

Division of Environmental Remediation

Record of Decision
NYSEG Lockport State Road Site
Lockport, Niagara County, New York
Site Number 9-32-109

March 2007

DECLARATION STATEMENT - RECORD OF DECISION

NYSEG Lockport State Road Site Lockport, Niagara County, New York Site No. 9-32-109

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedy for the NYSEG Lockport State Road site. The selected remedial program was chosen in accordance with the New York State Environmental Conservation Law and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the NYSEG Lockport State Road site, and the public's input to the Proposed Remedial Action Plan (PRAP) presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Assessment of the Site

Actual or threatened releases of hazardous waste constituents from this site, if not addressed by implementing the response action selected in this ROD, presents a current or potential significant threat to public health and/or the environment.

Description of Selected Remedy

Based on the results of the Remedial Investigation and Feasibility Study (RI/FS) for the NYSEG Lockport State Road site and the criteria identified for evaluation of alternatives, the Department has selected fencing, soil cover and institutional controls. The components of the remedy are as follows:

- Appropriate cover would be provided on the level, upper portion of the site. The one foot thick cover would consist of crushed stone or similar material, underlain by a demarcation layer to identify the original surface soil.
- Development of a site management plan to:(a) address residual contaminated soils that may be excavated from the site during future redevelopment. The plan would require soil characterization and, where applicable, disposal/reuse in accordance with NYSDEC regulations; (b) evaluate the potential for vapor intrusion for any buildings developed on the site, including provision for mitigation of any impacts identified; (c) identify any use restrictions; and (d) provide for the operation and maintenance of the components of the remedy.

- Imposition of an institutional control in the form of an environmental easement that would (a) require compliance with the approved site management plan; (b) limit the use and development of the property to commercial or industrial uses only; (c) require the property owner to complete and submit to the NYSDEC periodic certification..

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy selected for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

MAR 30 2007

Date



Dale A. Desnoyers, Director
Division of Environmental Remediation

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RECORD OF DECISION

NYSEG Lockport State Road Site Lockport, Niagara County, New York Site No.9-32-109 March 2007

SECTION 1: SUMMARY OF THE RECORD OF DECISION

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected this remedy for the NYSEG Lockport State Road Site. As more fully described in Sections 3 and 5 of this document, operations at the former coal tar processing facility and gas holder have resulted in the disposal of hazardous wastes, including coal tar, which contains chemicals including polycyclic aromatic hydrocarbons (PAHs) and benzene, toluene, ethylbenzene, and xylene (BTEX). These wastes have contaminated the soils at the site, and have resulted in:

- a potential threat to human health associated with potential exposure to surface soil.
- a potential threat to the environment associated with potential erosion of contaminated soils into the adjacent canal.

To eliminate or mitigate this threat, the Department has selected providing one foot of soil/gravel cover on the site and institutional controls.

The selected remedy, discussed in detail in Section 8, is intended to attain the remediation goals identified for this site in Section 6. The remedy must conform with officially promulgated standards and criteria that are directly applicable, or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, criteria and guidance are hereafter called SCGs.

SECTION 2: SITE LOCATION AND DESCRIPTION

The NYSEG Lockport State Road Site is located in the City of Lockport in Niagara County. The site is located on a 2.1 acre parcel, just north of the newly constructed High Street bridge, between State Road and the New York State Barge Canal. The eastern portion of the site, along State Road, is occupied by a natural gas regulator station and an associated gravel parking area. The remainder of the site is heavily wooded and slopes steeply down to the banks of the Barge Canal.

The site location is shown on Figure 1. The NYSEG Transit Street MGP Site (Site No.9-32-098) is located north and east of this site and is also shown on Figure 1.

The site is covered by 5 to 22 feet of fill material. The fill includes generally consists of silt and sand, but also includes anthropogenic materials including deposits of ash, slag, cinders. These

materials are common in historic, urban fill, and are not necessarily site related. The fill material generally extends downward to bedrock, but in some areas a native silty sand was noted underlying the fill. The underlying bedrock consists of dolomite and shale layers.

The site is immediately adjacent to the New York State Barge Canal, which, at this location, is cut into bedrock to a depth approximately 45 feet below the ground surface at State Road.

Groundwater (both shallow and deep) flows generally north and west across the site toward the canal. The water level in the canal is raised and lowered seasonally. While the flow direction remains toward the canal throughout the year, the gradient changes significantly with these variations in canal elevation.

SECTION 3: SITE HISTORY

3.1: Operational/Disposal History

The State Road Tar Works operated from approximately 1900 to 1911 as a processing plant for tar generated at the Transit Street former MGP Site. The Transit Street MGP (currently occupied by a NYSEG electrical substation) is located approximately 700 feet northeast of the State Road Site and is being investigated separately as Site No. 9-32-109.

The State Road site included a 500,000 cubic foot gas holder, tar tanks, a tar still, a warehouse and office. These buildings were demolished between 1948 and 1969. Historic structures are shown on Figure 2.

3.2: Remedial History

Previous investigations of this site include a 1990 Site Screening and additional sampling conducted in 2000 associated with an interim remedial measure (IRM) to support the construction of the High Street Bridge. Construction of this bridge required excavation of contaminated soils in areas on and near the site.

The site screening investigation included the collection of three surface water samples, three sediment samples, and five surface soil samples. No MGP-related contamination was noted in the sediment or surface water. One of the surface soil samples (SS-05) did contain MGP related contamination at levels above guidance levels, with total carcinogenic PAHs of 109.5 parts per million (ppm). This sample was collected from a location where visible purifier waste was observed (iron impregnated wood chips which were used to remove impurities from the gas after production). This material was not present during subsequent site visits.

Four surface soil samples and 45 subsurface soil samples were collected and submitted for analysis in 2000 in association with the High Street Bridge IRM. Total PAH levels in the surface soil samples ranged from 6 to 8 ppm. Subsurface soil PAHs ranged from 0.2 to 1,103 ppm.

