RECORD OF DECISION AMENDMENT

for the

Liberty Industrial Finishing Superfund Site

Farmingdale

Town of Oyster Bay

Nassau County, New York

September 2012

PREPARED BY:

U.S. Environmental Protection Agency
Region II
New York, New York

DECLARATION FOR THE RECORD OF DECISION AMENDMENT

SITE NAME AND LOCATION

Liberty Industrial Finishing Superfund Site
Village of Farmingdale, Town of Oyster Bay, Nassau County,
New York

Superfund Site Identification Number: NYD000337295

STATEMENT OF BASIS AND PURPOSE

This decision document presents the amended remedy for the Liberty Industrial Finishing site (the Site), which was chosen in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended,42 U.S.C. §§ 9601-9675 and to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision document explains the factual and legal basis for amending the remedy for the Site. The information supporting this remedial action decision is contained in the Administrative Record. The index for the Administrative Record is attached to this document (Appendix III).

The New York State Department of Environmental Conservation (NYSDEC) was consulted on the planned remedy in accordance with CERCLA Section 121(f), 42 U.S.C. Section 9621(f), and it concurs with the selected remedy (see Appendix IV).

ASSESSMENT OF THE SITE

The response action selected in this Record of Decision Amendment (ROD Amendment) is necessary to protect the public health or welfare or the environment from actual or threatened releases of hazardous substances into the environment at or from the Site.

DESCRIPTION OF THE SELECTED REMEDY

The amended remedial action described in this document addresses contaminated groundwater underlying the Site property (Plume B) which is believed to have been contaminated by an upgradient source. The Site includes the Liberty Industrial Finishing property as well as those areas impacted by the groundwater plume emanating from the property. The remedial action selected in this ROD amends the portion of the selected remedy presented in the March 28, 2002 ROD relating to Plume

B, and specifically the construction and operation of the on-property Plume B extraction and treatment system. The change in the selected Plume B groundwater remedy is associated with replacing the construction and operation of the on-property Plume B extraction and treatment system with No Further Action/Natural Attenuation (for on-property Plume B) with Long-Term Monitoring.

Amended Plume B Groundwater Remedy

The amended Plume B groundwater remedy includes:

- No Further Action/Natural Attenuation with Long-Term Monitoring

In December 2002, NYSDEC listed the “Farmingdale Plaza Cleaners” site (NYSDEC Site I.D. No. 130107) on its Registry of Inactive Hazardous Waste Disposal Sites in New York State. The Farmingdale Plaza Cleaners site is located approximately 1,000 feet to the north (upgradient) of the Site and is suspected to be the source of Plume B. NYSDEC has been investigating the Farmingdale Plaza Cleaners site with resources from the New York State Hazardous Waste Remedial Fund. NYSDEC is currently performing and nearing completion of a remedial investigation and feasibility study (RI/FS) for the Farmingdale Plaza Cleaners site. The most recent groundwater sampling data show that the Plume B contaminant levels beneath the Site property have declined to near drinking water standards or by as much as one to two orders of magnitude from previous concentrations, such that EPA has now determined that the Plume B pump-and-treat system is no longer necessary. At EPA's request, NYSDEC has agreed to fully address Plume B, including any Plume B remediation, as part of its New York State response action at the Farmingdale Plaza Cleaners site.

The 2002 ROD also included the following remedial components: excavation and off-site disposal of contaminated soils; removal of contaminated aqueous and/or solid materials from underground storage tanks and subsurface features; construction and operation of Plume A pump-and-treat system (Plume A is attributed to the Liberty site); and excavation and off-site disposal of contaminated pond sediments from the Massapequa Preserve. Since the issuance of the ROD, all of these remedial components have been implemented. This ROD Amendment focuses only on that portion of the selected remedy (dealing with Plume B groundwater contamination underlying the Site property) to which a fundamental change is warranted, and the rationale for such change.

DECLARATION OF STATUTORY DETERMINATIONS

The modified remedy meets the requirements for remedial actions set forth in CERCLA §121. 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, and the groundwater remedy also satisfies the statutory preference for treatment as a principal element of the remedy (i.e., it reduces the toxicity, mobility, or volume of hazardous substances, pollutants, or contaminants as a principal element through treatment).

Because the selected remedy will result in hazardous substances, pollutants, or contaminants remaining on the Site above levels that allow for unlimited use and unrestricted exposure, a statutory review will be conducted every five years to ensure that the remedial actions implemented remain protective of human health and the environment.

ROD DATA CERTIFICATION CHECKLIST

The Decision Summary for this ROD Amendment contains the remedy selection information noted below. More details may be found in the Administrative Record file established for the 2002 ROD for the Liberty site.

- Chemicals of concern and their respective concentrations (see 2002 ROD, pages 10 - 25);

- Baseline risk represented by the chemicals of concern (see 2002 ROD, pages 25 - 38);

- Cleanup levels established for chemicals of concern and the basis for these levels (see 2002 ROD, pages 38 - 40);

- Estimated capital, annual operation and maintenance, and total present worth costs, discount rate, and the number of years over which the remedy cost estimates are projected (see 2002 ROD, pages 44, 48, and 51); and

- Key factors that led to selecting the remedy (i.e., how the selected remedy provides the best balance of tradeoffs with respect to the balancing and modifying criteria, highlighting criteria key to the decision) (see 2002 ROD, pages 64 - 70).

Approved by:

_____ _____

Walter E. Mugdan, Director Date
Emergency and Remedial Response Division
U.S. Environmental Protection Agency

RECORD OF DECISION AMENDMENT FACT SHEET
EPA REGION II

Site:

Site Name:	Liberty Industrial Finishing Superfund Site
Site Location:	Village of Farmingdale, Town of Oyster Bay, Nassau County, New York
HRS Score:	58.15 (April 16, 1984)
Listed on the NPL:	June 10, 1986

Record of Decision:

Date Signed:	September XX, 2012
Selected Remedy:	No Further Action/Natural Attenuation with Long-Term Monitoring
Estimated Construction Completion:	N/A
Capital Cost:	N/A
Annual O & M cost:	$1,013,000 (in 2012 dollars) ($913,000 for Plume A pump-and-treat and $100,000 for Long-Term Monitoring) (Years 1 - 20)
Present Worth Cost*:	$11.9 million (in 2012 dollars - 7% discount rate for 20 years)
*	Since the Plume A remedy remains a part of the overall remedy for groundwater, the continued operation of the Plume A pump-and-treat system, including all Plume A-associated pump-and-treat costs, are included herein.

Lead:

Lead Agency:	U.S. Environmental Protection Agency – Region II Emergency and Remedial Response Division

Primary Contact:	Lorenzo Thantu, Remedial Project Manager Eastern New York Remediation Section New York Remediation Branch Emergency and Remedial Response Division (212) 637-4240
Secondary Contact:	Salvatore Badalamenti, Chief Eastern New York Remediation Section New York Remediation Branch Emergency and Remedial Response Division (212) 637-3314
Potentially Responsible Parties:	No PRPs were identified for Plume B. For all other portions of the remedial action including Plume A, see APPENDIX VI to the 2002 ROD

Waste:

Waste Type:	Plume B – volatile organic (tetrachloroethene) Plume A - metals (i.e., cadmium and chromium) and volatile organics (i.e., cis-1,2-dichloroethene, trichloroethene, and tetrachloroethene)
Waste Origin:	Plume B - suspected dry cleaning operations Plume A - aircraft parts manufacturing and metal-finishing facility
Contaminated Media:	Plume B groundwater

DECISION SUMMARY

for the

Liberty Industrial Finishing Superfund Site

Farmingdale

Town of Oyster Bay

Nassau County, New York

September 2012

PREPARED BY:

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Region II
New York, New York

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SITE NAME, LOCATION AND DESCRIPTION

The Site is located approximately one mile south of Bethpage State Park in Farmingdale, Town of Oyster Bay, Nassau County, New York (see **Figure 1**). The Site includes a 30-acre property located at 55 Motor Avenue. The property is bordered by the Long Island Railroad to the north, Motor Avenue to the south, Main Street to the east and a small town park, Ellsworth Allen Park, to the west. The surrounding area is primarily residential with several commercial establishments on the major roads.

The Site included a former aircraft parts manufacturing and metal-finishing facility that began its operation in the early 1930's. From 1940 to 1944, the federal government and private corporate interests utilized the Site to develop and maintain production of materials needed for World War II. From 1944 through 1957, aircraft-related manufacturing activities predominated at the Site. Starting about 1957 through the 1980's, the facility operated as an industrial park and was used for various operations, including metal plating and finishing and fiberglass product manufacturing. Since the 1980's, the Site was used for light manufacturing and warehousing until these activities ceased in 2009.

The 30-acre Liberty Industrial Finishing site property consists of three tax parcels, 15-acre Western Parcel (Tax Lot 327), 7.5-acre Central Parcel (Tax Lot 331), and 7.5-acre Eastern Parcel (Tax Lot 332) (see **Figure 2**). The Town of Oyster Bay (TOB) acquired the 15-acre Western Parcel and 7.5-acre Central Parcel in September 2003 and July 2010, respectively, to expand adjacent Ellsworth Allen Park for future park development and construction. Site operations on the Western Parcel and Central Parcel have ceased; however, the groundwater treatment system located in the southwestern portion of the Western Parcel continues to operate. The Eastern Parcel has been redeveloped and is paved over with a large-scale grocery/retail store and adjacent parking lot that was completed in May 2010.

The Site is situated on the glacial outwash plain of Long Island. The uppermost aquifer, the Upper Glacial, is estimated to be 85 feet thick beneath the Site. The depth to the water table is approximately 21 feet below ground surface (bgs), although the groundwater table fluctuates between 15 and 21 feet bgs. The saturated portion of the Upper Glacial aquifer, with a thickness of 64 feet, begins at the water table and extends down to 85 feet bgs. The Upper Glacial aquifer is underlain by the Magothy aquifer which is approximately 700 feet thick in the vicinity of the Site.

Groundwater flow within the Upper Glacial aquifer was determined to be predominantly horizontal and in the south-southwesterly direction; the horizontal flow velocity in the Upper Glacial aquifer was estimated to be about 1.6 feet/day. The direction of the horizontal component of groundwater flow within the Magothy aquifer is also in the

south-southwesterly direction, with a slight south-southeasterly component north of the Farmingdale High School; the horizontal flow velocity in the Magothy aquifer was estimated to be about 0.17 feet/day. In addition, vertical hydraulic gradients exist between the Upper Glacial and the Magothy aquifers. In general, the vertical gradient is downward (as to promote flow from the Upper Glacial to the Magothy aquifer), except in the spring months when upward gradients were observed in the southern portions of the off-site areas. The actual flow between the aquifers is mainly dependent on the vertical hydraulic conductivity between the two formations. The hydraulic connection of the Upper Glacial to the Magothy aquifer is believed to be limited in the Site vicinity because a low-permeability layer is present between the Upper Glacial and the Magothy aquifers throughout much of the on-site and off-site areas.

Groundwater aquifers underlying the Site are classified as Class GA pursuant to 6 New York Codes, Rules and Regulations Parts 700-705 (6 NYCRR Parts 700-705, reissued July 1995). The Class GA standards apply to any fresh groundwater which may be a source of potable water supply. Similarly, the groundwater aquifers are classified as Class IIA by EPA in that the aquifers are current or potential sources of drinking water.

SITE HISTORY AND ENFORCEMENT ACTIVITIES

Materials used in Liberty site operations included VOCs such as: cis-1,2-dichloroethene (cis-1,2-DCE), trichloroethene (TCE), and tetrachloroethene (PCE); inorganic compounds containing cadmium, chromium, and cyanide; as well as other materials such as caustics and acids. Throughout most of the period of industrial operation, wastes containing these materials were discharged untreated into below-grade sumps, underground leaching chambers, and unlined, in-ground wastewater disposal basins.

A groundwater plume contaminated with organic and inorganic substances, which originated from on-site industrial activities, underlies the former industrial area and extends approximately a mile in a southwesterly direction (designated as Plume A). A portion of the Massapequa Preserve, a nature preserve located about one-half mile to the south, was also contaminated from the on-site activities and has been addressed as part of the implemented remedial actions. A separate plume of organic contamination, designated as Plume B, which is believed to originate from the Farmingdale Cleaners, situated about 1000 ft north of the Site, migrates in a southerly direction before commingling with the eastern portion of Plume A (see **Figure 3**). **Figure 3** shows Plume A in orange, Plume B in pink, and where Plume A and Plume B are co-mingled in purple. Similar to Plume A, Plume B is narrow and extends downgradient in the southward direction. It has been delineated in the Upper Glacial aquifer beyond the extent of Plume A (MW-36B; PCE = 8.1 micrograms/liter (µg/l)); however, there is no evidence of PCE, the principal identifier of Plume B, between the Woodward Parkway

Elementary School and this downgradient PCE detection at MW-36B. In the Magothy aquifer, Plume B has been delineated to the approximate location of the elementary school. Due to a likely combination of natural attenuation processes including dechlorination, dispersion, and dilution, the leading edge of Plume B likely dissipates north of the Southern State Parkway. In the Magothy aquifer, both PCE, TCE, and their degradation products terminate in the vicinity of the Woodward Parkway elementary school.

In the 1980's, NYSDEC was the lead agency for the Site and directed the early Site investigation and early cleanup activities. In 1978 and 1987, under administrative orders issued by NYSDEC, several of the potentially responsible parties (PRPs) at the Site removed contaminated soil and sludge from industrial waste disposal basins. The Site was placed on the National Priorities List on June 10, 1986.

In 1990, EPA assumed the role of the lead governmental agency for environmental investigation and remediation of the Site. Between 1991 and 1997, EPA conducted a Remedial Investigation (RI) to define the nature and extent of contamination and a Feasibility Study (FS) to identify alternatives to address contamination. Additional investigatory activities were carried out by several of the PRPs at the Site under EPA oversight pursuant to an administrative order issued by EPA in 1997.

EPA conducted a Removal Site Evaluation at the Site during late 1993 and early 1994, and determined that electrical transformer areas contaminated with polychlorinated biphenyls (PCBs), wastes contained in underground storage tanks, and drums located at the Site posed an immediate risk to trespassers. At EPA's request, a number of PRPs agreed to remove these materials and transport them to appropriate facilities for treatment and disposal. All field work for this removal action, which eliminated significant current-use risks associated with the Site, was completed by the fall of 1995.

In 1998, EPA selected an interim groundwater remedy, the objective of which was to prevent contaminated groundwater from migrating beyond the boundary of the Liberty property until the comprehensive soil and groundwater remedy could be implemented. This work was initially implemented starting in 1998 by PRPs pursuant to an EPA administrative order and has, since August 2004, been continued by the PRPs pursuant to a Consent Judgment. After design and testing, in January 2001 the PRPs constructed separate treatment system to address both the organic and inorganic contamination in the groundwater. However, various operational problems initially prevented the interim groundwater treatment system from continuous operation and effective treatment of groundwater contamination. As a result, in January 2002, EPA directed the PRPs to begin the process of converting the on-property system for Plume A into a conventional pump and treat system. Since the conversion in June 2004, the

existing on-property groundwater remediation system has been operating at its full design capacity in effectively treating both organic and inorganic contamination.

EPA also issued an order pursuant to Section 16 (a) of the Toxic Substances Control Act in late 1999 requiring the owners of the Site to remove approximately 1.5 million pounds of PCB-contaminated shredded auto-fluff that had been stored at the Site.

In April 2001, EPA released a supplemental RI/FS report which described the nature and extent of contamination in Site soils and groundwater, in pond sediments in Massapequa Creek downstream of the Site, and in Plume B. The supplemental RI/FS also evaluated alternatives for a comprehensive Site cleanup. The supplemental RI sampling data revealed that two distinct plumes exist beneath the property. Plume A originates on the western portion of the Liberty property, while Plume B originates hydrogeologically upgradient of the Site, east of Plume A. Plume A is characterized by TCE concentrations (including degradation products such as cis-1,2-DCE). There are no significant PCE levels in Plume A. Plume A is also characterized by chromium and cadmium contamination. Plume B is characterized by PCE concentrations (including its degradation products).

In July 2001, EPA released a Proposed Plan that outlined the Agency's preferred long-term comprehensive remedy for the Site.

Following the issuance of the Proposed Plan in July 2001, the Town announced its intention to acquire the Western Parcel for expansion of the adjacent Ellsworth Allen Park for community recreational activities. In October 2002, EPA entered into a prospective purchaser agreement with the Town, which released the Town from Superfund liability in contemplation of their future ownership and which would discharge existing and prospective Superfund liens against the parkland in exchange for a substantial payment of money from the Town to EPA which would be used for cleanup activities or reimbursement of EPA costs at the Site. In September 2003, the Town acquired the Western Parcel from the owners via condemnation. Now that the soils and subsurface features cleanup selected in the 2002 ROD have been completed, the Town will construct the recreational facilities and establish the new community park.

Prior to the Town's announced plans for the additional parkland, EPA had assumed, for purposes of remedy selection, that the Site would continue to be used for commercial or industrial purposes. The newly planned parkland use, and other considerations including widespread support by community members and their elected representatives, caused EPA to re-evaluate the soils remedy. EPA's selected soil remedy included an expanded soil excavation for the Liberty site at an estimated additional cost of more than $4 million dollars.

In March 2002, prior to the issuance of the 2002 ROD, EPA issued an administrative order to the owners of the property at the Site requiring them to perform a removal action to address below-ground features on the easternmost ten-acre portion of the Site. These features included sumps, vaults, drains, pipes, underground leaching chambers, underground storage tanks as well as a sanitary leaching field. The order also required the property owners to remove a mound of contaminated soil located on the western portion of the Site. The soil mound was removed in March 2003, and the work to address the underground features began in July 2004 and was completed in December 2008.

As stated above, in March 2002, EPA issued a ROD for the Site documenting the selection of a comprehensive remedial action that included excavation and off-site disposal of contaminated soils; removal of contaminated aqueous and/or solid materials from underground storage tanks and subsurface features; construction and operation of on-property and off-property Plume A pump-and-treat system as well as an on-property Plume B pump-and-treat system; and excavation and off-site disposal of contaminated pond sediments from the Massapequa Preserve. EPA has implemented all components of the remedial action specified in the 2002 ROD except for installation of the on-property Plume B extraction and treatment system. EPA no longer believes such an installation is necessary because Plume B is non-site related and NYSDEC will now fully address Plume B as part of its response action at the Farmingdale Plaza Cleaners site. The pond sediment remedial action was completed in March 2009. The groundwater remedial action was completed and the pump and treat system was deemed to be fully operational & functional in September 2010. And, the soil and subsurface features remedial action was completed in September 2011.

In a June 19, 2007 meeting, the Town officials informed EPA that the Town had retained the services of a consulting firm to assist with engineering investigations and analysis regarding the Town's future Ellsworth Allen Park expansion development plans not only for the Western Parcel but also for the adjacent Central Parcel. This new piece of information for the Central Parcel necessitated an update to the July 2000 Baseline Human Health Risk Assessment (BHHRA) and March 2002 BHHRA Addendum, which were the basis for the remedy selected in the 2002 ROD, to determine whether the Central Parcel would be suitable for recreational land use. The 2002 ROD established site-specific cleanup concentrations in soils that would be protective of groundwater quality and would also be protective of human health for the most reasonably anticipated future uses of the Site property (i.e., commercial/industrial or recreational for the Western Parcel and commercial/industrial for the Central and Eastern Parcels). The Town officials also informed EPA in the meeting that it would implement an enhancement remedial work beyond soil cleanup standards established in the 2002 ROD.

In July 2010, the Town acquired the Central Parcel from the owners also via condemnation.

The Town's enhancement remedial work commenced in 2010 and was completed in 2011. The enhancement remedial work complied with the NYSDEC 6 NYCRR (Official Compilation of New York Codes, Rules, and Regulations) Part 375 SCOs (Soil Cleanup Objectives) for "restricted residential" land use. Some of these SCOs are more stringent than the 2002 ROD's soil cleanup standards. Under EPA oversight, the Town's consultant prepared and submitted to EPA for approval the November 2011 Risk Assessment Update to the July 2000 BHHRA and March 2002 BHHRA Addendum. With EPA approval, the November 2011 Risk Assessment Update concluded that soil conditions in the Central Parcel, subsequent to completion of the soils and subsurface features remedial action in September 2011, are protective of a recreational land use scenario for this area. In July 2012, EPA published an Explanation of Significant Differences (ESD) as part of the Post-Decision Proposed Plan to announce that the land use change from commercial/industrial to recreational for the Central Parcel would be protective.

In addition, in February and early March 2006, EPA conducted a Phase I vapor intrusion investigation, which involved the collection of air samples at fifteen homes in the vicinity of the Site, and at the Woodward Parkway elementary school in Farmingdale, New York, in order to determine if vapors associated with groundwater contamination at the Site were entering those properties. In April 2006, EPA conducted follow-up sampling of indoor air at two of the homes and at the school. The sampling results did not show any vapor intrusion impact and, therefore, did not indicate any potential impact on the health of the occupants. From 2006 to 2010, EPA continued to conduct vapor sampling at the Woodward Parkway elementary school and several homes, and the sampling results during this period also did not show any vapor intrusion impact. Based on these results, since 2010, EPA has continued to conduct vapor intrusion sampling only at the Woodward Parkway elementary school.

HIGHLIGHTS OF COMMUNITY PARTICIPATION

The Post-Decision Proposed Plan (PDPP) for the Site was released to the public on July 26, 2012. The PDPP, along with all other site-related documents, including the supplemental RI/FS reports, is available to the public at both the administrative record and the information repository locations presented below. A notice was published in the July 20, 2012 edition of the Farmingdale Observer to announce the public comment period on the PDPP, the date of the public meeting to present the PDPP, and the availability of the technical documents at the repositories.

The public comment period began on July 12, 2012 and concluded on August 20, 2012. A public meeting was held on July 26, 2012 at the Farmingdale Library located in Farmingdale, New York. The purpose of the public meeting was to discuss the proposed amendment to the March 28, 2002 ROD.

Responses to the comments received at the public meeting and during the public comment period are included in the Responsiveness Summary (see Appendix V). No objections to the proposed remedy were voiced at the public meeting or submitted in written comments during the public comment period.

This Record of Decision Amendment presents the selected modified remedial action for the Plume B groundwater contamination underlying the Site property, chosen in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, and to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The amendment to the remedial decision for the Site is based upon the administrative record. An index for the administrative record is attached to this document as Appendix III. This Record of Decision Amendment will become a part of the administrative record file.

The administrative record file, containing the information upon which the modification to the original remedy is based, is available at the following locations:

Farmingdale Public Library
116 Merritts Road
Farmingdale, New York 11735
Telephone: (516) 249-9090

and

United States Environmental Protection Agency
Superfund Records Center
290 Broadway, 18th Floor
New York, NY 10007-1866
(212) 637-4308

REASONS FOR ISSUING THE RECORD OF DECISION AMENDMENT

Site conditions have changed significantly since the issuance of the 2002 ROD. The 2002 ROD included the following remedial components: excavation and off-site disposal

of contaminated soils; removal of contaminated aqueous and/or solid materials from underground storage tanks and subsurface features; construction and operation of a Plume A pump-and-treat system (Plume A is attributed to the Liberty site); and excavation and off-site disposal of contaminated pond sediments from the Massapequa Preserve. Since issuance of the ROD, all of these remedial components have been implemented and operation and maintenance of the Plume A pump and treat system is continuing. The only component of the ROD that has not been implemented is the Plume B pump and treat system.

In December 2002, NYSDEC listed the "Farmingdale Plaza Cleaners" site (NYSDEC Site I.D. No. 130107) on its Registry of Inactive Hazardous Waste Disposal Sites in New York State. The Farmingdale Plaza Cleaners site is located approximately 1,000 feet to the north (upgradient) of the Site and is suspected to be the source of Plume B. NYSDEC has been investigating the Farmingdale Plaza Cleaners site with resources from the New York State Hazardous Waste Remedial Fund. NYSDEC is currently performing a remedial investigation and feasibility study (RI/FS) for the Farmingdale Plaza Cleaners site. The most recent groundwater sampling data show that the Plume B contaminant levels beneath the Site property have declined to near drinking water standards or by as much as one to two orders of magnitude from previous concentrations. EPA and NYSDEC coordinate response efforts at hazardous waste sites in New York to minimize duplication of efforts and ensure efficient use of resources. EPA and NYSDEC have consulted regarding the best approach to address contamination in the area of the Liberty Industrial site and have agreed that it would be best for New York State to take all necessary actions to fully address Plume B as part of its response action at the Farmingdale Plaza Cleaners site.

Therefore, EPA has decided to reevaluate, in this Record of Decision Amendment, the active groundwater extraction and treatment remedy for the on-property Plume B that had been specified in the 2002 ROD.

SUMMARY OF SITE CHARACTERISTICS

Plume B

The 2002 ROD included a separate conventional pump-and-treat system to address the on-property Plume B, which originates to the north (upgradient) of the Site and which underlies the Site property. As stated above, in December 2002, NYSDEC listed the "Farmingdale Plaza Cleaners" site on its Registry of Inactive Hazardous Waste Disposal Sites in New York State and is suspected to be the source of Plume B (see **Figure 4**). NYSDEC has been investigating the Farmingdale Plaza Cleaners site with resources from the New York State Hazardous Waste Remedial Fund. NYSDEC

completed the first phase of the Plume B RI in June 2009. Based on the Phase 1 Plume B RI results, NYSDEC concluded, and EPA concurred, that another round of Plume B groundwater investigation (Phase 2) was warranted to fully delineate Plume B, in particular, the portion of Plume B that is downgradient of the Liberty site. The Phase 2 Plume B RI investigation commenced in July 2011 and was completed in March 2012. Plume B RI/FS reports are expected to be completed during the Fall of 2012. Upon completion of the Plume B RI/FS reports, NYSDEC will prepare a Plume B ROD selecting a Plume B remedy, which is projected for the end of 2012.

