

2021 Hazardous Waste Scanning Project

File Form Naming Convention.

(File_Type).(Program).(Site_Number).(YYYY-MM-DD).(File_Name).pdf

Note 1: Each category is separated by a period "."

Note 2: Each word within category is separated by an underscore "_"

Specific File Naming Convention Label:

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*Status of Remedial Activities
Love Canal Remedial Action Project
To
Love Canal Technical Review Committee*

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
THOMAS C. JORLING, COMMISSIONER**

**DIVISION OF HAZARDOUS WASTE REMEDIATION
MICHAEL J. O'TOOLE, JR., DIRECTOR**

November 13, 1991

New York State Department of Environmental Conservation
Division of Hazardous Waste Remediation

Report of

Michael J. O'Toole, Jr., P.E.
Director, Division of Hazardous Waste Remediation
on the Status of Remedial Activities
Love Canal Remedial Action Project

To

Love Canal Technical Review Committee

November 13, 1991

I. Introduction

The following activities have taken place at the Love Canal Site since the last meeting of the Technical Review Committee on May 15, 1991. Of special note to area residents is a letter from Commissioner Jorling to Mr. Juan Villanueva, Executive Director, N.Y.S. Affordable Housing Corporation supporting the need for Home Improvement grants (see attachment 1).

II. Love Canal EDA 2 and 3

At the May 15, 1991 TRC meeting, the NYSDEC released the Cost Analysis Report (CAR) which had been sent to LCARA on May 13, 1991. The CAR evaluated the construction costs of a range of alternatives for remediating EDA Areas 2 and 3 that could meet the Habitability Criteria for residential development (see attachment 2). The CAR was developed to assist LCARA in responding to the issues and concerns identified by the DPC's Findings Statement.

When the DPC receives LCARA's response to the Findings Statement, the DPC will conduct a hearing to gather the public's comments on the revitalization plan proposed for EDA 2 and 3. The DPC will then consider these comments in preparing supplemental findings with respect to those portions of the Master Plan related to EDA 2 and 3.

III. Love Canal EDA 4

The investigation by NYSDEC and NYSDOH of previously identified elevated levels of B-BHC contamination in EDA Area 4 has been completed. After a review of all the data available, it was determined the contamination was confined to three lots: 9909 and 9903 Black Creek Drive, and 1044 100th Street. The NYSDOH recommended the Department pursue removal of the contaminated fill from these three lots (see attachment 3).

To implement these recommendations the Department engaged ABB Environmental Services to develop contract documents to accomplish the work. Work will begin in the spring of 1992 and will involve the removal of 900 - 1,000 cu. yds. of soil. After review by the NYSDOH, the NYSDEC has determined the soil does not contain RCRA hazardous waste. The USEPA and the NYSDEC are evaluating disposal options. After the contaminated soils have been removed, the excavated areas will be backfilled with clean soils, graded and seeded.

IV. Frontier Avenue Storm Sewer

ABB Environmental Services will prepare construction documents and perform construction oversight of the remediation of the Frontier Avenue storm sewer. The remediation will consist of excavating the contaminated sewer pipe and bedding, and storing them in closed containers for future disposal at OCC's Buffalo Avenue plant. If conditions warrant, these plans also call for lining the section of sewer under the LaSalle Expressway. Remedial work is scheduled to begin in the spring of 1992. See Love Canal TRC Action Item Number 73, page 4.

V. 93rd Street School

The USEPA issued a Record of Decision Amendment in May 1991 selecting a remedy for the site which included excavation and off-site disposal of the contaminated soils, after which the area was to be backfilled, graded to provide proper drainage and seeded (see attachment 4). To explain the construction phase to area residents and to address any concerns they may have, a Public Availability session was held at the PIO on October 24, 1991. During this meeting residents expressed concern over the trucks using residential streets. Steps have been taken to ensure trucks avoid these residential areas where ever possible.

NYSDEC awarded the contract to the low bidder, Tricil Environmental Response, Inc. of Houston, Texas (TRICIL), for \$1,123,078.50 dollars. TRICIL will begin mobilizing on November 18, 1991 with actual construction starting in early December 1991. The contract completion time is nine months which includes approximately three months winter shutdown. Under the contract TRICIL will transport all excavated material to the 102nd Street Landfill Material Placement Cell, constructed by OCC.

