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

704013

ADDITIONS/CHANGES TO REGISTRY: SUMMARY OF APPROVALS

SITE NAME: CONKLIN DUMPS DEC I.D. NUMBER 704013

Current Classification 2

Activity: ☐ Add as Class ___ ☑ Reclassify to 4 ☐ Delist Category ___ ☐ Modify ___

Approvals:

Regional Hazardous Waste Engineer	Yes	☐	No	☐	
NYSDOH	Yes	☐	No	☐	
DEE	Yes	☐	No	☐	
Construction Services	Yes	☐	No	☐	
BHSC: a. Investigation Section	Yes	☐	No	☐	
b. Site Control Section					Date 5/15/96
c. Director					Date 5/16/96
DHWR Assistant Director					Date 5/20/96

ROD RECLASS

Completion Checklist		Completed By: Initials	Date
OWNER NOTIFICATION LETTER?	☑		6/6/96
ADJACENT PROPERTY OWNER NOTIFICATION LETTER?	☑		6/26/96
ENB/LEGAL NOTICE SENT? (For Deletion Only)	☐		
COMMENTS SUMMARIZED/PLACE IN REPOSITORY	☐		
FINAL NOTIFICATION SENT TO OWNER? (For Deletion Only)			

(For proposed Class 2a sites only) Planned investigative activities & dates: ___

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE REMEDIATION

8/23/94

SITE INVESTIGATION INFORMATION

1. SITE NAME	2. SITE NUMBER	3. TOWN/CITY/VILLAGE	4. COUNTY
Conklin	7-04-013	Conklin	Broome

5. REGION	6. CLASSIFICATION
7	CURRENT 2 PROPOSED 4 MODIFY

7. LOCATION OF SITE (Attach U.S.G.S. Topographic Map showing site location)

a. Quadrangle

b. Site Latitude _42__° __3__' __0__" Site Longitude _75__° _49__' _06__"

c. Tax Map Numbers 4-11-S2

d. Site Street Address Broome County Industrial Park Access Road, Conklin, New York

8. BRIEFLY DESCRIBE THE SITE (Attach site plan showing disposal/sampling locations)

The Upper Landfill was operated by the Town of Conklin from 1969 to 1975. It is believed that some industrial wastes were co-disposed with the municipal solid waste. So, in 1975 a closure order was issued by the NYSDEC. The Remedial Action has been completed in accordance with the ROD. Construction included consolidation of wastes, installation of a cap in accordance with part 360, gas collection and the installation of a leachate collection system.

All municipal solid waste located in the area known as the lower landfill was removed and relocated in the upper landfill.

a. Area __6.5___ acres b. EPA ID Number _NYD981486947_____

c. Completed ( )Phase I ( )Phase II ( ) PSA ( )RI/FS ( )PA/SI (X)Other RA

9. Hazardous Waste Disposed (Include EPA Hazardous Waste Numbers)

Vinyl Chloride (U043)

Methylene Chloride (F002)

10. ANALYTICAL DATA AVAILABLE

a. ( )Air (X)Groundwater (X)Surface Water (X)Sediment ( )Soil ( )Waste (X)Leachate ( )EPTox ( )TCLP

b. Contravention of Standards or Guidance Values

The last round of groundwater sampling was completed in 1991. These results showed levels of VOCs greater than Groundwater Standards. Since no waste was removed from the site, we assume that hazardous waste still remains in the waste mass.

11. CONCLUSION

The closure of the upper landfill has been completed in accordance with the ROD and the approved design. A final inspection was held and the Engineers certification is included in the attached Remedial Action Report. A long term O&M plan has been implemented by the Town and approved by the NYSDEC. Thus, reclassification to class 4 is justified.

Since all of the municipal solid waste from the lower landfill was relocated to the waste mass in the upper landfill, the overall size of this site should be reduced to only the 6.5 acres which the upper landfill occupies.

12. SITE IMPACT DATA

a. Nearest Surface Water: Distance __2500_____ft. Direction ___South____ Classification ____B_____

b. Nearest Groundwater: Depth ___24___ft. Flow Direction __East_____ ( )Sole Source ( )Primary ( )Principal

c. Nearest Water Supply: Distance __NA____ft. Direction ___NA_____ Active ( )Yes (X)No

d. Nearest Building: Distance __300____ft. Direction ___North_____ Use ____Dicks Sporting Goods_____

e. In State Economic Development Zone?	( )Y	(X)N	i. Controlled Site Access?	( )Y	(X)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 __33.93_____		
h. Impact on special status fish or wildlife resource?	( )Y	(X)N	l. For Class 2: Priority Category		

13. SITE OWNER'S NAME	14. ADDRESS	15. TELEPHONE NUMBER
Town of Conklin	1271 Conklin road, P.O. Box 182, Conklin, NY 13748	(607) 775-9154