With the construction and operation of the Plume A pump-and-treat system, human health risks from site-related contamination are controlled. The removal of potential sources (i.e., contaminated Site soils) has further reduced the migration of contaminants from the Site. Over the last several years, EPA and NYSDEC have performed extensive monitoring of Plume B and also conducted investigations to evaluate the nature and extent of Plume B contamination. The most recent groundwater sampling data show that the Plume B levels beneath the Site property have declined to near drinking water standards or by as much as one to two orders of magnitude from previous concentrations. Based on the recent groundwater sampling data, EPA has now determined that the on-property Plume B pump-and-treat system is no longer necessary. Instead, EPA believes, as described above, that Plume B will be best addressed by NYSDEC as part of its response action at the Farmingdale Plaza Cleaners site.

As part of the response action at the Farmingdale Plaza Cleaners site, NYSDEC has also implemented a soil vapor extraction (SVE) treatment system as an Interim Action to address the source of Plume B. The SVE construction commenced in June 2011 and was completed in November 2011, and is currently operating. The SVE system is anticipated to remediate any residual soil contamination that could otherwise continue to contribute to Plume B groundwater contamination.

CONTAMINANTS of CONCERN (COCs)

As a result of the historic use of solvents and other chemicals at the Liberty Industrial Finishing Superfund Site, groundwater (Plume A) contains contaminants known as VOCs and metals. The contaminants of concern (COCs) in Plume A specifically identified as a result of investigations at the Site include the following:

- **trichloroethene (TCE)** - an industrial solvent, the contaminant typically found in highest concentrations at the site
- **cis-1,2-dichloroethene (cis-1,2-DCE)** – a breakdown product of TCE
- **tetrachloroethene (PCE)** – an industrial solvent
- **cadmium -** inorganic compounds containing cadmium
- **chromium -** inorganic compounds containing chromium

Plume B is characterized by primarily PCE concentrations (including degradation products) and has no chromium or cadmium contamination.

- **PCE**

The New York State (NYS) Maximum Contaminant Levels (MCLs) for TCE, cis-1,2-DCE, and PCE is 5 micrograms/liter (µg/l), and for cadmium and chromium are 5 µg/l and 50 µg/l, respectively.

Summary of Groundwater Conditions

An extensive groundwater investigation has been conducted to evaluate the nature and extent of groundwater contamination, in particular Plume A, in both the Upper Glacial aquifer and the Magothy aquifer. RI sampling results indicate that two distinct plumes, Plume A and Plume B, underly the property. As stated above, Plume A originates on the western portion of the Liberty property, while Plume B originates upgradient of the Site, east of Plume A. Plume A is characterized by TCE concentrations (including degradation products such as cis-1,2-DCE) originating principally from the former Building B Basement area and the former Wastewater Disposal Basins and extending south-southwest (generally west of Woodward Parkway). There is no significant PCE concentration in Plume A. Plume A is also characterized by chromium and cadmium contamination. Plume B is characterized by PCE concentrations (including degradation products), extends across the Site toward the south-southwest (generally east of Woodward Parkway), and does not contain chromium and cadmium constituents. Both Plume A and Plume B were delineated as relatively narrow in shape, which is typical of plumes in sandy aquifers similar to the Upper Glacial aquifer. The on-property and off-property extent of contamination in Plume A has been fully delineated. Further investigation of Plume B, in particular, the source of contamination and downgradient of the Liberty property is being conducted by NYSDEC.

Evidence for an upgradient source for Plume B was gathered during the supplemental RI. The highest PCE concentrations were detected at MW-22A, located approximately 300 feet north and upgradient of the Liberty property, at 810 µg/l and 1,100 µg/l (sampled in July 1999 and August 1999, respectively). Resampling of MW-22A in June 2010 by the PRPs as part of the annual site-wide groundwater sampling program indicated that PCE had significantly decreased to 74 µg/l. In addition, prior to NYSDEC's commencement of its own RI/FS Activities, EPA conducted a hydrogeologic investigation at the Farmingdale Plaza Cleaners site from August 2000 through June 2003. As part of this investigation, an off-site monitoring well, EPA-MW-4A, was installed just south-southwest of the Farmingdale Plaza Cleaners site. A historic high PCE concentration was detected at 3,600 µg/l at this monitoring well in February 2001. Resampling of EPA-MW-4A by the PRPs in June 2010 showed that PCE had declined to as low as 110 µg/l. Therefore, monitoring wells EPA-MW4A and MW-22A, located immediately downgradient of the Farmingdale Plaza Cleaners have declined over time to as low as 110 µg/l and 74 µg/l, respectively. The following table provides a summary of sampling conducted to date at EPA-MW-4A and MW-22A monitoring wells (locations shown in **Figure 4**).

Table - Historical Analytical Results Summary for PCE (EPA-MW4A and MW-22A)

Date	EPA-MW-4A	MW-22A
6/10 – 7/10 (PRP RI)	110 µg/l	74 µg/l
12/08 (NYSDEC RI)	7.9 µg/l	40 µg/l
2/07 (NYSDEC RI)	62 µg/l	160 µg/l
2/06 (NYSDEC RI)	37.6 µg/l	4.8 µg/l
9/03 (EPA Removal)	16 µg/l	3.6 µg/l
10/01 (EPA Removal)	330 µg/l	55 µg/l
2/01 (EPA Removal)	3,600 µg/l	460 µg/l
9/00 (EPA Removal)	610 µg/l	100 µg/l
8/00 (EPA Removal)	--	240 µg/l
8/99 (PRP RI)	--	1,100 µg/l
7/99 (PRP RI)	--	810 µg/l
1/99 (PRP RI)	--	18 µg/l

-- = well did not exist at time of sampling

Similarly, PCE concentrations underlying the Liberty property have declined, as shown by sampling data from various on-property monitoring wells. Evidence for declination is additionally supported by comparing the historical PCE trend data from the supplemental RI (MW-33B) with NYSDEC monitoring well data (PW-4, PW-5). Although MW-33B is no longer in existence due to construction activities, a data trend is available and newer NYSDEC wells, PW-4 and PW-5 (**Figure 5**), are located in close proximity and screened at similar depths. The most recent sampling event reveals non-detect results at these locations. The following table provides a summary of sampling conducted to date at these three monitoring wells.

Table - Historical Analytical Results Summary for PCE (MW 33, PW-4, and PW-5)

Date	MW-33B	PW-4	PW-5
12/08		Non-Detect (ND)	ND
2/14/2001	620 µg/l	--	--
9/28/2000	1,000 µg/l	--	--
8/4/2000	740 µg/l	--	--
8/17/1999	510 µg/l	--	--
7/27/1999	480 µg/l	--	--
1/28/1999	930 µg/l	--	--
8/23/1998	430 µg/l	--	--

-- = well did not exist at time of sampling

CURRENT AND POTENTIAL FUTURE SITE AND RESOURCE USES

The Site property was zoned for industrial use from the 1920's until the mid-1980's; since that time, it was used for light industrial activities. In September 2011, the TOB rezoned the Western Parcel and Central Parcel from “Light Industrial” to “Recreational” for future park development and construction. The Eastern Parcel continues to be zoned for “Light Industrial” but is in use as a grocery/retail commercial business. The surrounding area of the Site property is primarily residential with several commercial establishments on the major roads. Approximately ten schools, both primary and secondary, are located within 1.5 miles of the Site.

There are no private drinking water wells in the vicinity of the Site. People living near the Site obtain their drinking water from local water utilities; the water utilities routinely test their supplies to ensure compliance with State and federal drinking water standards. In the Spring of 1998, EPA and the Massapequa and South Farmingdale Water Districts joined in a collaborative effort and installed six “sentinel” monitoring wells upgradient of the water districts’ well fields. Of these six “sentinel” monitoring wells, two shallow and two intermediate wells were installed by the PRPs under EPA oversight and two deep wells were installed by the water districts between the Site property and public drinking water wells of the local water districts. These sentinel wells serve as an early warning system should any plume of contamination migrate close to the water supply well fields. Periodic monitoring of the sentinel wells, since 1998, by the local water districts, has not detected any site-related contamination.

SUMMARY OF SITE RISKS

For the comprehensive remedy selected in the 2002 ROD, a July 2000 Baseline Human Health Risk Assessment (BHHRA) and March 2002 BHHRA Addendum, as well as an August 2000 Ecological Risk Assessment Update, were conducted to estimate the human and ecological risks associated with current and future Site conditions. The baseline risk assessment estimated the human health and ecological risk which could result from the contamination at the Site, if no remedial action were taken. The groundwater exposure scenarios for the Site estimated human health risks exceeding EPA’s level of concern for commercial/industrial workers, construction workers, and off-property residents. However, these remain hypothetical exposure scenarios since there is no actual exposure to groundwater and the area is provided by a public water supply.

The 2002 ROD established site-specific cleanup concentrations in soils that would be protective of groundwater quality and would also be protective of human health for what was then the most reasonably anticipated future uses of the Site property (i.e., commercial/industrial or recreational for Western Parcel and commercial/industrial for the Central Parcel and the Eastern Parcel). The soil and subsurface features remedial action, selected in the 2002 ROD, was completed in September 2011. As stated above, however, after the 2002 ROD had been issued, the Town notified EPA, in a June 19, 2007 meeting, that it would acquire the Central Parcel for further expansion of the Ellsworth Allen Park. This necessitated an update to the July 2000 BHHRA and March 2002 BHHRA Addendum, which were the basis for the remedy selected in the 2002 ROD, to determine whether soil contaminants in the Central Parcel, after the soil and subsurface features remedy had been implemented, would pose a significant health risk if the Central Parcel were to be used for recreational purposes. Under EPA oversight, the Town's consultant prepared and submitted to EPA for approval a November 2011 Risk Assessment Update. In addition, the soil enhancement remedial work the Town conducted complied with the NYSDEC 6 NYCRR (Official Compilation of New York Codes, Rules, and Regulations) Part 375 SCOs (Soil Cleanup Objectives) for "restricted residential" land use. With EPA's approval, the November 2011 Risk Assessment Update concluded that soil conditions in the Central Sub-Parcel, subsequent to completion of the soil and subsurface features remedial action in September 2011, are protective of a recreational land use scenario for this area. In July 2012, EPA published an ESD as part of the Post-Decision Proposed Plan to formally announce that the land use change from commercial/industrial to recreational for the Central Parcel would be protective.

REMEDIAL ACTION OBJECTIVES

Remedial action objectives (RAOs) are specific goals to protect human health and the environment. These objectives are based on available information and standards, such as applicable or relevant and appropriate requirements (ARARs), NYSDEC's recommended soil cleanup objectives, site-specific risk-based levels, and the most reasonably anticipated future land use for the Site, i.e., commercial/industrial or recreational for the Western Parcel and commercial/industrial (at the time of the ROD) for the Eastern Parcel.

The RAOs developed for soil, sediment, and groundwater were designed, in part, to mitigate the health threat posed by ingestion, dermal contact, or inhalation of vapors and particulates where these soils are contacted or disturbed or where groundwater may be contacted. The RAOs are also intended to mitigate the health threat posed by the ingestion of groundwater and are designed to prevent further leaching of contaminants from the soil to the groundwater.

This Record of Decision Amendment only identifies the RAOs for the portion of the remedy selected in the 2002 ROD, i.e., on-property Plume B extraction and treatment system component, which is the subject of this amendment, The purpose of the on-property Plume B extraction and treatment system component was to prevent any further Plume B groundwater contaminant migration downgradient beyond the Site property boundary. The 2002 ROD did not require an off-property, or downgradient, Plume B extraction and treatment system as a component of the remedy selected. The components of the selected remedy, which have been fully implemented, are not relevant to this discussion.

The Plume A pump-and-treat system has been operating at its full design capacity in effectively treating both organic and inorganic contamination since June 2004. The recent years of groundwater sampling data show that the Plume B levels beneath the Site property have declined to near drinking water standards or by as much as one to two orders of magnitude from previous concentrations, which is also due in part to interception and treatment of a portion of Plume B contamination by the Plume A pump-and-treat system.

Current contaminant trends and water quality data document that natural attenuation and physical processes are also contributing to the decline in PCE concentration within Plume B. The additional source removal implemented with NYSDEC's SVE system operation, coupled with treatment of significant portion of Plume B by the Plume A pump-and-treat system, is also expected to result in further decline in PCE concentration within Plume B to drinking water standards. In addition, NYSDEC has agreed to fully address Plume B, including any Plume B remediation, as part of its New York State response action at the Farmingdale Plaza Cleaners site. Therefore, EPA has decided to reevaluate, in this Record of Decision Amendment, the active groundwater extraction and treatment remedy for the on-property Plume B that had been specified in the 2002 ROD.

As described above, NYSDEC completed a Phase 2 Plume B groundwater investigation in March 2012. Upon completion of Plume B RI/FS reports anticipated during the Fall of 2012, NYSDEC will select a Plume B remedy in a separate ROD, presently projected for the end of 2012. Note that the NYSDEC remedy for Plume B will address Plume B in its entirety, whereas the CERCLA action identified in the 2002 ROD, which is proposed to be modified via this amendment, only addressed treatment of the on-property portion of Plume B.

Since it remains a part of the overall remedy for groundwater, the continued operation of the Plume A pump-and-treat system will be included under each of the remedial

alternatives evaluated herein. Accordingly, the RAO established for this evaluation is the following:

- Restore the on-property Plume B groundwater contamination in the Upper Glacial aquifer to its most beneficial use (i.e., as a source of potable water), and restore it as a natural resource.

DESCRIPTION OF REMEDIAL ALTERNATIVES

This ROD Amendment evaluates the following two alternatives for the on-property Plume B remedy for the Liberty site: (1) No Further Action/Natural Attenuation and (2) Groundwater Extraction and Treatment (the remedy selected in the 2002 ROD for on-property Plume B).

Section 121(b)(i) of CERCLA, 42 U.S.C. § 9621(b)(1) requires that each selected site remedy be protective of human health and the environment, be cost effective, comply with ARARs, and utilize permanent solutions, alternative treatment technologies and resource recovery alternatives to the maximum extent practicable. In addition, the statute includes a preference for the use of treatment as a principal element for the reduction of toxicity, mobility, or volume of the hazardous substances.

The alternatives for addressing on-property Plume B groundwater contamination are provided below and are identified as GW-1 and GW-2. Consistent with EPA guidance documents concerning ROD Amendments, the components of the original Plume B remedy proposed for amendment have been updated and are compared to a new preferred alternative which was developed based upon existing Site circumstances. For both alternatives, the Plume A pump-and-treat system will continue to operate until Plume A remediation goals have been met. In addition, each alternative assumes that local regulations, i.e., Article IV of the Nassau County Public Health Ordinance, requiring property owners within the areal extent of Plumes A and B to receive domestic water supply from their public water systems, continue to be employed, thereby preventing any future use of contaminated groundwater until the aquifer is restored.

The groundwater remedial alternatives are:

Alternative GW-1: No Further Action/Natural Attenuation with Long-Term Monitoring

Capital Cost	$0
O & M Cost (annual)	$913,000 Plume A pump-and-treat $100,000 Long-Term Monitoring (Years 1 - 20) (Plume B)
Present Worth Cost	$11.9 million
Construction Time	Not Applicable

The Superfund program requires that the "No Further Action" alternative be considered as a baseline for comparison with the other alternatives.

Under this alternative, EPA would take no further action within the on-property Plume B to prevent exposure to groundwater contamination. Therefore, this alternative does not include on-property active treatment of Plume B. This alternative relies upon source removal currently occurring with NYSDEC's SVE system operation, treatment of a significant portion of Plume B by the Plume A pump-and-treat system, and natural attenuation to reduce the on-property Plume B contamination below State and Federal drinking water standards. In addition, as described above, upon completion of Plume B RI/FS, NYSDEC will select a remedy for the entirety of Plume B in a separate ROD, presently projected for completion by the end of 2012.

While the operation of the Plume A pump-and-treat system would be continued, an annual groundwater monitoring program consisting of existing monitoring wells would also be conducted to monitor Plume B. Analytical data obtained from the annual groundwater monitoring program would serve to demonstrate the progress of Plume B remediation (i.e., the extent of source contaminant elimination occurring with NYSDEC's SVE system operation, treatment of Plume B by Plume A pump-and-treat system, and natural attenuation). Groundwater samples would be analyzed for volatile organic parameters.

Because this alternative would result in contaminants remaining on-Site above levels that allow for unlimited use and unrestricted exposure, CERCLA requires that the Site be reviewed at least once every five years.

Alternative GW-2: On-Property Plume B Groundwater Extraction and Treatment/Long-Term Monitoring

Capital Cost	$509,000 on-property Plume B pump-and-treat
O & M Cost (annual)	$913,000 Plume A pump-and-treat $159,000 on-property Plume B pump-and-treat $100,000 Long-Term Monitoring (Years 1 - 20)
Present Worth Cost	$14.2 million
Construction Time	1 ½ years
Duration	20 years

Under this alternative, the on-property Plume B pump-and-treat component of the groundwater remedy established in the 2002 ROD would be implemented, specifically the installation of a separate groundwater extraction and treatment system on the Site property. The system's design would be similar to the existing Plume A pump-and-treat system, and would include a long-term monitoring component.

Cleanup levels would be based on Federal and New York State MCLs. The extraction wells would be designed to operate at optimal locations and rates to collect contaminated on-property Plume B groundwater, intercept the contaminant plume, and prevent any further migration downgradient. For the purposes of conceptually identifying the number of extraction wells and well locations, the same assumptions made in the 2002 ROD are assumed, specifically two wells each operating for approximately 20 years, to effectively capture the contaminants within the on-property Plume B. Optimal design parameters and a more refined estimate of the time required to remediate the aquifer would be developed during the remedial design phase.

The on-property contaminated Plume B groundwater would be extracted from the Upper Glacial aquifer and pumped to an above-ground treatment system. If necessary, inorganic contaminants such as metals, albeit not anticipated, would be treated through ion exchange, precipitation with coagulation, and filtration. Organic contaminants would be treated through air stripping coupled to liquid and vapor phase carbon. Treatability studies would be performed to determine the optimum operating parameters for the groundwater treatment system. Residual waste from the treatment process such as sludges from the metals-treatment stage, if necessary, would be disposed of off-site in accordance with all applicable or relevant and appropriate federal and State disposal requirements (e.g., Resource Conservation and Recovery Act Land Disposal Requirements); spent carbon used to remove organic contaminants would be handled similarly or regenerated. Treated groundwater would be reinjected into the

aquifer.

Long-term groundwater monitoring (as described for GW-1) would be conducted during the active remediation phase to assess the effectiveness of the on-property Plume B pump-and-treat system. Periodic evaluations of the groundwater monitoring data would be used to evaluate the continued operation of the groundwater extraction and treatment system. During the implementation of the remedy, the appropriateness of the monitoring well network with respect to the plume would continually be assessed as the plume delineation is further refined. Potential modifications to the network would include the abandonment and/or installation of monitoring wells as necessary to support the selected remedy.

Because this alternative would result in contaminants remaining on-site above levels that allow for unlimited use and unrestricted exposure, CERCLA requires that the Site be reviewed at least once every five years.

SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES

In selecting a remedy for a site, EPA considers the factors set forth in CERCLA §121, 42 U.S.C. §9621, by conducting a detailed analysis of the viable remedial alternatives pursuant to the NCP, 40 C.F.R. §300.430(e)(9) and OSWER Directive 9355.3-01. The detailed analysis consists of an assessment of the individual alternatives against each of nine evaluation criteria and a comparative analysis focusing upon the relative performance of each alternative against those criteria.

The following "threshold" criteria must be satisfied by any alternative in order to be eligible for selection:

1. *Overall protection of human health and the environment* addresses whether or not a remedy provides adequate protection and describes how risks posed through each exposure pathway (based on a reasonable maximum exposure scenario) are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.

2. *Compliance with ARARs* addresses whether or not a remedy would meet all of the applicable (legally enforceable), or relevant and appropriate (requirements that pertain to situations sufficiently similar to those encountered at a Superfund site such that their use is well suited to the site) requirements of Federal and State environmental statutes and requirements or provide grounds for invoking a waiver.

The following "primary balancing" criteria are used to make comparisons and to identify the major trade-offs between alternatives:

3. *Long-term effectiveness and permanence* refers to the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup goals have been met. It also addresses the magnitude and effectiveness of the measures that may be required to manage the risk posed by treatment residuals and/or untreated wastes.

4. *Reduction of toxicity, mobility, or volume via treatment* refers to a remedial technology's expected ability to reduce the toxicity, mobility, or volume of hazardous substances, pollutants or contaminants at the site.

5. *Short-term effectiveness* addresses the period of time needed to achieve protection and any adverse impacts on human health and the environment that may be posed during the construction and implementation periods until cleanup goals are achieved.

6. *Implementability* refers to the technical and administrative feasibility of a remedy, including the availability of materials and services needed.

7. *Cost* includes estimated capital and operation and maintenance costs, and the present worth costs.

The following "modifying" criteria are considered fully after the formal public comment period on the Proposed Plan is complete:

8. *State acceptance* indicates whether, based on its review of the FS and the Proposed Plan, the State supports, opposes, and/or has identified any reservations with the preferred alternative.

9. *Community acceptance* refers to the public's general response to the alternatives described in the Proposed Plan and the FS report. Factors of community acceptance to be discussed include support, reservation, and opposition by the community.

A comparative analysis of the two remedial alternatives based upon the evaluation criteria noted above follows.

Overall Protection of Human Health and the Environment

Both Alternatives GW-1 and GW-2 would be protective of human health and the

environment. The additional source removal anticipated with NYSDEC's SVE system operation, coupled with treatment of a significant portion of Plume B by the on-property and off-property Plume A pump-and-treat system and documented natural attenuation, is expected to result in further decline in PCE concentration within the on-property portion of Plume B to State and Federal drinking water standards within a reasonable timeframe. In addition, as described above, upon completion of Plume B RI/FS reports, NYSDEC will select a Plume B remedy in a separate ROD, presently projected for completion for the end of 2012. Nonetheless, the extraction and treatment of the groundwater under Alternative GW-2 may provide slightly more rapid removal of contamination from the aquifer than the remediation and natural attenuation process of Alternative GW-1. It should also be noted that institutional controls, i.e., Nassau County well permitting program, are in place to prohibit installation or use of groundwater wells for human consumption within the areal extent of the Plumes A and B and, therefore, have effectively rendered the groundwater exposure pathway incomplete.

Compliance with ARARs

For GW-1 and GW-2, ARARs would be achieved over similar timeframes. Compliance with ARARs would be demonstrated through the long-term monitoring program.

Long-Term Effectiveness and Permanence

Alternatives GW-1 and GW-2 would be equal in providing long-term effectiveness and permanence in that the groundwater contamination would be reduced to below State and Federal drinking water standards within similar timeframes. Alternative GW-2 would potentially result in greater long-term exposure to contaminants by workers who could come into direct contact with the concentrated sludges from the treatment system. However, proper health and safety precautions would be implemented to minimize exposure to the sludges. The effectiveness of Alternatives GW-1 and GW-2 would be assessed through routine groundwater monitoring and five-year reviews.

Reduction in Toxicity, Mobility or Volume

Under both alternatives, the volume and toxicity of the groundwater contaminants above ARARs would be reduced at approximately the same rate and would ultimately be eliminated over similar timeframes. The mobility of the contamination plume would be reduced at a greater rate by actively extracting the groundwater under Alternative GW-2.

Short-Term Effectiveness

Alternative GW-1 presents virtually no short-term impacts to human health and the environment since no construction is involved. The construction activities required to implement Alternative GW-2 would potentially result in minimal short-term exposure to contaminants by workers who could come into direct contact with the concentrated sludges from the treatment system; however, proper health and safety precautions would minimize this occurrence. While efforts would be made to minimize the impacts, some disturbances would result from disruption of traffic, excavation activities on public and private land, noise, and fugitive dust emissions. The technologies included under Alternative GW-1 and under Alternative GW-2 are proven and reliable.

Implementability

Alternative GW-1 does not involve any construction and, consequently, is much easier to implement than Alternative GW-2. Alternative GW-1 only requires a monitoring program utilizing existing monitoring wells and the continued O&M of the Plume A pump-and-treat system. Alternative GW-2 would be more complex since it would also involve construction and piping installation in the short-term and long-term O&M of an additional treatment system. The design and construction of the groundwater extraction system would take approximately two years to complete. Alternative GW-2 would require that property be acquired/leased for the treatment unit and that access/easements be obtained from private and public property owners for the installation of piping and extraction wells. The operation and maintenance of the system would include the monitoring of the aquifer for system effectiveness, monitoring of the system emissions to determine compliance with permit equivalencies, and the handling and disposal of the concentrated contaminated treatment residuals.

Cost

The estimated capital, annual O&M (including monitoring), and present-worth costs for the two alternatives are presented in the following Cost Comparison Table.

Cost Comparison Table		
Alternative	GW-1	GW-2
Capital Cost	$0	$509,000
Annual O&M Costs		
on-property and off-property Plume A pump-and-treat	$913,000	$913,000
on-property Plume B pump-and-treat	$0	$159,000
Long-term Monitoring (Years 1 – 20)	$100,000	$100,000
Present Worth Cost	$11.9 million	$14.2 million

Alternative GW-1 has no direct or capital costs associated with its implementation. The

present worth of this alternative of $11.9 million is for implementation of the Plume A pump-and-treat O&M and annual groundwater monitoring program. The capital and present worth costs of Alternative GW-2 are estimated to be approximately $509,000 (for construction of a separate on-property Plume B pump-and-treat system) and $14.2 million, respectively. Both alternatives would provide a similar level of protection in a similar time frame; however, Alternative GW-1 would do so at a lower cost.

