

EXHIBIT A.5

To

**ENVIRONMENTAL MONITORING, LABORATORY ANALYSIS
AND REPORTING SERVICES FOR CRRRA LANDFILLS
AGREEMENT**

**SCOPE OF SERVICES –WATERBURY BULKY
WASTE LANDFILL**

EXHIBIT A.5

SCOPE OF SERVICES

Environmental Monitoring, Laboratory Analysis and Reporting - Waterbury Bulky Waste Landfill Fiscal Years 2008, 2009, and 2010

BACKGROUND

The Waterbury Bulky Waste Landfill is a bulky waste disposal facility covering approximately 5.6 acres of land in the south-central portion of Waterbury. The landfill site is bounded on the west by Highland Avenue, and on the north by Highview Street. There is an active quarrying operation to the east of the bulky waste landfill, while an abandoned railroad right-of-way is located to the south of the bulky waste landfill. Property owned by the City of Waterbury is located south of the abandoned railroad right-of-way. A general location plan showing the Waterbury Bulky Waste Landfill is included as **Figure 1**.

CTDEP issued a permit in March 1983 to Vincent B. LoRusso of Waterbury Landfill Associates for the 5.6-acre parcel to be used as a Bulky Waste Landfill. LoRusso had previously mined the site for crushed rock. In December 1986, the solid waste permit was transferred to CRRA. The Landfill continues to be open, but it has been operated only intermittently during the last several years and not at all between July 2001 and the present. During the three fiscal years covered by this Scope of Services, CRRA anticipates that the Waterbury Bulky Waste Landfill will become active and be filled to its permitted capacity, and then be closed in accordance with applicable regulatory requirements.

A detailed site plan showing environmental sampling locations is included as **Figure 2**. Ground-water monitoring at the Waterbury Bulky Waste Landfill is conducted in accordance with the solid waste permit issued by the CTDEP's Waste Management Bureau. A copy of the site-specific permit and the "Ground Water Monitoring Program" (from the permit application, as referenced in the solid waste permit) are included in **Appendix A**.

SCOPE OF SERVICES

Consultant's work shall be inclusive of all environmental monitoring and reporting required at the Waterbury Bulky Waste Landfill, unless otherwise indicated. Monitoring and reporting will be required for a three (3) year period starting July 1, 2007 and ending June 30, 2010.

Costs for monitoring work shall also include but are not limited to sample bottle preparation and delivery, sample collection, laboratory analysis, and reporting as further described in this Scope of Services. The only environmental medium to be sampled under this Scope of Services is groundwater. All sampling at the Waterbury Bulky Waste Landfill will be performed to meet the requirements of all applicable regulations and permits issued to the Waterbury Bulky Waste Landfill/CRRA by the federal, state, and local permitting authorities, as applicable. Refer to **Appendix A** for site-specific permit information. All sample analyses shall be conducted by an ana-

lytical testing laboratory certified to perform such analyses by the State of Connecticut. The analytical testing laboratory will be subcontracted directly by the Consultant and approved by CRRA.

Consultant is to be familiar with and have reviewed all applicable landfill permits and requirements for site monitoring issued by CTDEP (and EPA, where applicable). Consultant shall be familiar with representative past monitoring reports prepared for the Waterbury Bulky Waste Landfill, and shall prepare monitoring reports consistent in format with past monitoring reports. Consultant shall provide summary tables of data results, and reference, as applicable, drinking water standards and Connecticut Remediation Standards.

In accordance with the permits for the Waterbury Bulky Waste Landfill, Consultant shall conduct the monitoring program for the sampling points and parameters as summarized in **Tables 1 and 2** on a quarterly basis. In some instances, monitoring points may be inaccessible for regularly scheduled quarterly monitoring, such that arrangements should be made to sample the location(s) at other times. If it is not possible to sample in a timely manner within the quarterly monitoring event timeframe, CRRA will not be charged for sample collection and laboratory analysis for those portions of work not completed.

