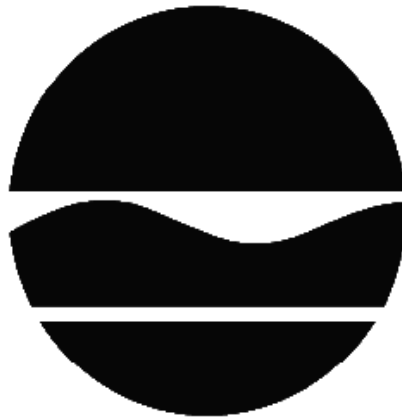


PROPOSED REMEDIAL ACTION PLAN

NYEG - Jackson St. - Penn Yan MGP
Penn Yan, Yates County
Site No. 862008
February 2011



Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

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SECTION 1: SUMMARY AND PURPOSE OF THE PROPOSED PLAN

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), is proposing a remedy for the above referenced site. The disposal of hazardous wastes at the site has resulted in threats to public health and the environment that would be addressed by the remedy proposed by this Proposed Remedial Action Plan (PRAP). The disposal of hazardous wastes at this site, as more fully described in Section 6 of this document, has contaminated various environmental media. The proposed remedy is intended to attain the remedial action objectives identified for this site for the protection of public health and the environment. This PRAP identifies the preferred remedy, summarizes the other alternatives considered, and discusses the reasons for the preferred remedy.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York; (6 NYCRR) Part 375. This document is a summary of the information that can be found in the site-related reports and documents in the document repository identified below.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all PRAPs. This is an opportunity for public participation in the remedy selection process. The public is encouraged to review the reports and documents, which are available at the following repository:

A public comment period has been set from: February 23, 2011

to March 25, 2011

A public meeting is scheduled for the following date:

March 3, 2011

6:00 pm

**Public meeting location: Yates County Office Building
Liberty St., Penn Yan**

At the meeting, the findings of the remedial investigation (RI) and the feasibility study (FS) will be presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period will be held, during which verbal or written comments may be submitted on the PRAP.

Written comments may also be sent to:

Henry Willems
NYS Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233
htwillem@gw.dec.state.ny.us

The Department may modify the proposed remedy or select another of the alternatives presented in this PRAP based on new information or public comments. Therefore, the public is encouraged to review and comment on the proposed remedy identified herein. Comments will be summarized and addressed in the responsiveness summary section of the Record of Decision (ROD). The ROD is the Department's final selection of the remedy for this site.

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at <http://www.dec.ny.gov/chemical/61092.html>

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The site encompasses approximately 0.7 acres on Linden Street (formerly known as Jackson Street) near the northern edge of the downtown business district in the Village of Penn Yan, Yates County.

Site Features: Most of the site is nearly flat, with a steep embankment dropping down to Jacobs Brook along the eastern property line. The site is covered by a thick layer of grass and populated with mature trees.

Current Zoning/Use(s): Land use transitions from residential to commercial in a southerly direction. The Yates County Correctional Facility adjoins the site to the south. Properties north, east, and west of the site are residential.

The property is currently zoned as “General Residential (R-2)” which is established for single, two-family and multi-family residential development. However, the actual use of the site by its current owner, New York State Electric and Gas (NYSEG), is nonconforming. A shed on the site is currently used for tool and equipment storage. NYSEG has indicated to NYSDEC that they will apply to have the property rezoned to reflect its actual usage.

Historical Use(s): The site was utilized as a manufactured gas plant (MGP) from 1860 to approximately 1903. Following the cessation of MGP operations at the site, the buildings which housed the MGP were demolished by 1909. The property subsequently was converted to residential use. NYSEG purchased the property, consisting of three separate parcels between 1936 and 1994. In 1994 NYSEG razed the dwelling, and currently only a privately owned garage and a NYSEG storage building occupy the site. NYSEG conducted a Task 1 Site Screening Investigation in 1991 and a Task 2 Site Investigation in 1993. During the Task 2 Investigation a small area containing purifier waste was observed and removed by hand. Subsequent soil sampling in that area showed no remaining contamination.