State Acceptance

As stated above, the NYSDEC concurs with the selected remedy, No Further Action/Natural Attenuation with Long-Term Monitoring (GW-1). A letter of concurrence is attached as Appendix IV.

Community Acceptance

Community acceptance of the selected remedy for groundwater was assessed during the public comment period. The community supports Alternative GW-1. Specific responses to public comments are addressed in the Responsiveness Summary, which is attached as Appendix V.

PRINCIPAL THREAT WASTES

Principal threat wastes are those source materials considered to be highly toxic or highly mobile that generally cannot be reliably contained, or would present a significant risk to human health or the environment should exposure occur. Contaminated groundwater generally is not considered to be source material; accordingly, there are no source materials defined as principal threat wastes at the Site.

SELECTED REMEDY

Based upon an evaluation of the two alternatives and consideration of community acceptance, EPA, with the concurrence of NYSDEC, has selected groundwater Alternative GW-1: No Further Action/Natural Attenuation with Long-Term Monitoring as the selected groundwater remedy to address the Plume B groundwater contamination underlying the Site property.

Summary of the Rationale for the Selected Remedy

EPA believes that the preferred alternative, No Further Action/Natural Attenuation with Long-Term Monitoring, will be protective of human health and the environment, will

comply with ARARs, and will be cost-effective because, among other rationale previously indicated herein, NYSDEC is taking over investigation and remediation of Plume B which does not originate from the Site, and NYSDEC's actions will ensure protectiveness of human health and the environment. The preferred alternative provides the best balance of trade-offs among the two alternatives with respect to the evaluation criteria.

STATUTORY DETERMINATIONS

Under its legal authorities, the EPA's primary responsibility at Superfund sites is to undertake remedial actions that achieve adequate protection of human health and the environment. In addition, Section 121 of CERCLA establishes several other statutory requirements and preferences that the selected remedy must meet. Section 121 of CERCLA specifies that when complete, the selected remedial action for the Site must comply with ARARs established under Federal and State environmental laws unless a statutory waiver is justified. The selected remedy also must be cost-effective and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. Finally, the statute includes a preference for remedies that employ treatment that permanently and significantly reduce the volume, toxicity, or mobility of hazardous wastes as their principal element. The following sections discuss how the selected remedy meets these statutory requirements.

Protection of Human Health and the Environment:

The selected remedy is protective of human health and the environment. The long-term monitoring of the groundwater will provide a means by which the attenuation of Plume B groundwater contamination can be confirmed and monitored. Implementation of the selected remedy will not pose unacceptable short-term risks, and no adverse cross-media impacts are expected. The additional source removal anticipated with NYSDEC's SVE system operation, coupled with treatment of a significant portion of Plume B by the Plume A pump-and-treat system and documented natural attenuation, is expected to result in further decline in PCE concentration within the on-property portion of Plume B to State and Federal drinking water standards within a reasonable timeframe. In addition, as described above, upon completion of Plume B RI/FS reports, NYSDEC will select a Plume B remedy in a separate ROD, presently projected for completion by the end of 2012. It should also be noted that institutional controls, i.e., Nassau County well permitting program, are in place to prohibit installation or use of groundwater wells for human consumption within the areal extent of the Plumes A and B and, therefore, have effectively rendered the groundwater exposure pathway incomplete.

Compliance with Applicable or Relevant and Appropriate Requirements (ARARs):

The selected remedy will achieve ARARs for Plume B, specifically the Safe Drinking Water Act (SDWA) Maximum Contaminant Levels (40CFR 141.11-141.16), 6NYCRR Groundwater Quality Regulation (Parts 703.5, 703.6, 703.7) and New York State Sanitary Code 10NYCRR Part 5 for contaminants in drinking water, over time through natural attenuation and actions being taken by the NYSDEC. Compliance with ARARs would be demonstrated through an annual groundwater monitoring program.

Cost-Effectiveness:

The modified selected remedy is cost-effective and provides the greatest overall protectiveness proportionate to costs.

Utilization of Permanent Solutions and Alternative Treatment Technologies (or Resource Recovery Technologies) to the Maximum Extent Practicable:

The modified selected remedy represents the maximum extent to which permanent solutions and treatment technologies can be utilized in a cost-effective manner at the Site.

Preference for Treatment as a Principal Element:

Treatment of Plume B groundwater contamination underlying the Site property, beyond that already occurring through the Plume A treatment system, is determined to not be cost effective. As noted above, EPA has coordinated with NYSDEC and agreed to a plan whereby the entirety of Plume B will be addressed through the NYSDEC Superfund program.

Five-Year Review Requirements:

Because this remedy will result in hazardous substances, pollutants, or contaminants remaining on-site above levels that allow for unlimited use and unrestricted exposure, a statutory review will be conducted at five-year intervals starting after initiation of remedial action to ensure that the remedy is, or will be, protective of human health and the environment. The first Five-Year Review was conducted for the Liberty Industrial Finishing site in June 2012. This first statutory Five-Year Review was triggered by the initiation of the first remedial action at the Site, namely, the pond sediments remedial action, on September 27, 2007. EPA will conduct the next site-wide Five-Year Review within five years of June 2012 or by June 2017.

DOCUMENTATION OF SIGNIFICANT CHANGES

There were no significant changes from the preferred remedy presented in the Post-Decision Proposed Plan.

APPENDIX I

FIGURES

Figure 1	-	Liberty Industrial Finishing Site Location Map
Figure 2	-	15-acre Western Parcel (Tax Lot 327), 7.5-acre Central Parcel (Tax Lot 331), and 7.5-acre Eastern Parcel (Tax Lot 332) Map
Figure 3	-	Plume A/Plume B Map
Figure 4	-	Farmingdale Plaza Cleaners Site Location Map
Figure 5	-	PCE, TCE, and Cis-1,2-DCE Concentration Map for December 2008 Sampling Round (Source: NYSDEC's June 2009 Final Immediate Investigation Farmingdale Plaza Cleaners Site Report)

APPENDIX II

TABLES

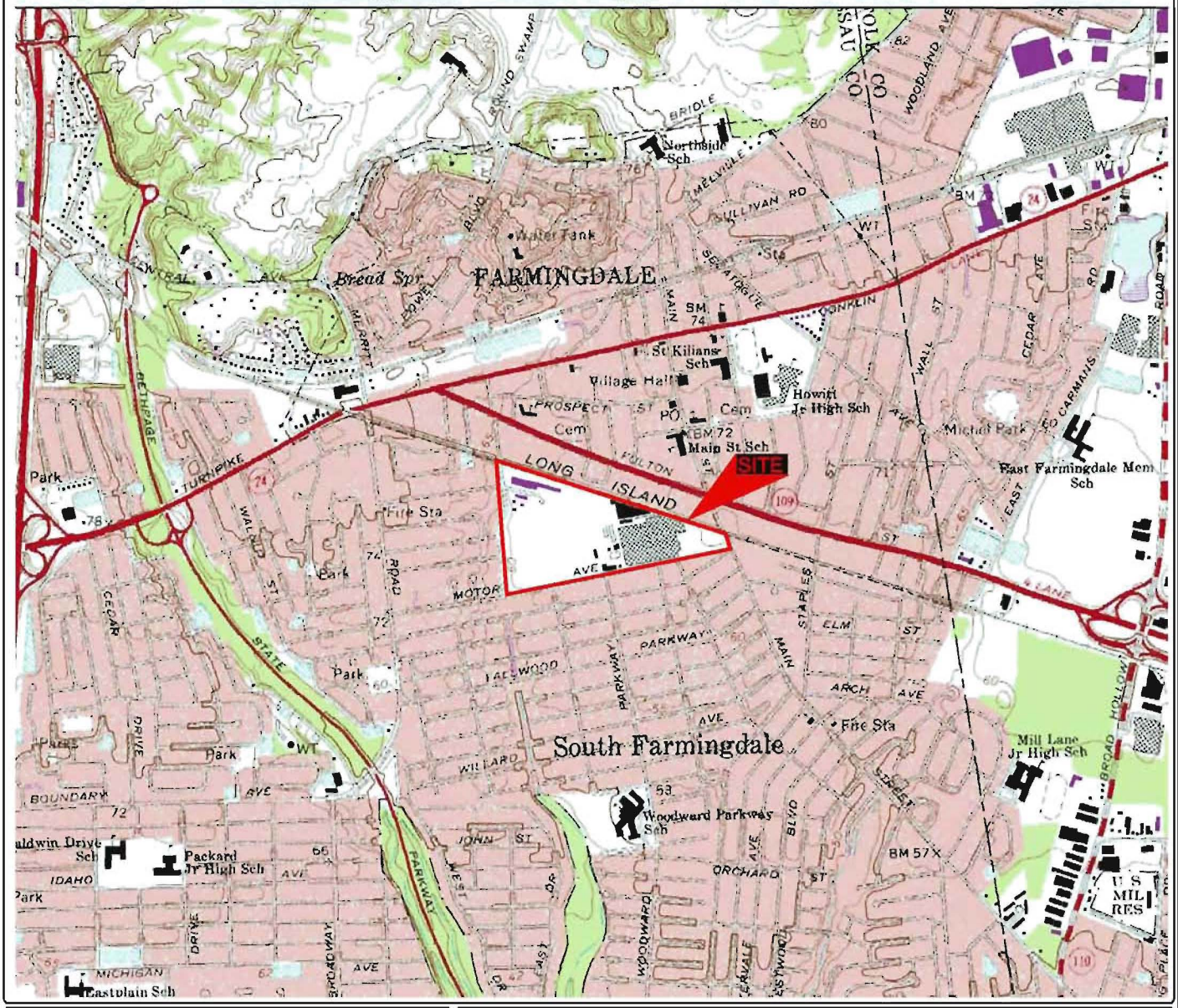
APPENDIX III

ADMINISTRATIVE RECORD INDEX

Note: This Administrative Record Index will be supplemented with additional documents that are in the Administrative Record relating to the Record of Decision Amendment for the Liberty Industrial Finishing site, but which have not yet been compiled and numbered for purposes of this Index.

APPENDIX IV

STATE LETTER OF CONCURRENCE



LEGEND:

GRAPHIC SCALE

1000 0 1000 2000

1 inch = 2000 ft.

SOURCE: UNITED STATES GEOLOGICAL SURVEY 7.5 MINUTE SERIES AMITYVILLE, NY QUADRANGLE 1979

TITLE: SITE LOCATION MAP

PROJECT: LIBERTY INDUSTRIAL FINISHING SITE FARMINGDALE, NEW YORK

CLIENT NAME: USEPA

WESTON MANAGERS DESIGNERS/CONSULTANTS

DATE: MARCH 2002

FIGURE #: 1

00561TopomapFig1

FIGURE 1 - SITE LOCATION MAP

Figure 2 - Plume A/Plume B Map

ecology and environment P.C.

EXTENT OF PLUME A (METALS) AND PLUME B (PCE) IN GROUNDWATER
LIBERTY INDUSTRIAL FINISHING SITE
FARMINGDALE, NEW YORK

APPENDIX V

RESPONSIVENESS SUMMARY

RESPONSIVENESS SUMMARY
Liberty Industrial Finishing Superfund Site
Farmingdale, Nassau County, New York

INTRODUCTION

A responsiveness summary is required by the regulations promulgated under the Superfund Statute. It provides a summary of citizens' comments and concerns received during the public comment period, as well as the responses of the United States Environmental Protection Agency (EPA) to those comments and concerns. All comments summarized in this document will be considered by EPA in its final decision regarding the selection of a long-term comprehensive remedy for the Liberty Industrial Site (the Site).

SUMMARY OF COMMUNITY RELATIONS ACTIVITIES

The Post-Decision Proposed Plan (PDPP) for the Site was released to the public on July 26, 2012. The PDPP, along with all other site-related documents, including the remedial investigation and feasibility study (RI/FS) reports, are available to the public at both the administrative record and the information repository locations presented below. A notice was published in the July 20, 2012 edition of the Farmingdale Observer to announce the public comment period on the PDPP, the date of the public meeting to present the PDPP, and the availability of the technical documents at the repositories.

The public comment period began on July 12, 2012 and concluded on August 20, 2012. A public meeting was held on July 26, 2012 at the Farmingdale Library located in Farmingdale, New York. The purpose of the public meeting was to discuss the proposed amendment to the March 28, 2002 ROD. No objections to the proposed remedy were voiced at the public meeting or submitted in written comments during the public comment period.

The administrative record file, containing the information upon which the modification to the original remedy is based, is available at the following locations:

Farmingdale Public Library
116 Merritts Road
Farmingdale, New York 11735
Telephone: (516) 249-9090

and

United States Environmental Protection Agency
Superfund Records Center

290 Broadway, 18th Floor
New York, NY 10007-1866
(212) 637-4308

Responses to the comments and questions received at the public meeting, along with other written comments received during the public comment period, are included in this Responsiveness Summary.

Attached to this Responsiveness Summary are the following Appendices:

Attachment 1 - Proposed Plan
Attachment 2 - Public Notice
Attachment 3 - July 26, 2012 Public Meeting Attendance Sheets
Attachment 4 - July 26, 2012 Public Meeting Transcript
Attachment 5 - Letters Submitted During the Public Comment Period

SUMMARY OF COMMENTS AND RESPONSES

In all, three comment letters were received on the PDPP, during the public comment period, from an elected New York State official, a representative of the Massapequa Water District, and a resident. These comments received during the during the public comment period and EPA's responses to them are summarized below.

1. **Comment #1:** An elected New York State official requested information on potential interactions between the two groundwater contaminant plumes, one attributed to the Liberty site (Plume A) and the other believed to originate from the Farmingdale Plaza Cleaners site (Plume B), and also on any potential human health risks associated with the convergence of these plumes and their contaminants.

   EPA's Response #1: The Remedial Investigation study conducted by EPA revealed that two distinct plumes exist beneath the Site property, Plume A and Plume B. Plume A originates on the western portion of the Site property, while Plume B originates from the vicinity of the Farmingdale Plaza Cleaners site located approximately 1,000 feet to the north (upgradient or upstream) of the Site property and migrates in a southerly direction before commingling with a portion of Plume A beneath the Liberty site property. Plume A and Plume B do not interact but rather they intersect, and the commingled plume that continues downgradient from the Liberty site property has Plume B contaminants in addition to the other contaminants from Plume A from the Liberty site. Plume A is characterized by trichloroethene (TCE) concentrations (including degradation products such as cis-1,2-dichloroethene). There are no significant tetrachloroethene (PCE) levels in Plume A. Plume A is also characterized by chromium and cadmium contamination. Plume B is

characterized by primarily PCE (including degradation products) and has no chromium or cadmium contamination.

Each of the contaminants of concern in Plume A and Plume B presents certain human and ecological health risks, but only to the extent that people or ecological receptors are actually exposed. There are no private drinking water wells in the vicinity of the Site. Therefore, as no one is drinking the contaminated groundwater from either of these plumes, there is no exposure. In addition, the convergence (or commingling) of the plumes does not present significantly greater or different risks than the individual plumes -- both presented unacceptable risks if people were allowed to be exposed, but, as aforementioned, exposure pathways do not exist for either plume. People living near the Site obtain their drinking water from local water utilities; the water utilities routinely test their supplies to ensure compliance with State and federal drinking water standards. In the Spring of 1998, EPA and the Massapequa and South Farmingdale Water Districts joined in a collaborative effort and installed six “sentinel” monitoring wells upgradient of the water districts’ well fields. Of these six “sentinel” monitoring wells, two shallow and two intermediate wells were installed by the potentially responsible parties (PRPs) under EPA oversight and two deep wells were installed by the water districts. These wells were installed between the Site property and public drinking water wells of the local water districts. These sentinel wells serve as an early warning system should any plume of contamination migrate close to the water supply well fields. Periodic monitoring of the sentinel wells, since 1998, by the local water districts, has not detected any site-related Plume A or Plume B contamination. Existing data indicate that Plume A and Plume B are stable. In addition, significant remedial efforts at the Site, along with the continued operation of the pump and treat system and NYSDEC remedial efforts, are expected to ultimately result in the restoration of the aquifer. These efforts have included: excavation and removal of 70,000 cubic yards of contaminated soil at the Liberty site property and 4,200 cubic yards of contaminated sediments at the downgradient Pond A within the Massapequa Reserve, and the ongoing pumping and treatment of commingled plume beneath and downgradient of the Liberty site property.

2. **Comment #2:** A representative of the Massapequa Water District commented that, because the Liberty PRPs are no longer required to construct an on-property treatment facility to remediate Plume B, it is imperative that New York State Department of Environmental Conservation (NYSDEC) should conduct a comprehensive delineation, in particular, that of the Magothy aquifer, and effective remediation of Plume B as part of its response action at the Farmingdale Plaza Cleaners site. In addition, over concern with an unrelated, but complex, groundwater contaminant plume associated with and emanating from the Bethpage Navy/Grumman/NASA State Superfund site, the commentor asked that the NYSDEC take over the sampling of the six “sentinel” monitoring wells which were installed in

1998 to serve as an early warning system should any plume of contamination migrate close to the water supply well fields.

EPA Response #2: As the commentor also acknowledged, NYSDEC has been investigating the Farmingdale Plaza Cleaners site with resources from the New York State Hazardous Waste Remedial Fund. As Plume B groundwater contamination is not attributed to the Liberty site and, therefore, is not site-related, the PRPs are not legally required to address it. In December 2002, NYSDEC listed the "Farmingdale Plaza Cleaners" site (NYSDEC Site I.D. No. 130107) on its Registry of Inactive Hazardous Waste Disposal Sites in New York State. NYSDEC is currently performing a Plume B RI/FS for the Farmingdale Plaza Cleaners site. The Plume B RI/FS reports are expected to be completed later this year. The RI will provide a comprehensive delineation of Plume B. Upon completion of the Plume B RI/FS reports, NYSDEC will prepare a separate Plume B ROD selecting a remedy for Plume B, which is projected to occur by the end of 2012. In addition, as part of its response action at the Farmingdale Plaza Cleaners site, NYSDEC has already implemented a soil vapor extraction (SVE) treatment system as an Interim Action to address the source of Plume B. The SVE construction commenced in June 2011 and was completed in November 2011; the system is currently operating. The SVE system is anticipated to remediate any residual soil contamination that could otherwise continue to contribute to Plume B groundwater contamination. The additional source removal resulting from NYSDEC's SVE system operation, coupled with treatment of a significant portion of Plume B by the ongoing Plume A pump-and-treat system, are expected to result in further significant decline in PCE concentration within Plume B.

EPA's Amendment to the March 2002 ROD in replacing the construction and operation of the on-property Plume B extraction and treatment system with no further action/natural attenuation (for on-property Plume B) with long-term monitoring is premised on the following: (1) a significant decline in Plume B concentrations beneath the Site property to near drinking water standards or by as much as one to two orders of magnitude from previous concentrations has already occurred; (2) NYSDEC is conducting a full investigation of Plume B (both Upper Glacial and Magothy aquifers); (3) NYSDEC plans to address Plume B remediation, as part of its response actions at the Farmingdale Plaza Cleaners Site; and (4) NYSDEC's actions will ensure the protectiveness of human health and environment.

As to the request for NYSDEC's takeover of the continued sampling of the six "sentinel" monitoring wells, periodic monitoring of these sentinel wells, since 1998, by the water districts, has not detected any site-related Plume A or Plume B contamination. Nevertheless, as the NYSDEC is still conducting its Plume B RI/FS and expects to select Plume B remedy by the end of this year, it will consider the inclusion of these sentinel wells as part of the groundwater monitoring component of the to-be-selected Plume B remedy.

3. **Comment #3:** A resident expressed concern, in a letter addressed to the NYSDEC, over the potential impact of Plume A and Plume B contamination on Massapequa Preserve and requested that all necessary actions be taken to prevent it.

   EPA Response #3: The impacts to the Massapequa Preserve have been addressed by actions taken by EPA at the Site. The ongoing operation of EPA and NYSDEC treatment systems, coupled with the NYSDEC selection of a remedy for Plume B, will ensure that potential impacts to the Massapequa Preserve are mitigated. In March 2002, EPA issued a Record of Decision (ROD) documenting the selection of a comprehensive cleanup plan for the site which EPA estimated would cost more than $34 million. The remedial action to address contamination attributed to the Site, included excavation and off-site disposal of 73,100 cubic yards of contaminated soils, construction and operation of a conventional pump-and-treat system to address groundwater (Plume A), and excavation and off-site disposal of 2,600 cubic yards of contaminated pond sediments at the Massapequa Preserve. Implementation of these actions, including excavation and off-site disposal of an actual volume of 4,200 cubic yards of contaminated pond sediments, has been completed by the PRPs, under EPA oversight. This addressed potential adverse effects to ecological receptors within the Massapequa Creek and associated ponds caused by exposure to site-related contaminants.

   EPA and NYSDEC coordinate response efforts at hazardous waste sites in New York to minimize duplication of efforts and ensure efficient use of resources. EPA and NYSDEC have consulted regarding the best approach to address contamination in the area of the Liberty Industrial site and have agreed that it would be best for New York State to take all necessary actions to fully address Plume B as part of its response action at the Farmingdale Plaza Cleaners site. As stated in **EPA Response #2**, above, in December 2002, NYSDEC listed the "Farmingdale Plaza Cleaners" site on its Registry of Inactive Hazardous Waste Disposal Sites in New York State. NYSDEC is currently performing a Plume B RI/FS for the Farmingdale Plaza Cleaners site. The Plume B RI/FS reports are expected to be completed later this year. Upon completion of the Plume B RI/FS reports, NYSDEC will prepare a separate Plume B ROD selecting a remedy for Plume B, which is projected for the end of 2012. In addition, as part of its response action at the Farmingdale Plaza Cleaners site, NYSDEC has also implemented a soil vapor extraction (SVE) treatment system as an Interim Action to address the source of Plume B. The SVE construction commenced in June 2011 and was completed in November 2011, and is currently operating. The SVE system is anticipated to remediate any residual soil contamination that could otherwise continue to contribute to Plume B groundwater contamination. The additional source removal resulting from NYSDEC's SVE system operation, coupled with treatment of a significant portion of Plume B by the ongoing Plume A pump-and-treat system, are expected to result in further significant decline in PCE concentration within Plume B. These efforts coupled with the NYSDEC

selection of a remedy for Plume B, will ensure that potential impacts to the Massapequa Preserve from Plume A and Plume B are mitigated.

ATTACHMENT 1

TO RESPONSIVENESS SUMMARY

PROPOSED PLAN

ATTACHMENT 2

TO RESPONSIVENESS SUMMARY

PUBLIC NOTICE

ATTACHMENT 3

TO RESPONSIVENESS SUMMARY

JULY 26, 2012 PUBLIC MEETING ATTENDANCE SHEET

ATTACHMENT 4

TO RESPONSIVENESS SUMMARY

JULY 26, 2012 PUBLIC MEETING TRANSCRIPT

ATTACHMENT 5

TO RESPONSIVENESS SUMMARY

LETTERS SUBMITTED DURING THE PUBLIC COMMENT PERIOD

Table 1 - Estimated Cost Table for Alternative GW-2
Liberty Industrial Finishing Site, Farmingdale, New York

Item	Description	Quantity	Unit	Cost		Subtotal
1	Access Negotiation	1	l.s.	$10,000	$10,000	$10,000
2	Legal Fees	1	ls	$25,000	$25,000	$25,000
3	Bench-and Field Scale Testing	1	l.s.	$15,000	$15,000	$15,000
4	SPDES Permitting	1	l.s.	$20,000	$20,000	$20,000
5	Site Preparation					$26,200
	Mobilization, Decon Pad, Erosion Control, Fencing	1	ls	$15,000	$15,000	
	Office and Construction Trailers	4	mo	$800	$3,200	
	Utilities	4	mo	$1,000	$4,000	
	Supplies	4	mo	$1,000	$4,000	
6	Well Installations (incl. oversight)					$62,000
	Extraction Wells (60 ft)	2	well	$15,000	$30,000	
	Extraction Wells (180 ft)	0	well	$30,000	$0	
	Shallow monitoring wells	4	well	$6,000	$24,000	
	Deep monitoring wells	0	well	$12,000	$0	
	Traffic-rated manhole	2	ea.	$4,000	$8,000	
7	Equipment					$170,000
	VOC treatment	1	ls	$170,000	$170,000	
	Metals treatment	0	ls	$1,200,000	$0	
8	Structural (treatment building)	400	sf	$65	$26,000	$26,000
9	Transport and Disposal (D Code)	100	ton	$40	$4,000	$4,000
	SUBTOTAL					$323,200
10	Mechanical Installation					$20,000
	Piping Installation	500	lf	$40	$20,000	
11	Electrical Installation (5% of subtotal)				$16,160	$16,160
12	Civil Site Work (5% of subtotal)				$16,160	$16,160
13	Instrumentation (5% of subtotal)				$16,160	$16,160
	TOTAL DIRECT CONSTRUCTION COSTS					$391,680
14	Engineering and Oversight (10% of subtotal)				$39,168	$39,168
15	Contingency (20 percent)				$78,336	$78,336
	INSTALLED CAPITAL COSTS					$509,184

Present Value Analysis for Operation and Maintenance Costs

Year	Cost Type	Cost Per Year	Factor (7%)	Present Value	Notes
1-20	Annual O&M Cost	$159,000	10.593	$1,684,287	Quarterly inspection, semiannual groundwater monitoring, annual cap maintenance
	Utilities: $30,000/year				
	Maintenance: 52 days @ $750/day				
	Operations: 52 days @ $500/day				
	Engineering/Regulatory Support: $15,000/year				
	Replacement Materials: $8,000/year				
	Disposal: $5,000/year				
	Parts Replacement: $5,000/year				
	Piping Repair: $1,000/year				
	Semiannual Groundwater Sampling: $6,000/year				
	Discharge Monitoring Sampling: 12 months @ $2,000/month				
5	Periodic Cost	$10,000	0.713	$7,130	5-year review
10	Periodic Cost	$110,621	0.508	$56,234	5-year review, major overhaul of treatment system (assumed at 35% of capital cost items 6-8, 10, 11, 13, and 14)
15	Periodic Cost	$10,000	0.362	$3,625	5-year review
20	Periodic Cost	$242,321	0.258	$62,621	5-year review; decommissioning of wells and treatment system (assumed at 35% of capital cost items 5-8, 10, 11, 13, and 14); and monitored natural attenuation study for residual groundwater contamination remaining after treatment
21	Periodic Cost	$110,000	0.242	$26,567	2nd year of monitored natural attenuation study
	Groundwater Samping: 4 qtr @ $15,000/qtr				
	Modeling Support: 4 qtr @ $7,500/qtr				
	Reporting: 4 qtr @ $5,000/qtr				
	Total O&M Present Worth Costs (20 years at 7 percent)			$1,813,896	

ESTIMATED TOTAL PRESENT WORTH COST	$2,323,080

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY INVITES PUBLIC COMMENT ON THE PROPOSED PLAN FOR THE LIBERTY INDUSTRIAL FINISHING SUPERFUND SITE FARMINGDALE, NASSAU COUNTY, NEW YORK

The U.S. Environmental Protection Agency (EPA) announces the opening of the comment period on the Proposed Plan and preferred cleanup alternative to address contamination at the Liberty Industrial Finishing Superfund site in Farmingdale, Nassau County, New York. The comment period ends on August 20, 2012. As part of the public comment period, EPA will hold a Public Meeting on Thursday, July 26, 2012 at 7:00 PM at the Farmingdale Library, 116 Merritts Road, Farmingdale, New York 11735. To learn more about the meeting you can contact Ms. Cecilia Echols, EPA's Community Involvement Coordinator, at 212-637-3678 or 1-800-346-5009 or visit our website at www.epa.gov/region2/superfund/npl/libertyindustrial.