The IRM involved the removal of contaminated material in the vicinity of the High Street Bridge construction project. From July 21 to August 12, 2003, approximately 4,500 tons of soil was removed and transported to Modern Landfill in Lewiston, NY for disposal. Coal tar was observed in one location during the IRM as shown in Figure 3. Petroleum contamination unrelated to this site was also identified during this work, and is being addressed separately as NYSDEC Spill #0375238. Other than the one area of coal tar, locations where screening samples showed elevated levels of PAHs were generally observed to contain fill material including ash and cinders. This material exhibited some moderate odors but did not exhibit elevated levels of VOCs.

SECTION 4: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The Department and the New York State Electric and Gas Corporation (NYSEG) entered into a Consent Order on March 30, 1994. The Order obligates NYSEG to investigate and, where necessary, remediate 33 former MGP sites in their service area. The Lockport State Road Site is one of the sites included in the multi-site order.

SECTION 5: SITE CONTAMINATION

A remedial investigation/feasibility study (RI/FS) has been conducted to evaluate potential threats to human health and the environment.

5.1: Summary of the Remedial Investigation

The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. RI fieldwork was conducted between January 2005 and June 2005. The field activities and findings of the investigation are described in the RI report.

During the RI, soil borings and wells were used to delineate and characterize the soils, bedrock and groundwater in the subsurface at the site. Sediment cores were collected from the adjacent canal. Environmental samples were collected from the surface and subsurface soil, sediment, groundwater and surface water. These samples were analyzed for the contaminants typically found in coal tar and other MGP wastes.

5.1.1: Standards, Criteria, and Guidance (SCGs)

To determine whether the soil and groundwater contain contamination at levels of concern, data from the investigation were compared to the following SCGs:

- Groundwater and surface water SCGs are based on the Department's "Ambient Water Quality Standards and Guidance Values" and Part 5 of the New York State Sanitary Code.

- Soil SCGs are based on the Department's Cleanup Objectives ("Technical and Administrative Guidance Memorandum [TAGM] 4046; Determination of Soil Cleanup Objectives and Cleanup Levels." and 6 NYCRR Subpart 375-6 - Remedial Program Soil Cleanup Objectives).
- Sediment SCGs are based on the Department's "Technical Guidance for Screening Contaminated Sediments."

Based on the RI results, in comparison to the SCGs and potential public health and environmental exposure routes, certain media and areas of the site require remediation. These are summarized in Section 5.1.2. More complete information can be found in the RI report.

5.1.2: Nature and Extent of Contamination

This section describes the findings of the investigation for all environmental media that were investigated.

As described in the RI report, many soil and groundwater samples were collected to characterize the nature and extent of contamination. As summarized in Table 1, the main category of contaminants which exceed their SCGs are semivolatile organic compounds (SVOCs). The specific semivolatile organic compounds of concern in soil and groundwater are the following polycyclic aromatic hydrocarbons (PAHs):

acenaphthene	pyrene	<i>benzo(a)pyrene</i>
acenaphthylene	<i>indeno(1,2,3-cd) pyrene</i>	<i>benzo(a)anthracene</i>
anthracene	<i>chrysene</i>	<i>benzo(b)fluoranthene</i>
<i>dibenzo(a,h)anthracene</i>	fluorene	<i>benzo(k)fluoranthene</i>
phenanthrene	naphthalene	<i>benzo(g,h,i)perylene</i>
fluoranthene	2-methylnaphthalene	

PAH concentrations referred to in this document are the summation of the individual PAHs listed above (i.e., total PAHs or tPAHs). The italicized PAHs are probable human carcinogens.

Figure 4-6 and Table 1 summarize the degree of contamination for the contaminants of concern in soil, groundwater, sediment and surface water and compare the data with the SCGs for the site. The following are the media which were investigated and a summary of the findings of the investigation.

Waste Materials

Coal tar was observed visually at two locations: at BMW-04-04 and in an IRM excavation near the canal.

At monitoring well BMW-04-04, coal tar was observed in bedrock fractures at 19.4 and 19.7 feet below ground surface. The location of this well is shown on Figure 4. Coal tar odors were noted from that point to the bottom of the boring at 30 feet. Despite the presence of this visible

contamination, no volatile or semi-volatile organic chemicals were detected in groundwater samples from this well.

The final engineering report for the IRM notes coal tar was observed during the excavation activities in the overburden closest to the canal. Aerial photos taken during the bridge construction show that this area was extensively excavated well beyond the area of concern. No additional coal tar observations were reported.

During past site visits, small amounts of purifier waste were observed on the ground surface. However, during the subsequent RI field work, no purifier waste was observed in either the surface or subsurface.

Waste identified prior to the RI/FS was addressed during the IRM described in Section 3.2. Waste identified during the RI/FS will be addressed in the remedy selection process.

Surface Soil (0-2 inches)

Surface soil PAH levels ranged from 4 to 151 ppm. No VOCs were detected at levels above applicable SCGs. Based on the results of the RI and observations made during the IRM, it appears that the PAHs observed are associated with historic, urban fill and not site-related activities.

Subsurface Soil

Subsurface soil PAH levels ranged from non-detect to 1,103 ppm. No VOCs were detected at levels above applicable SCGs. Subsurface soil contamination identified during the RI/FS will be addressed in the remedy selection process.

Groundwater

No site-related groundwater contamination of concern was identified during the RI/FS. Therefore, no remedial alternatives need to be evaluated for groundwater.

Surface Water and Sediment

PAH levels in sediments adjacent to this site were below the screening level of 4 ppm. No site related VOCs or SVOCs were detected in surface water samples.

