304
Wilson, Ronald L		3122 Dell Dr	Niagara Falls NY 14304
Wojasinski, Susan H		6163 N Whitham Dr	Niagara Falls NY 14304
Wolf, R		6200 Edgewood Dr	Niagara Falls NY 14304
Zielinski, Mr		6127 N Whitham Dr	Niagara Falls NY 14304