The Liberty Industrial Finishing Superfund site is listed on the Superfund National Priorities List. The primary objective of this Proposed Plan is to present an Amendment to the 2002 Record of Decision (ROD). The EPA is proposing to change a portion of its cleanup plan selected in the 2002 ROD to build a second system to treat contaminated ground water at the Liberty Industrial Finishing site. The EPA has already constructed one system to treat ground water that had become contaminated by activities at the site (Plume A) and had planned a second system to treat ground water contaminated by a dry cleaning facility (Plume B) located about a half mile from the site. The dry cleaner site is being cleaned up by the New York State Department of Environmental Conservation and recent monitoring data show that the Plume B contamination levels in the portion of ground water underneath the Liberty Industrial site property that was contaminated by the dry cleaner site have dropped significantly and a second system is no longer needed.

EPA now seeks to amend the 2002 ROD to implement a **No Further Action/Natural Attenuation remedy** for the on-property Plume B extraction and treatment system component.

The cleanup alternatives evaluated were:

- No Further Action/Natural Attenuation with Long Term Monitoring
- On-Property Plume B Groundwater Extraction and Treatment/Long Term Monitoring

The EPA is also announcing a change in restrictions on the future use of a portion of the site that has already been cleaned up to allow recreational use of that area. The original 2002 cleanup plan stated that a 7.5-acre portion of the site known as the Central Parcel could be used only for commercial or industrial activities after the cleanup. The Town of Oyster Bay, however, has since then acquired the 7.5-acre portion of the site for further expansion of the Ellsworth Allen Park, and has undertaken additional cleanup at the Central Parcel. After assessing the cleanup that has been completed at the site, the EPA has concluded that the Central Parcel is suitable for redevelopment with clearance for recreational use.

During the **Thursday, July 26, 2012 Public Meeting**, EPA representatives will be available to further elaborate on the reasons for recommending the preferred cleanup alternatives and public comments will be received.

The Remedial Investigation Report, Feasibility Study Report, Risk Assessment, Proposed Plan and other site-related documents are available for public review at the information repositories established for the site at the following locations:

Farmingdale Library: 116 Merritts Road, Farmingdale, New York 11735
(516) 249-9090 Hours: Mon. - Thurs., 9am - 9pm; Fri., 9am - 6pm; Sat., 1pm - 5pm

EPA Region 2: Superfund Records Center, 290 Broadway, 18th Floor, New York, NY 10007-1866,
(212) 637-4308 Hours: Mon. - Fri., 9am - 5pm

EPA relies on public input to ensure that the selected remedy for each Superfund site meets the needs and concerns of the local community. It is important to note that although EPA has identified a preferred cleanup alternative for the site, no final decision will be made until EPA has considered all public comments received during the public comment period. EPA will summarize these comments along with EPA's responses in a Responsiveness Summary, which will be included in the Administrative Record file as part of the Record of Decision. **Written comments and questions regarding the Liberty Industrial Finishing Superfund site, postmarked no later than August 20, 2012, may be sent to Mr. Lorenzo Thantu, Remedial Project Manager, by mail at U.S. Environmental Protection Agency, 290 Broadway, 20th Floor, New York, New York 10007-1866, or by fax at (212) 637-3966, or by email at Thantu.Lorenzo@epa.gov.**

84405

sourcing where possible, cancel all nonessential contractual services and maintenance contracts, halt all non-essential general expense purchases.

which merely creates more burden on taxpayers, more cost to our county greater fiscal challenges for those seek their rightful property tax refund."

BOE Re-elects Bardash-Eivers, Wilson

continued from page 1

Following Ripley's presentation, the board expressed its satisfaction with the completion of the complicated task.

"I've been on the board for seven years and, to me, this is one of the most ambitious projects that has ever taken place," Wilson said. "As a board, we need to thank everyone on the (APPR) committee. As you've been hearing throughout the year, it has been such a collaborative effort; everyone will [now] be able to realize that we have highly effective teachers and administrators."

Trustee Tina Diamond agreed with Wilson and expressed her satisfaction with the plan, as a general concept, to the public.

"What I see out of this APPR [plan] is that there is a focus on the students and their learning," Diamond said. "If it has to be something that's started this way, then let's start it and go for it."

Resident Ken Obrick wished the board luck with implementing APPR, but criticized the state for implementing a program that "flies in the face of good educational practice."

"Using standardized testing as part of an employee's evaluation is questioned by educational experts everywhere," Obrick said. "What has happened here, especially in this age of tight budgetary control, that the state has forced this district take something that works and make square peg fit into the round hole becau it looks good in statistic sheets. I do see this as more student-centered."

Superintendent John Lorentz respond to the comment by outlining the ch lenges in implementing the plan.

"How do we maintain the integrity what Farmingdale is and meet all t standards that the state has imposed up us?" he asked. "There may be some go things that we can pull out of [this]. The will be some processes that we can inc porate into our practices."

Ripley also presented changes in t district's Professional Development Pla This year's plan will include lesso about student growth, the components the APPR rubric, and specific details the Dignity for All Students Act.

The act, signed into law in 2010, "see to provide public elementary and secon ary students with a safe and supportive e vironment, free from discriminatio taunting, harassment, and bullying school property, a school bus, and/or at school function," according to the Ne York State Education Department websit

The board of education will hold a sp cial meeting to set the 2012-13 tax Wednesday, Aug. 29 at 8 p.m.

Spirit Of Broadway celebrating 25 years for St. Kilian's Players. Opening night Saturday, July 28, at 8 p.m. with more shows to follow. Tickets on sale at the rectory or $12 at the door.

SENATOR KEMP HANNON
6TH DISTRICT

E-MAIL:
HANNON@NYSENATE.GOV

WEBSITE:
WWW.KEMPHANNON.COM

THE SENATE
STATE OF NEW YORK

STATE CAPITOL, ROOM 420
ALBANY, NEW YORK 12247
(518) 455-2200

595 STEWART AVENUE, SUITE 540
GARDEN CITY, NEW YORK 11530
(516) 739-1700

August 9, 2012

Administrator Lisa Jackson
US Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Ms. Jackson:

I am writing to you in response to the Environmental Protection Agency's July 12, 2012 press release concerning the alteration of existing cleanup plans at the Liberty Industrial Finishing Superfund Site in Farmingdale New York, as well as the change in restrictions on use of a portion of the site that has already undergone decontamination efforts.

As you know, contamination of this site was a result of environmental exposures caused by various industries at the site itself, with secondary contributions from the nearby Farmingdale Plaza Cleaners. Three contamination plumes have resulted; two at the Superfund Site, and one at the Farmingdale Plaza Cleaners located at 480 Main Street in the Incorporated Village of Farmingdale. Contaminants in these three plumes include cadmium, chromium, trichloroethene and various other volatile organic compounds.

I am requesting any information your agency may have on the potential for interactions between the plumes found at the Liberty Industrial Superfund Site and the Farmingdale Plaza Cleaners Site. Of particular interest are the human health risks associated with the convergence of these plumes and their contaminants.

Thank you for your anticipated attention to this matter. I appreciate you taking the time to address my concerns.

Sincerely,

Kemp Hannon

KEMP HANNON
Sixth Senatorial District

KH:tjb/rk

NEW YORK
STATE
SENATE
ALBANY, NEW YORK 12247

KEMP HANNON
SENATOR, 6TH SENATE DISTRICT

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Administrator Lisa Jackson
US Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

20460

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A, 12th Floor
625 Broadway, Albany, New York 12233-7015
Phone: (518) 402-9625 • **Fax:** (518) 402-9627
Website: www.dec.ny.gov

Joe Martens
Commissioner

August 27, 2012

Mr. John J. Budnick
122 Von Huenfeld Street
Massapequa Park, NY 11762

Re: Liberty Site South Farmingdale Letter

Dear Mr. Budnick:

The New York State Department of Environmental Conservation (Department) is in receipt of your letter dated August 15, 2012. The Department would like to thank you for your comments regarding the above site.

To clarify, the Liberty Industrial Finishing Site is currently being handled by the Environmental Protection Agency (EPA) while the Farmingdale Plaza Cleaners Site (dry cleaner) is currently managed by the Department under the State Superfund. As such, the Department is the responsible entity for managing the groundwater plume from the dry cleaner. The current EPA remedial proposal was issued in part to document the above fact.

The Department has conducted field work to delineate the breadth and depth of the groundwater plume from the dry cleaner, and is currently reviewing the draft remedial investigation report for this work. Once the report is finalized, a Proposed Remedial Action Plan (PRAP), which contains the investigation findings, remedial alternatives and recommendations, will be issued for public review and comment. This will be followed by a Record of Decision (ROD), which is anticipated by the end of 2012. We have, and will continue to, collaborate with the EPA to the extent feasible to optimize the remedial efforts for the affected area. A copy of your letter has been forwarded to the EPA to be considered by them along with the other comments they received on the Liberty Industrial Finishing site during their comment period.

If you have any questions regarding this letter, please contact me at (518) 402-9620 or cbng@gw.state.ny.us.

Sincerely yours,

Mr. Chek Beng Ng, P.E.
Environmental Engineer 2
Remedial Bureau A

ec: J. Swartwout
H. Bishop
B. Fonda
W. Parish
L. Thantu, EPA

FIGURE 2-1

LEGEND

- FARMINGDALE PLAZA CLEANERS
- PROPERTY BOUNDARY
- MONITORING WELL

NYSDEC
STATE SUPERFUND
STANDBY CONTRACT
WA # D004090-22.1

SITE PLAN
FARMINGDALE PLAZA
CLEANERS

0 200 400
SCALE IN FEET

FILE NO. 10653.36541.001
APRIL 2007

O'BRIEN & GERE ENGINEERS INC.

Jul 25, 2007 - 2:38pm

I:\Nysdec.10653\36541 Farmingdale-Pla\dwg\CADD\figures\Figure 2-1-001.dwg

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Region ID: 02
Doc ID: 58744
Bates: 11.00038 **To:** 11.00049
Date: 07/01/1995
Pages: 12
Title: SITE TECHNOLOGY CAPSULE UNTERDRUCK VERDAMPFER BRUNNEN TECHNOLOGY (UVB) VACUUM VAPORIZING WELL
Doc Type: CHART / TABLE
REPORT

	Name	Organization
Author:	,	EPA

	Name	Organization

Region ID: 02
Doc ID: 124211
Bates: R2-0000001 **To:** R2-0000307
Date: 11/01/2005
Pages: 307
Title: SITE-WIDE GROUNDWATER MONITORING PROGRAM REPORT FOR SUMMER 2005 FOR THE LIBERTY INDUSTRIAL FINISHING SITE
Doc Type: REPORT

	Name	Organization
Author:	,	ECOLOGY AND ENVIRONMENT ENGINEERING P.C.

	Name	Organization
Addressee:	,	LIBERTY INDUSTRIAL FINISHING SITE QUALIFIED SETTLEMENT TRUST

Region ID: 02
Doc ID: 124204
Bates: R2-0000308 **To:** R2-0000392
Date: 08/01/2007
Pages: 85
Title: FINAL REMEDIAL INVESTIGATION REPORT FOR FARMINGDALE PLAZA CLEANERS SITE
Doc Type: REPORT

	Name	Organization
Author:	,	O BRIEN & GERE

	Name	Organization
Addressee:	,	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Region ID: 02
Doc ID: 124214
Bates: R2-0000393 **To:** R2-0000525
Date: 01/01/2008
Pages: 133
Title: SITE-WIDE GROUNDWATER MONITORING PROGRAM REPORT FOR SEMIANNUAL PERIOD OF JANUARY TO JUNE 2007 FOR THE LIBERTY INDUSTRIAL FINISHING SITE
Doc Type: REPORT

	Name	Organization
Author:	,	ECOLOGY AND ENVIRONMENT ENGINEERING P.C.

	Name	Organization
Addressee:	,	LIBERTY INDUSTRIAL FINISHING SITE QUALIFIED SETTLEMENT TRUST

Region ID: 02
Doc ID: 124213
Bates: R2-0000526 **To:** R2-0000581
Date: 04/01/2008
Pages: 56
Title: DRAFT SITE-WIDE GROUNDWATER MONITORING PROGRAM REPORT FOR SEMIANNUAL PERIOD OF JULY TO DECEMBER 2007 FOR THE LIBERTY INDUSTRIAL FINISHING SITE
Doc Type: REPORT

	Name	Organization
Author:	,	ECOLOGY AND ENVIRONMENT ENGINEERING P.C.

	Name	Organization
Addressee:	,	LIBERTY INDUSTRIAL FINISHING SITE QUALIFIED SETTLEMENT TRUST

COMPREHENSIVE ADMINISTRATIVE RECORD INDEX OF DOCUMENTS

FINAL

7/11/2012 **Region ID: 02**

Site Name: LIBERTY INDUSTRIAL FINISHING
CERCLIS: NYD000337295
OUID: 01
SSID: 02T3
Action:

Region ID: 02
Doc ID: 124212
Bates: R2-0000582 **To:** R2-0001745
Date: 06/01/2009
Pages: 1164
Title: FINAL IMMEDIATE INVESTIGATION REPORT FOR THE FARMINGDALE PLAZA CLEANERS SITE
Doc Type: REPORT

	Name	Organization
Author:	,	YU & ASSOCIATES, INC.
	,	AECOM TECHNICAL SERVICES NORTHEAST, INC.

	Name	Organization
Addressee:	,	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Region ID: 02
Doc ID: 124210
Bates: R2-0001746 **To:** R2-0001890
Date: 01/01/2011
Pages: 145
Title: SITE-WIDE GROUNDWATER MONITORING PROGRAM REPORT FOR SEMIANNUAL PERIOD OF JANUARY TO JUNE 2010 FOR THE LIBERTY INDUSTRIAL FINISHING SITE
Doc Type: REPORT

	Name	Organization
Author:	,	ECOLOGY AND ENVIRONMENT ENGINEERING P.C.

	Name	Organization
Addressee:	,	LIBERTY INDUSTRIAL FINISHING SITE QUALIFIED SETTLEMENT TRUST

Region ID: 02
Doc ID: 124205
Bates: R2-0001891 **To:** R2-0001899
Date: 04/29/2011
Pages: 9
Title: ECOLOGY AND ENVIRONMENT ENGINEERING'S OFF-SITE REMEDIAL INVESTIGATION / FEASIBILITY STUDY STATEMENT OF WORK WITH TABLE 1 AND BORING LOG SAMPLE FIGURE FOR THE LIBERTY INDUSTRIAL FINISHING SITE
Doc Type: LETTER

	Name	Organization
Author:	MORGANTE, MICHAEL M	ECOLOGY AND ENVIRONMENT ENGINEERING P.C.

	Name	Organization
Addressee:	QUINN, KAREN	NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Region ID: 02
Doc ID: 124209
Bates: R2-0001900 **To:** R2-0001973
Date: 06/01/2011
Pages: 74
Title: SITE-WIDE GROUNDWATER MONITORING PROGRAM REPORT FOR SEMIANNUAL PERIOD OF JULY TO DECEMBER 2010 FOR THE LIBERTY INDUSTRIAL FINISHING SITE
Doc Type: REPORT

	Name	Organization
Author:	,	ECOLOGY AND ENVIRONMENT ENGINEERING P.C.

	Name	Organization
Addressee:	,	LIBERTY INDUSTRIAL FINISHING SITE QUALIFIED SETTLEMENT TRUST

Region ID: 02
Doc ID: 124208
Bates: R2-0001974 **To:** R2-0002069
Date: 11/01/2011
Pages: 96
Title: UPDATE OF RISK ASSESSMENT ADDENDUM (CENTRAL PARCEL) TO THE BASELINE HUMAN HEALTH RISK ASSESSMENT FOR THE LIBERTY INDUSTRIAL FINISHING SITE
Doc Type: REPORT

	Name	Organization
Author:	,	ENVIRON INTERNATIONAL CORP
	Name	**Organization**
Addressee:	,	H2M GROUP (HOLZMACHER, MCLENDON & MURRELL)

Region ID: 02
Doc ID: 124206
Bates: R2-0002070 **To:** R2-0002210
Date: 12/01/2011
Pages: 141
Title: SITE-WIDE GROUNDWATER MONITORING PROGRAM REPORT FOR THE SEMIANNUAL PERIOD OF JANUARY TO JUNE 2011 FOR THE LIBERTY INDUSTRIAL FINISHING SITE
Doc Type: REPORT

	Name	Organization
Author:	,	ECOLOGY AND ENVIRONMENT ENGINEERING P.C.
	Name	**Organization**
Addressee:	,	LIBERTY INDUSTRIAL FINISHING SITE QUALIFIED SETTLEMENT TRUST

Region ID: 02
Doc ID: 124207
Bates: R2-0002211 **To:** R2-0002212
Date: 12/01/2011
Pages: 2
Title: TRANSMITTAL OF THE UPDATE OF RISK ASSESSMENT ADDENDUM (CENTRAL PARCEL) TO THE BASELINE HUMAN HEALTH RISK ASSESSMENT FOR THE LIBERTY INDUSTRIAL FINISHING SITE
Doc Type: LETTER

	Name	Organization
Author:	SCHADE, PHILIP J	H2M GROUP (HOLZMACHER, MCLENDON & MURRELL)

COMPREHENSIVE ADMINISTRATIVE RECORD INDEX OF DOCUMENTS

FINAL

7/11/2012 **Region ID: 02**

Site Name: LIBERTY INDUSTRIAL FINISHING
CERCLIS: NYD000337295
OUID: 01
SSID: 02T3
Action:

	Name	Organization
Addressee:	THANTU, LORENZO	EPA

Region ID: 02
Doc ID: 124215
Bates: R2-0002213 **To:** R2-0002213
Date: 07/05/2012
Pages: 1
Title: NEW YORK STATE CONCURRENCE ON THE JUNE 2012 SUPERFUND PROPOSED PLAN FOR REMEDY MODIFICATION FOR THE LIBERTY INDUSTRIAL FINISHING SITE
Doc Type: LETTER

	Name	Organization
Author:	SCHICK, ROBERT	NY STATE DEPT OF ENVIRONMENTAL CONSERVATION (NYSDEC)
	Name	**Organization**
Addressee:	MUGDAN, WALTER E	EPA, REGION 2

Region ID: 02
Doc ID: 128396
Bates: R2-0002214 **To:** R2-0002228
Date: 07/11/2012
Pages: 15
Title: SUPERFUND PROPOSED PLAN FOR REMEDY MODIFICATION FOR THE LIBERTY INDUSTRIAL FINISHING SITE
Doc Type: PLAN
MAP

	Name	Organization
Author:	,	US ENVIRONMENTAL PROTECTION AGENCY
	Name	**Organization**

Liberty Industrial Finishing
Superfund site

PUBLIC MEETING
7:00pm on Thur., July 26, 2012

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Farmingdale Library
116 Merritts Road
Farmingdale, NJ

First Name	Last Name	Suffix
Rebecka	Schumann	

☑ add to mailing list

Address: Number and Street	Apartment/Unit
19 Puntan Lane	

City	State	Zip code
Farmingdale ~~NY~~	NY	11735

Organization	Email Address
Patch.com	beckaschumann @yahoo

First Name	Last Name	Suffix
Joseph DeFranco	– Nassau County Dept of Health	

☐ add to mailing list

Address: Number and Street	Apartment/Unit
106 Charles Lindbergh Blvd	

City	State	Zip code
Uniondale	NY	11533

Organization	Email Address
NCDH	~~Joef~~ joseph.defranco @hhsnassaucountyny.us

First Name	Last Name	Suffix
John	Ellsworth	

☐ add to mailing list

Address: Number and Street	Apartment/Unit
150 Miller Place	

City	State	Zip code
Syosset		

Organization	Email Address
Town of Oyster Bay	jellsworth @oysterbay-ny.gov

First Name	Last Name	Suffix
JANDRA	D'ARCANGELO	

☐ add to mailing list

Address: Number and Street	Apartment/Unit
3830 ATHIN AVE	

City	State	Zip code
BETHPAGE	NY	11714

Organization	Email Address
NORTHSIDE CIVIC ASSOC	@

First Name	Last Name	Suffix

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Address: Number and Street	Apartment/Unit

City	State	Zip code

Organization	Email Address
	@

Liberty Industrial Finishing Superfund site

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Farmingdale, NJ

First Name	Last Name	Suffix
John	Swartwout	

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Address: Number and Street	Apartment/Unit
625 Broadway	

City	State	Zip code
Albany	NY	12233-7010

Organization	Email Address
NYSDEC	jbswarto @gw.dec.state.ny.us

First Name	Last Name	Suffix
Raymond	Vaulo (Sen Kemp Hannon)	

☐ add to mailing list

Address: Number and Street	Apartment/Unit
595 Stewart Ave	

City	State	Zip code
Garden City	NY	11530

Organization	Email Address
	@

First Name	Last Name	Suffix
Joe	Hall	

☐ add to mailing list

Address: Number and Street	Apartment/Unit
241 Buchanan St	

City	State	Zip code
Centerport	NY	11721

Organization	Email Address
	@

First Name	Last Name	Suffix
WALTER	PARISH	

☐ add to mailing list

Address: Number and Street	Apartment/Unit
50 CIRCLE RD SUNY.	

City	State	Zip code
STONY BROOK	NY	11794

Organization	Email Address
NYSDEC	wjparish@gw.dec@.State.NY.us

First Name	Last Name	Suffix

☐ add to mailing list

Address: Number and Street	Apartment/Unit

City	State	Zip code

Organization	Email Address
	@

Liberty Industrial Finishing Superfund site

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Farmingdale, NJ

First Name	Last Name	Suffix
Bradley	Smallberg	

☐ add to mailing list	Address: Number and Street	Apartment/Unit
	173 Cherry Street	

City	State	Zip code
Farmingdale	NY	11735

Organization	Email Address
	@

First Name	Last Name	Suffix
Rebecca	Smallberg	

☒ add to mailing list	Address: Number and Street	Apartment/Unit
	173 Cherry Street	

City	State	Zip code
Farmingdale	NY	11735

Organization	Email Address
	rebecca.smallberg @ gmail.com

First Name	Last Name	Suffix

☐ add to mailing list	Address: Number and Street	Apartment/Unit

City	State	Zip code

Organization	Email Address
	@

First Name	Last Name	Suffix

☐ add to mailing list	Address: Number and Street	Apartment/Unit

City	State	Zip code

Organization	Email Address
	@

First Name	Last Name	Suffix

☐ add to mailing list	Address: Number and Street	Apartment/Unit

City	State	Zip code

Organization	Email Address
	@

Liberty Industrial Finishing
Superfund site

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116 Merritts Road
Farmingdale, NJ

First Name	Last Name	Suffix
Norman	Cohen	Mr.