No remediation of sediments or surface water is necessary relative to this site. However, sediment downstream of this site appears to be impacted by contamination from the NYSEG Lockport Transit Street Site (9-32-098), and will be addressed as part of the remedy for that site.

5.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS.

A soil removal IRM was conducted during construction of the High Street Bridge, prior to the RI/FS. There were no additional IRMs performed at this site during the RI/FS.

5.3: Summary of Human Exposure Pathways:

This section describes the types of human exposures that may present added health risks to persons at or around the site. A more detailed discussion of the human exposure pathways can be found in Section 6 of the RI report. An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has five elements: [1] a contaminant source, [2] contaminant release and transport mechanisms, [3] a point of exposure, [4] a route of exposure, and [5] a receptor population.

The source of contamination is the location where contaminants were released to the environment (any waste disposal area or point of discharge). Contaminant release and transport mechanisms carry contaminants from the source to a point where people may be exposed. The exposure point is a location where actual or potential human contact with a contaminated medium may occur. The route of exposure is the manner in which a contaminant actually enters or contacts the body (e.g., ingestion, inhalation, or direct contact). The receptor population is the people who are, or may be, exposed to contaminants at a point of exposure.

An exposure pathway is complete when all five elements of an exposure pathway exist. An exposure pathway is considered a potential pathway when one or more of the elements currently does not exist, but could in the future.

At this site, limited contamination exists in surface and subsurface soils. For a complete exposure pathway to occur, persons would have to come into contact with the contaminated soil. Exposure to this media could occur through excavation activities at the site. Because most of the site is fenced, the only current potential pathway of exposure is for utility workers who may enter on-site utility trenches during repair or replacement activities. The potential pathway is:

- Dermal (skin) contact with contaminated soils.

The site is located in a mixed residential and commercial area and is not readily accessible to the general public or employees of adjacent businesses. No groundwater contamination was identified during the RI/FS. In addition, public water serves the area; therefore, ingestion of contaminated groundwater is unlikely. Completed pathways may occur in the future for utility workers or site workers during subsurface construction activities. Existing potential exposure pathways require remediation and/or controls.

5.4: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts include existing and potential future exposure pathways to fish and wildlife receptors, as well as damage to natural resources such as aquifers and wetlands.

The Fish and Wildlife Impact Analysis, which is included in the RI report, presents a detailed discussion of the existing and potential impacts from the site to fish and wildlife receptors.

The following environmental exposure pathways and ecological risks have been identified:

- The potential for contaminated surface and subsurface soil to be eroded and deposited as sediment in the adjacent canal. Samples from the area of the canal receiving drainage from the site do not currently contain elevated levels of contaminants; therefore this exposure pathway is not currently completed.

SECTION 6: SUMMARY OF THE REMEDIATION GOALS

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. At a minimum, the remedy selected must eliminate or mitigate all significant threats to public health and/or the environment presented by the hazardous waste disposed at the site through the proper application of scientific and engineering principles.

The remediation goals for this site are to eliminate or reduce to the extent practicable:

- exposures of persons at or around the site to PAHs in surface and subsurface soil;
- environmental exposures of flora or fauna to PAHs in surface and subsurface soil;

SECTION 7: SUMMARY OF THE EVALUATION OF ALTERNATIVES

The selected remedy must be protective of human health and the environment, be cost-effective, comply with other statutory requirements, and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. The Final Remedial Investigation Report, which is available at the document repositories established for this site, concluded that no active remediation is needed at this site, but that institutional and engineering controls should be evaluated to address residual contamination.

A summary of the institutional and engineering controls that were considered for this site is provided below. The present worth represents the amount of money invested in the current year that would be sufficient to cover all present and future costs associated with the alternative. This enables the costs of remedial alternatives to be compared on a common basis. As a convention, a time frame of 30 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance, or monitoring would cease after 30 years if remediation goals are not achieved.

7.1: Description of Remedial Alternatives

The following potential remedies were considered to address the contaminated surface and subsurface soils at the site.

Alternative 1: No Action

Present Worth: \$0
Capital Cost: \$0
Annual Costs:
Years 1-30: \$0

The No Action Alternative is evaluated as a procedural requirement and as a basis for comparison. It would allow the site to remain in an unremediated state. This alternative would leave the site in its present condition and would not provide any additional protection to human health or the environment.

Alternative 2: Soil Cover and Institutional Controls

Present Worth: \$70,000
Capital Cost: \$40,000
Annual Costs:
Years 1-30: \$2,000

A 1 foot soil/gravel cover would be provided to isolate elevated PAHs in the sub-surface soil along the level, upper area of the site. The site would be inspected periodically by a qualified environmental professional who would certify that the cover material is in place.

7.2 Evaluation of Remedial Alternatives

The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375, which governs the remediation of inactive hazardous waste disposal sites in New York. A detailed discussion of the evaluation criteria and comparative analysis is included in the FS report.

The first two evaluation criteria are termed “threshold criteria” and must be satisfied in order for an alternative to be considered for selection.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative’s ability to protect public health and the environment.

2. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the Department has determined to be applicable on a case-specific basis.

The next five “primary balancing criteria” are used to compare the positive and negative aspects of each of the remedial strategies.

3. Short-term Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation

are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

4. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the engineering and/or institutional controls intended to limit the risk, and 3) the reliability of these controls.

5. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

6. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

7. Cost-Effectiveness. Capital costs and annual operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although cost-effectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision. The costs for each alternative are presented in Table 2.

This final criterion is considered a “modifying criterion” and is taken into account after evaluating those above. It is evaluated after public comments on the Proposed Remedial Action Plan have been received.

8. Community Acceptance - Concerns of the community regarding the RI/FS reports and the PRAP have been evaluated. The responsiveness summary (Appendix A) represents the public comments received and the manner in which the Department addressed the concerns raised. City officials and the public submitted comments regarding the perimeter fence included in the proposed alternative. There was a concern that the proposed fencing would be unsightly and could inhibit the development of open space along the canal.