VI. Black and Bergholtz Creeks Remediation Contract

The analytic results from the October 1990 sampling of OCC's Processing Facility indicated that the entire processing area has been adequately decontaminated to below levels of concern. OCC has transported the uncontaminated reusable construction material (the building's structural members and the asphalt and gravel) to the 102nd Street Landfill for storage and reuse in that project. OCC also restored the processing area to grades which are consistent with the remediation plans for the 93rd Street School site. A final inspection of the area was conducted by NYSDEC staff on August 28, 1991. The restoration of the processing facility site is complete.

VII. Love Canal Operations and Maintenance

A. The Love Canal Treatment Facility and related systems continue to be maintained and upgraded to improve operations and safety. One of these activities is a routine cleaning and video inspection of the collection system which is now expected to begin in November, 1991 (see attachment 5). The Department, as called for in the Partial Consent Decree signed with OCC in 1989, is discussing with OCC the removal of sludge stored in the outside sludge holding tanks. It is anticipated that this work will begin in the near future. The renovation of the site's electrical control system (pump and electrical renovation project) is almost complete. The field collection pumping stations are now controlled and monitored automatically and continuously via computer. The status of these and other projects currently under way is:

- Pump and Electrical Renovations - 99% completed.
- Sludge Storage Tanks Corrosiveness Study - 95% completed.
- Well Inventory and Well Decommissioning Study - 50% completed.
- Site Survey - 50% completed.

B. Love Canal Leachate Treatment Facility
Leachate Treatment Facility Flow Data (see attachment 6).

C. Long Term Monitoring yearly field sampling was completed during the month of August.

VIII. Action Item: Frontier Avenue Storm Sewer

Love Canal TRC Action Item #73
13 November 1991

Frontier Avenue is located at the southern boundary of the Love Canal Site. The storm sewer located in Frontier Avenue has been the subject of several investigations and actions since contaminants were detected migrating from the Love Canal in the late 1970's. Historically, Love Canal contaminants were found in the bedding stone under this sewer at different times and different locations during various remedial contracts. Cutoff walls have been installed to eliminate the potential for contaminant migration along the Frontier Avenue storm sewer from the Love Canal. In the spring of 1988 chemicals were identified in samples of water from the storm sewer and reported at the June 21, 1988 Technical Review Committee (TRC) meeting. This led to a decision to install an additional cut off wall and abandon an additional length of storm sewer in order to isolate the chemicals known to exist in the sewer bedding in this area. The scope of this work was first reported at the May 17, 1989 TRC meeting.