16. PREPARER	17. APPROVED
Craig M. Lapinski 3/29/96	Charles R. Goddard 5/20/96
Signature Date	Signature Date
Craig Lapinski, Environmental Engineer 1, DHWR - BCS	Asst Dir
Name, Title, Organization	Name, Title, Organization

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION 021297
INACTIVE HAZARDOUS WASTE DISPOSAL REPORT

CLASSIFICATION CODE: 4 REGION: 7 SITE CODE: 704013
EPA ID: NYD981486947

NAME OF SITE : Conklin Upper Landfill
STREET ADDRESS: Broome County Industrial Park Access Road

TOWN/CITY:	COUNTY:	ZIP:
Conklin	Broome	13748

SITE TYPE: Open Dump- Structure- Lagoon- Landfill-X Treatment Pond-
ESTIMATED SIZE: 6.5 Acres

SITE OWNER/OPERATOR INFORMATION:
CURRENT OWNER NAME....: Town of Conklin
CURRENT OWNER ADDRESS.: 1271 Conklin Rd., P.O.B. 182, Conklin, NY
OWNER(S) DURING USE...: Town of Conklin
OPERATOR DURING USE...: Town of Conklin
OPERATOR ADDRESS.....: Route 6, Conklin, NY
PERIOD ASSOCIATED WITH HAZARDOUS WASTE: From 1964 To 1975

SITE DESCRIPTION:
Two former Town landfills; known as the upper and lower, were operated from the mid 1960s to the mid 1970s. A small amount of industrial chemical waste had reportedly been disposed of at each of them. Leachate analysis has indicated the presence of a number of volatile organic chemicals, including vinyl chloride chloroethane, methylene chloride, 1,1-dichloromethane and a number of other contaminants. After this site was closed, an industrial park was built around the two dumps. The Broome County Industrial Development Authority hired a consulting engineering firm to conduct a hydrogeological investigation of the two sites. The study was done to assess the impact of the dumps on the area groundwater. In 1987 the DEC entered into an agreement with the Town to develop a remedial plan. A Consent Order was signed by the Town to enable them to receive Title-3 EQBA funds. A Remedial Investigation/Feasibility Study (RI/FS) was completed in the fall of 1990.
A Record of Decision (ROD) was signed by the USEPA on March 29, 1991.
The Conklin dumps have been listed on the National Priorities List (NPL).
The Town has remediated the landfills by using two contracts. Contract No. 1 (the lower landfill) called for excavation and relocation of all municipal wastes into the upper landfill. Contract No 2 (the upper landfill) called for landfill capping and installation of a leachate collection system. The Town has obtained a permit to discharge the landfill leachate into the municipal sewer system. A holding and batch tank system was constructed so that the leachate could be tested before discharge.
All remedial work is now complete. The project is currently in the longterm operation and maintenance phase.

HAZARDOUS WASTE DISPOSED:

[illegible]	Quantity (units)
Vinyl Chloride (U043 Waste)	unknown
Methylene Chloride (F002 Waste)	unknown

SITE CODE: 704013

ANALYTICAL DATA AVAILABLE:
Air- Surface Water-X Groundwater-X Soil- Sediment-X

CONTRAVENTION OF STANDARDS:
Groundwater-X Drinking Water- Surface Water- Air-

LEGAL ACTION:

TYPE..: Consent Order State- X Federal-
STATUS: Negotiation in Progress- Order Signed- X

REMEDIAL ACTION:

Proposed- Under design- In Progress- Completed-X
NATURE OF ACTION: Remedial program