Site Geology and Hydrogeology: Below the grass cover, a layer of unsaturated fill material consisting of silt, sand, gravel, demolition debris, ash and cinder-like material covers most of the site. It appears that these materials were placed as the site was developed into residential property during the early 1900s. Consequently, the contaminants associated with the operation of the former gas plant on the site are not found in the fill materials.

Native soil below the fill is a dense, compacted glacial till of low to moderate permeability. Overall, the bulk composition of the till material consists of a fine-grained matrix with stones of varying sizes; however, portions of the till are less dense, and occasionally include coarse sand-size material. The wide range of values is reflective of the heterogeneity of till composition. The water table is found in the native soils, approximately 9 to 13 feet below the ground surface. As a result, the majority of fill material is unsaturated. Groundwater flows through till in an eastward direction toward Jacobs Brook and discharges into the brook. Surface water in Jacobs Brook flows south for approximately 1/2 mile to the confluence with the Keuka Lake Outlet.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows for industrial use) as described in Part 375-1.8(g) is/are being evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: 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 PRPs for the site, documented to date, include:

NYSEG

The Department and NYSEG entered into a Consent Order on March 30, 1994 to investigate and, where necessary, remediate a group of 33 former manufactured gas plant sites statewide. The Jackson Street site is one of the sites included in the consent order. The Order obligates NYSEG to implement a full remedial program.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to 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.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list

the applicable SCGs in the footnotes. For a full listing of all SCGs see: <http://www.dec.ny.gov/regulations/61794.html>

6.1.2: RI Information

The analytical data collected on this site includes data for:

- air
- groundwater
- surface water
- soil
- sediment
- indoor air

The data have identified contaminants of concern. A "contaminant of concern" is a hazardous waste that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

benzene	toluene
benzo(a)pyrene	lead
benzo(b)fluoranthene	sodium
benzo[k]fluoranthene	manganese
chrysene	arsenic
coal tar	copper
dibenz[a,h]anthracene	mercury
xylene (mixed)	zinc
naphthalene	nickel
indeno(1,2,3-cd)pyrene	ethylbenzene
iron	cyanides(soluble cyanide salts)

As illustrated in Exhibit A, the contaminant(s) of concern exceed the applicable standards, criteria and guidance for:

- groundwater
- soil

6.2: 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 issuance of the Record of Decision.

There were no IRMs performed at this site during the RI.

6.3: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

People are not coming into contact with the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. The site is covered with grass but is not fenced, therefore, persons who enter the site could contact contaminants in the soil by digging or otherwise disturbing the soil. Volatile organic compounds in the groundwater may move into the soil vapor (air between soil particles), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Because there are no occupied buildings on the site, the inhalation of site-related contaminants due to soil vapor intrusion does not represent a current concern. Furthermore, environmental sampling indicates soil vapor intrusion is not a concern for off-site buildings.

6.4: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

The Fish and Wildlife Resources Impact Analysis (FWRIA) for OU(s) 01, which is/are included in the RI report(s), present(s) a detailed discussion of the existing and potential impacts from the site to fish and wildlife receptors.

The FWRIA and the environmental sampling results suggest constituent concentrations detected in site media pose a low risk to fish and wildlife. No adverse impacts to ecological resources were identified at the site. Burrowing animals could be exposed to constituents in shallow soil; however, constituent concentrations in shallow soil are not substantially elevated above guidance values.

Based on the findings of the RI, the past disposal of hazardous waste has resulted in the contamination of groundwater. The site contaminants that are considered to be the primary contaminants of concern which will drive the remediation of groundwater to be addressed by the remedy selection process are VOCs and SVOCs.

All of the groundwater contaminants detected at the site are subject to decay by ordinary soil bacteria. Dissolved oxygen concentrations are sufficiently high to support the growth of these bacteria, and it appears that the degradation process is taking place.