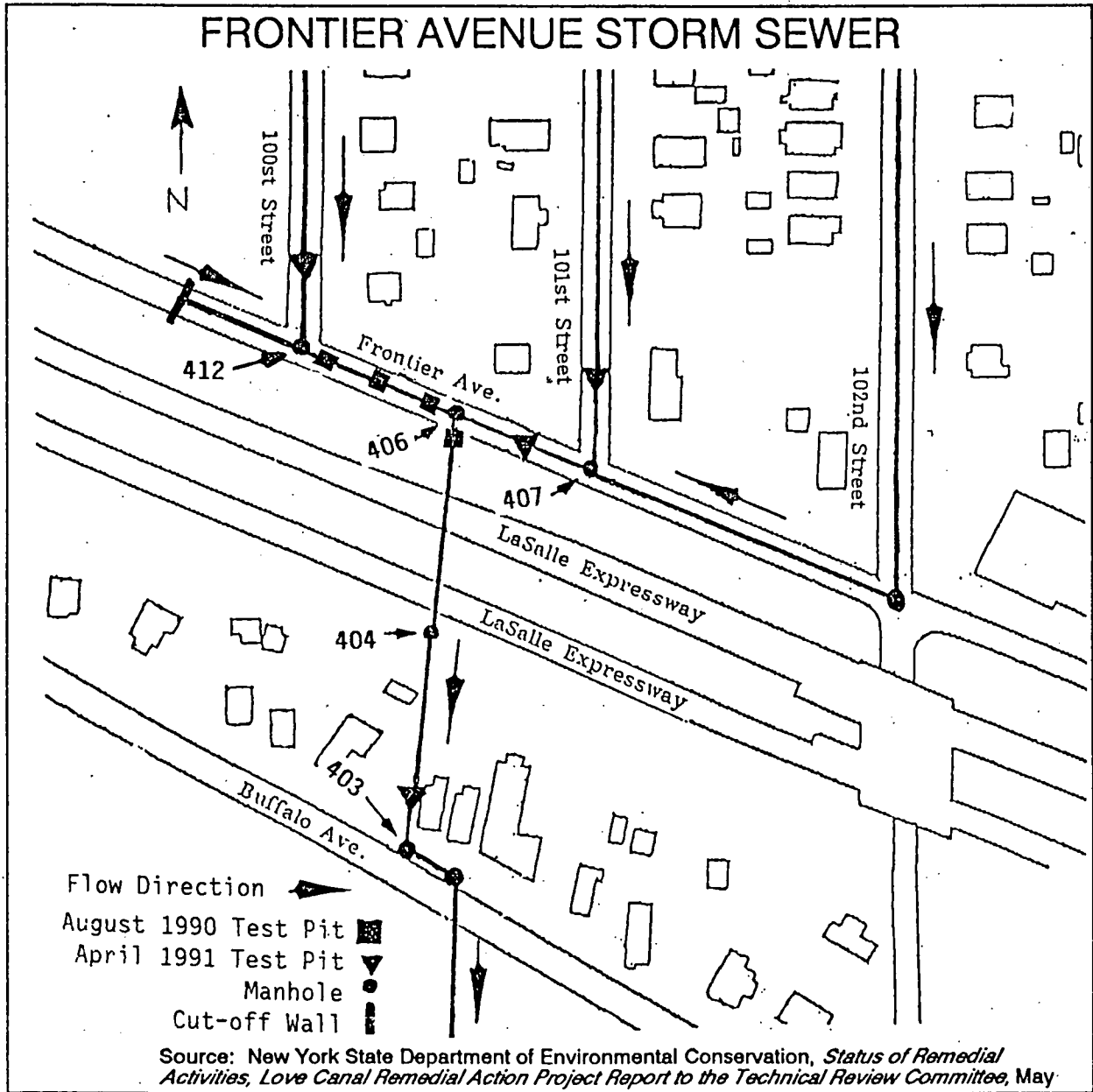
On August 6, 1990, a cutoff wall was installed adjacent to the west side of storm sewer manhole no. 412 (see drawing on next page) to further isolate any potential contaminant migration along the pipe bedding. During the excavation for the cutoff wall, contamination was discovered in the bedding stone of the storm sewer. Based upon that discovery, on August 21 and 22, 1990, four test pits were excavated in the area from downstream (east) of manhole 412 to manhole 406 (located between 100th and 101st Streets) and one immediately south of manhole 406, to provide a limited indication of the extent of migration.

Additional contamination was discovered in the pipe bedding in three of the four test pit excavations including the #3 pit on the downstream (south) side of manhole 406. It was determined that this previously undetected contamination was also due to the migration of wastes from the Love Canal site prior to initial remediation.

To further investigate the problem, the NYSDEC contracted for additional test pits to be excavated in the area between 100th Street and 102nd Street and Wheatfield Avenue and Buffalo Avenue. Work commenced on April 15, 1991 and four test pits were excavated; one pit south of the LaSalle Expressway, and one pit each on 100th Street, 101st Street and Frontier Avenue, between 100th and 101st Streets.

In all four pits, the storm sewer pipe bedding was found to be stiff clay and there was no indication of NAPL migration or contamination of any kind, although samples of the bedding were taken. Later analysis of these samples, for the full range of volatile and semi-volatile compounds, found no contamination above levels of concern.

ABB Environmental Services is preparing construction documents and will perform construction oversight of the remediation of the Frontier Avenue storm sewer. The remediation will consist of excavating the contaminated sewer pipe and bedding, and storing them in closed containers for future disposal at OCC's Buffalo Avenue plant. If conditions warrant, these plans also call for lining the section of sewer under the LaSalle Expressway. Remedial work is scheduled to begin in the spring of 1992.





