

Department of Environmental Conservation

Division of Hazardous Waste Remediation

Annsville Landfill Site

Site Number 6-33-025
Oneida County, New York

Record of Decision

March 1994



New York State Department of Environmental Conservation
MARIO M. CUOMO, *Governor* LANGDON MARSH, *Acting Commissioner*

DECLARATION STATEMENT - RECORD OF DECISION

Annsville Landfill Inactive Hazardous Waste Site Town of Annsville, Oneida County, New York Site No. 633025

STATEMENT OF BASIS AND PURPOSE

This document describes the remedial actions that have already been taken at the Annsville Site, discusses the results of the Remedial Investigation and presents the rationale for delisting of the site from the NYS Registry of Inactive Hazardous Waste Sites. The decision is in accordance with the New York State Environmental Conservation Law (ECL), 6 NYCRR 375, and consistent with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 USC Section 9601, et., seq., as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA). Appendix C identifies the documents that comprise the Administrative Record for the site, and includes the final Remedial Investigation (RI) report prepared by Sterns and Wheler of Cazenovia, New York. The documents in the Administrative Record are the basis for the proposed remedial action.

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from this site, prior to the drum removal action as described in this Record of Decision, presented a potential threat to public health, welfare or the environment.

SUMMARY OF THE GOVERNMENTS PROPOSED DECISION

Under the Consent Order Harden Furniture completed an Interim Remedial Measure which removed buried drums at the landfill. Upon completion of the Remedial Investigation conducted by Stearns and Wheler on the behalf of the Town of Annsville it was found that:

- a. The water table is approximately 40 feet below the fill area.
- b. There is no leachate discharge to surface water.
- c. No significant concentrations of methane were being generated by the landfill.

- d. Except for possibly iron and manganese, no significant contravention of groundwater standards have been found.

These findings indicate that the site has little present or potential for future impact on the surrounding environment and that the significant threat that existed was abated by the drum removal action undertaken by Harden Furniture. The site was closed in accordance with Part 360 closure requirements in effect at the time of closure. Therefore no further remedial action is needed and the site will be delisted from the NYS Registry of Inactive Hazardous Waste Sites.

DECLARATION

The selected remedy is designed to be protective of human health and the environment, is designed to comply with applicable State environmental quality standards and is cost-effective. This remedy satisfies the Department's preference for treatment that reduces the toxicity, mobility or volume of hazardous substances, pollutants or contaminants as the principal goal.

March 14, 1994
Date



Ann Hill DeBarbieri
Deputy Commissioner
Office of Environmental Remediation

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I. SITE LOCATION AND DESCRIPTION

The Town of Annsville landfill, which is located south of N.Y. Route 69 about one mile west of the Hamlet of Taberg, is geologically located on the southern flank of the Tug Hill Upland bordering the Ontario-Mohawk Lowland. The site slopes to the south toward the Oneida Lake Plain. Relief across the site is approximately 100 feet. Several residences are located north of the site along Route 69. There are also private residences approximately three-quarters of a mile south of the site along Blossvale Road. Surrounding the site on the east, west and south are woodlands. These parcels are selectively logged, but are otherwise undeveloped.

There was no surface water observed flowing on the landfill property.

The geology beneath the site consists of 68 to 115 feet of deltaic sands and silts, underlain by 30 to 71 feet of a dense diamict. A diamict is a layer of various sized sediments which were probably deposited by glaciers. Siltstone and shale bedrock was encountered 112 feet to 145 feet below the surface on site. The water table was in the deltaic deposits between 44 feet and 54 feet below ground.

A thick layer of silt was found at seven of the 11 drilling locations on site. The silt layer was not encountered in the eastern half of the site.

The great depth to groundwater is due to the fact that the site is located in a recharge area. There is little lateral flow of groundwater from upgradient of the site. Most of the shallow groundwater is due to direct infiltration of precipitation through site deposits. The silt layer will impede vertical movement of infiltration, directing it laterally along the slope of the layer. As a result, periodic perched conditions may develop above the silt layer.

The direction of groundwater flow beneath the site is to the south or south-southeast.

The dense diamict beneath the deltaic deposits isolates the bedrock from the shallow groundwater flow system.

II. A. SITE OPERATIONAL HISTORY

Unsupervised dumping at the site began around 1948. Harden Furniture, Inc., is said to have begun sending its wastes to the landfill in the late 1950s. Harden Furniture was instructed to dump at a separate location in the landfill because the Town of Annsville had difficulty covering the large amounts of foam rubber included in the Harden Waste.