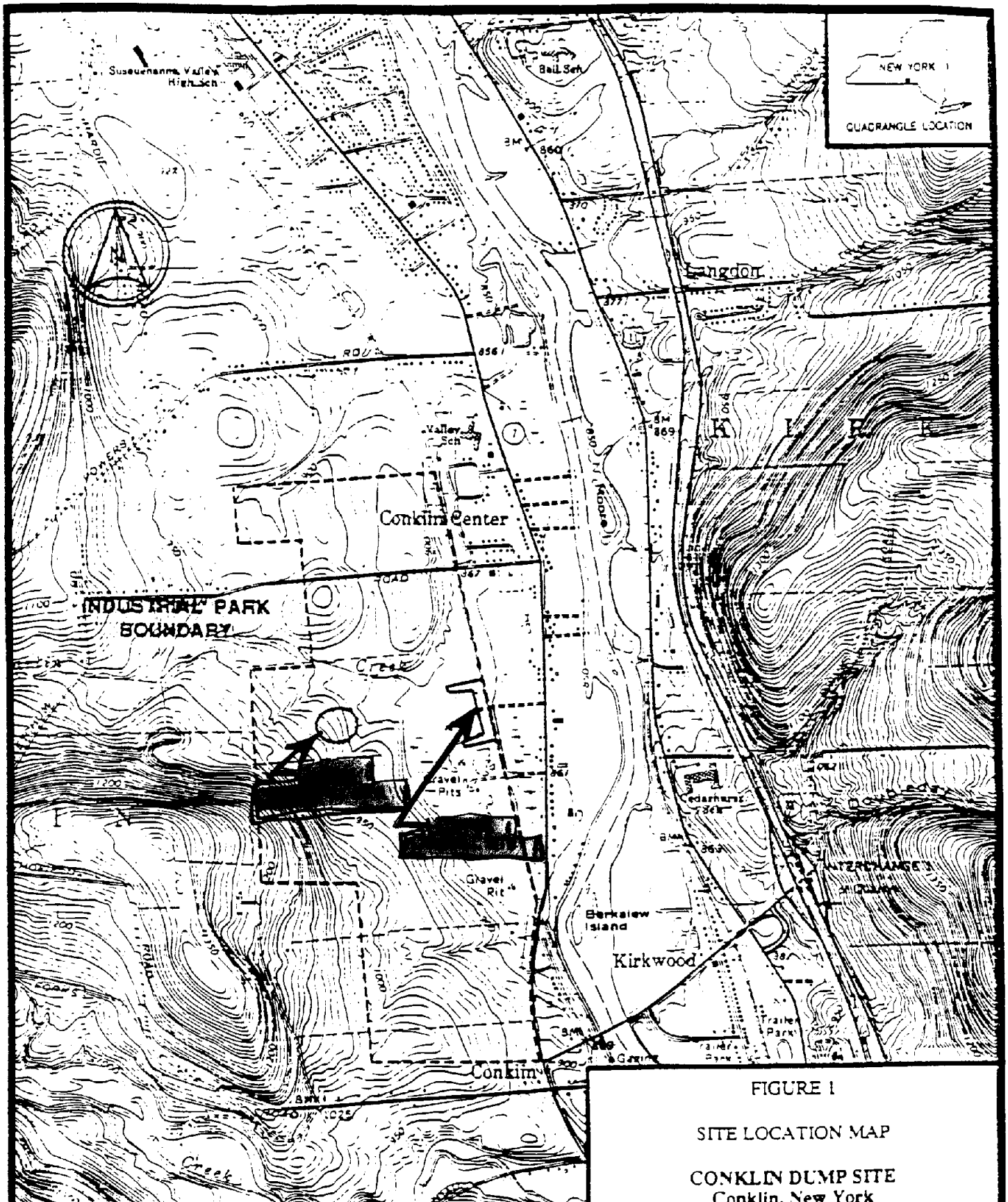
GEOTECHNICAL INFORMATION:
SOIL TYPE: Hardpan or gravel
GROUNDWATER DEPTH: Approximately 24 feet

ASSESSMENT OF ENVIRONMENTAL PROBLEMS:

Leachate analysis indicates volatile organics in the upper landfill.

ASSESSMENT OF HEALTH PROBLEMS:

Because of groundwater contamination at and near the site, the NYSDOH recommended that public water be extended to residents downgradient of the site. Extension of the public water supply was completed in 1988. In March 1991, five private water supplies downgradient of the site were sampled and no volatile organic contaminants were detected. Arsenic was detected at levels below the maximum contaminant level for public water supplies in two wells. Residents have been advised to connect their homes to the public water supply.



RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 1

SITE LOCATION MAP

CONKLIN DUMP SITE
Conklin, New York

U.S.G.S. 7.5 min. quad., Binghamton East, NY

Scale 1" = 2,000'
Contour Interval: 10 Feet

15 (12-75)

New York State Department of Environmental Conservation

MEMORANDUM

TO: Earl Barcomb, Director, Bureau of Hazardous Site Control
FROM: Alan Rockmore, Director, Bureau of Construction Services
SUBJECT: Conklin Upper & Lower Landfills, Site No. 7-04-013, Broome County

DATE: MAR 2 9 1996

LaBarge Bros. Co., Inc. constructed a Part 360 landfill cap and leachate collection system for the Town of Conklin under the Title III program. This action has successfully reduced the production of leachate into the groundwater. Remedial work at the site was performed in accordance with the approved contract documents and is now in the O&M phase. The attached two "Remedial Action Reports" describe the project in detail.

At this time, it is proposed to reclassify the site from a class 2 - "Significant threat to the public health or environment - action required" to a class 4 - "Site has been properly closed, requires continued management." Please note that the size of the site has been reduced to only include the area which the Upper Landfill encompasses.

Supporting documentation, including any additions/changes to registry of inactive hazardous waste disposal sites form, a site investigation information form and a final remediation report are attached as justification for the proposed reclassification.

If you have any questions, please call Craig Lapinski at 7-9280.