THOMAS C. JORLING
COMMISSIONER

STATE OF NEW YORK
DEPARTMENT OF
ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233-1010

APR 26 1991

Dear Mr. Villanueva:

I am writing to bring to your attention the application of the Love Canal Area Revitalization Agency's for a Home Improvement Project grant (Application #AHC-90-047).

The Department of Environmental Conservation has been working closely with residents of Love Canal for more than a decade. As we have worked to clean up the hazardous waste problem there, this Agency has probably had a stronger physical presence than any other, and we have often found ourselves an important communication channel for the residents who have chosen to stay in their homes despite the disruption of their community that Love Canal has caused.

Recently one of my Deputy Commissioners visited residents and learned of their interest in accessing a grant which would enable them to make improvements to their homes. While I understand there are some questions about residents' ability to meet matching requirements, I want to emphasize the worthiness of the residents' appeal for assistance. These people have suffered the loss of their community, reduction of municipal services, and are, in most cases, on low fixed incomes. Thus, if there is any flexibility in your criteria for such a grant, I encourage you to give the benefit of the doubt to the interests of these residents.

Thank you for your attention to this matter.

Sincerely,

A handwritten signature in dark ink, appearing to read "Thomas C. Jorling", written over a light-colored background.

Thomas C. Jorling

Mr. Juan Villanueva
Executive Director
N.Y.S. Affordable Housing Corp.
3 Park Avenue
New York, NY 10016

THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

* * * * FACT SHEET * * * *LOVE CANAL EDA 2 AND 3 - COST ANALYSIS REPORT
SITE NO. 9-32-020

INTRODUCTION

In 1980, the Love Canal Revitalization Agency (LCARA) was established and charged with revitalization of the Love Canal EDA. In May 1990, LCARA adopted a Final Generic Environmental Impact Statement (FGEIS) for a Master Plan to accomplish this revitalization. LCARA adopted the Master Plan to guide the future use and redevelopment of the EDA. This Master Plan advocated commercial or light industrial development for EDA Areas 2 and 3, rather than residential use.

Pursuant to the State Environmental Quality Review Act, the New York State Disaster Preparedness Commission (DPC), as an involved agency, issued a Findings Statement for the Love Canal Master Plan. In the Findings Statement, the DPC declined to approve the expenditures of funds by LCARA necessary to promote commercial development of EDA 2 and 3. In part, the DPC found that LCARA's Master Plan did not adequately address the economic feasibility of remediating EDA 2 and 3 to allow for residential development.

The purpose of this CAR is to provide LCARA and the DPC with information on the cost of remediating EDA 2 and 3 in response to DPC's request for an economic feasibility analysis. The CAR presents three remedial scenarios. It must be noted that the three scenarios discussed are not the only ones which may be possible. They were selected to provide costs for a range of remediation. Several combinations of the three outlined or others may be possible.

SITE HISTORY

EDA 2 and 3 were determined to be unsuitable for normal residential use based upon a statistical difference between the concentration of Love Canal Indicator Chemicals (LCICs) in soil (to 12 inches deep) from EDA 2 and 3 as compared to the LCIC concentrations in soils from other residential areas. Remediation of EDA 2 and 3 to permit residential use required that the concentration of LCICs in the top 12 inches of soil be reduced to conform with the habitability criteria.

To explore this possibility, three alternative approaches were considered. However one approach, soil treatment, was rejected because the concentration of contaminants in the soil are too low for effective treatment. Another approach, that of placing 12 inches of soil over the entire surface of the area was rejected because of difficulties in grading the soil near roads, sidewalks, houses and large trees. Therefore, excavation and replacement of soil remained the only feasible alternative.

The EDA 2 and 3 Remediation Study, developed by DOH, consisted of the collection of some 82 soil borings and the analysis of 246 samples in December 1989. The cores were sampled at depths of 0-3, 3-6, and 6-12 inches and analyzed for the chlorobenzenes and BHC isomers on the LCIC list. Considering the available data, the report determined that the removal of six inches of soil would satisfy the habitability criteria and render EDA 2 and 3 suitable for unrestricted residential use.