To address this concern, the potential for exposure associated with surface soils at the site was reevaluated. Access to the area in question is restricted by the steep slope, heavy vegetation and the existing fencing (which will remain). Currently there is little or no foot or vehicular traffic in this area. In addition, the PAHs in surface soils appear to be related to historic urban fill and not to site-related activities. The levels seen in this area are consistent with levels which would be expected to be present elsewhere in the City and along the Canal. Based on this reassessment, it has been decided that the fence will not be required.

SECTION 8: SUMMARY OF THE SELECTED REMEDY

The Department has selected Alternative 2: Soil Cover and Institutional Controls as the remedy for this site. The elements of this remedy are described at the end of this section.

The selected remedy is based on the results of the RI and the evaluation of alternatives presented herein.

Alternative 2 is being proposed because, as described below, it satisfies the threshold criteria and provides the best balance of the primary balancing criteria described in Section 7.2. It would achieve the remediation goals for the site by limiting exposure to impacted subsurface soil and providing on-going monitoring of the site.

The estimated present worth cost to implement the remedy is \$70,000. The cost to construct the remedy is estimated to be \$40,000 and the estimated average annual costs for 30 years is \$2,000.

The elements of the proposed remedy are as follows:

1. Appropriate cover will be placed on the level, upper portion of the site. The one foot thick cover will consist of crushed stone or similar material, underlain by a demarcation layer to identify the original surface soil. The area within the existing fence, which is to remain to protect NYSEG infrastructure, is already covered with crushed stone. The amount of additional cover material necessary will be determined as part of the design process.
2. Development of a site management plan to:(a) address residual contaminated soils that may be excavated from the site during future redevelopment. The plan will require soil characterization and, where applicable, disposal/reuse in accordance with NYSDEC regulations; (b) evaluate the potential for vapor intrusion for any buildings developed on the site, including provision for mitigation of any impacts identified; (c) identify any use restrictions; and (d) provide for the operation and maintenance of the components of the remedy.
3. Imposition of an institutional control in the form of an environmental easement that will (a) require compliance with the approved site management plan; (b) limit the use and development of the property to commercial or industrial uses only; (c) require the property owner to complete and submit to the NYSDEC periodic certification.

The property owner will provide a periodic certification, prepared and submitted by a professional engineer or such other expert acceptable to the NYSDEC, until the NYSDEC notifies the property owner in writing that this certification is no longer needed. This submittal will contain certification that the institutional controls are still in place, allow the NYSDEC access to the site, and that nothing has occurred that would impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the site management plan. Any evidence of foot or vehicle traffic will be reported, as will any indication of erosion. If evidence of foot or vehicular traffic is reported, or if changes of land use significantly increase the potential for public access to this site,

then the NYSDEC and NYSDOH will assess whether there is a need for a fence to limit access. Any fence determined necessary would be erected and maintained in compliance with all applicable City codes and/or zoning requirements that apply to such fences.

SECTION 9: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the remedial investigation process, a number of Citizen Participation activities were undertaken to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

1. Repositories for documents pertaining to the site were established.
2. A public contact list, which included nearby property owners, elected officials, local media and other interested parties, was established.
3. A public meeting was held on February 22, 2007 to present and receive comment on the PRAP.
4. A responsiveness summary (Appendix A) was prepared to address the comments received during the public comment period for the PRAP.

TABLE 1
Nature and Extent of Contamination
November 1991-May 2005

SURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm)^a	SCG^b (ppm)^a	Frequency of Exceeding SCG
Semivolatile Organic Compounds (SVOCs)	PAHs (BAP Toxicity Equivalence)	ND-21	1.0	10 of 14
	Total Carcinogenic PAHs	ND- 74.9	10	9 of 14

SUBSURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm)^a	SCG^b (ppm)^a	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	Benzene	ND-.004	.06	0 of 47
	Toluene	ND-.02	1.5	0 of 47
	Ethylbenzene	ND-.028	5.5	0 of 47
	Xylene	ND-.042	1.2	0 of 47
Semivolatile Organic Compounds (SVOCs)	Total PAHs	ND - 1,103	500	2 of 47

SEDIMENTS	Contaminants of Concern	Concentration Range Detected (ppm)^a	SCG^b (ppm)^a	Frequency of Exceeding SCG
Semivolatile Organic Compounds (SVOCs)	Total PAHs	0.2 - 3.8	4 ppm	0 of 4

GROUNDWATER	Contaminants of Concern	Concentration Range Detected (ppb)^a	SCG^b (ppb)^a	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	Benzene	ND	1	0 of 5
	Toluene	ND	5	0 of 5
	Ethylbenzene	ND	5	0 of 5
	Xylene	ND	5	0 of 5
Semivolatile Organic Compounds (SVOCs)	Total PAHs	ND	N/A	0 of 5

SURFACE WATER	Contaminants of Concern	Concentration Range Detected (ppb)^a	SCG^b (ppb)^a	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	Benzene	ND		0 of 5
	Toluene	ND		0 of 5
	Ethylbenzene	ND		0 of 5
	Xylene	ND		0 of 5
Semivolatile Organic Compounds (SVOCs)	Total PAHs	ND	---	NA

^a ppb = parts per billion, which is equivalent to micrograms per liter, ug/L, in water;
ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
ug/m³ = micrograms per cubic meter

^b SCG = standards, criteria, and guidance values;

^c LEL = Lowest Effects Level and SEL = Severe Effects Level. A sediment is considered to be contaminated if either of these criteria is exceeded. If both criteria are exceeded, the sediment is severely impacted. If only the LEL is exceeded, the impact is considered to be moderate.

