

851008

New York State Department of Environmental Conservation  
Division of Environmental Remediation  
Bureau of Hazardous Site Control

## ADDITIONS/CHANGES TO REGISTRY: SUMMARY OF APPROVALS

SITE NAME: Lindley Landfill DEC I.D. NUMBER 851008

Current Classification 2 Volunteer Yes        No         
Sign (7) below

Activity: ☐ Add as Class        ☒ Reclassify to 4 ☐ Delist Categor        ☐ Modify       

## Approvals:

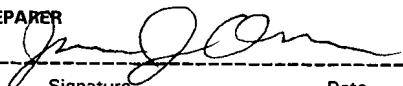
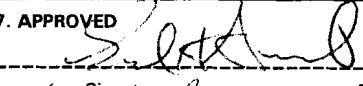
1. Regional Hazardous Waste Engineer	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	<u>      </u>
2. BEEI of NYSDOH	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	<u>      </u>
3. DEE	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	<u>      </u>
4. <u>      </u> Remediation Action Bureau Director [Class 2]	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	<u>      </u>
5. BHSC - Investigation Section	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	<u>      </u>
6. BHSC - O&M Section [Class 4]	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	<u>Sluder 6/24/99</u>
7. BPM - Brownfield & Voluntary Cleanup Section		<u>n/a</u>			Date <u>      </u>
8. Site Control Section		<u>Robert J. Marney</u>			Date <u>6/25/99</u>
9. Director		<u>Paul J. O'Neil</u>			Date <u>7/1/99</u>

## Completion Checklist for Registry Sites

	Completed By: Initials	Date
OWNER NOTIFICATION LETTER?	<input checked="" type="checkbox"/>	<u>7/22/99</u>
ADJACENT PROPERTY OWNER NOTIFICATION LETTER?	<input checked="" type="checkbox"/>	<u>8/9/99</u>
ENB/LEGAL NOTICE SENT? (For Deletion Only)	<input type="checkbox"/>	<u>      </u>
COMMENTS SUMMARIZED/PLACE IN REPOSITORY?	<input type="checkbox"/>	<u>      </u>
FINAL NOTIFICATION SENT TO OWNER? (For Deletion Only)	<input type="checkbox"/>	<u>      </u>