REMEDIAL ALTERNATIVES

The CAR evaluates three remedial scenarios as specified by NYSDEC to address the remedial objectives of removing the top six inches of soil from all of EDA 2 and 3. For each scenario, two disposal options were evaluated.

Option A - considers the disposal of all material from EDA 2 and 3 at the 102nd Street Landfill Site assuming the concurrence of the site owners.

Option B - considers off-site disposal at a permitted solid waste facility.

There also are several constant conditions which are identical for all scenarios.

1. Six inches of soil would be removed from all areas of EDA 2 and 3. The entire area would be regraded with six inches of fill and reseeded.
2. All unoccupied houses, structures, pavements and undesirable vegetation would be removed on 100th Street to the back of the property lines. The area would remain as a buffer zone as called for in the Love Canal Area Master Plan.
3. Desirable vegetation would remain where possible. Desirable vegetation shall generally be considered as large, healthy trees, with a specific density of trees left in place and ornamental vegetation around occupied houses.
4. Undesirable vegetation would be removed from all areas to aid in the excavation of soil. Undesirable vegetation shall generally be considered as brush, shrubs, young or overcrowded trees, old or unhealthy trees, and ornamental shrubs on unoccupied properties due to its overgrown state.

Remedial Scenarios

The analyses consider the constant conditions discussed above and present total costs for each disposal option. The analysis is conceptual and should be used primarily for comparison purposes. Each scenario is intended to encompass the major conditions likely to impact the cost of the remedial approach. As stated above, all properties under each scenario will have six inches of soil removed and six inches of new soil replaced and graded. What does change between scenarios is the treatment of structures and vegetation on the properties.

SCENARIO 1 - Disposal Option A: \$7,500,000 Disposal Option B: \$11,538,000

In this scenario, the entire EDA 2 and 3 would be left in its existing condition. All houses, garages, sheds, other structures, sidewalks, driveways, and other paved areas, would remain as is. Only undesirable vegetation which might hinder soil removal would be removed from occupied and unoccupied lots with the permission of the owner and/or renter. All fences on occupied lots would be reset or replaced but fences on unoccupied lots would be removed and not replaced.

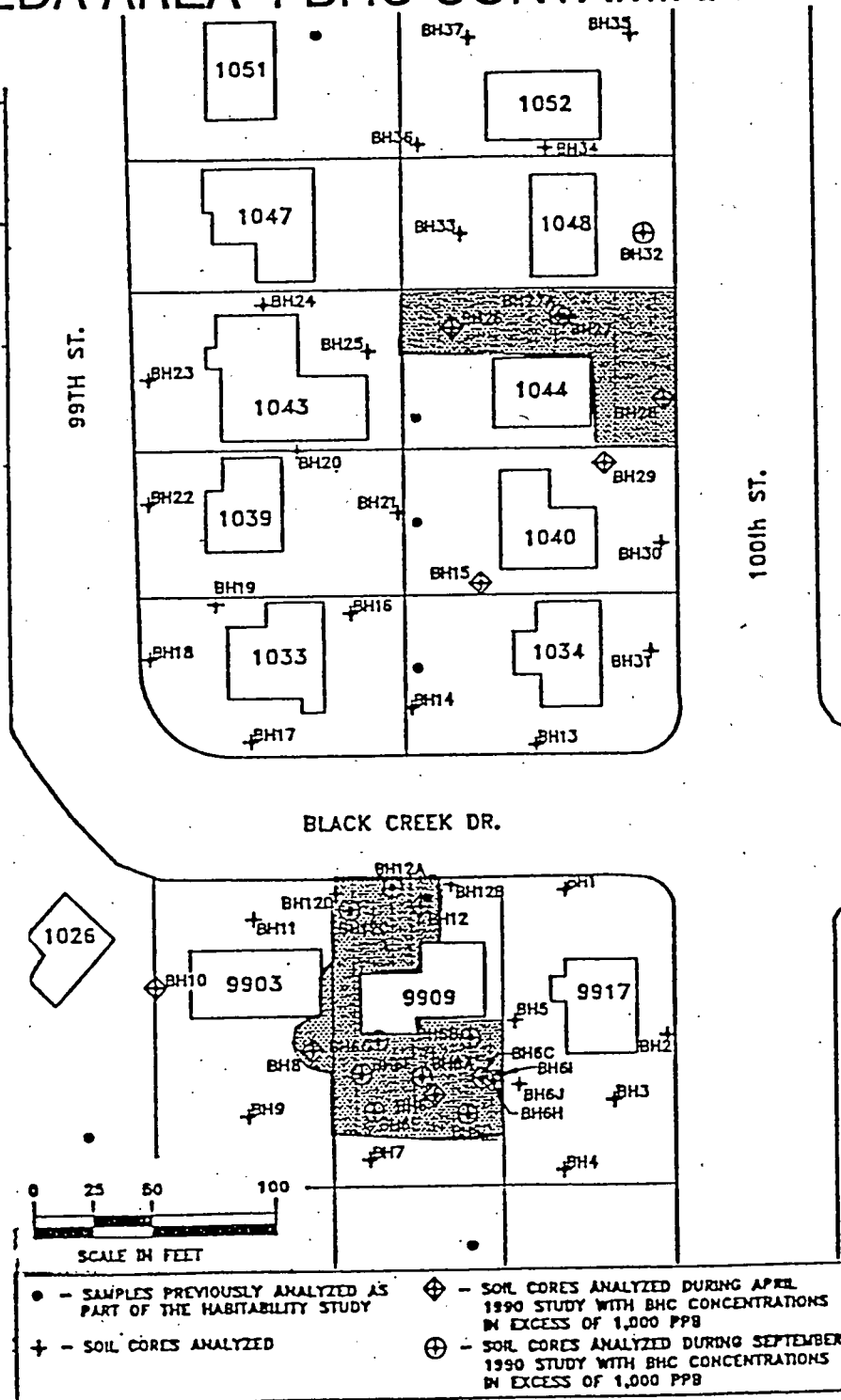
SCENARIO 2 - Disposal Option A: \$7,896,000 Disposal Option B: \$12,419,000