ND = Not Detected

NA = Not Applicable

Table 2
Remedial Alternative Costs

Remedial Alternative	Capital Cost (\$)	Annual Costs (\$)	Total Present Worth (\$)
No Action	0	0	0
Soil Cover and Institutional Controls	\$40,000	\$2,000	\$70,000

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

NYSEG Lockport State Road Site Lockport, Niagara County, New York Site No. 9-32-109

The Proposed Remedial Action Plan (PRAP) for the NYSEG Lockport State Road site, was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 9, 2007. The PRAP outlined the remedial measure proposed for the contaminated soil at the NYSEG State Road site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on February 22, 2007, which included a presentation of the Remedial Investigation (RI) and the Feasibility Study (FS) as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 9, 2007.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the Department's responses:

COMMENT 1: We in the City of Lockport are concerned that a fence would be extremely aesthetically unpleasing. What kind of fence would be provided? What would it look like? Will it be properly maintained or will it be allowed to fall into disrepair? Is this remedy written in stone, or is there the possibility to change it? Can our comments influence the outcome?

RESPONSE 1: As a result of the comments received, the ROD has been modified. The fencing will not be provided unless use of the area changes in such a way as to necessitate it. Currently, site access is restricted by the existing fence, the steep slope, and the lack of public use of the area. Since there is presently no sign of trespass onto the site, there is not an immediate need to expand the fence at this location. As stated in the PRAP, NYSEG will be required to periodically check the site and "Any evidence of foot or vehicle traffic will be reported." If evidence of foot or vehicle or traffic is reported, or if changes of use significantly increase the potential for public access to this site, then the NYSDEC and NYSDOH will assess whether there is a need to limit access to the site by means of a fence. Any such fence would be erected and maintained in compliance with all applicable City codes and/or zoning requirements that apply to fences. If fencing is deemed necessary in the future, the fence would be erected and maintained in compliance with all applicable City codes and/or zoning requirements that apply to such fences. If a fence is eventually required, the DEC would include a requirement for periodic inspection and maintenance of the fence by NYSEG.

COMMENT 2: Why not truly clean up the site and get rid of the contamination found there instead of just fencing it in? Trees in the wooded area could be replanted and the site could be made to look much nicer. Fencing doesn't seem like the most effective long-term remedy. I am not in favor of the fence, and would

rather see the area cleaned up fully and not just boxed in. How did you make the decision to fence as the remedy, what factors were you considering? What are other cleanup options for this site besides fencing?

RESPONSE 2: The only remaining coal tar at the site is a thin coating in two bedrock fractures which are approximately 20 feet below ground surface. This tar is not impacting the groundwater and does not represent a threat of exposure to public health or an impact to the environment. No action is needed for that deeply buried contamination.

The fencing and soil cover were proposed in the PRAP to limit direct contact with elevated PAHs in the historic fill at or near the ground surface. Historic fill material of this nature is not associated with the manufactured gas residuals which were processed at this site, and could be found throughout the City of Lockport and other industrialized cities. Other properties along the Canal in Lockport would be expected to have similar levels of PAHs. Based on the investigation of this site, there is no basis to require excavation of this material.

COMMENT 3: If the site were to be fully cleaned up (contaminants excavated), then could the footprint of the existing NYSEG fence be reduced?

RESPONSE 3: No. The fence currently in place is solely for the purpose of protecting NYSEG facilities, and the cleanup would have no impact on this current fence

COMMENT 4: What prompted investigation work at this site?

RESPONSE 4: During a search of gas plant operations in the state, historic records showed the existence of the plant.

COMMENT 5: When did IRM excavation work take place?

RESPONSE 5: During the summer of 2003, concurrent with preparations for the construction of the new High Street bridge.

COMMENT 6: What is the history of the substation?

RESPONSE 6: The substation was the location of the Transit Street manufactured gas plant (Site 9-32-098), which operated from 1851 until to 1927. This plant manufactured a combustible gas made from coal (1851-1927) and petroleum(1910 - 1927).

COMMENT 7: The coal tar associated with the NYSEG Transit Street MGP Site (9-32-098) that can be seen seeping through the rock strata under the bridge...how toxic is that to people? Is that a risk to the homeless people who sleep under the bridge?

RESPONSE 7: The tar is only on the vertical wall of the canal, and is not readily accessible. Therefore, there is no current exposure potential.

COMMENT 8: The Mayor and Common Council of the City of Lockport do not seem to be aware of this project.

RESPONSE 8:As part of the Citizen Participation efforts, they were provided with copies of the fact sheet announcing the release of the PRAP and the public meeting.

John S. Lobczowski submitted a letter dated March 2, 2007 which included the following comment:

COMMENT 9: I am concerned about the 2.1 acre parcel north of the Stevens Street Bridge. Have it cleaned up, now, for later it will cost you more. If it's black top waste that can be recycled don't cover it up.

RESPONSE 9: As more fully discussed in Response 2, the remedial investigation of this site indicates that this site does not represent a current threat to human health or the environment. Excavation of this site is not justified based on the results of this investigation.

Robert B. Roskopf submitted a letter dated March 2, 2007 which included the following comment:

COMMENT 10: I object to the State proposal addressing soil pollution and favor the removal and replacement of the contaminated soil in the 2.1 acre parcel of land north of the Stevens Street Bridge

RESPONSE 10: Please refer to Responses 2 and 9.

Lockport Mayor Michael W. Tucker submitted a letter dated March 5, 2007 which included the following comment:

COMMENT 11: The City is opposed to the extension of the fence on the NYSEG property. We have recently finished and taken part of the dedication of the new bridge located at State and Stevens streets. We are actively pursuing a redevelopment plan for that area.

RESPONSE 11: As per Response 1, the ROD has been modified. The fencing will not be provided unless use of the area changes in such a way as to necessitate it. In addition, note that the fence currently in place is to protect NYSEG's critical infrastructure. NYSEG has indicated that they would be unlikely to permit recreational use of their property, since the infrastructure would represent an "attractive nuisance" and this could create a significant liability for the company and potential hazard to trespassers. Any redevelopment that increases the recreational traffic could necessitate the expansion of the current fence.