## SITE INVESTIGATION INFORMATION

1. SITE NAME Lindley Landfill		2. SITE NUMBER 8-51-008	3. TOWN/CITY/VILLAGE Lindley	4. COUNTY Steuben																														
5. REGION 8	6. CLASSIFICATION CURRENT 2 PROPOSED 4 MODIFY X																																	
7. LOCATION OF SITE (Attach U.S.G.S. Topographic Map showing site location) a. Quadrangle Addison b. Site Latitude <u>42° 3' 15"</u> Site Longitude <u>77° 11' 17"</u> c. Tax Map Numbers 387.00-01-029.000 d. Site Street Address South side of Gibson Road																																		
8. BRIEFLY DESCRIBE THE SITE (Attach site plan showing disposal/sampling locations) The Lindley landfill is a 16 acre site located on the south side of Gibson Road in the Town of Lindley, New York. The sit is approximately 420 feet wide and 1720 feet long. The area around the site is generally rural and consists of forest and farm land. Directly across Gibson Road from the site is the Lindley north landfill, which was closed and covered in 1987 per NYSDEC Division of Solid and Hazardous Materials requirements. The nearest residence is approximately 1/8 mile to the west of the site. Figure 1 shows the site location.  a. Area <u>16</u> acres b. EPA ID Number _____ c. Completed ( )Phase I ( )Phase II ( )PSA ( )RI/FS ( )PA/SI (X)Other Construction																																		
9. Hazardous Waste Disposed (Include EPA Hazardous Waste Numbers) Heavy metal sludges Other industrial waste																																		
10. ANALYTICAL DATA AVAILABLE a. (X)Air (X)Groundwater (X)Surface Water (X)Sediment (X)Soil ( )Waste ( )Leachate ( )EPTox ( )TCLP b. Contravention of Standards or Guidance Values <table><tr><td>1,1 dichloroethane</td><td>5 ppb</td><td>magnesium</td><td>115,000 ppb</td><td>copper</td><td>116,000 ppb</td></tr><tr><td>iron</td><td>46,700,000 ppb</td><td>manganese</td><td>1,920,000 ppb</td><td>1,4 dichlorobenzene</td><td>130 ppb</td></tr><tr><td>lead</td><td>164,000 ppb</td><td>arsenic</td><td>29,000 ppb</td><td></td><td></td></tr><tr><td></td><td></td><td>zinc</td><td>620 ppb</td><td></td><td></td></tr><tr><td></td><td></td><td>chromium</td><td>70 ppb</td><td></td><td></td></tr></table> See attached tables.					1,1 dichloroethane	5 ppb	magnesium	115,000 ppb	copper	116,000 ppb	iron	46,700,000 ppb	manganese	1,920,000 ppb	1,4 dichlorobenzene	130 ppb	lead	164,000 ppb	arsenic	29,000 ppb					zinc	620 ppb					chromium	70 ppb		
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lead	164,000 ppb	arsenic	29,000 ppb																															
		zinc	620 ppb																															
		chromium	70 ppb																															
11. CONCLUSION A low permeability cover system meeting the requirements of Part 360 was constructed over the fill area. This was in conformance with the February 1998 ROD.																																		
12. SITE IMPACT DATA a. Nearest Surface Water: Distance <u>2000</u> ft. Direction <u>E</u> Classification <u>C</u> b. Nearest Groundwater: Depth <u>10</u> ft. Flow Direction <u>East</u> ( )Sole Source ( )Primary (X)Principal c. Nearest Water Supply: Distance <u>100</u> ft. Direction <u>N</u> Active (X)Yes ( )No d. Nearest Building: Distance <u>100</u> ft. Direction <u>North</u> Use <u>Landfill operation (Lindley North)</u> e. In State Economic Development Zone? ( )Y (X)N i. Controlled Site Access? (X)Y ( )N f. Crops or livestock on site? ( )Y (X)N j. Exposed hazardous waste? ( )Y (X)N g. Documented fish or wildlife mortality? ( )Y (X)N k. HRS Score _____ h. Impact on special status fish or wildlife resource? ( )Y (X)N l. For Class 2: Priority Category _____																																		
13. SITE OWNER'S NAME Steuben County		14. ADDRESS 117 E. Steuben St., Bath, NY 14810		15. TELEPHONE NUMBER (607) 776-9631																														
16. PREPARER  Signature _____ Date <u>3/29/99</u> James Drumm, Environmental Engineer 1 Name, Title, Organization		17. APPROVED  Signature _____ Date <u>7/1/99</u> Emily H. Barlow, Director, BHS Name, Title, Organization																																

## NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

## Division of Hazardous Waste Remediation

**Inactive Hazardous Waste Disposal Report**

<b>Site Name:</b> Lindley Landfill (Closed Portion)	<b>Site Code:</b> 851008
<b>Class Code:</b> 4 <b>Region:</b> 8 <b>County:</b> Steuben	<b>EPA Id:</b>
<b>Address:</b> South Side of Gibson Road <b>City:</b> Lindley	<b>Zip:</b> 14858
<b>Latitude:</b> 42 3' 15" <b>Longitude:</b> 77 11' 17"	
<b>Site Type:</b> Landfill	<b>Estimated Size:</b> 16 <b>Acres</b>

**Site Owner / Operator Information:**

<b>Current Owner(s) Name:</b> Steuben County	
<b>Current Owner(s) Address:</b> 117 East Steuben Street	<b>Bath NY 14810</b>
<b>Owner(s) during disposal:</b> Steuben County Highway Dept.	
<b>Operator(s) during disposal:</b> Steuben County Highway Dept.	
<b>Stated Operator(s) Address:</b> 117 East Steuben Street	<b>Bath NY 14810</b>
<b>Hazardous Waste Disposal Period:</b> From 1978	To 1980

**Site Description:**

**Hilly topography:** Rural area with nearest house over 2000 feet away  
**Nearest waterbody:** Tributary to Glendening Creek