In this scenario, only the occupied house lots would be remediated as described in Scenario 1. For the other areas and unoccupied house lots, only houses, large trees, sidewalks, and driveways would remain. Garages, sheds, fences, ornamental vegetation and undesirable vegetation would be removed.

SCENARIO 3 - Disposal Option A: \$11,149,000 Disposal Option B: \$17,138,000

This scenario is identical to Scenario 2 except that houses, sidewalks, and driveways would also be removed at unoccupied lots as well. Only large trees at a predetermined density would remain.

EDA AREA 4 BHC CONTAMINATION



Source: Echology and Environment, *Soil Sampling at Love Canal Emergency Declaration Area 4*, (New York State Department of Environmental Conservation, December 1990), p

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

93RD STREET SCHOOL SITE REMEDIATION
NIAGARA FALLS, NEW YORK
SITE NO. 9-32-078

FACT SHEET

Site Description

The 93rd Street School site is located in the northwest corner of the Love Canal Emergency Declaration Area in the City of Niagara Falls, New York. It is bounded by Bergholtz Creek to the north, 93rd Street to the west, residential properties and 96th Street to the east, and Colvin Boulevard to the south. The site area is approximately 19.4 acres and includes both the 93rd Street School and Housing Authority properties.

Although the site is relatively flat, it does slope gently from the east and west to a drainage swale located in the central portion of the site. This swale slopes from the southeast to the northwest and discharges into a small on-site swale which in turn discharges into the Bergholtz Creek.

Site History

The 93rd Street School is an elementary school that was designed in 1947 and was constructed in 1950. Prior to construction of the school, a drainage swale crossed the site from the southeast to the northwest. The swale intersected 93rd Street and discharged into Bergholtz Creek.

Between 1938 and 1951, this swale was partially filled with soil and rock debris followed by fly ash. The site was graded in 1954 to its existing contours utilizing approximately 3000 cubic yards of fill material from the 99th Street School Site which was located adjacent to the original Love Canal. Low areas east of the 93rd Street School including the playground and the swale just south of the playground were filled with the 99th Street School material and then covered with approximately one to three feet of top soil.

In 1980, the 93rd Street School was closed due to public health concerns raised regarding the fill materials brought from the Love Canal site.