Richard P. Mullaney, Lockport City Clerk provided a memo dated March 8, 2007 recording that the City of Lockport Common Council adopted a resolution on March 7, 2007 indicating the following:

COMMENT 12: The Common Council of the City of Lockport has resolved is opposed to the extension of a fence with warning signs at the New York State Electric & Gas Company's property on State Rd. Near the recently completed Stevens St. Bridge, and recommends the removal of the contaminated soil to remedy the contaminated property.

RESPONSE 12: Refer to Responses 1 and 2.

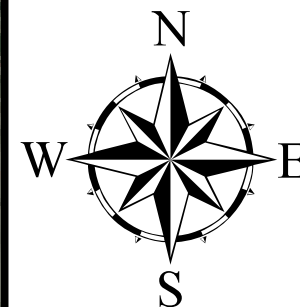
APPENDIX B

Administrative Record

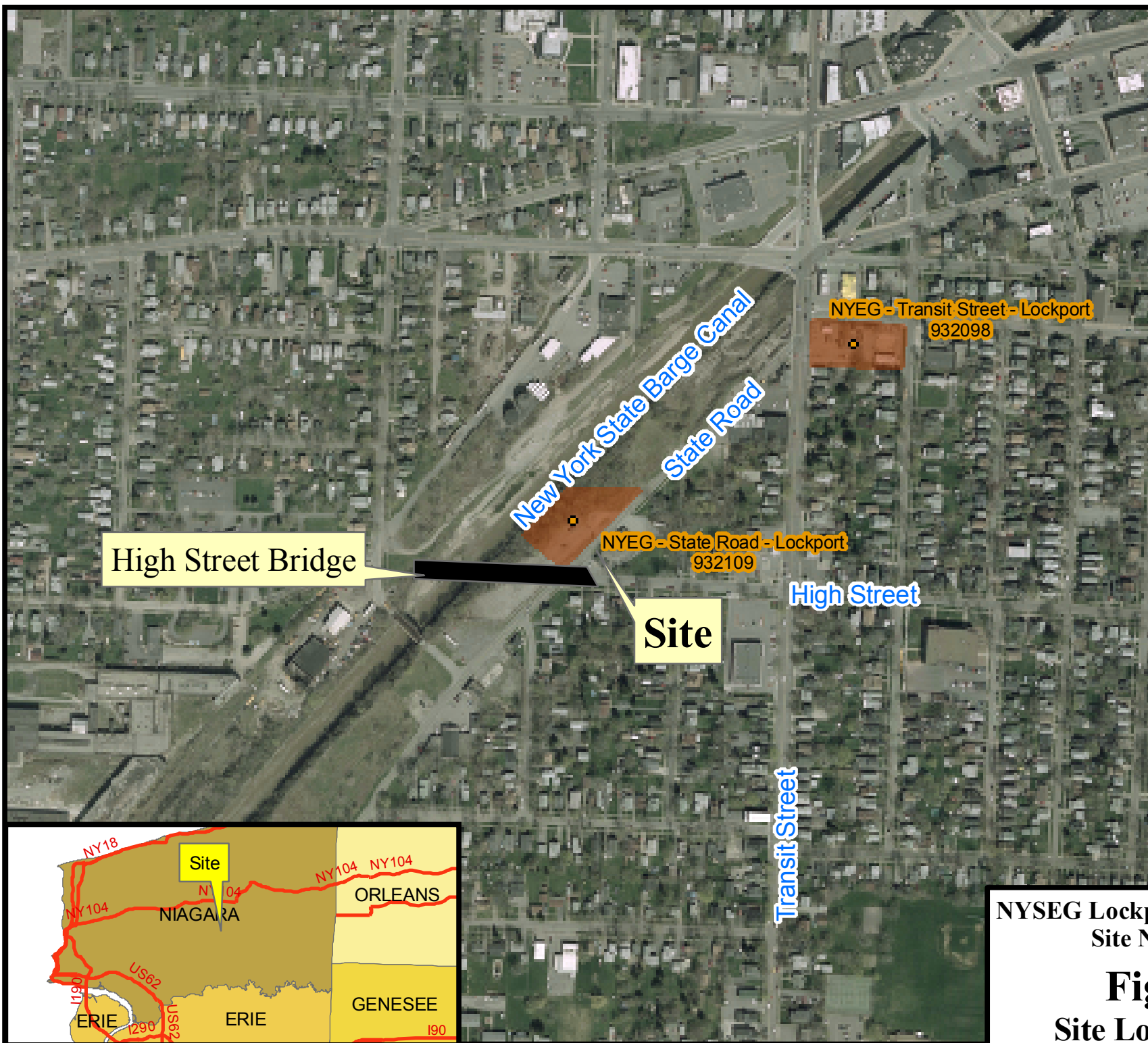
Administrative Record

NYSEG Lockport State Road Site Site No. 9-32-109

1. Proposed Remedial Action Plan for the NYSEG Lockport State Road Site, dated February 2007, prepared by the Department.
 2. Order on Consent, Index No. DO-0002-9309, between the Department and New York State Electric and Gas, executed on March 30, 1994.
 3. Remedial Investigation Report, NYSEG State Road Site, dated September 2006, prepared by URS Corporation.
 4. Fact sheet, "Remedial Investigation Lockport Manufactured Gas Plant Sites" dated November 2004
 5. Fact sheet, "Remedy Proposed for the NYSEG Lockport State Road Site" dated February 2004
 6. Letter dated March 2, 2007 from John S. Lobczowski
 7. Letter dated March 2, 2007 from Robert B. Roskopf
 8. Letter dated March 5, 2007 from Michael W. Tucker, Mayor, City of Lockport
 9. Resolution dated March 7, 2007 from the Common Council of the City of Lockport
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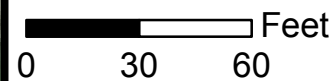
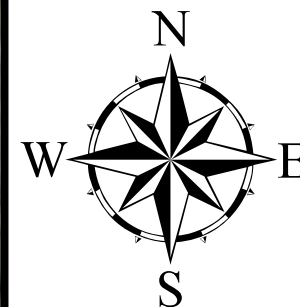