This is a closed landfill with a notable leachate problem. Information from a Right to Know (RTK) survey revealed that some hazardous waste was brought to this site. Leachate sampling done in July of 1985 revealed low levels of halogenated and aromatic hydrocarbons. It is suspected that other industrial wastes were also disposed here. A leachate collection system was constructed under a Part 360 Consent Order to control off-site leachate seeps. A final Phase II Investigation report was submitted in January of 1991. Exceedances of groundwater standards/guidance values for heavy metals, pesticides, phenols and PCBs, and exceedances of surface water standards/guidance values for heavy metals and phenols are documented in the Phase II report. In April of 1995, the NYSDEC signed a Consent Order (CO) with the County and the Town of Lindley for a full remedial program at this site. A Remedial Investigation/Feasibility Study (RI/FS) was completed in 1997, and a Record of Decision (ROD) was signed in February of 1998. The ROD called for the construction of a Part 360 landfill cap. An Interim Remedial Measure (IRM) was completed in October of 1997. The IRM included the installation of a larger leachate storage tank, and new tanker loading facilities. Construction of a Part 360 landfill cap was completed by the fall of 1998. A final inspection was conducted during the spring of 1999. All work was determined to have been completed in conformance with the February 1998 ROD. An operation and maintenance (O&M) plan for the landfill has been approved.

**Confirmed Hazardous Waste Disposal:**

Heavy metal sludges; inorganics  
 Other industrial wastes

**Quantity:**

unknown  
 unknown

<b>Analytical Data Available for:</b>	<b>Air</b> <b>Groundwater</b> <b>Surface Water</b> <b>Soil</b> <b>Sediment</b>
<b>Applicable Standards Exceeded in:</b>	<b>Groundwater</b> <b>Surface Water</b>
<b>Geotechnical Information:</b>	<b>Depth to</b>
<b>Soil/Rock Type:</b> Glacially derived till soil	<b>Groundwater:</b> Approximately 10 to 20 feet.

<b>Legal Action: Type:</b> State Consent Order	<b>Status:</b> Order Signed
<b>Remedial Action:</b> Complete	<b>Nature of action:</b> RI-FS and IRM

**Assessment of Environmental Problems:**

The completion of the Part 360 Landfill Cover and implementation of the O&M Plan is expected to alleviate the environmental threat that exists at this site.

**Assessment of Health Problems:**

There are several residences with private water supply wells downgradient from the site. NYS DOH and Steuben County Health Department have periodically sampled the downgradient private wells since 1991. No site-related contamination has been detected in the private wells. There will be long-term groundwater monitoring to ensure that private wells near the site are not impacted. Completion of the remedial action eliminated any direct contact exposure pathways.

# **DECLARATION STATEMENT - RECORD OF DECISION**

## **LINDLEY LANDFILL Lindley, Steuben County Inactive Hazardous Waste Site No. 8-51-008**

### **Statement of Purpose and Basis**

The Record of Decision (ROD) presents the selected remedial action for the Lindley Landfill inactive hazardous waste disposal site which was chosen in accordance with the New York State Environmental Conservation Law (ECL). The remedial program selected is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300).

This decision is based upon the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the Lindley Landfill Inactive Hazardous Waste Site and upon public input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A bibliography 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 release of hazardous waste constituents from this site, if not addressed by implementing the response action selected in this ROD, presents a current or potential threat to public health and the environment.

### **Description of Selected Remedy**

Based upon the results of the Remedial Investigation/Feasibility Study (RI/FS) for the Lindley Landfill Site and the criteria identified for evaluation of alternatives, the NYSDEC has selected a containment remedy for the landfill. The major components of the remedy are as follows:

- Continued removal and off-site treatment of leachate using the existing leachate collection and storage systems.
- Design and construction of a low permeability cover system meeting 6 NYCRR Part 360 requirements to significantly reduce infiltration into the wastes.
- A long term operation and maintenance plan for the cover system.

- A long term monitoring plan which will allow the effectiveness of the remedy to be monitored.
- A contingency for the future design and construction of additional groundwater controls, if the cover system alone does not reduce leachate generation rates to manageable levels.
- Deed restrictions will be pursued to prevent future uses of the site which are incompatible with the selected remedy.

**New York State Department of Health Acceptance**

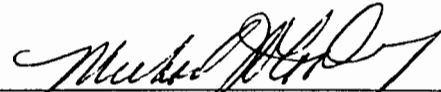
The New York State Department of Health concurs with the remedy selected for this site as being protective of human health.

**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.

2/13/98

Date



Michael J. O'Toole Jr., Director  
Division of Hazardous Waste Remediation

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# **RECORD OF DECISION**

## **Lindley Landfill**

**Town of Lindley, Steuben County, New York**

**Site No. 8-51-008**

**February 1998**

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### **SECTION 1: SITE LOCATION AND DESCRIPTION**

The Lindley landfill is a 16 acre site located on the south side of Gibson Road in the Town of Lindley, N.Y. The site is approximately 420 feet wide and 1720 feet long. The area around the site is generally rural and consists of forest and farmland. Directly across Gibson Road from the site is the Lindley North landfill, which was closed and covered in 1987 per NYSDEC Division of Solid and Hazardous Materials requirements. The nearest residence is approximately 1/8 mile to the west of the site. Figure 1 shows the site location.