Background

Since the closure of the school, investigations had been conducted at the site. Under a Cooperative Agreement with USEPA, a Remedial Investigation/Feasibility Study was concluded in April 1988. Most recently USEPA issued a Record of Decision Amendment in May 1991 selecting a remedy for the site which included off-site disposal of excavated material and backfilling to proper grades.

NYSDEC received five bids on August 20, 1991 on contract documents to implement the amended ROD. Tricil Environmental Response, Inc. from Houston, Texas (TRICIL) was the low bidder at \$1,123,078.50 and the Department is currently processing the contract for award to Tricil.

Project Scope - Under terms of this contract, the work plan requires Tricil to:

- Excavate and remove contaminated material from the site and transport to 102nd Street landfill site at Buffalo Avenue. Revised estimate of material to be removed is 14,300 cubic yards.
- Remove, transport and dispose of the underground oil tank at an approved facility.
- Backfill with acceptable material and regrade to contours for adequate drainage, topsoil and seed.
- Construct the parking lot and driveways.
- Clean the school building exterior.

The work will be done using earth moving equipment and trucks. The contract requires use of DOT approved trucks having waste hauler's permits to transport the excavated material. The anticipated haul route will be using Colvin Boulevard, 100th Street or Williams Road and Buffalo Avenue. Alternate route will be to use 95th Street and Frontier Avenue to 102nd Street and Buffalo Avenue. The removed material will be disposed of at the 102nd Street Landfill site. Occidental Chemical Corporation is constructing a Material Handling Facility Cell at the 102nd Street Landfill Site for this purpose.

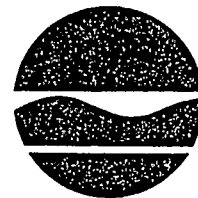
Schedule

The contractor is expected to mobilize during the first week of November 1991 with construction starting a week later. The excavation of material is expected to be accomplished in about 4 to 6 weeks (5 work days a week, Monday - Friday). The work hours will likely be between 7 a.m. - 5 p.m. depending on weather conditions. The contract time for completion of the project is 9 months which includes winter shut down before topsoil and paving are completed next spring.

Health and Safety Plan

The Health and Safety Plan (HASP) has been designed to protect the health and safety of the workers and surrounding community during the construction activities at the site. Most of the work is planned to be done using personal protective clothing. Respirators will be used in some cases. Continuous air monitoring at the work site will be conducted for dust and chemical contaminants. Action levels to upgrade/downgrade levels of protection are specified in the HASP which is available at the document repositories.

New York State Department of Environmental Conservation
9820 Colvin Boulevard, Niagara Falls, N.Y. 14304



Thomas C. Jorling
Commissioner

October 9, 1991

Dear Resident:

The New York State Department of Environmental Conservation (NYSDEC) would like to inform you that the Department will be conducting a routine inspection of the collection system beginning around October 15, 1991. The collection system continues to function properly, as reported in the 1990 Annual Report, however it has not been inspected in over eight years. The Department believes this inspection is needed to insure the integrity of the collection system and to provide for timely repairs, if necessary. In the future it is expected such inspections will take place every five years.

The work will include hydraulically flushing approximately 8000 feet of 6" and 8" leachate collection pipe and then an inspection of the cleaned line using specialized video equipment. The project will require about three weeks to complete and will take place within the fenced area of the site, with the exception for the collection pipe under Frontier Avenue. Any leachate or sludge waste generated during this project are to be collected in a vacuum truck and temporarily stored in the Treatment Plant's sludge holding tanks or drummed and placed in the Treatment Facility's drum building.

Allstate Power-Vac, Inc. (Allstate) of Linden, New Jersey will be performing the work with oversight from E.C. Jordan Co., who is an engineering consultant for the Department. Allstate has submitted an approved Health and Safety Plan for this project. All workers setting up at each manhole will be dressed in appropriate protective clothing and protective breathing apparatus. In addition, the air will be monitored at each location.