No off-site migration of contaminated groundwater has been identified, and no such migration is likely to occur. Groundwater from the site discharges to Jacobs Brook on the eastern site boundary. No MGP related contaminants have been detected in the brook. Groundwater is not used for water supply in the area of the site.

Two compounds were detected in Jacobs Brook sediments at levels above the sediment criteria and above the background range of individual PAH compounds at one location in Jacobs Brook downstream from the site. This sediment sample location is adjacent to a storm sewer outfall. The compounds detected in this sample do not appear to be related to the MGP site.

SECTION 7: SUMMARY OF THE EVALUATION OF ALTERNATIVES

To be selected, the 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 remedy must also attain the remedial action objectives identified for the site, which are presented in Exhibit B. Potential remedial alternatives for the Site were identified, screened and evaluated in the FS report.

A summary of the remedial alternatives that were considered for this site is presented in Exhibit C. Cost information is presented in the form of present worth, which 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. A summary of the Remedial Alternatives Costs is included as Exhibit D.

7.1: Evaluation of Remedial Alternatives

The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375. 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 six "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. 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.

4. 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.

5. Short-term Impacts and 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.

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.

8. Land Use. When cleanup to pre-disposal conditions is determined to be infeasible, the Department may consider the current, intended, and reasonable anticipated future land use of the site and its surroundings in the selection of the soil remedy.

The final criterion, Community Acceptance, 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.

9. Community Acceptance. Concerns of the community regarding the investigation, the evaluation of alternatives, and the PRAP are evaluated. A responsiveness summary will be prepared that describes public comments received and the manner in which the Department will address the concerns raised. If the selected remedy differs significantly from the proposed remedy, notices to the public will be issued describing the differences and reasons for the changes.

7.2: Elements of the Proposed Remedy

The basis for the Department's proposed remedy is set forth at Exhibit E.

The estimated present worth cost to implement the remedy is \$402,000. The cost to construct the remedy is estimated to be \$84,000 and the estimated average annual cost is \$318,000.

The elements of the proposed remedy are as follows:

1. A site cover consisting of two storage buildings and thick, well-maintained turf currently exists and will be maintained to allow for the current use of the site. If the site is redeveloped in the future, an equivalent cover system will be established which will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper one foot of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). In areas where such a soil cover is required, it will consist of a minimum of one foot of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

2. Imposition of an institutional control in the form of an environmental easement that will: (a) requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3); (b) allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws; (c) restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the Department, NYSDOH or County DOH; (d) prohibits agriculture or vegetable gardens on the controlled property; and (e) requires compliance with the Department approved Site Management Plan.

3. A Site Management Plan is required, which includes the following:

(a) an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to assure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easement discussed above.

Engineering Controls: Maintain existing site cover.

This plan would include, but may not be limited to:

(i) an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination; (ii) descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions; (iii) a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion; (iv) provisions for the management and inspection of the identified engineering controls; (v) maintaining site access controls and Department notification; and (vi) the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

(b) a Monitoring Plan to assess the effectiveness of the remedy. The plan will include, but may not be limited to: (i) monitoring of groundwater to assess the performance and effectiveness of the remedy; (ii) a schedule of monitoring and frequency of submittals to the Department; and (iii) monitoring for vapor intrusion for any buildings occupied or developed on the site, as may be required pursuant to item a.iii. above.

4. NYSEG or any subsequent property owner will provide a periodic certification of institutional and engineering controls for the site, prepared and submitted by a professional engineer or such other expert, acceptable to the Department, until the Department notifies the property owner in writing that this certification is no longer needed. This submittal will: (a) contain certification that the institutional controls and engineering controls put in place are still in place, and are either unchanged from the previous certification or are compliant with Department-approved modifications; (b) allow the Department access to the site; and (c) state 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 unless otherwise approved by the Department.