### **SECTION 2: SITE HISTORY**

#### **2.1: Operational/Disposal History**

The Lindley Landfill has been owned by the Town of Lindley and operated by the Steuben County Highway Department since initial operations began in 1977. The landfill was operated until 1983, at which time operations were shifted to the Lindley North landfill. During its operating history, the Lindley site accepted both municipal and industrial wastes from within Steuben County. These industrial wastes included lead dusts and other inorganics from Corning Glass Works.

#### **2.2: Remedial History**

During the site's operating period, leachate (surface water or groundwater which is contaminated from contact with landfill waste) problems were evident and leachate was observed flowing to an adjacent stream which serves as a tributary to Glendening Creek. Beginning in 1978, efforts were undertaken to limit groundwater flow onto the site. In 1984 a study was initiated by Steuben County to identify methods of leachate control at the site. In 1986 a leachate collection system was installed to control leachate outbreaks from the landfill. This system consisted of the installation of a leachate collection trench within the waste mass, along with a 5,000 gallon leachate storage tank. Two pre-existing groundwater interceptor drains outside the limits of the waste were also connected to the collection system and tank. In 1988 and 1989 additional groundwater and leachate studies were performed. These studies concluded that several thousand gallons of groundwater flow into the site



daily, contacting the waste and producing leachate. In 1989, Steuben County installed additional groundwater diversion systems around the south and west sides of the site in order to reduce leachate generation.

In 1989 and 1990 Phase I and Phase II investigations were performed at the site on behalf of the NYSDEC. The Phase II investigation identified impacts to groundwater and nearby surface water from the site.

### **SECTION 3: CURRENT STATUS**

A Remedial Investigation was completed by Steuben County utilizing State funding available (reimbursement of up to 75% of costs) through the 1986 Environmental Quality Bond Act (EQBA) Title 3 program. The RI report was approved by the NYSDEC in July 1997. A Feasibility Study was completed to evaluate various remedial alternatives assembled to address site contamination. The FS report was approved by the NYSDEC in August 1997. These reports can be found in the document repositories.

#### **3.1: Summary of the Remedial Investigations**

The purpose of the RI performed in 1995-1996 was to define the nature and extent of contamination resulting from previous activities at the site. Figure 2 shows site details.

The Remedial Investigation report was prepared in 1997 by C&S Engineers and described findings of field activities and investigations performed in 1995-1996.

The RI activities consisted of the following:

- Soil borings and test trenching to more precisely define the limits of waste;
- Investigations to determine potential for landfill gas migration and gas hazard potential;
- Groundwater monitoring well installation and sampling;
- Residential drinking water well sampling;
- Environmental sampling of surface water and sediment in runoff ditches and adjacent stream (the tributary to Glendening Creek);
- A health risk assessment of site groundwater contaminant migration;
- A Fish and Wildlife Impact Analysis to evaluate potential site impacts to the surrounding ecology; and

- Geophysical investigations and excavations to investigate reported disposal of drums.

To determine which media (groundwater, surface water, sediment) contain contaminants of concern, the RI analytical data was compared to environmental Standards, Criteria, and Guidance (SCGs). Groundwater, drinking water and surface water SCGs identified for the Lindley Landfill site were based on NYSDEC Ambient Water Quality Standards and Guidance Values and Part V of NYS Sanitary Code. For the evaluation and interpretation of sediment analytical results, the Divisions of Fish and Wildlife/Marine Resources Technical Guidance for Screening Contaminated Sediments was used.

Based upon the results of the Remedial Investigation and comparison with the SCGs and potential public health and environmental exposure routes, remedial measures are appropriate at the landfill in order to reduce future impacts to site groundwater as well as potential future impacts to adjacent surface water and sediment. General results of the investigations are summarized below. More complete information can be found in the RI Report.

### Geology

The overburden (above bedrock) soils in the vicinity of the site consist of a thin topsoil, sand, and silt layer over a relatively thick layer (extending 45-75 feet below grade) of glacial till. The glacial till unit is relatively compact and contains silt, clay, embedded gravel, cobbles, and numerous boulders. The till in the area overlays bedrock which typically consists of interbedded sandstone and shale.