0 262.5 525 Feet



NYSEG Lockport State Road Site
Site No. 9-32-109

Figure 1
Site Location Map



NYSEG Lockport State Road Site
Site No. 9-32-109

Figure 2
Historic Structures



Areas excavated during the IRM was limited to those locations identified as contaminated during the investigation which preceeded the IRM. The full extent of excavation during subsequent DOT work is shown in Figure 4.

Dates shown indicate when that area was excavated during the IRM.



Legend

■ Samples

IRM Excavation

■ Ash and tar

■ Ash

■ Petroleum contamination

■ Visually Clean

irm_data

PAHs

● 1 - 5

● 6 - 50

● 51 - 100

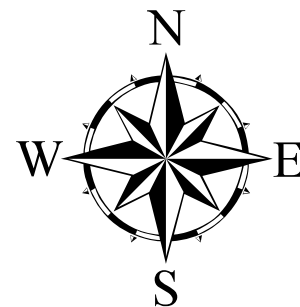
● 101 - 500

● 501 - 1103

0 40 80 Feet

NYSEG Lockport State Road Site
Site No. 9-32-109

Figure 3
Interim Remedial Measure



Legend

Area Excavated by DOT

MGP Structures

Wells

Borings - Total PAHs

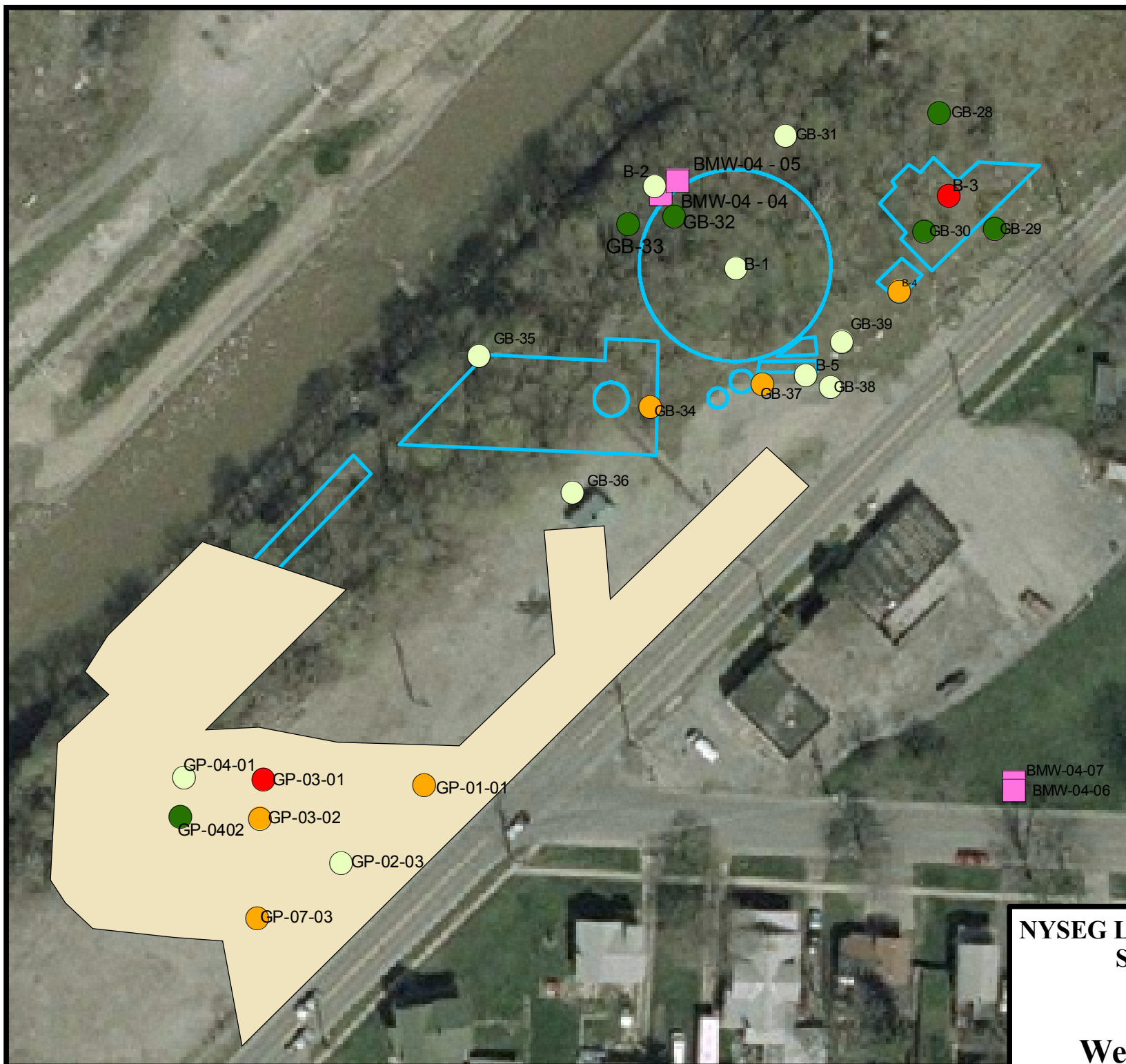
0 - 20

21 - 100