The environmental monitoring will include but not necessarily be limited to the following elements:

- Preparation for sampling, including bottle preparation, field measured parameter equipment, sample collection equipment, and means of access to sampling points.
- Completion of field data sheets for each sample point.
- Measuring of field parameters, and collection of samples in bottles for laboratory analysis and appropriate field and laboratory QA/QC in accordance with CTDEP's Solid Waste Management Program and EPA's Subtitle "D" regulations.
- Preservation and transport of samples to the laboratory.
- Analytical laboratory analyses of collected samples.
- Entering analytical results and other pertinent sample and/or laboratory test data into a database. Provide an electronic copy of the database to CRRA at the end of each calendar year to accompany the annual report, and after the completion of the April 2010 sampling event (i.e., the final sampling event under this Scope of Services).
- Data review and verification, cursory check for outliers, extreme exceedances and notification to CRRA of unusual results or "Significant Environmental Hazard" conditions under Public Act 98-134.
- Preparation of graphs and tables of data results, maps of sampling locations, groundwater elevation contours and isopleths of monitoring results as appropriate.

- Preparation of summary reports on status of each sample point and site environmental conditions.
- Preparation of draft quarterly and annual reports for CRRA review and comment prior to report finalization.
- Finalization, duplication, and distribution of reports following incorporation of CRRA comments.

The Consultant is responsible for maintaining clear access to all wells (i.e., by cutting back brush and trimming weeds and grass). Consultant is also responsible for maintaining well markers (i.e., stakes, flagging, and I.D. numbers) to assist field personnel in locating the wells.

The environmental monitoring program is outlined by task and description below. The format of the Not-To-Exceed Bid Price Form is consistent with the task listing that follows.

TASK 1: SAMPLING AND DOCUMENTATION OF FIELD ACTIVITIES

Sampling Schedule

Quarterly environmental sampling of ground water wells is to be performed in the following months:

- January
- April
- July
- October

Sampling of groundwater can begin on the 1st day of the quarterly sampling month and must be completed by the last day of the quarterly sampling month.

Monitoring of Groundwater Wells

There are four (4) groundwater monitoring wells at the Waterbury Bulky Waste Landfill that are monitored on a quarterly basis. **Table 1** summarizes the characteristics of each well. Consultant is responsible for supplying all equipment to the site as required for each quarterly monitoring event and its storage at a safe off-site location by Consultant's arrangement.

More specifically, the following items are highlighted for each quarterly sampling event:

- Keyed-alike well locks will be provided for all wells by CRRA.
- Permission to access off-site locations for monitoring purposes will be coordinated through CRRA at the initiation of the monitoring contract. Access to some wells is by foot only, because of location and/or restrictions of vehicle use.

- Consultant shall complete a “Monitoring Well Field Data Sheet” which summarizes well elevation data, well condition, purge data, observed water yield and quality comments, sampling data, and results of measured field parameters. An example of the proposed “Monitoring Well Field Data Sheet” is to be submitted for approval by CRRRA before the first sampling event, at the initiation of the monitoring contract.
- Measure well’s water depth using decontaminated equipment (depth to water, depth to bottom, depth of sample) referenced to top of PVC (or casing) and record on the data sheet.
- Provide field meter(s) to concurrently measure pH, temperature, specific conductivity, dissolved oxygen (DO), turbidity, and redox potential (RP), as applicable, during monitoring well purging. A minimum of four (4) readings of each parameter shall be taken and recorded during purging.
- Perform purging using pre-cleaned and/or disposable bailers at each of the four sampled monitoring wells. The Consultant must extract at least three (3) well volumes from each groundwater monitoring well prior to sample collection. The purged groundwater may be discarded to the ground at the landfill.
- Sample collection should proceed from high parameter volatility to low parameter volatility. Samples are to be collected in proper containers and properly preserved in the field.
- No filtering of samples is to occur, except where analysis of dissolved metals is specified. Where analysis of dissolved metals is specified, sample filtration is to be performed in the field during sample collection with an in-line 0.45-micron filter.
- Record all observations relating to the well sampling and any deviations from the sampling plan.