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Address: Number and Street: 28 1st Ave
Apartment/Unit:
City: S. F'dale
State: NY
Zip code: 11735
Organization:
Email Address: @

First Name	Last Name	Suffix
Ralph	Golia	

☐ add to mailing list

Address: Number and Street: 2167 Edgehill Drive
Apartment/Unit:
City: Furlong
State: PA
Zip code: 18925
Organization:
Email Address: @

First Name	Last Name	Suffix
Robert	DiVincilio	

☐ add to mailing list

Address: Number and Street: 5 MATTHEW STREET
Apartment/Unit: Basement
City: South Farmingdale
State: NY
Zip code: 11735
Organization: NA
Email Address: NA @

First Name	Last Name	Suffix
Tricia	Stipo	

☐ add to mailing list

Address: Number and Street: 219 N. Rutherford Ave
Apartment/Unit:
City: Massapequa NY 11758
State: NY
Zip code: 11758
Organization:
Email Address: @

First Name	Last Name	Suffix

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Address: Number and Street:
Apartment/Unit:
City:
State:
Zip code:
Organization:
Email Address: @

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Liberty Industrial Finishing Superfund site

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Farmingdale, NJ

First Name	Last Name	Suffix	Address: Number and Street	Apartment/Unit	City	State	Zip code	Organization	Email Address	add to mailing list
THERESA	YOUNG		14 HAWTHORNE ST.		F'DALE	NY	11735		@	☑
Joan	Jenal		14 Mill Road		FARMINGDALE	NY	11735		@	☐ ✓
									@	☐
									@	☐
									@	☐

Liberty Industrial Finishing
Superfund site

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116 Merritts Road
Farmingdale, NJ

First Name	Last Name	Suffix
Joan	O'Brien	

add to mailing list	Address: Number and Street	Apartment/Unit
☐	348 Prospect St	

City	State	Zip code
Farmingdale NY	NY	11735

Organization	Email Address
	@

First Name	Last Name	Suffix

add to mailing list	Address: Number and Street	Apartment/Unit
☐		

City	State	Zip code

Organization	Email Address
	@

First Name	Last Name	Suffix

add to mailing list	Address: Number and Street	Apartment/Unit
☐		

City	State	Zip code

Organization	Email Address
	@

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☐		

City	State	Zip code

Organization	Email Address
	@

First Name	Last Name	Suffix

add to mailing list	Address: Number and Street	Apartment/Unit
☐		

City	State	Zip code

Organization	Email Address
	@

Massapequa Water District

84 Grand Avenue
Massapequa, NY 11758

Tel: 516 798-5266

Fax: 516-798-0279

Commissioners
John F. Caruso
Vincent Guadagno
Thomas P. Hand

Stanley J. Carey, Superintendent
Constance A. Belegrinos, Business Manager

August 8, 2012

Lorenzo Thantu, Remedial Project Manager
Eastern New York Remediation Section
U.S. Environmental Protection Agency
290 Broadway, 20th Floor
New York, New York 10007-1866
E-mail: thantu.lorenzo@epamail.epa.gov

RE: Liberty Industrial Finishing Superfund Site
Proposed Plan for Remedy Modification
EPA ID: NYD000337295

Dear Mr. Thantu:

We have received and reviewed the above captioned plan and are pleased to covey our general understanding of the Remedy Modification and to provide you with our comments.

Based on our review of the Plan for Remedy Modification (Plan), it is our understanding that the EPA is proposing a modification of the 2002 Record of Decision (ROD). This action will eliminate the requirement that the Liberty primary responsible parties (PRPs) construct an on-site treatment facility to remediate groundwater emanating from the Eastern portion of the Liberty site identified as Plume B to treat for PCE. The Proposed Plan also serves as an opportunity to formally announce the land use change from commercial/industrial to recreational for the central portion of the Liberty site that was also acquired by the Town of Oyster Bay. We also understand that the proposal does not eliminate the current extraction systems and treatment system that are in operation for ground water emanating from the western portion of the site and the comingled groundwater plume (A & B) that extracts groundwater offsite in the vicinity of the Woodward Parkway School.

According to the Five-Year Review Report (Report) for the Liberty Industrial Finishing Superfund Site, Plume B originates from the Farmingdale Plaza Cleaners site (NYSDEC Site I.D. No. 130107) which is located approximately 1,000 feet to the north (upgradient) of the Liberty site. We understand that the NYSDEC is the lead agency investigating the Farmingdale Plaza Cleaners site and has acknowledge that full plume delineation is required.

Based on the timeline presented in the Report and Plan, the NYSDEC is scheduled to complete the Plume B Remedial Investigation/Feasibility Study by the end of this summer and propose an appropriate remedy (ROD) by the end of the year.

Based on the data provided in the Plan, it appears that the concentration of PCE in the groundwater (in the upper glacial and shallow magothy) beneath the Liberty Site has decreased to near drinking water standards. However it is acknowledged that the deeper segment of Plume B could pass under the Liberty Site. Accordingly, the Plan is recommending natural attenuation as it relates to only that portion of the groundwater that passes under the Liberty site since the NYSDEC will be addressing the remedy for all of Plume B. We note that the EPA monitoring well data does not provide data for the deeper regions of the magothy aquifer. Therefore it is imperative that the NYSDEC investigation include full and deep delineation of Plume B within the magothy formation.

We also bring to your attention that both the Massapequa Water District and South Farmingdale Water District not only indicated the possibility of a deeper plume but in fact drilled monitoring Wells to support our contention (one the north side of the Southern State Parkway adjacent to the South Farmingdale high school). Considering the fact that local water districts are in a heated battle with the New York State DEC regarding the on-site investigation of the Bethpage Navy/Grumman/NASA, site, and especially the size, shape, depth, and time of travel of its below ground complex plume this is yet another example of the intricate knowledge of the local water districts and how toxins flow in our sole source aquifer. We made our comments regarding plume travel and potential contamination almost a dozen years ago for the Liberty Industrial site. It must be noted That the Massapequa and South Farmingdale Water Districts installed six monitoring Wells located on the north side of the Southern State Parkway right-of-way approximately 1-1/2miles south of The Liberty Industrial site. As you may recall the wells were installed during 1997 under EPA oversight and by the Districts since we understood the real possibility of plume movement and a deep threat to our deep well water supply. The shallow wells are identified as SFMWD -3 (230 feet), and MMW-3 (230 feet), and the intermediate wells are indicated as SFMW - 2 (423 feet) and MMW -2 (430 feet), and the two deep wells are identified as SFMWD - 1 (646 feet) and MMW -1 (620 feet) respectively. All Wells have a 20 foot screen zone extending from the bottom of the well to a height of 20 feet above the bottom of the well. Therefore the EPA must require that the DEC provide serious consideration to take over the sampling of the strategically positioned and screen monitoring wells as it relates to groundwater monitoring and remediation activities for plume B.

Notwithstanding the above The Massapequa Water District does not take exception to the proposed remedy modification as long as the EPA requires, in writing, that the NYSDEC performs comprehensive delineation and effective remediation of Plume B. The delineation must document, with a high degree of engineering and scientific certainty, the full magnitude and vertical and horizontal extent of Plume B. Furthermore, the proposed remedy selected for Plume B must be protective of all down gradient public water supply wells by preventing the southward migration of the groundwater contamination. A total of ten supply wells are located down gradient of Plume B and are screened in the mid to deep regions of the magothy aquifer. This includes three wells operated by the South

Farmingdale Water District, four wells operated by the Massapequa Water District (including our major district supply well) and three wells owned by New York American Water.

We need the EPA to strongly support the important delineation and plume remediation measures and require them to be spelled out in a document with the DEC before any changes are made to the EPA ROD.

Thank you for your time and consideration of our comments. We look forward to your response. Please contact our Superintendent, Stan Carey, at 516.798.5266 if you should require any additional information or discuss the takeover of the monitoring wells listed above.

Very truly yours,
MASSAPEQUA WATER DISTRICT

John Caruso
Commissioner

Cc: Senator Charles Schumer
Congressman Peter King
State Senator Charles Fuschillo
Assemblyman Joseph J. Saladino
Nassau County Legislator Peter Schmidt
NYS DEC Commissioner Joseph Martens
EPA Deputy Regional Director George Pavlou

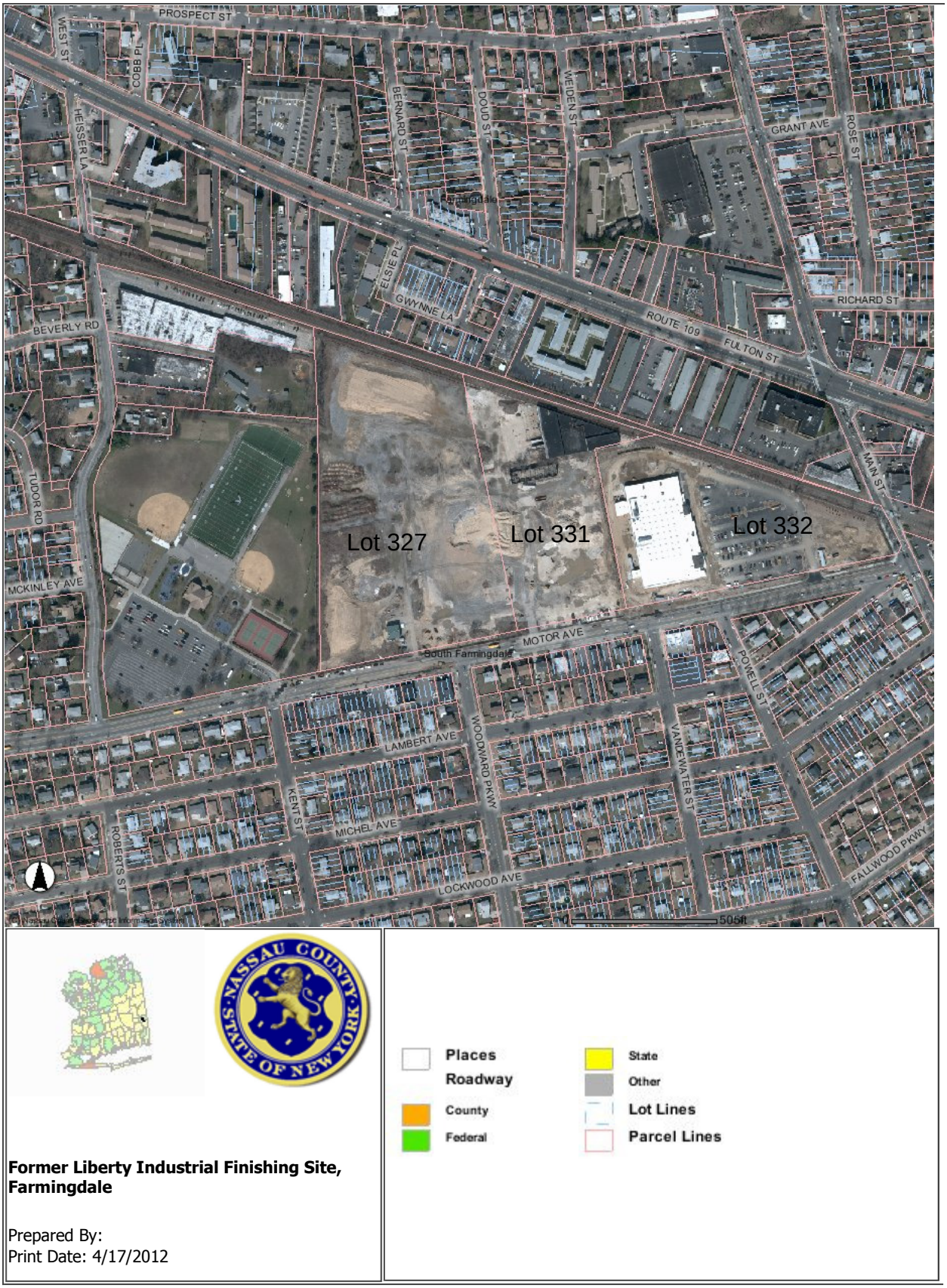
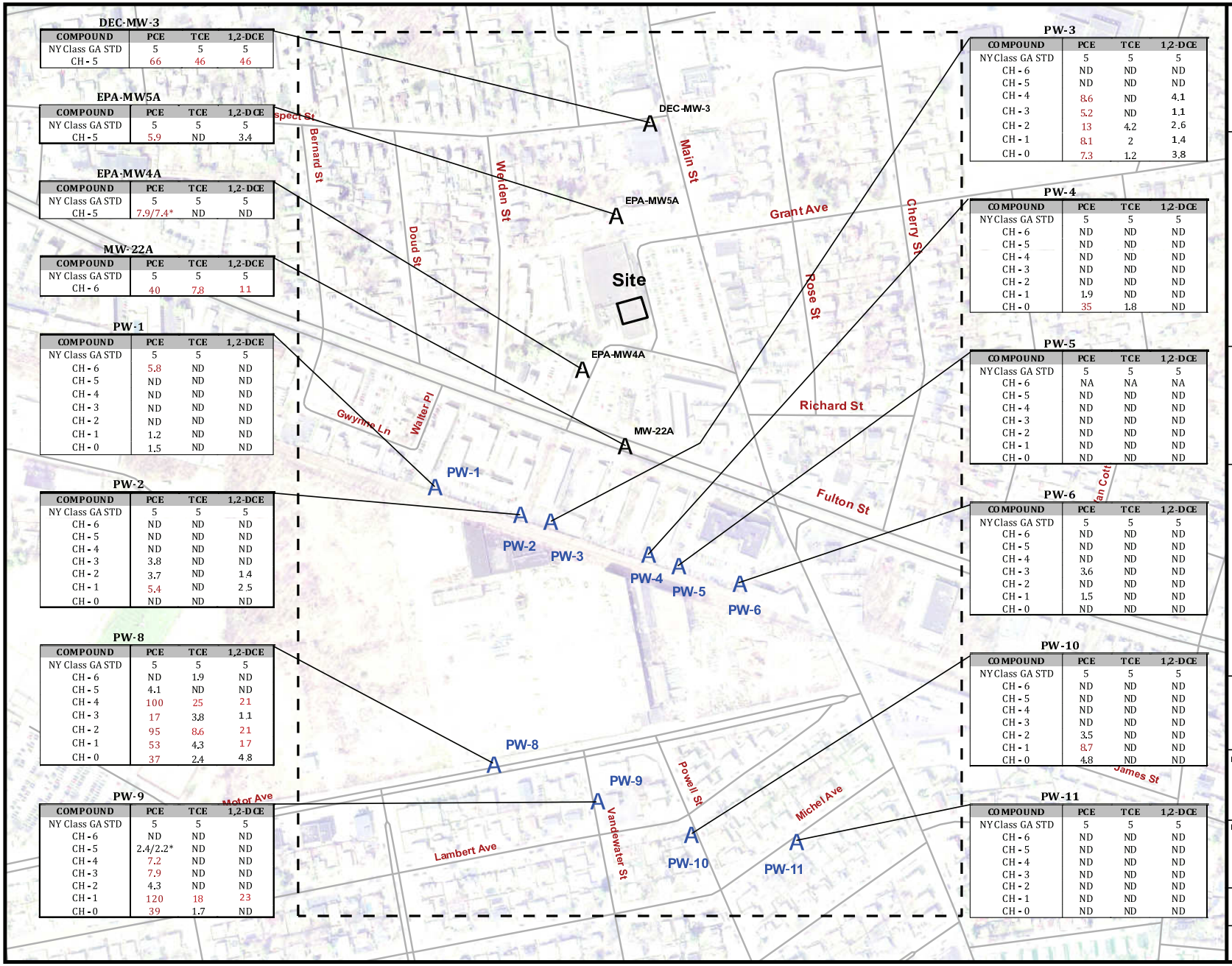


Figure 2 – Current Map of Liberty Tax Lots 327, 331, and 332



DEC-MW-3

COMPOUND	PCE	TCE	1,2-DCE
NY Class GA STD	5	5	5
CH - 5	66	46	46

EPA-MW5A

COMPOUND	PCE	TCE	1,2-DCE
NY Class GA STD	5	5	5
CH - 5	5.9	ND	3.4

EPA-MW4A

COMPOUND	PCE	TCE	1,2-DCE
NY Class GA STD	5	5	5
CH - 5	7.9/7.4*	ND	ND

MW-22A

COMPOUND	PCE	TCE	1,2-DCE
NY Class GA STD	5	5	5
CH - 6	40	7.8	11

PW-1

COMPOUND	PCE	TCE	1,2-DCE
NY Class GA STD	5	5	5
CH - 6	5.8	ND	ND
CH - 5	ND	ND	ND
CH - 4	ND	ND	ND
CH - 3	ND	ND	ND
CH - 2	ND	ND	ND
CH - 1	1.2	ND	ND
CH - 0	1.5	ND	ND

PW-2

COMPOUND	PCE	TCE	1,2-DCE
NY Class GA STD	5	5	5
CH - 6	ND	ND	ND
CH - 5	ND	ND	ND
CH - 4	ND	ND	ND
CH - 3	3.8	ND	ND
CH - 2	3.7	ND	1.4
CH - 1	5.4	ND	2.5
CH - 0	ND	ND	ND

PW-8

COMPOUND	PCE	TCE	1,2-DCE
NY Class GA STD	5	5	5
CH - 6	ND	1.9	ND
CH - 5	4.1	ND	ND
CH - 4	100	25	21
CH - 3	17	3.8	1.1
CH - 2	95	8.6	21
CH - 1	53	4.3	17
CH - 0	37	2.4	4.8

PW-9

COMPOUND	PCE	TCE	1,2-DCE
NY Class GA STD	5	5	5
CH - 6	ND	ND	ND
CH - 5	2.4/2.2*	ND	ND
CH - 4	7.2	ND	ND
CH - 3	7.9	ND	ND
CH - 2	4.3	ND	ND
CH - 1	120	18	23
CH - 0	39	1.7	ND

PW-3

COMPOUND	PCE	TCE	1,2-DCE
NY Class GA STD	5	5	5
CH - 6	ND	ND	ND
CH - 5	ND	ND	ND
CH - 4	8.6	ND	4.1
CH - 3	5.2	ND	1.1
CH - 2	13	4.2	2.6
CH - 1	8.1	2	1.4
CH - 0	7.3	1.2	3.8

PW-4

COMPOUND	PCE	TCE	1,2-DCE
NY Class GA STD	5	5	5
CH - 6	ND	ND	ND
CH - 5	ND	ND	ND
CH - 4	ND	ND	ND
CH - 3	ND	ND	ND
CH - 2	ND	ND	ND
CH - 1	1.9	ND	ND
CH - 0	35	1.8	ND

PW-5

COMPOUND	PCE	TCE	1,2-DCE
NY Class GA STD	5	5	5
CH - 6	NA	NA	NA
CH - 5	ND	ND	ND
CH - 4	ND	ND	ND
CH - 3	ND	ND	ND
CH - 2	ND	ND	ND
CH - 1	ND	ND	ND
CH - 0	ND	ND	ND

PW-6

COMPOUND	PCE	TCE	1,2-DCE
NY Class GA STD	5	5	5
CH - 6	ND	ND	ND
CH - 5	ND	ND	ND
CH - 4	ND	ND	ND
CH - 3	3.6	ND	ND
CH - 2	ND	ND	ND
CH - 1	1.5	ND	ND
CH - 0	ND	ND	ND

PW-10

COMPOUND	PCE	TCE	1,2-DCE
NY Class GA STD	5	5	5
CH - 6	ND	ND	ND
CH - 5	ND	ND	ND
CH - 4	ND	ND	ND
CH - 3	ND	ND	ND
CH - 2	3.5	ND	ND
CH - 1	8.7	ND	ND
CH - 0	4.8	ND	ND

PW-11

COMPOUND	PCE	TCE	1,2-DCE
NY Class GA STD	5	5	5
CH - 6	ND	ND	ND
CH - 5	ND	ND	ND
CH - 4	ND	ND	ND
CH - 3	ND	ND	ND
CH - 2	ND	ND	ND
CH - 1	ND	ND	ND
CH - 0	ND	ND	ND

Legend

A Monitoring Well (Existing)

A Monitoring Well (CMT)

Roads

Notes:
1. Units are expressed in µg/L
2. PCE = Tetrachloroethene
3. TCE = Trichloroethene
4. CH = Channel
5. ND indicates compound analyzed but not detected
6. NA indicates not available
7. Red indicates exceedances of NY Class GA GW standards
8. DEC-MW-3, EPA-MW-5A, EPA-MW-4A, and MW-22A were sampled with intake depths from 26 to 39 bgs and are mapped to CMT sampling intervals CH-5 and CH-6.
9. * indicates the sample duplicates for comparison

FIGURE 5

VOC CONCENTRATION MAP

N

0 100 200 400 Feet

PREPARED FOR:
New York State Department of Environmental Conservation
Farmingdale Plaza Cleaners
Nassau County, New York

PREPARED BY:
YU & Associates, Inc.
Geotechnical, Environmental and Civil Engineering

DATE:	PROJECT NO.:
02/25/2009	08021
DRAWN BY:	CHECKED BY:
YZ	MG

Superfund Proposed Plan for Remedy Modification

LIBERTY INDUSTRIAL FINISHING SUPERFUND SITE

Farmingdale
Town Of Oyster Bay
Nassau County, New York

128396

EPA United States Environmental Protection Agency

July 2012

Purpose of Proposed Plan

In accordance with Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, 42 U.S.C. § 9617(a) and Section 300.435(c)(2)(i) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. § 300.435(c)(2)(i), if, after the selection of a remedy in a Record of Decision (ROD), a component is fundamentally altered, the Environmental Protection Agency (EPA) must propose an amendment to the ROD. EPA's proposed changes must first be made available for public comment in a Proposed Plan. This Proposed Plan describes the proposed fundamental changes to the March 2002 ROD issued by EPA with concurrence by the New York State Department of Environmental Conservation (NYSDEC) for the Liberty Industrial Finishing Superfund Site (Site).

The comprehensive remedy specified in the 2002 ROD required excavation and off-Site disposal of 73,100 cubic yards of contaminated soils, removal of contaminated aqueous and/or solid materials from underground storage tanks and subsurface features, construction and operation of a conventional pump-and-treat system to address on-Site (i.e., on-property) and off-Site (i.e., off-property) groundwater contamination (designated as Plume A which is attributed to the Site), and excavation and off-Site disposal of 2,600 cubic yards of contaminated pond sediments at the Massapequa Preserve. The comprehensive remedial action also calls for and includes construction and operation of an on-property conventional pump-and-treat system, at present dollar cost of $2.6 million, to address groundwater underlying the Site property, designated as Plume B, which originates to the north of the Site and migrates in a southerly direction before commingling with a portion of Plume A. All components of the remedial action specified in the 2002 ROD have been implemented except for the installation of the on-property Plume B extraction and treatment system. NYSDEC is taking over the investigation and off-property remediation of Plume B, since it has been determined to be attributable to another State Superfund site (Farmingdale Plaza Cleaners, Site number 130107). EPA believes that NYSDEC's actions will ensure protectiveness of human health and the environment so that the remedy selected in the 2002 ROD for Plume B is no longer necessary. Accordingly, in this Proposed Plan, EPA is proposing "No Further Action/Natural Attenuation With Long-Term Monitoring" for Plume B.

In addition, in accordance with Section 117(c) of the CERCLA, and Section 300.435(c)(2)(i) of the NCP, if EPA selects a remedial action and, thereafter, it determines that there is a significant change with respect to that action, an Explanation of Significant Differences (ESD) and the reasons for such changes must be published. The 2002 ROD established Site-specific cleanup concentrations in soils that would be protective of groundwater quality and would also be protective of human health for what was then the most reasonably anticipated future uses of the Site property (i.e., commercial/industrial or recreational for the 15-acre western portion (Western Parcel) and commercial/industrial for the 15-acre eastern portion (Eastern Parcel) of the 30-acre Liberty Site property). Prior to EPA's issuance of the 2002 ROD, the Town of Oyster Bay (Town) notified EPA of its planned acquisition of and future recreational uses for the Western Parcel as part of its plans to expand Ellsworth Allen Park, a recreational park which borders to the west of the Liberty Site property. Accordingly, EPA utilized this information to establish soil cleanup standards in the ROD for the Western Parcel that would also be protective of a recreational land use scenario. However, after the 2002 ROD had been issued, the Town also notified EPA that it would acquire the western 7.5-acre portion (Central Sub-Parcel) of the Eastern Parcel (which is adjacent to the Western Parcel), for further expansion of the Ellsworth Allen Park. This necessitated an update to the July 2000 Baseline Human Health Risk Assessment (BHHRA) and March 2002 BHHRA Addendum, which were the basis for the remedy selected in the 2002 ROD, to determine whether soil contaminants in the Central Sub-Parcel, after the soil remedy has been implemented, would pose a significant health risk if the Central Sub-Parcel were to be used for recreational purposes. Under EPA oversight, the Town's consultant prepared and submitted to EPA for approval the November 2011 Risk Assessment Update to the July 2000 BHHRA and March 2002 BHHRA Addendum. The enhancement remedial work the Town conducted complied with the NYSDEC 6 NYCRR (Official Compilation of New York Codes, Rules, and Regulations) Part 375 SCOs (Soil Cleanup Objectives) for "restricted residential" land use. With EPA's approval, the November 2011 Risk Assessment Update concludes that soil conditions in the Central Sub-Parcel, subsequent to completion of the soil and subsurface features remedial action in September 2011, are protective of a recreational land use scenario for this area. EPA has chosen to issue this ESD, as part of this Proposed Plan, to announce the land use restriction change from commercial/industrial to recreational for the Central Sub-Parcel and to provide the technical basis to allow such change.

This Proposed Plan was developed by EPA in consultation with NYSDEC. EPA is issuing this Proposed Plan as part of its public participation responsibilities under Section 117(a) of CERCLA, 42 U.S.C. § 9617(a), and Section 300.430(f)(2) of the NCP to inform the public of EPA's preferred changes to the remedy selected in the 2002 ROD and to solicit public comments pertaining to the remedial alternatives evaluated. The alternative described in this Proposed Plan is the *preferred* alternative for the Site. Changes to the preferred alternative may be made if public comments or additional data indicate that such a change will result in a more appropriate remedial action. The final decision regarding the selected amendment to the 2002 ROD will be made after EPA has taken into consideration all public comments. EPA is soliciting public comment on all of the alternatives considered because EPA may select a remedy other than the preferred remedy.

Mark Your Calendar

July 12, 2012 - August 20, 2012: Public comment period on the Proposed Plan.
July 26, 2012 at 7:00 P.M.: Public meeting at the Farmingdale Library, 116 Merritts Road, Farmingdale, New York

COMMUNITY ROLE IN SELECTION PROCESS

EPA relies on public input to ensure that the concerns of the community are considered in selecting an effective remedy for each Superfund site. Similarly, EPA also relies on public input when proposing fundamental changes to a remedy previously selected. To this end, this Proposed Plan and all reports referenced herein have been made available to the public for a public comment period which begins on July 12, 2012 and concludes on August 20, 2012.

Comments received at the public meeting, as well as written comments received during the public comment period, will be documented in the Responsiveness Summary section of the ROD Amendment, the document which formalizes the selection of the remedy.