Attachments

cc: w/o att.: C. Goddard
A. Rockmore
J. Van Hoesen
C. Lapinski
T. Koch
C. Branagh - NYSDEC, Region 7

NYSDOH

RECORD OF DECISION

EPA
Region 2

8 1991

Conklin Dumps Site

Town of Conklin, Broome County, New York

March, 1991

DECLARATION FOR THE RECORD OF DECISION

SITE NAME AND LOCATION

Conklin Dumps Site
Town of Conklin, Broome County, New York

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for the Conklin Dumps Site (the "Site"), located in the Town of Conklin, Broome County, New York, which was chosen in accordance with the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision document explains the factual and legal basis for selecting the remedy for the Site.

The State of New York concurs with the selected remedy. The information supporting this remedial action decision is contained in the administrative record for the Site. The administrative record index is attached.

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from the Site, if not addressed by implementing the response action selected in this Record of Decision (ROD), may present a current or potential threat to public health, welfare, or the environment.

DESCRIPTION OF THE SELECTED REMEDY

This operable unit is the final action for the Site. The selected remedy will provide containment through the installation of caps over the landfill material and leachate collection. Leachate will be discharged to the Binghamton-Johnson City Joint Sewage Treatment Plant, with or without pretreatment, as appropriate. If the sewage treatment plant is not available, then the leachate will be treated on-site and the treated effluent will be discharged to Carlin Creek. Also included in the selected remedy is groundwater monitoring, fencing, and deed restrictions.

The selected response action does not provide for active remediation of groundwater contamination from the Site since the natural degradation of the contaminants in the groundwater will result in an earlier attainment of groundwater standards than would be the case with groundwater extraction and treatment. Five-year reviews will be conducted as required by the NCP due to the fact that waste will remain on-site. The purpose of the five-year review is to ensure that the remedy continues to provide adequate protection of human health and the environment.

The landfills will be regraded as necessary prior to installation of the caps to establish slopes which will encourage runoff and minimize erosion. The caps will contain the landfill material and minimize infiltration of precipitation into the landfill material. This will minimize the potential for future contamination of the groundwater.

The major components of the selected remedy include the following:

- Cutting the existing sides of the landfills to slopes of no greater than approximately 3%. The top surfaces of the landfills would be regraded to slopes of no less than 4% to provide for proper drainage.
- Installation of at least two leachate collection wells and leachate collection trench or toe drain at the Upper Landfill and leachate collection trench at the lower landfill installed to a depth sufficient to eliminate leachate seeps.
- Installation of multimedia caps over the landfill material. Water infiltrating through the vegetative and protective layers of the cap will be intercepted by the impermeable flexible membrane layer and conveyed away from the landfill material.
- The multi-media cap will be consistent with applicable regulations that require that when a flexible membrane liner (FML) is used in place of clay, the FML may have a permeability no greater than 1×10^{-12} cm/sec. The design requirements contained in the 6 NYCRR Part 360 standards would be incorporated into the cap design.
- Installation of a gravel gas venting layer, with a filter fabric layer placed over the gravel. The FML will be placed over the filter fabric, and another layer of filter fabric will be placed on top of the FML.
- Seeding and mulching of the topsoil layer to prevent erosion and provide for rapid growth of vegetation.

- Collection of the leachate followed by either its discharge to the Binghamton-Johnson City Sewage Treatment Plant for treatment or its treatment on-site via an air stripping treatment plant and discharge to Carlin Creek. (If discharge to the sewage treatment plant is not possible then the leachate treatment system will be constructed concurrently with the cap. The system will be located adjacent to the Lower Landfill. Leachate collected at the Upper Landfill will be transported to the Lower Landfill through a gravity flow pipe.)

- Installation of fencing to further protect the integrity of the caps by restricting access to the Site. Periodic inspection of the cap, and maintenance as necessary, will provide for long-term effectiveness and permanence of the alternative.

- Imposition of property deed restrictions, if necessary. The deed restrictions will include measures to prevent the installation of drinking water wells at the Site, and restrict activities which could affect the integrity of the cap.

- Initiation of a monitoring program upon completion of the closure activities. The monitoring program will provide data to evaluate the effectiveness of the remedial effort, including the natural degradation of chloroethane in the ground water over time.

DECLARATION OF STATUTORY DETERMINATIONS

The selected remedy is protective of human health and the environment, complies with federal and state requirements that are legally applicable or relevant and appropriate to the remedial action, and is cost-effective. This
remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable. However, this remedy only partially satisfies the statutory preference for treatment as a principal element of the remedy since treatment of contaminated groundwater was not found to be practicable and since the size of the landfill, and the fact that there are no on-site hot spots that represent the major sources of contamination, preclude a remedy in which contaminants can be excavated and treated effectively.

Because this remedy will result in hazardous substances remaining on-site, a review will be conducted no later than five years after completion of the remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment.