In a 1978 interview with NYSDEC, Harden reported that their waste stream included approximately one 55-gallon drum per week of spent solvents. It was acknowledged by Harden that spent solvents had been included in its waste stream to the landfill from when dumping began until 1981. The waste may have been disposed of in five-gallon pails in earlier years prior to 1978.

An inspection of the site by NYSDEC on June 28, 1984 revealed the presence of 15 fifty-five gallon drums of liquid waste in the southern part of the Harden area. Labels identified the drums as belonging to Harden Furniture. A subsequent investigation by the Bureau of Environmental Conservation Investigation, BECI, found insufficient evidence to warrant criminal prosecution. Based on the estimate of one 55-gallon drum of waste per week, it was reported that Harden disposed of an estimated 300 to 1,000 drums of hazardous waste from 1958 to 1981. However, the actual volume may be smaller, as Harden was considerably smaller in the early years.

II. B. SITE REMEDIAL HISTORY

As a result of these investigations, the NYSDEC classified the site as a 2a in 1985. Trace amounts of various organic chemicals were detected in the NYSDOH samples of domestic wells during 1986 which prompted NYSDEC to change the classification of the landfill from a 2a to a 2.

In 1989, the Town of Annsville and Harden Furniture entered into a joint consent order with NYSDEC. Under the consent order, Harden agreed to undertake Interim Remedial Measures (IRMs) at the landfill to locate and remove any buried drums and contaminated soil in the portion of the landfill identified as having received Harden waste. The Town of Annsville agreed to develop and implement a Remedial Investigation (RI) and Feasibility Study (FS) of the landfill.

Harden Furniture instituted an Interim Remedial Measure (IRM) Program at the landfill to locate and remove drummed hazardous waste from the Harden area of the landfill.

Harden's consultant, O'Brien and Gere Inc. (OB&G) Technical Services, Inc., performed the drum removal. The NYSDEC oversight contractor was Rizzo Associates Engineering, P.E., Natick, MA.

The following summarizes the site activities reported by Rizzo Associates:

A magnetometer survey of the Harden area was conducted.

Excavation work targeted magnetically anomalous areas, likely locations of ferrous metal drums. Successive cuts were made progressing the excavation toward the northern portion of the site. This systematic approach led to the excavation of a significantly greater portion of the landfill than that represented solely by the anomalous areas. Excavations were continued through the fill to native material.

A variety of metal drums and smaller containers was excavated from the landfill. Overall, approximately 25 full or partially full 55 gallon drums were removed from the landfill as were a number of smaller containers with capacities of one to five gallons. The drums recovered from the fill generally contained a brown solvent-like liquid similar to wood stain, a product commonly used by Harden Furniture. The majority of the five-gallon pails segregated for processing contained thinner-soaked rags called "tack rags".

No contaminated soil excavation work was performed during the site excavation activities, although a small quantity of contaminated fill was excavated from the site. This small quantity of fill was contaminated from minor spills occurring during the removal of some drums which were in poor condition.

OBG Technical Services obtained 17 representative soils samples from native material beneath the fill in the Harden area for analysis of volatile organic compounds.

According to the analytical results submitted by OBG Labs in January 1990 soil samples showed low levels of toluene and/or xylene. The levels were low enough not to warrant soil removal. Additionally, samples were

taken along the perimeter. None of the perimeter samples showed contamination.

For a more complete description of the IRM program refer to Chapter 1 of the "Remedial Investigation and Recommended Action Report Town of Annsville Landfill".

III. CURRENT STATUS

To assess the current status of the site the consulting firm of Stearns and Wheler of Cazenovia, New York was retained by the Town of Annsville to perform a Remedial Investigation. A description of the Remedial Investigation and its findings can be found in the documents listed in Appendix C. Except for a locked gate bar at its entrance, the Landfill is unsecured. Grass has become established over the Harden area which received a seeded soil cover at the end of the IRM.

A large volume of tires, metals, white goods, tanks, and similar materials are exposed in the eastern portion of the Town's refuse area.

The following is a summary of the findings as reported by Stearns and Wheler. Refer to the figure in Appendix B.