101 - 500

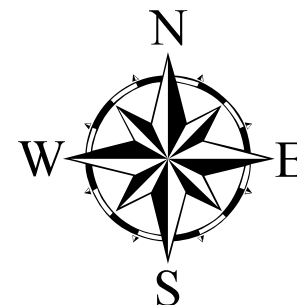
501 - 12089

Feet
0 45 90



**NYSEG Lockport State Road Site
Site No. 9-32-109**

**Figure 4
Wells and Borings**



Legend

 MGP Structures

Surface Soil PAHs

 0 - 10

 11 - 30

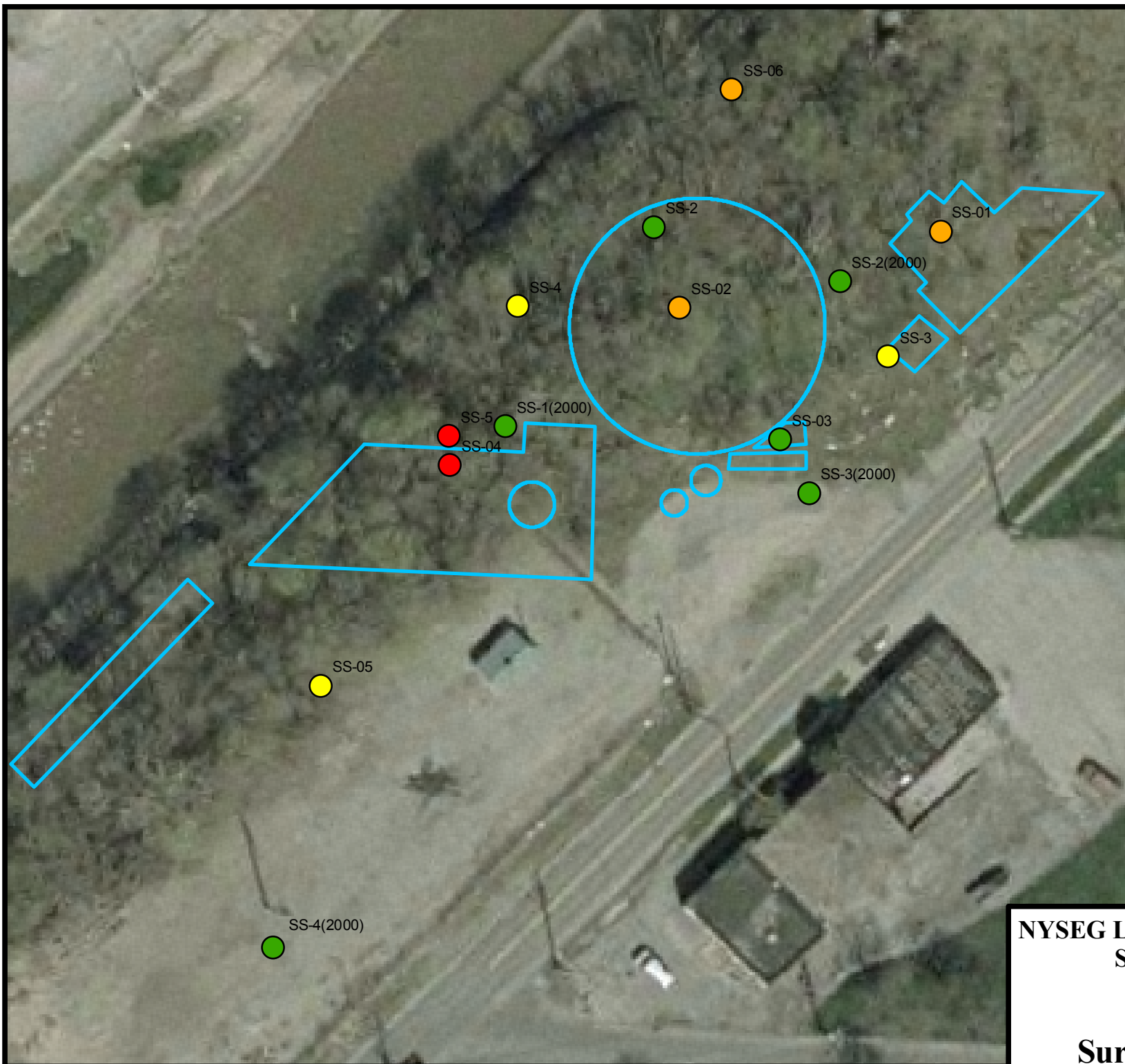
 31 - 90

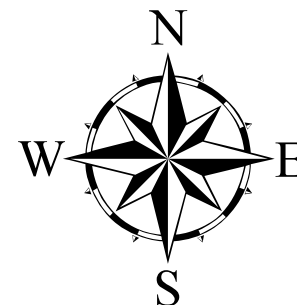
 91 - 169

 Feet
0 37.5 75

NYSEG Lockport State Road Site
Site No. 9-32-109

Figure 5
Surface Soil PAHs





Legend

MGP Structures

Sediment

PAHS

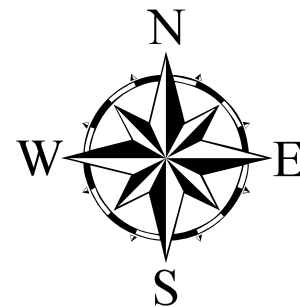
- < 4 ppm
- 4 - 20 ppm
- >20 ppm
- Surface_Water

Feet
0 135 270



NYSEG Lockport State Road Site
Site No. 9-32-109

Figure 6
Surface Water and Sediment Sampling



Legend

- Soil Cover
- Area excavated during IRM
- MGP Structures
- Extended Road

Subsurface Soil PAHs

- 0 - 5
- 6 - 50
- 51 - 100
- 101 - 500
- 501 - 12089

0 55 110 Feet

NYSEG Lockport State Road Site
Site No. 9-32-109

Figure 7
Soil Cover