_____ _____

Constantine Sidamon-Eristoff Date
Regional Administrator

Decision Summary

Conklin Dumps Site

Town of Conklin,
Broome County, New York

EPA
Region 2

March, 1991

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ATTACHMENTS

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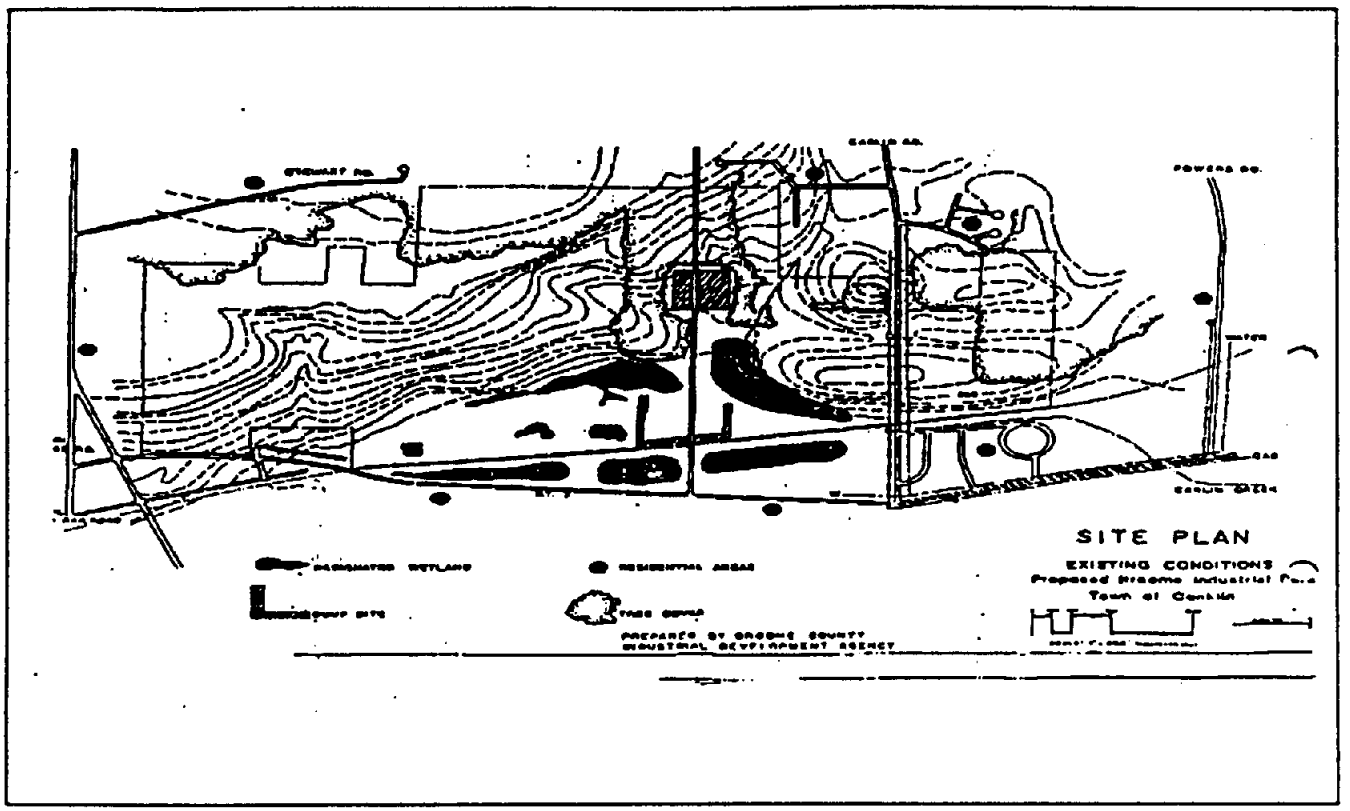

Figure 1 - Conklin Dumps Site Plan

SITE NAME, LOCATION, AND DESCRIPTION

The Site (see figure 1), located in the Town of Conklin in Broome County, New York, is an 8.5 acre landfill situated in a sparsely populated area within the perimeter of the Broome Corporate Park in Broome County. The Site is located approximately one mile north of the Kirkwood Interchange of Interstate Route 81 and approximately ten miles southeast of Binghamton, New York (pop. approx. 55,000, 1980 Census). The Site consists of two inactive municipal landfills (an Upper and a Lower Landfill), both owned by the Town of Conklin. The Lower Landfill was operated by the Town of Conklin from 1964 to 1969. This landfill was used to dispose of municipal refuse, and is estimated to contain a total fill volume of approximately 25,000 cubic meters. The Lower Landfill is located adjacent to the 100 year floodplain of the Susquehanna River, about 0.5 miles to the east of the river. Designated wetlands surround a large portion of the Lower Landfill.