1. Only a few of the estimated 1,000 drums generated by Harden were found at the landfill during drum removal operations. The composition of the Harden waste is known from MSDS sheets: 50 to 63 percent toluene, with lesser percentages of acetone, isopropyl alcohol, methyl ethyl ketone, and methyl isobutyl ketone. The drummed waste removed from the landfill was 55 to 63 percent toluene, which showed that little alteration of this waste has occurred.
2. Test pits in the municipal portion of the landfill showed approximately two feet of sand cover over only 1 to 10 feet of refuse. Measurements of Explosive gas levels showed no detectable concentrations of methane being generated by the landfill.
3. Detectable concentrations of organic compounds in groundwater were trace amounts found below the method detection limit which is the lowest concentration which the analytical method can report with confidence, and were seen only in Monitoring Well MW-5 and MW-6 and only in the second and third round results. These concentrations are below both groundwater and drinking water standards.

4. Detectable concentrations of toluene were found in soil samples collected during the drilling of MW-7, B-8 and PZ-1. Toluene made up the largest percent of Harden waste, and the sampling locations were downgradient of the Harden disposal area. All of the concentrations found in soil were trace amounts and below the method detection limit.
5. Inorganic contamination typical of municipal landfills was also found in Monitoring Well MW-5. This included elevated alkalinity, calcium, trace metals, and negative Eh. In unfiltered samples, the metals iron and manganese exceeded groundwater standards for all three rounds in MW-5. Unfiltered, or total, lead and cadmium exceeded standards in MW-5 for only the second round. Concentrations were below detection limits in Rounds 1 and 3. In dissolved or filtered samples, only iron and manganese exceeded standards.
6. Arsenic was detected at concentrations well below standards in MW-5 sampling Rounds 1 and 2. In Round 3, unfiltered arsenic exceeded groundwater standards in MW-5, but was well below standards in the filtered sample. Any detectable arsenic is of concern from a cancer risk standpoint. However, no detectable arsenic was found at any other location on site. Also, the site health risk assessment concluded that actual risks associated with ingestion of arsenic in groundwater by downgradient groundwater users is very low.
7. Monitoring Wells MW-6 and MW-7, where there was no silt layer, and Monitoring Wells MW-8 and MW-9, above the silt layer, all had elevated total dissolved solids, alkalinity, calcium, and manganese compared to upgradient wells. In filtered samples, manganese exceeded standards in MW-8. Iron concentrations were not elevated in these wells. Overall the off-site impacts of the landfill are projected to be negligible.

Trace amounts of organic contaminants were found in private residence wells sampled by the NYSDOH in 1986 and 1988, but no detectable levels were found in the 1990 samples.

IV. ENFORCEMENT STATUS

In 1989, the Town of Annsville and Harden Furniture entered into a joint consent order with NYSDEC. Under the consent order, Harden agreed to undertake Interim Remedial Measures (IRMs) at the landfill to locate and remove any buried drums and contaminated soil in the portion of the landfill

identified as having received Harden waste. The Town of Annsville agreed to develop and implement a Remedial Investigation (RI) and Feasibility Study (FS) of the landfill.

ORDER ON CONSENT

<u>Date</u>	<u>Index Number</u>	<u>Subject of Order</u>
July 10, 1989	#A6-0138-88-01	Town of Annsville and Harden Furniture

V. GOALS FOR THE REMEDIAL ACTION

Goals for the remedial program have been established through the remedy selection process stated in 6NYCRR 375-1.10. These goals are established under the guideline of meeting all standard, criteria, and guidance (SCGs) and protecting human health and the environment. The goals are:

1. Reduce, control, or eliminate the contamination present within the soils/waste on site (generation of leachate within the fill mass).
2. Eliminate the threat to surface waters by eliminating any future contaminated surface run-off from the contaminated soil on site.
3. Eliminate the potential for direct human or animal contact with the contaminated soils on site.
4. Mitigate the impacts of contaminated groundwater to the environment.
5. Prevent, to the extent possible, migration of contaminants in the landfill to groundwater.

VI. SUMMARY OF THE EVALUATION OF THE ALTERNATIVES

Since the hazardous waste was removed and the Remedial Investigation found that the site is having little impact on the environment, an analysis of remedial action alternatives is not necessary. The site was closed in accordance with Part 360 closure requirements in effect at the time of closure.

VII. CITIZEN PARTICIPATION

A Citizen's Participation Plan was developed and implemented by the Town of Annsville with NYSDEC input. The consulting firm of Stearns and Wheler was retained to assist the Town with the program. Major Documents were placed in document

repositories in the vicinity of the site and made available for public review. A public contact list was developed and used to distribute fact sheets and meeting announcements.

On March 13, 1990 a public meeting was held concerning the RI/FS work plans.

On January 19, 1994 a public meeting was held concerning the results of the Remedial Investigation and the PRAP.