Written comments on this Proposed Plan should be addressed to:

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SITE REPOSITORIES

Copies of the Proposed Plan and supporting documentation are available at the following information repositories:

Farmingdale Public Library
116 Merritts Road
Farmingdale, New York 11735
Telephone: (516) 249-9090
Contact: Stuart Schaeffer, Librarian
Hours: Monday - Thursday, 9:00 am - 9:00 pm
Friday, 9:00 am to 6:00 pm
Sunday, 1:00 pm to 5:00 pm

and

United States Environmental Protection Agency
Superfund Records Center
290 Broadway, 18th Floor
New York, NY 10007-1866
By Appointment: (212) 637-4308
Hours: Monday - Friday, 9:00 am - 5:00 pm

SCOPE AND ROLE OF ACTION

The primary objective of this Proposed Plan is to present an Amendment to the 2002 ROD for the Site. The remediation goal of the 2002 ROD was to eliminate human exposure to groundwater contamination at the Site that does not meet state or federal drinking water standards, restore the groundwater contamination at the Site to drinking water standards and prevent contaminated groundwater from spreading and further impacting the aquifer, and eliminate the potential for human exposure to any contaminants in subsurface soils on the Site property (or the release of those contaminants into the groundwater) and in sediments within a downgradient Massapequa Creek pond. EPA now seeks to amend the 2002 ROD to implement a No Further Action/Natural Attenuation remedy for the on-property Plume B extraction and treatment system component.

The secondary objective of this Proposed Plan is to serve as an ESD to announce the land use change from commercial/industrial to recreational for the Central Sub-Parcel. The November 2011 Risk Assessment Update concludes that soil conditions in the Central Sub-Parcel, subsequent to completion of the soils and subsurface features remedial action in September 2011, are protective of recreational land use scenario for this area. In September 2011, the Town rezoned the Central subparcel from “Light Industrial” to “Recreational.”

SITE BACKGROUND

Site Description

The Site is located approximately one mile south of Bethpage State Park in Farmingdale, Town of Oyster Bay, Nassau County, New York (see **Figure 1**). The Site includes a 30-acre property located at 55 Motor Avenue. The property is bordered by the Long Island Railroad to the north, Motor Avenue to the south, Main Street to the east and a small town park, Ellsworth Allen Park, to the west. The surrounding area is primarily residential with several commercial establishments on the major roads.

The Site included a former aircraft parts manufacturing and metal-finishing facility that began its operation in the early 1930's. From 1940 to 1944, the federal government and private corporate interests utilized the Site to develop and maintain production of materials needed for World War II. From 1944 through 1957, aircraft-related manufacturing activities predominated at the Site. Starting about 1957 through the 1980's, the facility operated as an industrial park and was used for various operations, including metal plating and finishing and fiberglass product manufacturing. Since the 1980's, the Site was used for light manufacturing and warehousing until these activities ceased in 2009.

The Site can be divided into a western portion (Tax Lot 327 which is generally unpaved and limited activity) and an eastern portion (Tax Lots 331 and 332), each about 15 acres in size. Site operations in the western portion have ceased and only the foundations of some of the former structures and industrial facilities remain visible; however, the groundwater treatment system is located on the western portion. Tax Lot 332, a 7 ½-acre parcel on the easternmost portion of the Site has been redeveloped and is paved over with a large-scale grocery/retail store and adjacent parking lot (completed in May 2010).

Site Geology/Hydrogeology

The Site is situated on the glacial outwash plain of Long Island. The uppermost aquifer, the Upper Glacial, is estimated to be 85 feet thick beneath the Site. The depth to the water table is generally approximately 21 feet below ground surface (bgs), although the Site groundwater table fluctuates between 15 and 21 feet bgs. The saturated portion of the Upper Glacial aquifer, with a thickness of 64 feet, begins at the water table and extends down to 85 feet bgs. The Upper Glacial aquifer is underlain by the Magothy aquifer which is approximately 700 feet thick in the vicinity of the Site.

Groundwater flow within the Upper Glacial aquifer was determined to be predominantly horizontal and in the south-southwesterly direction; the horizontal flow velocity in the Upper Glacial aquifer was estimated to be about 1.6 feet/day. The direction of the horizontal component of groundwater flow within the Magothy aquifer is also in the south-southwesterly direction, with a slight south-southeasterly component north of the Farmingdale High School; the horizontal flow velocity in the Magothy aquifer was estimated to be about 0.17 feet/day. In addition, vertical hydraulic gradients exist between the Upper Glacial and the Magothy aquifers. In general, the vertical gradient is downward (as to promote flow from the Upper Glacial to the Magothy aquifer), except in the spring months when upward gradients were observed in the southern portions of the off-Site areas. The actual flow between the aquifers is mainly dependent on the vertical hydraulic conductivity between the two formations. The hydraulic connection of the Upper Glacial to the Magothy aquifer is believed to be limited in the Site vicinity, because a low-permeability layer is present between the Upper Glacial and the Magothy aquifers throughout much of the on-Site and Off-site areas.

Groundwater aquifers underlying the Site are classified as Class GA pursuant to 6 New York Codes, Rules and Regulations Parts 700-705 (6 NYCRR Parts 700-705, reissued July 1995). The Class GA standards apply to any fresh groundwater which may be a source of potable water supply. Similarly, the groundwater aquifers are classified as Class IIA by EPA in that the aquifers are current or potential sources of drinking water.

Site History, Contamination Problems, and Selected Site-wide Remedy

Materials used in Liberty site operations included VOCs such as cis-1,2-dichloroethene (cis-1,2-DCE), trichloroethene (TCE), and tetrachloroethene (PCE); inorganic compounds containing cadmium, chromium, and cyanide; as well as other materials such as caustics and acids. Throughout most of the period of industrial operation, wastes containing these materials were discharged untreated into below-grade sumps, underground leaching chambers, and unlined, in-ground wastewater disposal basins.

A groundwater plume contaminated with organic and inorganic substances, which originated from on-Site industrial activities, underlies the former industrial area and extends approximately a mile in a southwesterly direction (designated as Plume A). A portion of the Massapequa Preserve, a nature preserve located about one-half mile to the south, was also contaminated from the on-Site activities and has been addressed as part of the Superfund cleanup. A separate plume of organic contamination, designated as Plume B, which is believed to originate from the Farmingdale Cleaners and its vicinity to the north of the Site, migrates in a southerly direction before commingling with a portion of Plume A (see **Figure 2**).

The purple-colored blip or island shown on **Figure 2** at the southern end of Plume A in the Upper Glacial aquifer and to the west of the Farmingdale High School is where Plume B reappears also in the Upper Glacial aquifer, after disappearing after the middle part of Plume A or south of Woodward Parkway elementary school. This indicates that the leading edge of Plume B contains higher PCE from a spill or an upgradient source with lower concentrations of PCE trailing behind. This leading edge of Plume B, however, dissipates before the Southern State Pkwy and the lower PCE concentration trailing part of the Plume B dissipates upon reaching the Woodward Parkway elementary school. This phenomenon is likely due to natural attenuation consisting of dechlorination, dispersion, dilution, and degradation of PCE. In the Magothy aquifer, presence of both PCE and TCE appears to end at the Woodward Parkway elementary school.

In the 1980's, NYSDEC was the lead agency for the Site and directed the early Site investigation and early cleanup activities. In 1978 and 1987, under administrative orders issued by NYSDEC, several of the potentially responsible parties (PRPs) at the Site removed contaminated soil and sludge from industrial waste disposal basins. The Site was placed on the National Priorities List on June 10, 1986.

In 1990, EPA assumed the role of the lead governmental agency for environmental investigation and remediation of the Site. Between 1991 and 1997, EPA conducted a Remedial Investigation (RI) to define the nature and extent of contamination and a Feasibility Study (FS) to identify alternatives to address contamination. Additional investigatory activities were carried out by several of the PRPs at the Site under EPA oversight pursuant to an administrative order issued by EPA in 1997.

EPA conducted a Removal Site Evaluation at the Site during late 1993 and early 1994, and determined that electrical transformer areas contaminated with polychlorinated biphenyls (PCBs), wastes contained in underground storage tanks, and drums located at the Site posed an immediate risk to trespassers. At EPA's request, a number of PRPs agreed to remove these materials and transport them to appropriate facilities for treatment and disposal. All field work for this removal action, which eliminated significant current-use risks associated with the Site, was completed by the fall of 1995.

In 1998, EPA selected an interim groundwater remedy, the objective of which was to prevent contaminated groundwater from migrating beyond the boundary of the Liberty property until the comprehensive soil and groundwater remedy could be implemented. This work was initially implemented starting in 1998 by PRPs pursuant to an EPA administrative order and has, since August 2004, been continued by the PRPs pursuant to a Consent Judgment. After design and testing, in January 2001 the PRPs constructed separate treatment systems to address both the organic and inorganic contamination in the groundwater. However, various operational problems initially prevented the interim groundwater treatment system from continuous operation and effective treatment of groundwater contamination. As a result, in January 2002, EPA directed the PRPs to begin the process of converting the on-property system for Plume A into a conventional pump and treat system. Since the conversion in June 2004, the existing on-property groundwater remediation system has been operating at its full design capacity in effectively treating both organic and inorganic contamination.

EPA also issued an order pursuant to Section 16 (a) of the Toxic Substances Control Act in late 1999 requiring the owners of the Site to remove approximately 1.5 million pounds of PCB-contaminated shredded auto-fluff that had been stored at the Site.

In April 2001, EPA released a supplemental RI/FS report which described the nature and extent of contamination in Site soils and groundwater, in pond sediments in Massapequa Creek downstream of the Site, and in Plume B. The supplemental RI/FS also evaluated alternatives for comprehensive Site cleanup. The supplemental RI sampling data revealed that two distinct plumes exist beneath the property. Plume A originates on the western portion of the Liberty property, while Plume B originates hydrogeologically upgradient of the Site, east of Plume A. Plume A is characterized by TCE concentrations (including degradation products such as cis-1,2-DCE). There is no significant PCE concentration in Plume A. Plume A is also characterized by chromium and cadmium contamination. Plume B is characterized by PCE concentrations (including its degradation products).

In July 2001, EPA released a Proposed Plan that outlined the Agency's preferred long-term comprehensive remedy for the Site.

Following the issuance of the Proposed Plan in July 2001, the Town announced its intention to acquire the Western Parcel for expansion of the adjacent Ellsworth Allen Park for community recreational activities. In October 2002, EPA entered into a prospective purchaser agreement with the Town, which released the Town from Superfund liability in contemplation of their future ownership and which would discharge existing and prospective Superfund liens against the parkland in exchange for a substantial payment of money from the Town to EPA which would be used for cleanup activities or reimbursement of EPA costs at the Site. In September 2003, the Town acquired the Western Parcel from the owners via condemnation.

Now that the soils and subsurface features cleanup selected in the 2002 ROD have been completed, the Town will construct the recreational facilities and establish the new community park.

Prior to the Town's announced plans for the additional parkland, EPA had assumed, for purposes of remedy selection, that the Site would continue to be used for commercial or industrial purposes. The newly planned parkland use, and other considerations including widespread support by community members and their elected representatives, caused EPA to re-evaluate the soils remedy. EPA's selected soil remedy included an expanded soil excavation for the Liberty site at an estimated additional cost of more than $4 million dollars.

In March of 2002, prior to the issuance of the 2002 ROD, EPA issued an administrative order to the owners of the property at the Site requiring them to perform a removal action to address below ground features on the easternmost ten-acre portion of the Site. These features include sumps, vaults, drains, pipes, underground leaching chambers, underground storage tanks as well as a sanitary leaching field. The order also required the property owners to remove a mound of contaminated soil located on the western portion of the Site. The soil mound was removed in March 2003, and the work to address the underground features began in July of 2004 and was completed in December 2008.

As stated above, in March 2002, EPA issued a ROD for the Site documenting the selection of a comprehensive remedial action that included excavation and off-Site disposal of contaminated soils; removal of contaminated aqueous and/or solid materials from underground storage tanks and subsurface features; construction and operation of on-property and off-property Plume A pump-and-treat systems as well as on-property Plume B pump-and-treat system; and excavation and off-Site disposal of contaminated pond sediments from the Massapequa Preserve. EPA has implemented all components of the remedial action specified in the 2002 ROD except for installation of the on-property Plume B extraction and treatment system, because EPA no longer believes such an installation is necessary, in that Plume B is non-Site related and NYSDEC will now fully address Plume B, including any Plume B remediation, as part of its response action at the Farmingdale Plaza Cleaners site. The pond sediment remedial action was completed in March 2009. The groundwater remedial action was completed and the pump and treat system was deemed to be fully operational & functional in September 2010. And, the soil and subsurface features remedial action was completed in September 2011.

In a June 19, 2007 meeting, the Town officials informed EPA that the Town had retained the services of a consulting firm to assist with engineering investigations and analysis regarding the Town's future Ellsworth Allen Park expansion development plans not only for the Western Parcel but also for the adjacent Central Sub-Parcel. This new piece of information for the Central Sub-Parcel necessitated an update to the July 2000 BHHRA and March 2002 BHHRA Addendum, which were the basis for the remedy selected in the 2002 ROD, to determine whether the Central Sub-Parcel is suitable for recreational land use. The 2002 ROD established Site-specific cleanup concentrations in soils that would be protective of groundwater quality and would also be protective of human health for the most reasonably anticipated future uses of the Site property (i.e., commercial/industrial or recreational for the Western Parcel and commercial/industrial for the Eastern Parcel).

In July 2010, the Town acquired the Central Sub-Parcel from the owners also via condemnation.

Under EPA oversight, the Town's consultant prepared and submitted to EPA for approval the November 2011 Risk Assessment Update to the July 2000 BHHRA and March 2002 BHHRA Addendum. With EPA approval, the November 2011 Risk Assessment Update concludes that soil conditions in the Central Sub-Parcel, subsequent to completion of the soils and subsurface features remedial action in September 2011, are protective of recreational land use scenario for this area.

In addition, in February and early March 2006, EPA conducted a Phase I vapor intrusion investigation, which involved the collection of air samples at fifteen homes in the vicinity of the Site, and at the Woodward Parkway elementary school in Farmingdale, New York, in order to determine if vapors associated with groundwater contamination at the Site were entering those properties. In April 2006, EPA conducted follow-up sampling of indoor air at two of the homes and at the school. The sampling results did not show any vapor intrusion impact and, therefore, did not indicate any potential impact on the health of the occupants. From 2006 to 2010, EPA continued to conduct vapor sampling at the Woodward Parkway elementary school and several homes, and the sampling results during this period also did not show any vapor intrusion impact. Based on these results, since 2010, EPA has continued to conduct vapor sampling only at the Woodward Parkway elementary school.

Plume B

The 2002 ROD included a separate conventional pump-and-treat system to address the on-property Plume B, which originates to the north (upgradient) of

the Site and which underlies the Site property. In December 2002, NYSDEC listed the "Farmingdale Plaza Cleaners" site (NYSDEC Site I.D. No. 130107) on its Registry of Inactive Hazardous Waste Disposal Sites in New York State. The Farmingdale Plaza Cleaners site is located approximately 1,000 feet to the north (upgradient) of the Site (see **Figure 3**) and is suspected to be the source of Plume B. NYSDEC has been investigating the Farmingdale Plaza Cleaners site with resources from the New York State Hazardous Waste Remedial Fund. NYSDEC is currently performing an RI/FS for the Farmingdale Plaza Cleaners site (Plume B RI/FS). Per EPA's request, the NYSDEC agreed to take over the lead agency role to address Plume B, including any Plume B remediation, as part of its response action at the Farmingdale Plaza Cleaners site.

NYSDEC completed the first phase of the Plume B RI in June 2009. Based on the Phase 1 Plume B RI results, NYSDEC concluded, and EPA concurred, that another round of Plume B groundwater investigation (Phase 2) is warranted to fully delineate Plume B, in particular, the portion of Plume B that is downgradient of the Liberty site. The Phase 2 Plume B RI investigation commenced in July 2011 and was completed in March 2012. Plume B RI/FS reports are expected to be completed during the Summer of 2012. Upon completion of the Plume B RI/FS reports, NYSDEC will prepare a Plume B ROD selecting a Plume B remedy, which is projected for the end of 2012.

With the construction and operation of on-property and off-property Plume A pump-and-treat systems, human health risks from Site-related contamination are controlled. The removal of potential sources (i.e., contaminated Site soils) has further reduced the migration of contaminants from the Site. Over the last several years, EPA and NYSDEC have performed extensive monitoring of Plume B and also conducted investigations to evaluate the nature and extent of Plume B contamination. The most recent groundwater sampling data show that the Plume B levels beneath the Site property have declined to near drinking water standards. Based on the recent groundwater sampling data, EPA has now determined that the on-property Plume B pump-and-treat system is no longer necessary. Instead, EPA believes, as described above, that Plume B, including any off-property Plume B remediation, will be best addressed by NYSDEC as part of its response action at the Farmingdale Plaza Cleaners site.

As part of the response action at the Farmingdale Plaza Cleaners site, NYSDEC has also implemented a soil vapor extraction (SVE) treatment system as an Interim Action to address the source of Plume B. The SVE construction commenced in June 2011 and was completed in November 2011, and is currently operating. The SVE system is anticipated to remediate any residual soil contamination that could otherwise continue to contribute to Plume B groundwater contamination.

CONTAMINANTS of CONCERN (COCs)

As a result of the historic use of solvents and other chemicals at the Liberty Industrial Finishing Superfund Site, groundwater (Plume A) contains contaminants known as VOCs and metals. The contaminants of concern (COCs) in Plume A specifically identified as a result of investigations at the Site include the following:

- **trichloroethene (TCE)** - an industrial solvent, the contaminant typically found in highest concentrations at the site
- **cis-1,2-dichloroethene (cis-1,2-DCE)** – a breakdown product of TCE
- **tetrachloroethene (PCE)** – an industrial solvent
- **cadmium -** inorganic compounds containing cadmium
- **chromium -** inorganic compounds containing chromium

Plume B is characterized by primarily PCE concentrations (including degradation products) and has no chromium or cadmium contamination.

- **PCE**

The New York State (NYS) Maximum Contaminant Levels (MCLs) for TCE, cis-1,2-DCE, and PCE is 5 ppb, and for cadmium and chromium are 5 micrograms/liter (µg/l) and 50 µg/l, respectively.

SUMMARY OF GROUNDWATER CONDITIONS

An extensive groundwater investigation has been conducted to evaluate the nature and extent of groundwater contamination, in particular Plume A, in both the Upper Glacial aquifer and the Magothy aquifer. RI sampling results indicate that two distinct plumes, Plume A and Plume B, exist beneath the property. As stated above, Plume A originates on the western portion of the Liberty property, while Plume B originates upgradient of the Site, east of Plume A. Plume A is characterized by TCE concentrations (including degradation products such as cis-1,2-DCE) coming mainly from the former Building B Basement area and the former Wastewater Disposal Basins and extending south-southwest (generally west of Woodward Parkway). There is no significant PCE concentration in Plume A. Plume A is also characterized by chromium and cadmium contamination. Plume B is characterized by PCE concentrations (including degradation products) and extends across the Site toward the south-southwest (generally east of Woodward Parkway). Unlike Plume A, Plume B is not characterized by chromium and cadmium contamination. Both Plumes A and B were delineated as relatively narrow in shape, which is typical of plumes in sandy aquifers similar to the Upper Glacial aquifer. The on-property and off-property

extent of contamination in Plume A has been fully delineated. Further investigation of Plume B, in particular, the portion of Plume B that is off-Site and downgradient of the Liberty site, and its source is being conducted by NYSDEC.

For Plume B, during the supplemental RI, the highest PCE concentrations were detected at MW-22A, located approximately 300 feet north and upgradient of the Site property, at 810 µg/l and 1,100 µg/l (sampled in July 1999 and August 1999, respectively), which indicated that the primary source of Plume B contamination is upgradient of the Liberty property. Resampling of MW-22A in June 2010 by the PRPs as part of the annual Site-Wide groundwater sampling program indicates that PCE has significantly decreased to 74 µg/l. In addition, prior to NYSDEC's commencement of its own RI/FS Activities, EPA conducted a hydrogeologic investigation at the Farmingdale Plaza Cleaners site from August 2000 through June 2003. As part of this investigation, an off-Site monitoring well EPA-MW-4A was installed just south-southwest of the Farmingdale Plaza Cleaners site. A historic high PCE concentration was detected at 3,600 µg/l at this monitoring well in February 2001. Resampling of EPA-MW-4A by the PRPs in June 2010 shows that PCE has declined to as low as 110 µg/l. Therefore, monitoring wells EPA-MW4A and MW-22A, located immediately downgradient of the Farmingdale Plaza Cleaners have declined over time to as low as 110 µg/l and 74 µg/l, respectively. The following table provides a summary of sampling conducted to date at EPA-MW-4A and MW-22A monitoring wells.

Date	EPA-MW-4A	MW-22A
6/10 – 7/10 (PRP RI)	110 µg/l	74 µg/l
12/08 (NYSDEC RI)	7.9 µg/l	40 µg/l
2/07 (NYSDEC RI)	62 µg/l	160 µg/l
2/06 (NYSDEC RI)	37.6 µg/l	4.8 µg/l
9/03 (EPA Removal)	16 µg/l	3.6 µg/l
10/01 (EPA Removal)	330 µg/l	55 µg/l
2/01 (EPA Removal)	3.600 µg/l	460 µg/l
9/00 (EPA Removal)	610 µg/l	100 µg/l
8/00 (EPA Removal)		240 µg/l
8/99 (PRP RI)		1,100 µg/l
7/99 (PRP RI)		810 µg/l
1/99 (PRP RI)		18 µg/l

Similarly, sampling of various on-property monitoring wells to date indicate that PCE levels within Plume B beneath the Site property have also declined. To document this decline, historical PCE trend data from a Supplemental RI monitoring well, MW-33B (which is no longer in existence as it was removed as part of the recent large-scale grocery/retail store construction activities) were compared to NYSDEC's PW-4 and PW-5 monitoring wells that were installed in very close proximity to MW 33-B and sampled in December 2008. Such comparison can be reliably made as all these three monitoring wells were screened at similar depths. The following table provides a summary of sampling conducted to date at these three monitoring wells.

Date	MW-33B	PW-4	PW-5
12/08		Non-Detect (ND)	ND
2/14/2001	620 µg/l		
9/28/2000	1,000 µg/l		
8/4/2000	740 µg/l		
8/17/1999	510 µg/l		
7/27/1999	480 µg/l		
1/28/1999	930 µg/l		
8/23/1998	430 µg/l		

REMEDIAL ACTION OBJECTIVES

Remedial action objectives (RAOs) are specific goals to protect human health and the environment. These objectives are based on available information and standards, such as applicable or relevant and appropriate requirements (ARARs), NYSDEC's recommended soil cleanup objectives, Site-specific risk-based levels, and the most reasonably anticipated future land use for the Site, i.e., commercial/industrial or recreational for the Western Parcel and commercial/industrial (at the time of the ROD) for the Eastern Parcel.

The RAOs developed for soil, sediment, and groundwater were designed, in part, to mitigate the health threat posed by ingestion, dermal contact, or inhalation of vapors and particulates where these soils are contacted or disturbed or where groundwater may be contacted. The RAOs are also intended to mitigate the health threat posed by the ingestion of groundwater and are designed to prevent further leaching of contaminants from the soil to the groundwater.

This Proposed Plan only identifies the RAOs for the portion of the remedy selected in the 2002 ROD, i.e., on-property Plume B extraction and treatment system component, which is the subject of this amendment, The purpose of the on-property Plume B extraction and treatment system component was to prevent any further Plume B groundwater contaminant migration downgradient beyond the Site property boundary. The 2002 ROD does not require an off-property, or downgradient, Plume B extraction and treatment system as a component as part of the remedy selected. Those aspects of the selected remedy which have been fully implemented are not relevant to this discussion.

The on-property Plume A pump-and-treat system has been operating at its full design capacity in effectively treating both organic and inorganic contamination since June 2004. The recent years of groundwater sampling data show that the Plume B levels beneath the Site property have declined to near drinking water standards, which is also due in part to interception and treatment of a portion of Plume B contamination by the on-property Plume A pump-and-treat system.

Current contaminant trends and water quality data document that natural attenuation and physical processes are also contributing to the apparent, decline in PCE concentration within Plume B. The additional source removal implemented with NYSDEC's SVE system operation, coupled with treatment of significant portion of Plume B by on-property and off-Site Plume A pump-and-treat systems, is also expected to result in further decline in PCE concentration within Plume B to drinking water standards. In addition, NYSDEC has taken on the lead agency role to fully address Plume B, including any Plume B remediation, as part of its response action at the Farmingdale Plaza Cleaners site. Therefore, EPA has decided to reevaluate, in this Proposed Plan, the active groundwater extraction and treatment remedy for the on-Property Plume B that had been specified in the 2002 ROD.

As described above, NYSDEC completed Phase 2 Plume B groundwater investigation in March 2012. Upon completion of Plume B RI/FS reports anticipated during the Summer of 2012, NYSDEC will select a Plume B remedy in a separate ROD, presently projected for the end of 2012. Note that the NYSDEC remedy for Plume B will address Plume B in its entirety, whereas the CERCLA action identified in the 2002 ROD, which is proposed to be modified via this amendment, only addressed treatment of the on-property portion of Plume B.,

Since it remains a part of the overall remedy for groundwater, the continued operation of the on-property and off-property Plume A pump-and-treat systems will be included under each of the remedial alternatives evaluated herein. Accordingly, the RAO established for this evaluation is the following:

- Restore the on-property Plume B groundwater contamination in the Upper Glacial aquifer to its most beneficial use (i.e., as a source of potable water), and restore it as a natural resource.