SITE HISTORY AND ENFORCEMENT ACTIVITIES

The Upper Landfill was operated by the Town of Conklin for the disposal of municipal wastes from 1969 until 1975, when a closure order was issued by the New York State Department of Environemtnal Conservation (NYSDEC). The Upper Landfill is estimated to contain a total fill volume of approximately 55,000 cubic meters of waste material.

In 1984, O'Brien and Gere Engineers, Inc. initiated a two phase hydrogeologic investigation of the Broome Corporate Park for the Broome Industrial Development Agency. The purpose of the investigation was to determine whether the Broome Corporate Park could be developed. A phase I hydrogeologic investigation was completed in March 1984. This investigation evaluated the potential for contamination and development limitations of

the area. A Phase II hydrogeologic investigation was completed in February 1985. This investigation characterized the local hydrogeology and identified the hydrogeologic conditions that would affect development of the industrial park. The investigations identified the presence of leachate seeps from the Site. In addition, groundwater monitoring wells located within the perimeter of the dumps indicated the presence of low levels of contaminants.

In 1985, a work plan for conducting a remedial investigation and feasibility study (RI/FS) was prepared by O'Brien and Gere and was submitted to NYSDEC. In June 1986, the field efforts were completed, but negotiations between the Town and the State on the Consent Order for funding of the project continued until June 1987 (the Consent Order was signed by the NYSDEC Commissioner on June 12, 1987), causing delays in finalizing the results of the investigations. The site was proposed in June, 1986 and was listed on the National Priorities List (NPL) on March 30, 1989.

An RI report was completed in December 1988. The RI Report was approved by NYSDEC on February 12, 1990, contingent upon the inclusion of additional groundwater sampling to obtain validated data at critical locations, methane monitoring, and field delineation of the wetlands in the vicinity of the Lower Landfill.

The required round of sampling was completed in June 1990. Groundwater samples from both the Upper and Lower Landfills were analyzed for volatile organics and selected metals.

Most of the contamination was found directly downgradient from the Upper Landfill in one well. Only inorganics were found in groundwater downgradient from the Lower Landfill. Leachate emanating from both the Upper and Lower Landfills was found to contain detectable levels of volatile organics and inorganics.

HIGHLIGHTS OF COMMUNITY PARTICIPATION

The RI/FS report and the Proposed Plan for the Conklin Dumps Site were released to the public for comment on February 4, 1991. These two documents were made available to the public in the administrative record and in information repositories maintained at the EPA Docket Room in Region II, New York, at the Conklin Town Hall, 1271 Conklin Road, Conklin, New York, and at NYSDEC's offices in Kirkwood and Albany, New York. Notice of the availability of these documents and a public comment period were published in the Press and Sun Bulletin, a newspaper of general circulation in Broome County. A public comment period on these documents was held from February 4, 1991 through March 6, 1991. In addition, a public meeting was held at the Town of Conklin Town Hall on February 25, 1991. At this meeting, representatives from the EPA and NYSDEC answered questions about problems at the Site and the remedial alternatives under consideration. Responses to the comments received during the public comment period are included in the Responsiveness Summary, which is appended to, and a part of, this ROD.

SCOPE AND ROLE OF OPERABLE UNIT

The purpose of this response action is to reduce the risk to human health and the environment due to the contamination of the on-site groundwater, to restore the groundwater underlying the Site to levels consistent with state and federal regulations, and to ensure protection of the air, ground and surface water in the vicinity of the Site from continued release of contaminated leachate.

Human health and the environment will be protected through containment of the landfill

material and collection and treatment of the leachate.

This response action applies a comprehensive approach (i.e., one operable unit) to remedial action at the site. In other words, this project has not been segmented into incremental portions.

SUMMARY OF SITE CHARACTERISTICS

Shale/siltstone bedrock underlies the entire site, with depth to bedrock varying from 80 feet below the surface of the Upper Landfill to 130 feet below the surface of the Lower Landfill. The bedrock is covered by a varying thickness of glacial till and other glacial deposits.

The depth of refuse at the Upper Landfill varies from approximately 10 feet to 30 feet. The refuse contained in the Upper Landfill is in direct contact with the underlying glacial till formation except along its eastern border. The east side of the landfill is underlain by a lens of low permeability silt and fine sand. This silt layer varies in depth from approximately 10 feet to 30 feet and extends downgradient from the base of the refuse.

The depth of refuse at the lower landfill varies from approximately 6 feet to 12 feet. Refuse contained in the Lower Landfill is underlain by sand and gravel glacial outwash. This sand and gravel layer is approximately 20 feet thick and is underlain by the glacial till. Groundwater occurs between 1 and 14 ft below the ground surface except under the Upper Landfill, where the groundwater is approximately 24 ft below the surface.