Preparation for Sampling

This task includes coordination between field monitoring personnel and the analytical laboratory for the bottle order, bottle delivery, sample preservation and chain of custody to complete the required sampling.

Sample event scheduling shall allow enough time for completion of the sample analyses by the laboratory so that the quarterly reports can be assembled, reviewed, finalized and submitted in a timely manner according to permit requirements as further discussed below.

Consultant is responsible for coordinating equipment blanks and duplicate samples as part of the sampling quality assurance program. In addition to any other approved

EPA or CTDEP protocols, equipment blanks are required when non-dedicated sampling equipment is used, with laboratory-supplied reagent water poured over the sampling equipment at the end of the sampling day and collected for analysis. Duplicate samples are to be collected at one groundwater well location for each quarterly sampling event and analyzed for all the same parameters as the sampled well.

It shall be the Consultant's responsibility to provide all field equipment, including but not limited to well bailers, rope, etc., that the Consultant deems necessary to conduct the field sampling activities. The Consultant shall also supply equipment required for measurement of field parameters. Field equipment calibration and decontamination shall be the responsibility of the Consultant. The Consultant shall supply any other equipment necessary to adequately and properly complete the work.

Field Measurements and Collection of Samples

This task includes measuring selected parameters in the field and collecting samples in laboratory-supplied bottles, varying with the sampling point's parameter matrix. Refer to **Table 2** for a summary of field and laboratory parameter requirements for each sampling point at the Waterbury Bulky Waste Landfill. **Table 1** provides summaries of monitoring well completion details with total well depth and screened interval depth of each monitoring well.

Consultant shall follow the "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846" (latest edition) and "RCRA Groundwater Monitoring" Draft Technical Guidance (latest edition) as well as all applicable CTDEP and USEPA regulations. Procedures described herein are not intended to be comprehensive, but to provide a clarification or to supplement the referenced regulations as they might pertain to certain site conditions. The various subsections below describe particulars for sampling at various types of sample locations.

Sampling methods described herein are to be utilized by Consultant during groundwater quality monitoring events. Specific items that shall be performed during all monitoring events and summarized in the quarterly reports include the following:

- Documentation of Field Activities
- Sample Handling
- Decontamination Procedures
- Monitoring and Sampling Techniques
- Field Quality Control Checks

Documentation of Field Activities shall include listing the procedures used to record data about the sampling event, the sampling locations, the samples themselves, and the handling and transport of the samples.

Sample Handling shall detail the source of the sample containers, sample preservation methods, and the chain-of-custody protocol that is followed from time of sample collection until sample acceptance by the laboratory performing the analysis.

Decontamination Procedures shall provide general data on field and in-house decontamination. Non-dedicated equipment used for purging, sampling, and filtering (to be completed only for analysis of dissolved metals) is to be decontaminated (unless replaced) between each sampling location.

Monitoring and Sampling Techniques for groundwater shall include a description of the fundamental procedures for collection of samples. Specific procedures to be addressed include water level measurement; purging calculations, sample collection equipment and techniques utilized; methods of sample preservation, method of sample filtration (for dissolved metals only), and monitoring of field parameters (i.e., pH, temperature, specific conductivity, etc.) and their results.

Field Quality Control Checks shall describe typical QA/QC samples and their use. Monitoring events will include equipment blanks and duplicate samples. Collection and analysis of one equipment blanks per quarter is necessary to document what analytical interferences or sample cross-contamination, if any, results from the use of the bailers for groundwater well purging and sample collection. Duplicate samples will be collected at one (1) ground water monitoring well per quarter.