VIII. SUMMARY OF THE GOVERNMENTS PROPOSED DECISION

Under the Consent Order Harden Furniture completed an Interim Remedial Measure which removed buried drums at the landfill. Upon completion of the Remedial Investigation conducted by Stearns and Wheler on the behalf of the Town of Annsville it was found that:

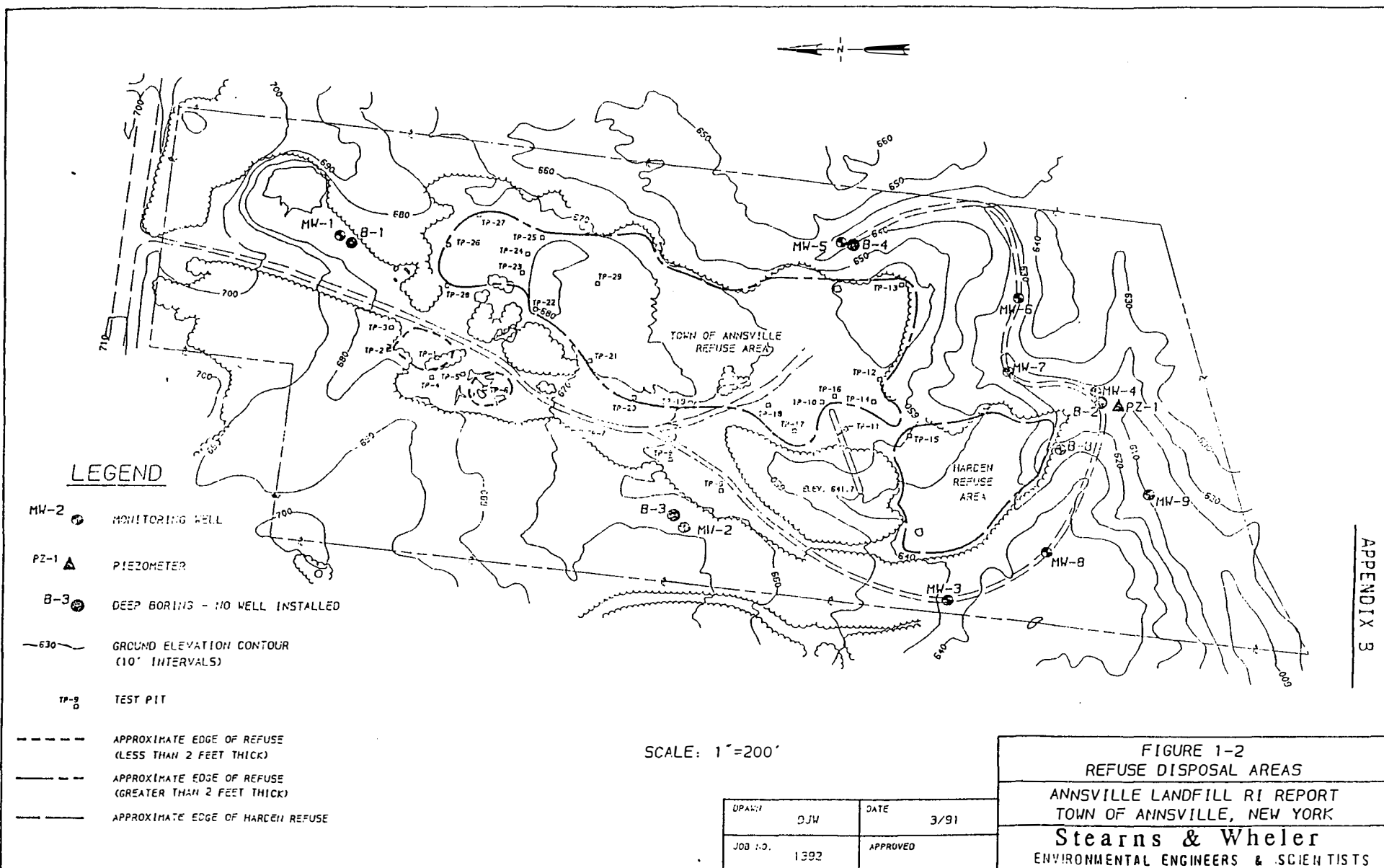
- a. The water table is approximately 40 feet below the fill area.
- b. There is no leachate discharge to surface water.
- c. No significant concentrations of methane were being generated by the landfill.
- d. Except for possibly iron and manganese, no significant contravention of groundwater standards have been found.