### Hydrogeology

Based upon groundwater elevations obtained from the monitoring wells located in and around the landfills on both the north and south sides of Gibson road, overburden groundwater generally follows the topography of the land and converges toward a tributary of Glendening Creek. On the south side of Gibson road (at the site), overburden groundwater flow is generally to the east and northeast. On the north side of Gibson road, overburden groundwater is generally toward the south and east. The groundwater elevations in the bedrock wells indicate that a minor downward vertical hydraulic gradient is present at the site.

### Groundwater

The RI was performed in two phases over a period of about 18 months. Groundwater sampling was performed using two of the previously installed wells and 5 new monitoring wells which were installed as part of the RI.

In the first round of groundwater sampling, none of the wells sampled revealed detectable concentrations of volatile organic compounds, with the exception of a sample from one well which

had trace levels of acetone and methylene chloride. These two compounds and the concentrations at which they were detected are consistent with laboratory contamination during sample preparation and analysis. In the second round of groundwater sampling, a trace amount of one volatile organic, 1,1 dichloroethane at 5 parts per billion (ppb) was detected in one of the monitoring wells. No pesticides or PCBs were detected in groundwater samples.

Similarly, semi-volatile organic compounds were not detected in site groundwater with the exception of two compounds detected in trace concentrations in some samples. Bis(2-ethylhexyl)phthalate was detected in several samples, but in concentrations much lower than NYS Class GA (suitable for drinking water) standards. Moreover, this particular compound and concentration range suggests that its presence may be attributable to sampling procedures. In addition, a very low concentration (16 parts per billion) of diethylphthalate was detected in one well.

Groundwater samples indicated the presence of various metals in both the overburden and bedrock groundwater monitoring wells. The concentrations of metals detected in the wells around the landfill are generally higher than concentrations detected in the well upgradient from the landfill. Metals detected which exceeded Class GA groundwater standards included iron at up to 42 parts per million (ppm), lead at up to 0.13 ppm, magnesium at up to 115 ppm, manganese at up to 6.8 ppm, arsenic at up to 35 ppm, zinc at up to 0.62 ppm, and chromium at up to 0.07 ppm. Table 1 summarizes compounds detected in groundwater samples and their detected concentration range.

Although a downward vertical hydraulic gradient appears to exist at the site, bedrock groundwater samples did not indicate any significant contaminants. In general, concentrations of metals in the bedrock were lower than those present within the overburden.

#### Surface Water and Sediment

Surface water samples were taken at various points along the tributary to Glendening Creek which flows adjacent to Gibson Road. No volatile organic compounds, pesticides, or PCBs were detected in the surface water samples. With the exception of trace concentrations of bis(2-ethylhexyl)phthalate and di-n-butylphthalate, no semi-volatile organic compounds were detected in surface water samples. Metals such as iron, copper, lead and zinc were detected in some surface water samples above Class "C" surface water standards, but the concentrations detected were relatively low (Class "C" standards were set to protect stream quality and allow fish reproduction and human consumption of fish). Concentrations of metals in the upgradient surface water sample were similar to those detected in the samples obtained from the landfill drainage area. Table 2 summarizes compounds detected in surface water samples and their detected concentration range.

Sediment samples taken from the tributary to Glendening Creek revealed trace amounts of one volatile organic (1,4 dichlorobenzene at 5 ppb) compound and several semi-volatiles and pesticide compounds. In addition, several metals including lead, manganese, iron, copper, and arsenic were detected above sediment guidance concentrations. In general, these compounds were detected in

similar concentrations in the upgradient sediment sample. Moreover, concentrations of semi-volatile and pesticide compounds were very low, and while several metals are present in concentrations above sediment guidance, impacts to tributary sediment from the site are considered relatively minor. Table 3 summarizes compounds detected in sediment samples and their detected concentration range.

### Landfill Gas

Landfill gas investigations revealed methane gas at levels typical of those at similar landfills. Given the location of the site and the lack of gas migration conduits (such as sewers, waterlines, and other underground utilities), landfill gas migration is not considered a significant concern at this site.