The horizontal groundwater flow direction beneath the Site is from west to east toward the Susquehanna River. The hydraulic gradient is approximately 0.07 ft/ft in the upland portion of the Site where the Upper Landfill is located. The hydraulic gradient in the lower area of the Site, including the Lower Landfill and the sand and gravel outwash, is approximately 0.01 ft/ft. While some groundwater may discharge locally into Carlin Creek and the nearby wetlands, most of the ground water from the Site likely discharges to the Susquehanna River.

The upland area encompassing the Upper Landfill is underlain predominantly by glacial till which has a low permeability (2.3×10^{-7} to 1.4×10^{-4} cm/sec), resulting in an estimated groundwater flow velocity of approximately 1.3×10^{-4} ft/day to 0.05 ft/day. The Lower Landfill is underlain by outwash sand and gravel which has a relatively high permeability (4.3×10^{-4} to 6.0×10^{-3} cm/sec). This, when combined with the low flow gradient, results in an estimated ground water velocity beneath the Lower Landfill ranging from 0.05 ft/day to 0.70 ft/day.

The RI report summarized the data collected during the RI and from previous studies conducted at the Conklin Dumps Site. These data established the basis for completing the site risk assessment and were used in conjunction with the June 1990 groundwater data to evaluate remedial options for the Site.

The chemical analytical data resulting from the on-site investigation indicate that the groundwater at the Upper Landfill contained detectable levels of volatile organics and inorganics. Most of the contamination was found directly downgradient from the landfill in Well #11. Only inorganics were found in groundwater downgradient from the Lower Landfill. Leachate emanating from both the Upper and Lower Landfills was found to contain detectable levels of volatile organics and inorganics. A comparison of the analytical data from leachate samples indicates that the disposal of hazardous substances in the Lower Landfill was probably minimal compared to that in the Upper Landfill.

Certain compounds in the ground water and leachate exceed New York State Class GA

Groundwater Standards. Chloroethane, 1,2-dichloropropane, and xylene have been detected at concentrations above Class GA standards at the Upper Landfill. Xylene (7 parts per billion (ppb) in 1990) has historically been below or just above the Class GA standard (5 ppb). The concentration of 1,2-dichloropropane (9 ppb in 1990) has been decreasing over the past four years, and most recently was detected just above the Class GA standard (5 ppb). Chloroethane was observed at a concentration of 68 ppb in 1990. Chloroethane was utilized as the constituent of concern at the site. No detectable contaminants were found in Carlin Creek waters.

SUMMARY OF SITE RISKS

O'Brien & Gere conducted a Risk Assessment (part of the RI) of the "no action" alternative to evaluate the potential risks to human health and the environment associated with the Conklin Dumps Site in its current state. The risk assessment focused on the groundwater contaminants which are likely to pose the most significant risks to human health and the environment (indicator chemicals).

The risk assessment evaluates the potential impacts on human health and the environment at the site assuming that the contamination at the site is not remediated. This information is used to make a determination as to whether remediation of the site may be required. The RI report presented a detailed site specific risk assessment which addressed site conditions and exposures. The risk assessment qualitatively and quantitatively evaluated the hazards to human health and the environment at the Landfills. The qualitative analysis characterized the potential exposure pathways while the quantitative analysis determined the risk of the complete pathways.

The air pathway for existing site conditions was identified in the approved RI report as incomplete. This determination was based upon the low levels of volatile organics detected in the Site ground water and leachate. Air monitoring conducted during the RI, soil vapor monitoring conducted during the Phase I Hydrogeologic Investigation, and methane monitoring conducted in June 1990 confirmed this determination.

Cancer potency factors (CPFs) have been developed by EPA's Carcinogenic Assessment Group for estimating excess lifetime cancer risks associated with exposure to potentially carcinogenic chemicals. CPFs, which are expressed in units of $(mg/kg\text{-}day)^{-1}$, are multiplied by the estimated intake of a potential carcinogen, in mg/kg-day, to provide an upper-bound estimate of the excess lifetime cancer risk associated with exposure at that intake level. The term "upper bound" reflects the conservative estimate of the risks calculated from the CPF. Use of this approach makes underestimation of the actual cancer risk highly unlikely. Cancer potency factors are derived from the results of human epidemiological studies or chronic animal bioassays to which animal-to-human extrapolation and uncertainty factors have been applied.

Reference doses (RfDs) have been developed by EPA for indicating the potential for adverse health effects from exposure to chemicals exhibiting noncarcinogenic effects. RfDs, which are expressed in units of mg/kg-day, are estimates of lifetime daily exposure levels for humans, including sensitive individuals, that is not likely to be without an appreciable risk of adverse health effects. Estimated intakes of chemicals from environmental media (e.g., the amount of a chemical ingested from contaminated drinking water) can be compared to the RfD. RfDs are derived from human epidemiological studies or animal studies to which uncertainty factors have been applied (e.g., to account for the use of animal data to predict effects on humans). These uncertainty factors help ensure that the RfDs

will not underestimate the potential for adverse noncarcinogenic effects to occur.