Except where sample analysis in accordance with methods in 40 CFR Part 136 is required by permits, the methodologies to be utilized should be consistent with 40 CFR Part 258, Subpart E, Section 258.53 through 258.56, and as further detailed in EPA 530-R-93-017, "Solid Waste Disposal Facility Criteria - Technical Manual," November 1993; CTDEP's "Solid Waste Management Program Description", July 1993; and USEPA's "RCRA Ground Water Monitoring Technical Enforcement Guidance Document", September 1986.

TASK 2 QUARTERLY LABORATORY ANALYSIS

All sample analyses required under this Scope of Services shall be performed by a laboratory certified for such analyses by the Connecticut Department of Public Health or, in advance of any use, a laboratory approved in writing by the CTDEP. The laboratory shall analyze all samples submitted from the same monitoring event, at one time, such that duplicate samples and blanks are analyzed under the same conditions.

Preservation and Transport of Samples to Laboratory

Samples shall be properly preserved and kept cool. They shall be transported to the laboratory the same day they are collected per coordination with the lab by the Consultant's field personnel. Container types, preservatives and maximum holding times shall be per SW-846, latest edition, or 40 CFR 136, as applicable. Consultant is to coordinate re-sampling, at no additional cost to CRRA, if re-sampling is necessary

due to loss of sample in bottle transport or in laboratory handling, or if the maximum holding times are exceeded.

Analytical Methods and Detection Limits

Analytical results for each parameter shall be reported together with the analytical method, method detection limits, date of analysis, and initials of analyst. The value of each parameter shall be reported to the maximum level of accuracy and precision possible.

Review of Lab Results, Quality Control Procedures and Invoices

Consultant is responsible for ensuring lab analyses are performed as required by the parameter list and that MDL limits are met. A summary of the lab's QA/QC procedures and results, including matrix spikes and surrogate recovery analyses, are to be reviewed by the Consultant and included in the quarterly report. The laboratory must also provide signed "Laboratory Analysis QA/QC Certification Forms" that certify that the all reported data meet the CTDEP's requirements for "reasonable confidence." Consultant is to review the laboratory invoices for consistency with actual sample parameter analyses requested and completed.

TASK 3: QUARTERLY REPORTS - WATER QUALITY MONITORING

The following deadlines apply to the submission of finalized quarterly reports to the appropriate regulatory agencies:

Sampling Event	Report Deadline
January	February 28
April	May 31
July	August 31
October	November 30

Sampling shall be arranged to allow for a reasonable laboratory turnaround time for analysis and compiling of lab results, writing draft report, reviewing draft report, finalizing report and distributing report to appropriate parties.

The quarterly report shall include in the monitoring results an indication of parameters that exceed criteria appropriate to the sampling point of classification. This will include state and federal limits for maximum contaminant levels not to be exceeded in the aquifer(s) at the relevant point of compliance (per Subtitle D requirements) and groundwater/surface water protection criteria per CTDEP regulations in accordance with the classifications of the same.

The quarterly reports must include assessment of conditions at groundwater monitoring wells and other sampling locations as applicable. The quarterly reports will also include a summary table of groundwater well construction details, and site maps which show groundwater contours in the overburden aquifer across the monitored area. The groundwater contours shall be developed on an AutoCAD drawing of the sites that includes site fea-

tures and topography. CRRA will provide an AutoCAD disk of the sites for use by Consultant upon request.

Each quarterly report shall fully document the field activities and the laboratory work details, be formatted to support the annual report, and provide interim results and an update on impacts and exceedances. CRRA shall be notified immediately of any significant variation from past results or exceedances of "Significant Environmental Hazard" reporting guidelines under Public Act 98-134.

A copy of the draft quarterly report, including sampling details and supporting analytical data, sample chains of custody, completed Laboratory Analysis QA/QC Certification Forms, Field Data Sheets, and a site map of groundwater elevations and possibly isopleths of results, is due to CRRA for review a minimum of ten (10) working days before the final report is due to the CTDEP. CRRA shall also be allowed sufficient time to review any other reports or forms prior to submittal to CTDEP.