### Geophysical Investigations

Geophysical investigations were performed in an attempt to confirm reported drum disposal within the landfill. Based upon the results of these investigations, test trenches were excavated to identify the magnetic anomalies identified. These test trenches revealed various metal objects such as white goods (washers, dryers, etc.), metal sheeting, wire mesh, metal strapping material, etc. In addition, 3 flattened and empty steel drums and one crushed plastic drum were found. No other drums were found. Since the geophysical investigation effectiveness was limited to a depth of about 15 feet below existing grade, the presence of buried drums cannot be ruled out. However, given the depth and nature of the waste encountered, and the relatively minor groundwater contamination detected at the site, it was determined that further drum investigation was not warranted.

### **3.2: Interim Remedial Measures**

Interim Remedial Measures (IRMs) are conducted at sites when a source of contamination or an exposure pathway can be effectively addressed before completion of the RI/FS. Prior to the start of the RI, the County identified an appropriate IRM. Historically, leachate collected from a network of underground pipes at the landfill has been stored in an underground tank located within the landfill. Leachate is periodically pumped from the storage tank to tanker trucks for shipment to a disposal facility. However, the underground tank does not have sufficient capacity to hold the collected leachate between tanker shipments. As a result, the leachate collection system has been limited in its effectiveness.

Therefore, the Consent Order was written to include a requirement to design and construct an IRM consisting of additional leachate storage and handling facilities. An IRM workplan was approved by the NYSDEC in October 1995, and the IRM design was approved in September 1996. Construction of the new 75,000 gallon leachate storage tank and loading facility has been completed and the new leachate storage and handling facilities are operational.

### **3.3: Summary of Human Exposure Pathways**

This section describes the types of human exposures that may present added human health risks to persons at or around the site. A more detailed discussion of the health risks can be found in the Baseline Human Health Risk Assessment contained in Section 5 of the RI report.

The Baseline Human Health Risk Assessment identified potential exposure pathways from the site (i.e. how an individual may come into contact with a contaminant). The five elements of an exposure pathway are 1) the source of the contamination; 2) the environmental media and transport mechanisms; 3) the point of exposure; 4) the route of exposure; and 5) the receptor population. These elements of an exposure pathway may be based on past, present, or future events.

Completed pathways which are known to or may exist because of the site include:

- Dermal (skin) contact with, or incidental ingestion of leachate outbreaks by site workers or trespassers; and
- Dermal contact with, or incidental ingestion of contaminated surface water or sediment by site workers or others.

Given the very low contaminant concentrations in the adjacent tributary to Glendening Creek, it is unlikely that the surface water pathway poses a significant threat to human health.

### **3.4: Summary of Environmental Exposure Pathways**

This section summarizes the types of environmental exposures which may be presented by the site. A Habitat Based Assessment/Fish and Wildlife Impact Analysis was performed at the site. Numerous wildlife was observed at and around the site during the assessment. In general, the impacts from the landfill have likely had a negligible impact on the surrounding fish and wildlife. A detailed discussion of fish and wildlife present at the landfill can be found in Section 6 of the RI report.

## **SECTION 4: ENFORCEMENT STATUS**

The NYSDEC and Steuben County entered into a Consent Order on April 7, 1995. The Order obligates Steuben County to implement a full remedial program. The State Assistance Contract (SAC) signed for this site (under the 1986 EQBA Title 3 program) allows the State to reimburse Steuben County up to 75% of the eligible remediation costs. In addition, the SAC provides for reimbursement of 8% (based upon the site's leachate volume) of the County's expenses to construct their leachate pretreatment plant located on Turnpike Road in Bath, N.Y.



**Engineers, Inc.**

*Lindley South Landfill  
Site No. 851008  
Steuben County, New York*

**POST REMEDIATION REPORT**

**FOR**

**STEUBEN COUNTY  
LINDLEY SOUTH LANDFILL  
ENGINEERED CAP**

**JANUARY 1999**

**C&S ENGINEERS, INC.  
1099 AIRPORT BOULEVARD  
NORTH SYRACUSE, NEW YORK 13212**

**STEUBEN COUNTY  
LINDLEY SOUTH LANDFILL  
ENGINEERED CAP  
POST REMEDIATION REPORT**

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**STEUBEN COUNTY  
LINDLEY SOUTH LANDFILL  
ENGINEERED CAP  
POST REMEDIATION REPORT**

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  - Final Topographic Survey



## **SECTION 1 INTRODUCTION**

### **1.01 Purpose**

This report is submitted to the New York State Department of Environmental Conservation (NYSDEC) to provide construction certification for the Lindley South Landfill Closure project. This report has been prepared in accordance with the provisions of the 1986 Environmental Quality Bond Act, Title 3 Inactive Hazardous Waste Disposal Sites Remediation Program State Assistance Contract, including amendments; and with the provisions of 6NYCRR Part 360 Subpart 360-2 requirements for solid waste management facilities, dated October 9, 1993.