The direct contact exposure pathway was identified as functional due to the presence of detectable contaminants in the landfill leachate. Under future Site development scenarios, the pathway was considered complete.

The human exposure pathways are ingestion of groundwater and dermal contact with leachate. EPA considers risks in the range of 10^{-4} to 10^{-6} to be acceptable. This risk range can be interpreted to mean than an individual may have a one in ten thousand to a one in a million increased chance of developing cancer as a result of site-related exposure to a carcinogen over a 70-year lifetime under the specific exposure conditions at the Site.

The quantitative assessment evaluated intentional ingestion of groundwater by humans and dermal contact with leachate by humans. It was determined, based on the evaluation of sample concentrations from the most recent sampling round (June 1990), that neither pathway posed an unacceptable health risk.

Although current health risks are in the acceptable range, state and federal groundwater standards are being violated in the vicinity of Well #11 (See figure 2). Actual or threatened releases of hazardous substances from the Site, if not addressed by implementing the response action selected in this ROD, may present a current or potential threat to public health, welfare, or the environment. Therefore remedial action is required.

DESCRIPTION OF REMEDIAL ALTERNATIVES

CERCLA requires that each selected site remedy be protective of human health and the environment, be cost effective, comply with other statutory laws, and utilize permanent

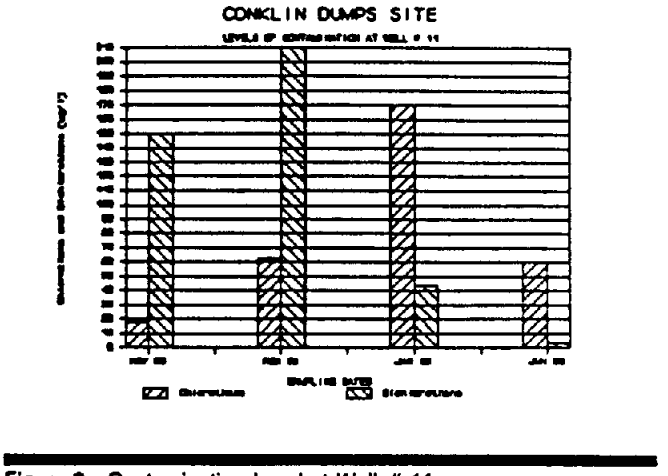

Figure 2 - Contamination Level at Well # 11

solutions and alternative treatment technologies and resource recovery alternatives to the maximum extent practicable. In addition, the statute includes a preference for the use of treatment as a principal element for the reduction of toxicity, mobility, or volume of the hazardous substances.

Remedial action objectives are specific goals to protect human health and the environment; they specify the contaminant(s) of concern, the exposure route(s), receptor(s), and acceptable contaminant level(s) for each exposure route. These objectives are based on available information and standards such as applicable or relevant and appropriate requirements (ARARs) and risk-based levels established in the risk assessment.

The risk assessment concluded that the risk to human health due to site-related exposure to groundwater, landfill leachate, or surface water (sediments) was at the upper bounds (10^{-4}) for acceptable exposure levels. However, certain compounds in the groundwater and leachate exceed New York State Class GA Groundwater Standards which have been determined to be ARARs for the Site. Chloroethane, 1,2-dichloropropane, and xylene have been detected at concentrations above Class GA standards at the Upper Landfill.

A Sylvester

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233 - 7010

JUN 26 1996

Michael Zagata
Commissioner

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 at Broome County Industrial Park Access Road in the Town of Conklin and County of Broome and designated as Tax Map Number 4-11-52 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 Conklin Upper Landfill Site, Site #704013.

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:

- The closure of the upper landfill has been completed in accordance with the Record of Decision (ROD) and the approved design. A long term O&M plan has been implemented by the Town and approved by the NYSDEC. Thus, reclassification to class 4 is justified.

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. 402.

Sincerely,

Robert L. Marino
Chief
Site Control Section
Bureau of Hazardous Site Control
Division of Hazardous Waste Remediation

bcc: R. Marino
T. Reamon
C. Branagh, R/7
A. Sylvester
A. Carlson
L. Ennist

AS/srh

County of Broome
County Clerk
44 Hawley Street
Binghamton, New York 13902

Bro Co. Industrial
NYS Route 7
19 Chenango Street
Press Building Suite 702
Binghamton, NY 13905

Town of Conklin
Town Clerk
Conklin Forks Road
RD #1, P.O. Box 351
Conklin, New York 13748

Leon E. and Grace Newby
RD 4 Dunham Hill Road
Binghamton, NY 13905

Donald and Joy Stanton
Palmer Hill Road
RD2 Box 1018
Port Crane, NY 13833

Lawrence Farrow, Jr.
Davis Road
Glen Aubrey, NY 13777