These findings indicate that the site has little present or potential for future impact on the surrounding environment and that the significant threat that existed was abated by the drum removal action undertaken by Harden Furniture. Therefore the site will be delisted from the NYS Registry of Inactive Hazardous Waste Sites.

Appendix A

TABLE 1
NEW YORK STATE STANDARDS, CRITERIA AND GUIDANCE APPLICABLE
TO THE ANNSVILLE LANDFILL SITE

<u>Statute, Regulation or Program</u>	<u>Category</u>
NYSDEC TOGS 1.1.1-Ambient Water Quality Standards and Guidance Values	Action-specific Contaminant-specific Location-specific (point of discharge classification)
NYSDOH Requirements for General Organic Chemicals in Drinking Water (MHL; Sections 201 and 205)	Contaminant-specific
NYSDEC Air Guide-1	Action-specific
NYSDEC DHWR - Soil Cleanup Criteria	Action-specific Contaminant-specific Location-specific
NYSDEC Hazardous Waste Treatment Storage and Disposal Facility Permitting Requirements (6 NYCRR part 373)	Action-specific Contaminant-specific
NYSDEC Solid Waste Management Facilities (6NYCRR Part 360)	Action-specific
Safe Drinking Water Act/USEPA Health Advisories (40 CFR Parts 141, 142, and 143)	Contaminant-specific
Resource Conservation and Recovery Act-Groundwater Protection Standards (40 CFR Part 264.90-264.109)	Contaminant-specific
Clean Water Act-Ambient Water Quality Criteria (EPA 44/5-86-001)	Contaminant-specific Location-specific
Toxic Substance Control Act (40 CFR Part 702-799)	Contaminant-specific
USEPA Health-Based Soil Criteria for Systemic Toxicant and Carcinogens	Contaminant-specific
OSHA Standards (29 CFR 1900-1999)	Action-specific Contaminant-specific Location-specific



APPENDIX C

Exhibit #1

Document Description

Order on Consent #A6-0138-88-01

Memorandum from Peter Ouderkirk Region 6 DHWR to Paul VanCott,
Region 5, DEE December 1989

Remedial Investigation/Feasibility Study Work Plan Stearns &
Wheler, October 1989

Final Remediation Summary Report Rizzo Associates, Inc. March
25, 1991

Town of Annsville Landfill Remedial Investigation Report, Stearns
& Wheler, 1993

Appendix C

Exhibit #2 Annsville Landfill Site Site # 633025

Town of Annsville, Oneida County, New York

RESPONSIVENESS SUMMARY

This Responsiveness Summary was prepared to answer the public's comments about the New York State Department of Environmental Conservation's (NYSDEC's) Proposed Remedial Action Plan (PRAP) to delist the Annsville Landfill Site from the NYS Registry of Inactive Hazardous Waste Sites.

NYSDEC invited the public to comment about the proposal through a mailing to the site's contact list and at a public meeting held on January 10, 1994. This Responsiveness Summary addresses the significant comments received.

Q. What would the town have to do if the landfill is delisted?

A. The Town would have to comply with NYCRR Part 360, 1986 requirements if the landfill remains closed.

Q. How much cover is on the landfill?

A. Based on the findings of the Remedial Investigation it is believed that the majority is covered with at least 2 ft. of soil.

Q. Does the current closure comply with the 1986 Part 360 Requirements?

A. According to the NYSDEC Regional Solid Waste staff, the previous closure done by the Town of Annsville complied with the closure requirements in place at that time.

Q. Once reclassified, is there no money available from the State if action is needed in the future?

A. Since EQBA Title 3 grant money is for the remediation of Hazardous Waste sites it would not be available.

Q. Why is the methane level so low, is it the age of waste?

A. Age is a factor along with the permeability of the cover soil dryness of the waste and limited volume of organic materials.

- Q. Any thought to future use? Could it reopen to hard fill?
- A. Any disposal of construction and demolition debris (hardfill) would have to comply with current Part 360 Regulations.
- Q. Can trees be cut and removed from the property? Can rock be taken off the property?
- A. In areas of the property away from the landfilled waste, trees, rock and/or soils could be removed. Next to or on the landfill, DEC Regional Solid Waste staff should be consulted.
- Q. Do we have to close the monitoring wells?
- A. It is the Town's decision whether or not to abandon the existing wells. If monitoring is needed in the future, the town would need to drill new wells if the existing are sealed. However, if not properly secured, these wells could be prone to vandalism and possibly contamination.

a:annsvill.pra