### **1.02 Site Description**

The Lindley South Landfill is an approximately 12 acre landfill mound situated on a 17 acre parcel within the Town of Lindley Landfill facility. The facility, consisting of the active North Landfill and this inactive South Landfill, is located in the southeastern section of Steuben County. Access to the site is by Gibson Road. The landfill footprint is approximately 1,650 feet east to west and approximately 320 feet north to south. The landfill mound rises approximately 30 feet above the surrounding natural grade. The slopes are generally smooth and gradual. The general area proximate to the site is rural, with adjacent properties consisting primarily of woodlands and farmland.

### **1.03 History and Authorization**

Landfill operations at the Lindley South Landfill began in 1977 and continued through 1983, when operations were shifted to the Lindley North Landfill. Since operations began, the landfill has been owned by the Town of Lindley and operated by the Steuben County Department of Public Works. The property was purchased by Steuben County in 1996. Municipal solid wastes were accepted from 11 towns within Steuben County. Industrial wastes were accepted from Corning Glass Works from 1979 to 1980. Upon completion of the landfill operations, a 2-foot thick cap of natural material, obtained from the North Landfill area, was placed over the landfill and seeded.

As a result of a Phase II site investigation completed in 1990, which identified impacts to groundwater and nearby surface water from the site, the Lindley South Landfill was subsequently classified by the NYSDEC as a Class 2 Site (Site No. #8-51-008) on the New York State Registry of Inactive Hazardous Waste Sites. In April 1995, Steuben County entered into an Order on Consent for the completion of a Remedial Investigation/Feasibility Study and appropriate remedial efforts at the site. The Order on Consent was issued under Article 27, Title 13 of the Environmental Conservation Law of the State of New York for an inactive hazardous waste disposal site.

C&S Engineers, Inc., was retained by the County in July 1997, to prepare remedial design documents in accordance with the approved Remedial Investigation, Feasibility Study, and the February 1998 Record of Decision. Bids for the construction of the remedial program were received in March 1998, and the contract was awarded to Tug Hill Construction, Inc, of Felts Mills, New York in May 1998. C&S was

retained by the County to provide construction administration and inspection services. Construct activities commenced on June 8, 1998 with survey stake-out of waste limits and clearing limits; clearing and demolition activities commenced on June 10, 1998. Substantial Completion of the project was reached on October 28, 1998, and a site inspection was conducted by the County, the NYSDEC, Tug Hill Construction, and C&S on that day to verify completion. A final inspection of the site will be performed in the Spring of 1999 prior to final acceptance by the County and the NYSDEC, and any repairs necessary due to the winter conditions or snowmelt runoff will be performed at that time.

#### **1.04 Selected Remedy**

The remedy selected by the NYSDEC in the Record of Decision issued in February 1998 for the site is the construction of an engineered cap and performance of environmental monitoring, with a contingency for additional groundwater controls if necessary based on the resulting leachate generation rates. The components of the remedy include:

- Continued removal and off-site treatment of leachate using the leachate collection system and storage facility installed as part of an Interim Remedial Measure at the site.
- Design and construction of an engineered cap in accordance with 6NYCRR Part 360 regulations.
- A long-term operation and maintenance plan for the cover system;
- Long-term monitoring of groundwater and surface water;
- A contingency plan for the future design and construction of additional groundwater controls, if the cover system alone does not reduce leachate generation rates to manageable levels; and
- Deed restrictions.

#### **1.05 Responsibility and Authority**

The following organizations were involved in the administration of quality assurance and quality control for the Lindley South Landfill Closure project:

- New York State Department of Environmental Conservation – Regulatory Agency
- Steuben County – Owner
- C&S Engineers, Inc. – Design Engineer, and Construction Administration and Inspection Firm  
HTS, Inc. (Geomembrane Testing Laboratory)
- Tug Hill Construction, Inc. – Construction Contractor  
Professional Service Industries, Inc. (Soils Testing Laboratory)  
Poly-Flex, Inc. (Geomembrane Manufacturer)  
Chenango Contracting, Inc. (Geomembrane Installer)  
Precision Environmental Laboratories, Inc. (Geomembrane Testing Laboratory)

The responsibilities of the principal organizations are described in the Engineering Report and QA/QC Plan (December 1997). The lines of communication between organizations are also included in the report.