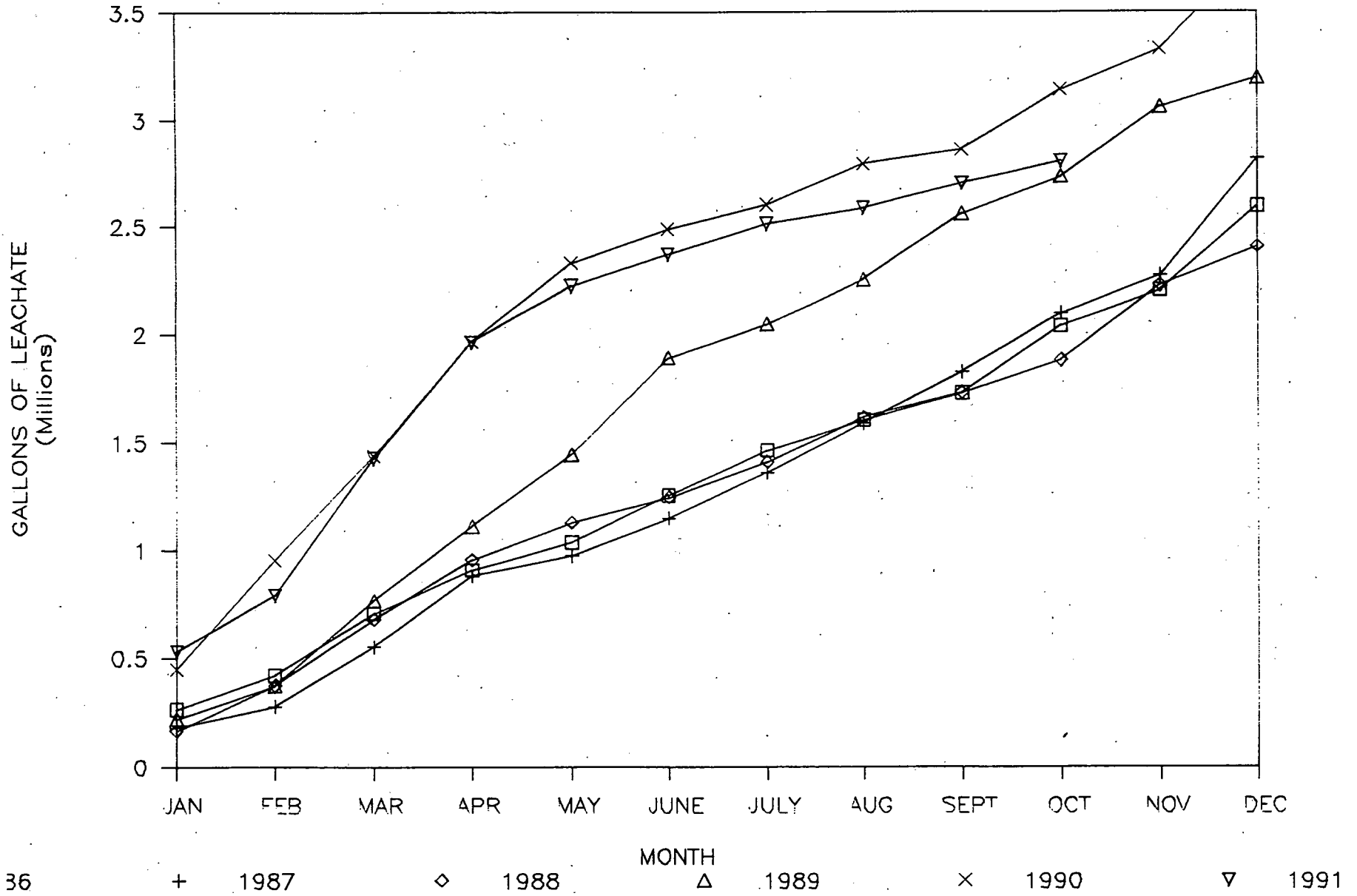
If you have any questions, please feel free to visit the NYSDEC's Love Canal Public Information Office or contact me at (716) 297-9637 or Mr. John Strang, Project Manager, at (518) 457-0927.

Sincerely,

Michael R. Podd
Citizen Participation Specialist

CUMULATIVE VOLUME OF LEACHATE

1986-1991



CUMULATIVE VOLUME OF LEACHATE

1986-1991