SUMMARY OF REMEDIAL ALTERNATIVES FOR ON-PROPERTY PLUME B GROUNDWATER

EPA has developed this proposed plan to evaluate the following two alternatives for the on-property Plume B remedy for the Liberty site: (1) No Further Action/Natural Attenuation and (2) Groundwater Extraction and Treatment (the remedy selected in the 2002 ROD for the on-property Plume B).

Section 121(b)(i) of CERCLA, 42 U.S.C. § 9621(b)(1) requires that each selected site remedy be protective of human health and the environment, be cost effective, comply with ARARs, and utilize permanent solutions, alternative treatment technologies and resource recovery alternatives to the maximum extent practicable. In addition, the statute includes a preference for the use of treatment as a principal element for the reduction of toxicity, mobility, or volume of the hazardous substances.

The alternatives for addressing on-property Plume B groundwater contamination are provided below and are identified as GW-1 and GW-2. Consistent with EPA guidance documents concerning ROD Amendments, the components of the original Plume B remedy proposed for amendment have been updated and are compared to a new preferred alternative which was developed based upon existing Site circumstances. For both alternatives, the on-property and off-property Plume A pump-and-treat system will continue to operate until Plume A remediation goals have been met. In addition, each alternative assumes that local regulations, i.e., Article IV of the Nassau County Public Health Ordinance, requiring property owners within the areal extent of Plumes A and B to receive domestic water supply from their public water systems, continue to be employed, preventing any future use of contaminated groundwater until the aquifer is restored. The groundwater remedial alternatives are:

Alternative GW-1: No Further Action/Natural Attenuation with Long-Term Monitoring

Capital Cost	$0
O & M Cost (annual)	$913,000 on-property and off-property Plume A pump-and-treat $100,000 Long-Term Monitoring (Years 1 - 20)
Present Worth Cost	$11.9 million
Construction Time	Not Applicable
Duration	Not Applicable

The Superfund program requires that the "No Further Action" alternative be considered as a baseline for comparison with the other alternatives.

Under this alternative, EPA would take no further action within the on-property Plume B to prevent exposure to groundwater contamination. Therefore, this alternative does not include on-property active treatment of Plume B. This alternative relies upon source removal currently occurring with NYSDEC's

SVE system operation, treatment of significant portion of Plume B by on-property and off-property Plume A pump-and-treat systems, and natural attenuation to reduce the on-property Plume B contamination below State and Federal drinking water standards. In addition, as described above, upon completion of Plume B RI/FS, NYSDEC will select a remedy for the entirety of Plume B in a separate ROD, presently projected for completion for the end of 2012.

While the operation of the on-property and off-property Plume A pump-and-treat systems would be continued, an annual groundwater monitoring program consisting of existing monitoring wells would also be conducted to monitor Plume B. Analytical data obtained from the annual groundwater monitoring program would serve to demonstrate the progress of Plume B remediation (i.e., the extent of source contaminant elimination occurring with NYSDEC's SVE system operation, treatment of Plume B by on-property and off-Site Plume A pump-and-treat systems, and natural attenuation). Groundwater samples would be analyzed for volatile organic parameters.

Because this alternative would result in contaminants remaining on-Site above levels that allow for unlimited use and unrestricted exposure, CERCLA requires that the Site be reviewed at least once every five years.

Alternative GW-2: On-Property Plume B Groundwater Extraction and Treatment/Long-Term Monitoring

Capital Cost	$509,000 on-property Plume B pump-and-treat
O & M Cost (annual)	$913,000 on-property and off-property Plume A pump-and-treat $159,000 on-property Plume B pump-and-treat $100,000 Long-Term Monitoring (Years 1 - 20)
Present Worth Cost	$14.2 million
Construction Time	1 ½ years
Duration	20 years

Under this alternative, the on-property Plume B pump-and-treat component of the groundwater remedy established in the 2002 ROD would be implemented, specifically the installation of a separate groundwater extraction and treatment system on the Site property. The system's design would be similar to the existing on-property and off-property Plume A pump-and-treat systems, and would include a long-term monitoring component.

Cleanup levels would be based on Federal and NYS MCLs. The extraction wells would be designed to operate at optimal locations and rates to collect contaminated on-property Plume B groundwater, intercept the contaminant plume, and prevent any further migration downgradient. For the purposes of conceptually identifying the number of extraction wells and well locations, the same assumptions made in the 2002 ROD are assumed, specifically two wells each operating for approximately 20 years, to effectively capture the contaminants within the on-property Plume B. Optimal design parameters and a more refined estimate of the time required to remediate the aquifer would be developed during the remedial design phase.

The on-property contaminated Plume B groundwater would be extracted from the Upper Glacial aquifer and pumped to an above-ground treatment system. If necessary, inorganic contaminants such as metals would be treated through ion exchange, precipitation with coagulation, and filtration. Organic contaminants would be treated through air stripping coupled to liquid and vapor phase carbon. Treatability studies would be performed to determine the optimum operating parameters for the groundwater treatment system. Residual waste from the treatment process such as sludges from the metals-treatment stage, if necessary, would be disposed of off-Site in accordance with all applicable or relevant and appropriate federal and State disposal requirements (e.g., Resource Conservation and Recovery Act Land Disposal Requirements); spent carbon used to remove organic contaminants would be handled similarly or regenerated. Treated groundwater would be reinjected into the aquifer.

Long-term groundwater monitoring (as described for GW-1) would be conducted during the active remediation phase to assess the effectiveness of the on-property Plume B pump-and-treat system. Periodic evaluations of the groundwater monitoring data would be used to evaluate the continued operation of the groundwater extraction and treatment system. During the implementation of the remedy, the appropriateness of the monitoring well network with respect to the plume would continually be assessed as the plume delineation is further refined. Potential modifications to the network would include the abandonment and/or installation of monitoring wells as necessary to support the selected remedy.

Because this alternative would result in contaminants remaining on-Site above levels that allow for unlimited use and unrestricted exposure, CERCLA requires that the Site be reviewed at least once every five years.

EVALUATION OF ALTERNATIVES

In selecting a remedy for a site, EPA considers the factors set forth in CERCLA §121, 42 U.S.C. §9621, by conducting a detailed analysis of the viable

remedial alternatives pursuant to the NCP, 40 C.F.R. §300.430(e)(9) and OSWER Directive 9355.3-01. The detailed analysis consists of an assessment of the individual alternatives against each of nine evaluation criteria and a comparative analysis focusing upon the relative performance of each alternative against those criteria.

- Overall protection of human health and the environment addresses whether or not a remedy provides adequate protection and describes how risks posed through each exposure pathway (based on a reasonable maximum exposure scenario) are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.
- Compliance with applicable or relevant and appropriate requirements addresses whether or not a remedy would meet all of the applicable or relevant and appropriate requirements of other federal and state environmental statutes and regulations or provide grounds for invoking a waiver.
- Long-Term effectiveness and permanence refer to the ability of a remedy to maintain reliable protection of human health and the environment over time, once cleanup goals have been met. It also addresses the magnitude and effectiveness of the measures that may be required to manage the risk posed by treatment residuals and/or untreated wastes.
- Reduction of toxicity, mobility, or volume through treatment is the anticipated performance of the treatment technologies, with respect to these parameters, a remedy may employ.
- Short-Term effectiveness addresses the period of time needed to achieve protection and any adverse impacts on human health and the environment that may be posed during the construction and implementation period until cleanup goals are achieved.
- Implementability is the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement a particular option.
- Cost includes estimated capital and operation and maintenance (O&M) costs, and net present-worth costs.
- State acceptance indicates whether, based on its review of the Proposed Plan, the State concurs with, opposes, or has no comment on the preferred remedy at the present time.
- Community acceptance will be assessed in the ROD Amendment, and refers to the public's general response to the alternatives described in the Proposed Plan.

Comparative Analysis of Alternatives

Overall Protection of Human Health and the Environment

Both Alternatives GW-1 and GW-2 would be protective of human health and the environment. The additional source removal anticipated with NYSDEC's SVE system operation, coupled with treatment of significant portion of Plume B by the on-property and off-property Plume A pump-and-treat system and documented natural attenuation, is expected to result in further decline in PCE concentration within the on-property portion of Plume B to State and Federal drinking water standards within a reasonable timeframe. In addition, as described above, upon completion of Plume B RI/FS reports, NYSDEC will select Plume B remedy in a separate ROD, presently projected for completion for the end of 2012. Nonetheless, the extraction and treatment of the groundwater under Alternative GW-2 may provide slightly more rapid removal of contamination from the aquifer than the remediation and natural attenuation process of Alternative GW-1. It should also be noted that institutional controls, i.e., Nassau County well permitting program, have been implemented to prohibit installation or use of groundwater wells for human consumption within the areal extent of the Plumes A and B and, therefore, have effectively rendered the groundwater exposure pathway incomplete.

Compliance with ARARs

For GW-1 and GW-2, ARARs would be achieved over similar timeframes. Compliance with ARARs would be demonstrated through the long-term monitoring program.

Long-Term Effectiveness and Permanence

Alternatives GW-1 and GW-2 would be equal in providing long-term effectiveness and permanence in that the groundwater contamination would be reduced to below State and Federal drinking water standards within similar timeframes. Alternative GW-2 would potentially result in greater long-term exposure to contaminants by workers who could come into direct contact with the concentrated sludges from the treatment system. However, proper health and safety precautions would be implemented to minimize exposure to the sludges. The effectiveness of Alternatives GW-1 and GW-2 would be assessed through routine groundwater monitoring and five-year reviews.

Reduction in Toxicity, Mobility or Volume

Under both alternatives, the volume and toxicity of the groundwater contaminants above ARARs would be reduced at approximately the same rate and would

ultimately be eliminated over similar timeframes. The mobility of the contamination plume would be reduced at a greater rate by actively extracting the groundwater under Alternative GW-2.

Short-Term Effectiveness

Alternative GW-1 presents virtually no short-term impacts to human health and the environment since no construction is involved. The construction activities required to implement Alternative GW-2 would potentially result in minimal short-term exposure to contaminants by workers who could come into direct contact with the concentrated sludges from the treatment system; however, proper health and safety precautions would minimize this occurrence. While efforts would be made to minimize the impacts, some disturbances would result from disruption of traffic, excavation activities on public and private land, noise, and fugitive dust emissions. The technologies included under Alternative GW-1 and under Alternative GW-2 are proven and reliable.

Implementability

Alternative GW-1 does not involve any construction and, consequently, is much easier to implement than Alternative GW-2. Alternative GW-1 only requires a monitoring program utilizing existing monitoring wells and the continued O&M of the on-property and off-property Plume A pump-and-treat systems. Alternative GW-2 would be more complex since it would also involve construction and piping installation in the short-term and long-term O&M of an additional treatment system. The design and construction of the groundwater extraction system would take approximately 2 years to complete. Alternative GW-2 would require that property be acquired/leased for the treatment unit and that access/easements be obtained from private and public property owners for the installation of piping and extraction wells. The operation and maintenance of the system would include the monitoring of the aquifer for system effectiveness, monitoring of the system emissions to determine compliance with permit equivalencies, and the handling and disposal of the concentrated contaminated treatment residuals.

Cost

The estimated capital, annual O&M (including monitoring), and present-worth costs for the two alternatives are presented in the following Cost Comparison Table.

Cost Comparison Table		
Alternative	GW-1	GW-2
Capital Cost	$0	$509,000
Annual O&M Costs		
on-property and off-property Plume A pump-and-treat	$913,000	$913,000
on-property Plume B pump-and-treat	$0	$159,000
Long-term Monitoring (Years 1 – 20)	$100,000	$100,000
Present Worth Cost	$11.9 million	$14.2 million

Alternative GW-1 has no direct or capital costs associated with its implementation. The present worth of this alternative of $11.9 million is for implementation of on-property and off-property Plume A pump-and-treat O&M and annual groundwater monitoring program. The capital and present worth costs of Alternative GW-2 are estimated to be approximately $509,000 (for construction of separate on-property Plume B pump-and-treat system) and $14.2 million, respectively. Both alternatives would provide a similar level of protection in a similar time frame; however, Alternative GW-1 would do so at a much lower cost.

State Acceptance

NYSDEC and NYSDOH concur with the preferred remedy.

Community Acceptance

Community acceptance of the preferred remedy will be assessed in the ROD Amendment following review of the public comments received on the Proposed Plan.

PREFERRED ALTERNATIVE

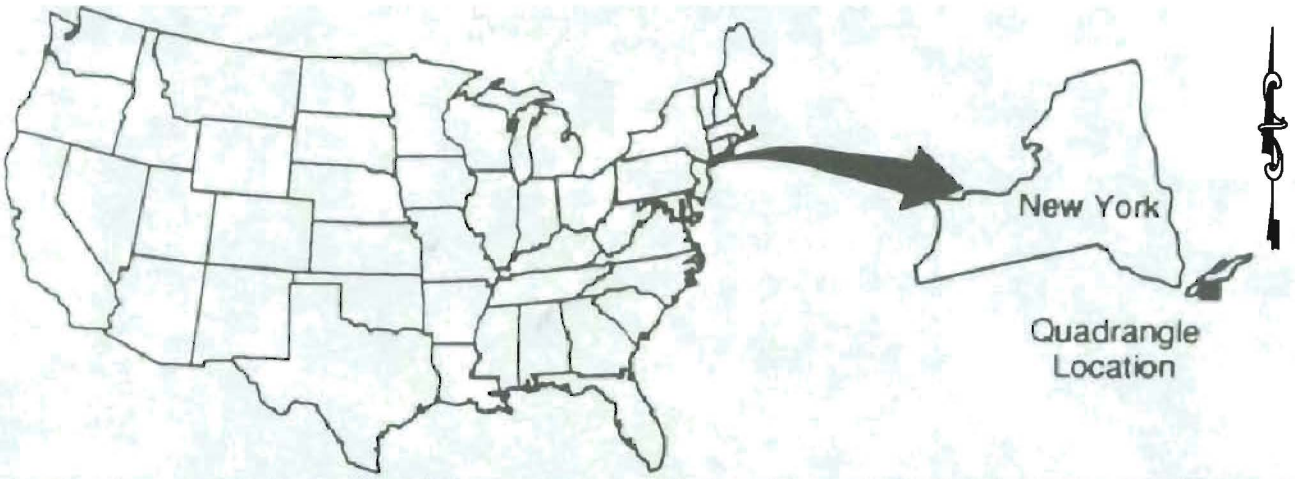
Based upon an evaluation of the various alternatives, EPA recommends Alternative GW-1, No Further Action/Natural Attenuation (for on-property Plume B) with Long-Term Monitoring, as the Post-Decision preferred alternative because, among other things, NYSDEC is taking over investigation and off-property remediation of Plume B which does not originate from the Site, and NYSDEC's actions will ensure protectiveness of human health and the environment. Alternative GW-1 provides the best balance of trade-offs among the two alternatives with respect to the evaluation criteria. EPA believes that the preferred alternative will be protective of human health and the environment, will comply with ARARs, and will be cost-effective.

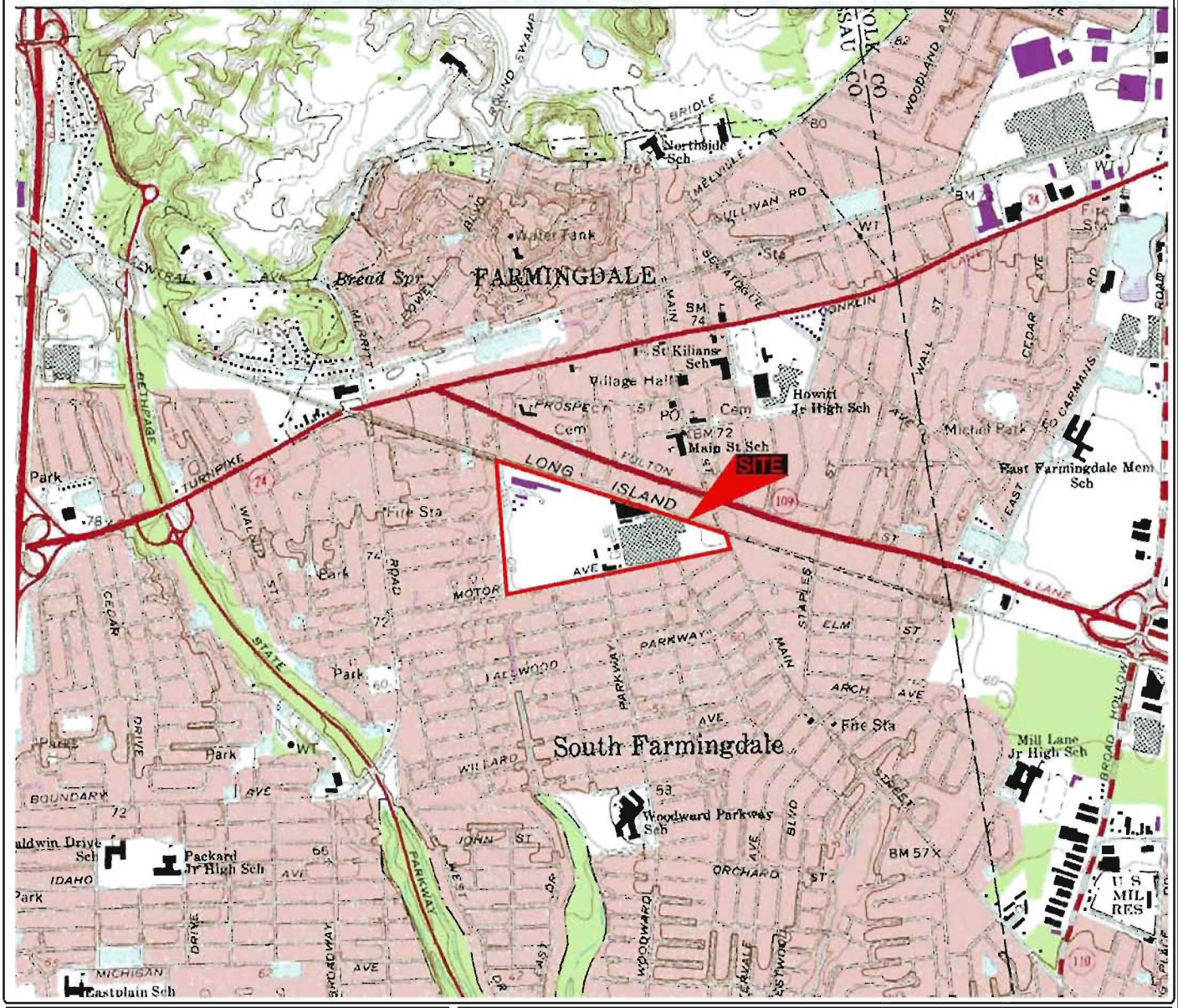
DESCRIPTION OF SIGNIFICANT DIFFERENCES AND THE REASONS FOR THOSE DIFFERENCES

As described above, EPA is also issuing an ESD, as part of this Proposed Plan, to announce the land use change from commercial/industrial to recreational for the Central Sub-Parcel. The November 2011 Risk Assessment Update concludes that soil conditions in the Central Sub-Parcel, subsequent to completion of the soils and subsurface features remedial action in September 2011, are protective of a recreational land use scenario for this area. In September 2011, the Town rezoned the Central subparcel from "Light Industrial" to "Recreational."

REFERENCES

EPA. 2002. Record of Decision Summary, Liberty Industrial Finishing Site, Farmingdale, Nassau County, New York. Region II, New York, New York, March 28, 2002.





LEGEND:

GRAPHIC SCALE

1000 0 1000 2000

1 inch = 2000 ft.

SOURCE: UNITED STATES GEOLOGICAL SURVEY 7.5 MINUTE SERIES AMITYVILLE, NY QUADRANGLE 1979

TITLE:

SITE LOCATION MAP

PROJECT:

LIBERTY INDUSTRIAL FINISHING SITE
FARMINGDALE, NEW YORK

CLIENT NAME:

USEPA

WESTON MANAGERS DESIGNERS/CONSULTANTS

DATE:

MARCH 2002

FIGURE #:

1

00561TopomapFig1

FIGURE 1 - SITE LOCATION MAP

R2-0002226

Figure 2 - Plume A/Plume B Map

ecology and environment P.C.

FIGURE 1 EXTENT OF PLUME A (METALS) AND PLUME B (PCE) IN GROUNDWATER LIBERTY INDUSTRIAL FINISHING SITE FARMINGDALE, NEW YORK

R2-0002227

Legend

- Site
- Transect
- Roads

Figure 3

Farmingdale Plaza Cleaners Site Location Map

N

0 100 200 400 Feet

PREPARED FOR:
New York State Department of Environmental Conservation
Farmingdale Plaza Cleaners
Nassau County, New York

PREPARED BY:
YU & Associates, Inc.
Geotechnical, Environmental and Civil Engineering

DATE:	PROJECT NO.:
02/25/2009	08021
DRAWN BY:	CHECKED BY:
YZ	MG

R2-0002228

New York Department of Environmental Conservation August 15, 2012
% S.U.N.Y. Stony Brook
North Loop Road
Stony Brook, LI, NY

Re: Liberty Site South Farmingdale

I have digested the available data about the proposed remediation plan for the above noted site.
I am a member of Friends of The Massapequa Preserve and Secretary of Friends of Tackapausha, Inc. I am a former Nassau County Park Ranger (later Assistant District Attorney and Municipal Liason & Special Assistant to the Nassau County Board of Supervisors & elsewhere I was involved in various environmentally sensitive issues). I am now semi-retired.
I am distressed with the current remediation proposal to the extent that it fails to remediate the chemical waste plume from the Drycleaner. As a result of this flaw this toxic waste plume will flow into the upwaters of the Massapequa Preserve; thence Southward toward land later into the waterways, lakes & ponds of the Massapequa Preserve thence into the Bay.
The degradation of the Massapequa Preserve by the Liberty site has made a valuable Watershed owned by New York City into an environmental mess where POSTINGS had to be made of the dangerousness of ingesting a single fish, let alone drinking or being exposed to open waters there, due to the problems stemming back to the post World War I era.
It must be recalled that this property is in public trust as a (nature) Preserve, open to the general public and often by unsupervised young people. It is submitted that action to conserve this as a clean, non-dangerous, non-degraded area MUST

be given priority by the D E C; first because allowing the entry of an environmentally hazardous plume of (dry cleaning) chemicals would result in effecting the alienation of this land by making it unable to be utilized as (passive) preserve/parkland due to the presence of the plume of hazardous waste I believe this would effectively create a violations of the Parks Trust Doctrine by the State D. E C. failing, refusing, improperly not defending such protected lands by mandating that the (dry cleaning) plume be ameliorated by its extraction, remediation and recharge as purified water upgradient of the site of the source of the contamination from the facility.

What is even more upsetting ~~to~~ that a plan is proposed to extract & purify the plume from Liberty which adjoins the (dry cleaning) plume. By resiting one or more well and or adding a well and or increasing the negative head of the strength of the extracting waters from the negatively effected area all of the contaminants could be quite effectively & appropriately dealt with by a common system of a bit more robustness in order to defend an extremely environmentally ecologically sensitive area.

This is a park/preserve which is used by many children and youth who can become seriously adversely effected by this plume not being addressed and ameliorated.

I respectfully submit that as a corollary to the State Parks trust, that particularly the state has a mandate to preserve the essential Park Preserve nature of this area, not just for the benefit of the local and transitory

flora and fauna but also for the human visitors and users of the Massapequa Park Preserve.

Please take such steps as are necessary and appropriate to terminate the reckless endangerment of the Massapequa Park Preserve by the approach of this hazardous waste stream into the aquifer areas adjacent to the Massapequa Park Preserve.

I submit that such action by the DEC on behalf of the State of New York is mandated as a corollary to the New York State Park Preserve Trust doctrine and that there is no allowable option to consider non-action where such a result will clearly permit a hazardous waste plume to enter such a protected area, particularly one that is just coming out of the noxious & toxic effects of almost a century of chemical pollution of this site, so bad that it had to be abandoned as a watershed property.

Thank you for your time, trouble and work in reviewing these comments.

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17 AUG 2012 PM 3 1

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11790340850

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

STATE OF NEW YORK

COUNTY OF NASSAU

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In the Matter of

Public Comment on the Proposed Plan for the Liberty Industrial Finishing Superfund Site, Farmingdale, Nassau County, New York.

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Proceedings in the above-captioned matter held at the Farmingdale Public Library, 116 Merritts Road, Farmingdale, New York 11735 on Thursday, July 26, 2012, commencing at 7:02 p.m.

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A P P E A R A N C E S:

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SPEAKERS FROM THE COMMUNITY:

Rebecca Smallberg

Joan O'Brien

Reported by:

Jean Wilm,
Registered Professional Reporter
Certified Manager of Reporting Services
Certified LiveNote Reporter

Proceedings

MS. ECHOLS: Hello, everyone. Let me know if I need the mic or not. Can you hear me?

(Chorus of "Yes.")

MS. ECHOLS: Do I need the mic?

(Chorus of "No.")

MS. ECHOLS: Thank you all for coming this evening. I'm Cecilia Echols and I am the community involvement coordinator for the Liberty Industrial Finishing Superfund site here, which is located in Farmingdale, New York.

Tonight's meeting is to address EPA's proposal to address a portion of its cleanup plan selected in the 2002 Record of Decision to build a second system to treat contaminated groundwater at the site.

We are also announcing a change in restrictions on the future use of the portion of the site that has already been cleaned up to allow recreational use of the area.

Tonight's agenda will have myself,

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Lorenz Thantu, who is right here. He is going to speak on several different areas. The first one is the remedy selected in the March 2002 Record of Decision, the status of the remedial action component selected in that Record of Decision, the ongoing annual investigation update regarding the soil vapor intrusion, also, the explanation of significant differences, land use restriction change for commercial industrial to recreational for central parcel lot 331.