## **1.06 Scope**

The scope of this report includes narrative descriptions of the major construction tasks, and supplementary documentation as appropriate to support our certification of the project as stated in Section 1.08 below and in the Construction Certification Report to be provided to the Owner. During the course of the construction, the various parties charged with Quality Assurance/Quality Control provided the Resident Project Engineer with documentation which detailed the results of the Contractor's activities on the site. This documentation together with full time field observation of the Contractor's activities, provided the foundation for the preparation of the Construction Certification Report. This Post Remediation Report is a condensed summary of the Construction Certification Report.

## **1.07 Project Construction Costs**

Refer to Section 3 of this report for a summary of project construction costs and approved change orders.

## **1.08 Conclusion**

With the submission of this Post Remediation Report, the Lindley South Landfill Closure project has been constructed in substantial conformance with the plans and specifications, Change Order No. 1, the modifications identified within this report, and the construction record drawings. Modifications made were in accordance with the overall conceptual design as originally intended.

*A. Sylvester*

**New York State Department of Environmental Conservation**  
**Division of Environmental Remediation**  
**Bureau of Hazardous Site Control, Room 252**  
50 Wolf Road, Albany, New York 12233-7010  
Phone: (518) 457-0747 FAX: (518) 457-8989



John P. Cahill  
Commissioner

**AUG - 9 1999**

This letter was sent to the people on the attached list.

Dear :

The Department of Environmental Conservation (DEC) maintains a Registry of sites where hazardous waste disposal has occurred. Property located on the South side of Gibson Road in the Town of Lindley and County of Steuben and designated as Tax Map Number 387.00-01-029.000 was recently reclassified as a Class 4 in the Registry. The name and site I.D. number of this property as listed in the Registry is Lindley Landfill (closed portion), Site #851008.

The Classification Code 4 means that the site is properly closed -- requires continued management.

We are sending this letter to you and others who own property near the site listed above, as well as the county and town clerks. We are notifying you about these activities at this site because we believe it is important to keep you informed.

**If you currently are renting or leasing your property to someone else, please share this information with them. If you no longer own the property to which this letter was sent, please provide this information to the new owner and provide this office with the name and address of the new owner so that we can correct our records.**

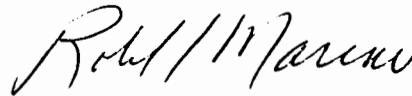
The reason for this recent classification decision is as follows:

- A low permeability cover system meeting the requirements of NYCRR Part 360 was constructed over the fill area. This was in conformance with the February 1998 Record of Decision (ROD). A long term Operation and Maintenance plan (O&M) is in place.

If you would like additional information about this site or the inactive hazardous waste site remedial program, call:

DEC's Inactive Hazardous Waste Site Toll-Free Information Number 1-800-342-9296 or New York State Health Department's Health Liaison Program (HeLP) 1-800-458-1158, ext. 6402.

Sincerely,



Robert L. Marino  
Chief  
Site Control Section

bcc: R. Marino  
J. Swartwout  
M. Boice-Green, R/8  
M.J. Peachey, R/8  
A. Butkas, R/8  
A. Sylvester  
A. Carlson  
L. Ennist

AS/srh



John P. Cahill  
Commissioner

ROD RECLASS INFORMATION

MEMORANDUM

TO: • **T. Reamon** Investigation Section  
• **M. Peachey** Regional Hazardous Waste Remediation Engineer  
• G. Rider, O&M Section (As Needed)  
• A. Grant, DEE  
• A. Carlson, DOH, Bureau of Environmental Exposure Investigation

FROM: Robert Marino, Site Control Section, Division of Environmental Remediation

SUBJECT: Review of Classification Package for Site # **851008**

DATE: **June 17, 1999**

*Lindley landfill  
(closed portion)  
[2 → 4]*

The attached "Registry Site Investigation Information Form" is included for your information.

If unacceptable, please return with an explanation of your position in a separate memo or letter as soon as possible.

Please keep the supporting documentation for your records.

NOTE: This site is being reclassified by Record of Decision (ROD). The ROD was signed on

**February 13**, 1998.

Attachment(s)