He will give a summary of the Plume B, the nonsite-related groundwater contaminant plume, investigatory studies and response actions conducted to date, and then he will discuss EPA's 2012 proposed plan, which is the subject of

tonight's meeting, along with EPA's preferred alternatives.

Then we will open up for questions and answers and we will have Sal Badalamenti, who is the chief of the eastern New York remediation section, he

will handle that portion. Then we will close.

But I just wanted to let you know that the community relations program is to have the community involved in the decision-making process regarding the site. So EPA does not make the decision without hearing from the community. That's why we are here tonight.

The public commentary began on July 12th and it ends on August 20th. All of the comments tonight, all written, verbal, any e-mails, faxes to us will become a part of the responsiveness summary. Then the regional administrator will sign the Record of Decision.

We also have a stenographer here. When we open up for the

questions-and-answers period, please state your name clearly so she can annotate it, and then we will open for questions and answers. Thank you.

MR. THANTU: Thank you.

MS. ECHOLS: I'm sorry. We also

have New York State DEC John Swartwout, chief, Remedial Bureau A. I'm sorry for leaving you out.

We also have a representative from Senator Kemp Hannon's office. Thank you.

MR. THANTU: Thank you, Cecilia. I might try to use the microphone, Cecilia. I will see. Especially when my mouth starts to dry up a little bit.

Good evening, everyone. I must admit, I have been on the Liberty site since 1994, and this is definitely the smallest turnout we have had to date.

Last time we had a public meeting was almost four years ago, and during that time, we probably held a public meeting probably every seven or eight months as we were about to undertake the cleanup

activities and selected a Record of Decision.

Since that time we have been very, very busy and we do have good news to report back. Almost all of those cleanup activities in the Record of Decision have

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been completed.

MS. ECHOLS: Can you hear him?

(Chorus of "No.")

MR. THANTU: This is better, yes.

I think most of you in the audience are familiar with the site. I see a lot of familiar faces and there are some I think I am seeing for the first time, so I will give a little background on the Liberty site.

The Liberty site is located in Farmingdale. It's a 30-acre property located about one mile to the south of Bethpage State Park and about three-quarters of a mile south of the property is the Massapequa Creek and Preserve.

Massapequa Creek and Preserve has a

series of five ponds from the north-to-south direction. The uppermost pond is Pond A, which is located just to the north of the Southern State Parkway and that was included in the remedy selected in the ROD.

Proceedings

I just want to give you some idea on what the Liberty site property looked like back in 1980. The operations at the site started in the 1930s. The site property operated as an aircraft parts manufacturing facility. They also did a lot of industrial metal finishing work.

They did all that work between 1930 and, about, 1950 to make aircraft parts for the fighter planes in support of World War II.

After 1957, it was converted into an industrial park with various operations including metal finishing and Fiberglas products manufacturing.

All that work took place until about the 1980s. After that, all those activities ceased and, basically, the

activities since the 1980s were limited to warehousing and light manufacturing until all those activities ceased completely in 2009.

Anyway, this shows you what the site looked like in 1980. So at that time, it

was used as an industrial park. Now you see all these buildings that remain from the war years, especially on the eastern 15 acres of the property. This is the dividing line which divides the 30-acre property into the eastern 15 acres, which is to the right, and the western 15 acres to the left.

This figure shows you a schematic of what we were dealing with before we selected the remedy. This was back in prior to 2000, 2001. At that time, the site was divided into two lots: Lot 327, western 15 acres, and lot 326, eastern 15 acres.

As you can see, most of the buildings that have remained from the 1940s and '50s were all on the eastern

15-acre portion of the site and lot 327, western 15 acres, has always been primarily unpaved for the most part with all the former buildings gone. All you see are former slat foundations in a few locations.

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So the Record of Decision, the ROD, we selected our comprehensive remedy in March 2002. Basically, it had four major remedial components:

The first one was contaminated soils. It called for excavating for off-site disposal about 73,000 cubic yards.

Then we had subsurface features. That is to remove liquid and solid waste within underground storage tanks and also numerous subsurface features, which included vaults, sumps, drains, and leaching chamber fields.

Groundwater. It called for remediation of the entire plume that is attributed to the Liberty site, which we called Plume A. So the remedy for

groundwater included remediation of the entire plume, including the plume that is beneath the Liberty property and the plume that is downgradient of the Liberty site.

It also included treatment of another plume, which is not related to the

Liberty site, which we call Plume B. It comes from an upgradient source, north of the Liberty site. I will talk more about that later on in the coming slides.

The last remedial component is sediments, and that is to excavate about 2,600 cubic yards of contaminated sediments in Pond A, which I just showed you on the earlier slide.

Lastly, the remedy also called for institutional controls for site property usage and groundwater usage.

Obviously, the cleanup plan that we selected in the ROD was based on what the future land use was going to be. So we had to also impose, as part of the remedy, institutional controls to restrict the site use to commercial industrial or,

where applicable, to recreational uses.

By that I mean, based on the slide I showed you earlier, the western portion was considered recreational use. So we had cleanup standards developed in the ROD to be protective of the western portion.

And then for the eastern 15 acres, we selected cleanup standards that would be protective of future use being commercial industrial, and then a second set of institutional controls to prohibit any kind of groundwater use for human consumption.

So based on the comprehensive remedial investigation and feasibility study that we conducted -- that was conducted actually by the potential responsible parties under EPA oversight, that was completed in 2000, 2001, and we used all that information to select the remedy in the March 2002 ROD.

So what we found, as far as groundwater contamination goes, was that we first -- we fully delineated the plume.

Plume A -- this is the tan-shaded plume -- that originates from the Liberty site.

Also as part of the supplemental RI/FS studies we installed a few upgradient monitoring wells located north of the Liberty site and we found high

levels of contamination. So that is how we discovered that there was another plume coming from some upgradient source about a thousand feet north of the Liberty site. That is the violet plume extending all the way to just above -- to just where Woodward Park elementary school here is.

So obviously the blue portion, middle portion, the blue-shaded portion of the plume is what is commingled between Plume A and Plume B, and down here is the Massapequa Creek eastern branch, and western branch, and the preserve.

So this shows you the extent of Plumes A and B based on the RI/FS studies.

This figure shows you a layout of the groundwater treatment system that we installed for Plume A. There is the

30-acre property and over here is what the groundwater treatment system building is. This yellow line is the pipeline that was installed about two years ago to bring the off-site contaminated water back to the site to be treated at the groundwater

treatment system building.

So as you can see, the pipeline extends all the way down to just before Pond A. We have three well clusters. The first cluster is, we have four extraction wells at the site to remediate on-property Plume A contamination, and then downgradient, we have the first clusters, six extraction wells right next to Woodward Park elementary school, and then farther south is one remaining recovery well.

Here is a picture of the groundwater treatment system building that is located on the western parcel about seven, 800 feet to the east of the Ellsworth Allen Park. You see a series of carbon filtration systems. That is obviously in

the building to treat organic solvents in the groundwater.

This is similar to a previous slide that I used. This shows you the location of Pond A that we also remediated as part of the cleanup action that took place over

the last three, four years.

Now, I want to quickly give you a status of what we have completed in accordance with the Record of Decision. Starting with the first component, soils component, that was completed in 2011. In all, we took out 70,000 cubic yards. It was almost close to what we estimated in the ROD, which was about 73,000 cubic yards. We sent that to off-site EPA approved disposal facilities.

Subsurface features also completed September 2011. We remediated a total of 125 subsurface features. That would include features like vaults, sumps and drains as I said earlier, and also 15 underground storage tanks and their content, 17,000 gallons of oil, were sent

off-site for proper disposal.

Then groundwater for Plume A that is attributed to the Liberty site, that was completed in September 2010. That is when we deemed the system to be fully operational and functional. So Plume A is

being treated 24/7, 24 hours a day both on property and off property.

On the other hand, Plume B, on-property pump-and-treat, is not completed. That is really the major subject of tonight's public meeting. As Cecilia said earlier about the explanation of significant differences, ESD, that is what that pertains to, and I will go into that later.

Sediments, remedial action, that was completed March 2009. We excavated 4,200 cubic yards, more than what was estimated in the ROD, which was 2,600 cubic yards.

So for the Plume A, pump-and-treat, the PRPs, potentially responsible parties, are required to treat Plume A until all the Plume A remediation goals have been

fully achieved.

As Plume A, pump-and-treat, continues to operate, as part of the operation, it's been treating a good chunk of Plume B also, especially the commingled portion between Plume A and Plume B, and

that is the reason why we believe that Plume B concentrations have gone down quite a bit over the last few years.

This shows you the current map of what the Liberty site looks like. Over here is the Ellsworth Allen Park and here is the 30-acre property. The western 15 acres is still the same lot number 327. On the other hand, the eastern 15 acres has been divided, broken down into two separate tax lots: Lot 331 and lot 332. Lot 331 is now being called the central parcel and lot 332 is the eastern parcel, and this structure you see on lot 332, eastern parcel, is the Stop & Shop supermarket.

There are a couple of pictures of Stop & Shop. These two pictures were

taken a month before its grand opening in May 2010.

Now, I want to just briefly quickly show you pictures of the remedial components that we have completed before and after. I just wanted to show you

again what the site used to look like back in 1980.

Here are three photos of what the Liberty site looked like in 2006, just before, around the time when we had embarked on the soil remedial action.

You see like a remnant of one of the former buildings from the war years with debris outside. It wasn't a pretty site at that time. I am looking towards the northern boundary of the Liberty site from the southern site.

This one is also another Liberty, former Liberty industrial plant building looking towards the northeast of the property.

This one is looking towards the west where the groundwater treatment system is

somewhere over here and on the other side of the fence is the Ellsworth Allen Park.

Now, these pictures show you what the site presently looks like. These pictures were taken about five, seven, eight months ago.

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This is looking at east of the site. That is the Stop & Shop supermarket. This is looking at the southeast corner of the site. Over here is Main Street and here is Motor Avenue. This is looking towards Ellsworth Allen Park.

As you can see, the site is pretty much all graded and all cleaned up and ready for park expansion and development.

Here are three pictures of Pond A, what it looked like before we did the remedial action, now three after. This is the east side of the pond. This is the eastern branch. We also put a nice layer of gravel over, you know, the walking path.

This is looking at the northwest corner of Pond A. You see a lot of ducks.

Looking at the northern bank of Pond A.

Some more ducks.

So those are the pre- and postremedial action pictures that I just wanted to show you so you can have a sense of what it used to look like.

I also want to give you a quick update on the annual investigation that EPA has been taking over the last several years, which is soil vapor intrusion.

Back in 2006, that is the year we embarked on doing indoor sampling at the Liberty site because of the concern over Plumes A and B.

We did the first round in 2006 and did indoor sampling in 15 homes and also the elementary school. We did not see any potential impact for health problems.

After that, we did annual, 2007 to 2010, at a few homes and also the elementary school. Just one quick correction. I think we missed one year during this period. It was 2009, I think. Aside from that we've been doing annual

vapor investigations. Again, no potential vapor intrusion problems.

So based on these results, we made a decision to continue doing annual vapor sampling at only the elementary school and we did the last one back in February/March

of this year and the results again show no potential concerns. We will continue doing that during the winter season in the years to come.

Cecilia earlier talked about ESD, which stands for explanation of significant differences.

The NCP, national contingency plan. When, after EPA has selected a remedy in a ROD, we make a significant change to the Record of Decision, we are required by the NCP to publish or issue a document known as ESD. The significant change is not a fundamental change. It's less minor. We call it a significant change.

This has to do with the land use change of the central parcel. The March 2002 ROD established cleanup

standards for the central parcel with the presumption that the central parcel was going to be used for commercial industrial.

A few years after the ROD was issued in June 2007, the town notified the EPA

that it was going to be acquiring the central parcel for further expansion of the Ellsworth Allen Park and they actually acquired it in 2010.

Because of that, we had to go back and revisit the baseline human health risk assessment that we had done for the Record of Decision to see if the cleanup that we completed would also be protective of recreational use for the central parcel.

In September 2011, the town actually zoned the central parcel and western parcel to recreational from light industrial.

The town, in addition to the soil and features cleanup that EPA did, the town decided, made its own initiative to do further enhancement of soil cleanup.

They decided to comply with New York State Department of Environmental Conservation Part 375 standards, some of which are more restrictive, more stringent than some of the standards that we used for EPA cleanup that was completed in

September 2011. So they actually undertook that soil enhancement between 2010 and 2011.

As a result of that, they actually excavated an additional 12,500 cubic yards. That is in addition to the 70,000 cubic yards that we excavated from the site.

So because of what I said earlier, we had to do an update to the baseline risk assessment that we had done for the ROD, and we asked the town to do that update to the original risk assessment under EPA oversight.

In November 2011, last year, we got that update, and we reviewed it thoroughly and based on our review, we determined that the cleanup that had been done under

the ROD is, in fact, protective of the town's intended recreational use for the central parcel.

So the proposed plan that we released a couple of weeks ago, July 12th, would constitute ESD,

rendering EPA approval of the land use change from commercial industrial to recreational use for the central parcel. So the town has gotten EPA's blessing to move forward with their plans to expand the Ellsworth Allen Park for the western and central parcels.

Now I want to get to the main topic of tonight's meeting, Plume B. I said earlier that Plume B is originating from a suspect source, more than likely the former dry cleaning facility located about a thousand feet north of the Liberty site.

In this figure, you see the Liberty site over here and up here is Farmingdale Plaza Cleaners site, which is a New York State Superfund site.

I thought it best for me to give you

a quick and brief history of what we have done with respect to Plume B investigations and response actions that have been conducted to date.

Based on the supplemental RI studies that the PRPs did under EPA oversight back

in 1998, we found this upgradient contamination result in the separate Plume B.

So based on those results, in August 2000, we funded our initial investigation to locate the source of contamination, and then based on all this information that we were gathering from our field effort, New York State DEC listed the Farmingdale Plaza Cleaners site in 2002 on their list of state Superfund sites.

Then, based on these earlier results, in December 2004, we released an interim Plume B investigation report. It wasn't a final or conclusive report. Basically, we recommended in that report that further investigation was needed.

So based on the listing of Farmingdale Plaza Cleaners site on the New York State list in January 2005, the New York State DEC secured funds to do full RI/FS studies at the Farmingdale Plaza Cleaners site.

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New York State DEC has already released two Plume B reports. The first one was in August 2007. That initial Plume B report focused on the Farmingdale Plaza Cleaners property. Then, subsequent to that, they did the first phase, Phase 1 of Plume B groundwater remedial investigation report. That came out in June 2009. That Phase 1 Plume B really focused on the vicinity or downgradient of the Farmingdale Plaza Cleaners site.

So based on those results, New York State DEC decided, with EPA concurrence, that they needed to do Phase 2 Plume B groundwater, focusing on Plume B that is downgradient of the Liberty site.

That Phase 2 Plume B RI work started in July of 2011 and the field work was

completed just a few months ago, March 2011.

As part of all this work on a parallel tract, New York State DEC has also constructed a treatment system at the Farmingdale Plaza property, soil vapor

extraction or SVE treatment system, which is an interim action while they continue on looking at the extent of Plume B and then after that, select a remedy separately for Plume B groundwater.

The SVE system basically employs a network of injection wells that install into the ground usually in the unsaturated zone of the groundwater table and then the system applies a vacuum to these injection wells. As a result of which, the vapors from the organic solvents dissolved in the groundwater gets sucked out and gets treated by the carbon filtration system, usually granulated activated carbon.

So in March 2012, as I said earlier, the Phase 2 Plume B field work completed. The plan is, New York State DEC will

complete the Phase 2 Plume B RI/FS study report by the end of the summer and then based on those results, they will issue a separate Record of Decision on Plume B groundwater. It's going to be a comprehensive Plume B groundwater remedy

and that is projected for completion, issuance by the end of this calendar year, December 2012.

Here are a couple of pictures of the SVE system that I just talked about and this is located on the southern end of the Farmingdale Plaza site property.

Here is the compound. Inside is the treatment system. You see like a GAC component here treating the vacuumed organic vapors.

Finally, getting to the end of my presentation, in the July of 2012 proposed plan, that you all have a copy of, also available posted on EPA Liberty website, we evaluated two alternatives.

The first one is no further action, natural attenuation with long-term

monitoring. Natural attenuation is simply relying on naturally occurring physical processes in groundwater, such as pollution dispersion and degradation of the contaminants so that with time, the levels go down on their own.

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The second one is obviously keeping the Plume B remedial component that we selected in the March 2002 ROD, which is on-property pump-and-treat.

And for both these alternatives, in the costing, we decided that it would make sense to include the cost for ongoing Plume A pump-and-treat.

The Plume A pump-and-treat system has already been constructed, so there is no capital cost; only the annual O&M.

The difference is about $2 million. For no further action, it's about 12 million. For alternative 2, keeping the remedy from the ROD, it would be about $14 million. The difference here is really the capital cost for Plume B pump-and-treat at about $500,000 and the

annual O&M to run the Plume B treatment system, which is about $160,000, and that would run for 20 years.

So this is our preferred remedy. We very closely evaluated both alternatives against the Superfund evaluation criteria,

and after doing our comparative analysis of these two alternatives with respect to the Superfund criteria, we are proposing our preferred alternative to the GW1, no further action, natural attenuation with long-term monitoring.

Finally, I just want to go over what the rationale for this preferred remedy is.

First, as I said earlier, it provides the best balance of tradeoff among the two alternatives with respect to the evaluation criteria. Also, it's protective of human health and environment. It will comply with all the federal and state regulatory requirements and will be cost effective consistent with the NCP.

We have done rounds and rounds of Plume B groundwater sampling over the last nine or ten years and we have found that Plume B levels beneath the Liberty property have declined significantly to near drinking water standards. So it

would not make sense to spend close to $2 million to construct a Plume B treatment system on the property to treat something that is not really there.

Also, as I said earlier, DEC has taken over full investigation of Plume B, which does not originate from the Liberty site, and as part of its investigation, subsequently, DEC will address all of Plume B, including any Plume B remediation, as part of its response action at the Farmingdale Plaza state Superfund site.

Those actions will certainly ensure protectiveness of human health and the environment. We think that it's a very sound, preferred remedy, a ROD amendment that, you know, would make much sense.

As Cecilia said earlier, the comment period is July 12th through August 20th.

That is the end of my presentation.

If anybody has any questions, Sal is the man.

MS. ECHOLS: Does anyone have any

questions? Please stand and state your name.

MS. SMALLBERG: My name is Rebecca Smallberg. My husband and I live in Farmingdale. I have a few questions for you.

First of all, where can we get these reports that you mentioned? Are they available here in the library?

MR. THANTU: It's right here, yes.

MS. SMALLBERG: Also, you mentioned that you've treated a lot of organic substances. What about the inorganic contaminants in the ground?

MR. THANTU: I'm sorry. I forgot to go over that differentiating between Plume A and Plume B. That is the distinction between Plume A and Plume B.

First, Plume B is all organic solvent; primarily PCE, tetrachloroethylene, which is unique to dry cleaners.

Plume A, on the other hand, also has metals contamination, primarily cadmium

and chromium, and its primary volatile organic compound would be trichlorethylene. That is how we have differentiated between Plume A and Plume B. I'm sorry. I apologize.

As I said, historically, they did a lot of metal plating as a result of which, the site ended up being contaminated with cadmium and chromium.

MS. SMALLBERG: Just to clarify, the methods for treating them are different, correct?

MR. THANTU: Correct, yes.

MS. SMALLBERG: So the inorganics are being treated?

MR. THANTU: Actually, the organics are being treated. Inorganics, they are definitely being taken out of the

groundwater, but in the case with the inorganic contamination, we were able to get a permit back in 2004 to discharge metal -- extracted metal-contaminated groundwater to POTW, publicly owned treatment works, because they found out

that the levels of cadmium and chromium that we were extracting from the aquifer were low enough and would be compatible with the treatment system at the POTW. The PRPs are paying good sums of money to the POTW. I think that is the Cedar plant POTW, if I'm correct.

MR. SWARTWOUT: Cedar Creek.

MR. THANTU: Thank you.

We had all those discussions about eight or nine years ago only because, prior to that, we did try to put in a metal treatment tray and we had a lot of problems. We used things like chelation vessels and they kept on getting plugged. We looked for a solution. We found the levels were low enough that Cedar Creek would be willing to take at a price. So

metals are not being treated but the VOCs are.

MS. SMALLBERG: Cedar Creek is taking what?

MR. THANTU: The metal-laden, metal-contaminated portion of the

extracted groundwater.

MS. O'BRIEN: Is it still in the ground, the metals?

MR. THANTU: Yes, the groundwater treatment systems are still running. It's going to be running for years to come.

MS. O'BRIEN: No, but the metals, have the metals been taken out of the ground?

MR. THANTU: Yes.

MS. O'BRIEN: They have been taken out?

MR. THANTU: Oh, yes, definitely.

MS. O'BRIEN: The metals are out?

MR. THANTU: Correct, yes.

MR. BADALAMENTI: They are coming out.

MR. THANTU: Coming out.

Also, I forgot to tell you that when I said earlier that Plume A groundwater treatment system was completed in September 2010, that was really for off-site Plume A, because on-property Plume A, we had that system running much

earlier since 2004.

For all those years, we knew that there was a lot of groundwater contamination and it was taking us a long time to complete the RI/FS and to select a comprehensive remedy.

So we got the PRPs, potentially responsible parties, to agree to constructing an on-property Plume A treatment system back in 1998.

As part of the effort, they tried to install a metals treatment component that I just went over and they had a lot of problems.

After a few years of that, we worked with Nassau County and got a permit to just discharge, extract it, only the metals-contaminated groundwater portion to

the POTW.

Now with respect to the VOC-contaminated groundwater, much of that is being reinjected into the aquifer, which is really good for the aquifer because it alleviates the problem that we

have been having with a low water table. It also replenishes the aquifer. The water we take out that is dirty, we treat it, and then we put back clean water into the aquifer.

MS. SMALLBERG: Just a couple of more questions.

MR. THANTU: Sure.

MS. SMALLBERG: I'm curious if there were any alternatives for the site considered like maybe once it was treated to just plant trees and let the ground rest?

MR. THANTU: You are talking about the 30-acre property? Obviously, the easternmost nine acres are Stop & Shop. The remaining portion is up to the Town of Oyster Bay. I know they have their own

plans. They had some kind of community input meeting a month ago and I think they got a big turnout. So, it's an exciting thing.

MS. SMALLBERG: My last question is, for the alternative that you are

proposing, I think alternative one, have you ever applied that at a similar site and what were the results?

MR. THANTU: Definitely there have been some sites we have called for similar preferred remedy, natural attenuation, but I don't know of any other site where there is also another action being taken by another regulatory agency as is the case here.

Here, you know, we are proposing no further action, natural attenuation with long-term monitoring, while at the same time we know that all the work that EPA would be otherwise doing is being done by New York State DEC because that is really part of a separate response action that they have been taking and will be taking

at the upgradient state Superfund site, Farmingdale Plaza Cleaners site. I don't know of any other similar Superfund site that would fit into that category.

MR. BADALAMENTI: What the proposed plan is actually saying is that there is

going to be no further action on EPA's part to address Plume B because we know the state of New York will be addressing Plume B in the near future.

MS. SMALLBERG: One last question. Is this the extent of the plumes? Have you tested outside of the property? Have they spread further?

MR. BADALAMENTI: We have a lot of wells in the area monitoring the extent of the plume. Plume B is going to be further delineated by the state of New York.

MR. SWARTOUT: Has been.

MR. BADALAMENTI: Or has been. .

MR. SWARTWOUT: Beyond what is shown here, we do have additional data that has been collected over the past year. We are done with the investigation now.

MS. SMALLBERG: Has it spread?

MR. SWARTOUT: Maybe slightly beyond what is shown there. Not a lot. That is pretty close.

MR. THANTU: Yes. Definitely. For the most part, it's, more or less, in the

state of equilibrium.

Don't forget, too, we just took out 70,000 cubic yards plus another 15,000 cubic yards out of source at the Liberty site that is going to have a tremendous beneficial effect on the groundwater contamination problem because there is no more contamination in the soils that could be contributing to migration of contaminants into the aquifer.

So I think, over the years, we are going to see that benefit from that soil features remedial action completion and I think we will be able to tell based on the annual groundwater monitoring that we are going to be doing as part of this no-further-action-preferred remedy.

MR. BADALAMENTI: Plus, the

extraction wells that are in place, the ones near the school and the ones near the tip of the plume, are helping to stabilize and control the plume so it does not spread further.

MR. SWARTOUT: If you want to see me

after the meeting, I can show you a map very similar to this that incorporates in it all of the most recent data that we have collected as part of our Farmingdale study.

MR. THANTU: Also, you asked about where you can find these documents. Not only that they are all here, they are also available in electronic format in DVD disks. We sent them all with the hard copies two weeks ago.

MS. ECHOLS: They are also included on the Liberty Industrial web page.

Any more questions? No more questions? No more concerns? Okay. We are going to end the meeting.

We want to thank everyone for coming tonight. Again, my name is Cecilia

Echols. We are all with the EPA, along with John. He is with the New York State DEC. The public comment period ends on August 20th.

You can always get in touch with Lorenzo or I. I will go to the last

slide. Submit your comments to us if you have any more that haven't been recorded this evening. Thank you for coming.

(Whereupon, the proceedings were concluded at 7:50 p.m.)

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C E R T I F I C A T E

STATE OF NEW YORK)
) ss.
COUNTY OF NEW YORK)

I, Jean Wilm, a Shorthand (Stenotype) Reporter and Notary Public of the State of New York, do hereby certify that the foregoing proceedings, taken at the time and place aforesaid, is a true and correct transcription of said proceedings.

I further certify that I am neither counsel for nor related to any party to said action, nor in any wise interested in the result or outcome thereof.

IN WITNESS WHEREOF, I have hereunto set my hand this 30th day of

July, 2012.

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JEAN WILM, RPR, CMRS, CLR

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