Finalized quarterly reports are to be printed by the Consultant on double-sided pages. The report distribution and addresses will be provided. Four (4) finalized copies of each report are required to be generated by the Consultant. Consultant is responsible for mailing reports directly.

TASK 4: ANNUAL REPORTS - WATER QUALITY MONITORING

The annual report shall address the zone of influence of the discharge (defined as the area of soil and groundwater within which the treatment of the leachate by soils and mixing of leachate with groundwater occurs and could be reasonably expected to occur, and therefore within which some degradation of groundwater quality is anticipated to occur). The annual reports shall also provide an overall assessment of site conditions for the calendar year, including but not limited to the following:

- (a) Map depicting all groundwater monitoring locations;
- (b) Evaluation of groundwater quality, including graphical representations of monitoring results for at least the past three (3) years;
- (c) Condition of all monitoring wells and the need for repair or replacement of any wells;
- (d) Evaluation of the extent and potential extent of the leachate discharge to groundwater, and whether any off-site impacts could reasonably be expected to occur;
- (e) Written request for modification of the groundwater monitoring program, as warranted by the data generated through the monitoring.

Under this Scope of Services, the submission deadline for the finalized annual reports is January 31st of the year following the monitoring year. Draft versions of the annual reports are to be submitted to CRRA for review at least ten (10) working days prior to the January

31st submittal deadline. CRRA shall be supplied with electronic copies of all information included in the final annual reports, as well as groundwater contour maps and other miscellaneous site plans in AutoCAD files.

Finalized annual reports are to be printed by the Consultant on double-sided pages. The report distribution and addresses will be provided. Four (4) finalized copies of the annual report are required to be generated by the Consultant. Consultant is responsible for mailing reports directly.

TABLE 1
Summary of Monitoring Well Construction

Waterbury Bulky Waste Landfill
Waterbury, Connecticut

Monitoring Well	MW-A	MW-B	MW-C-R	MW-4B
Relative Location	Up Gradient	Down Gradient	Down Gradient	Down Gradient
Ground Elevation	339.88'	299.20'	See Note 1	312.69'
Elevation, TOC	341.27'	299.90'	See Note 1	314.89'
Elevation, PVC	341.25'	299.65'	See Note 1	314.69'
Well Diameter	2"	2"	2"	1.5"
Screened Interval	14.5'-19.5'	22'-27'	18.5'-28.5'	15.5'-25.5'
Bedrock Elevation	<320'	<271'	See Note 1	301.1'
Depth to Bottom	21'	28.5'	28.5'	27.5'
<p>Note: MW-C-R was installed in November 2006 to replace MW-C, which was previously destroyed. Vertical and horizontal survey data for MW-C-R has not been generated at the time of issuance of this Request for Bids. Such survey data will be provided to Consultant by CRRA after such survey data becomes available.</p>				

TABLE 2
WATER QUALITY MONITORING PROGRAM
Waterbury Bulky Waste Landfill
Waterbury, Connecticut

Parameters ^{1,2}	Required MDL ³	Units	Monitoring Wells ^{4,5}
<i>Field-Measured Parameters</i>			
pH	0.01	S.U.	Q
Specific Conductivity	10	umhos/cm	Q
Turbidity	-	NTU	Q
Redox Potential	1.0	mV	Q
Dissolved Oxygen	-	ppm	Q
Temperature	-	deg C	Q
<i>Laboratory-Analyzed Parameters</i>			
pH	0.01	S.U.	Q
Specific Conductivity	10	umhos/cm	Q
Alkalinity (as CaCO ₃)	0.01	mg/L	Q
Ammonia (as N)	0.02	mg/L	Q
Biochemical Oxygen Demand (5 Day)	2	mg/L	Q
Chloride	1	mg/L	Q
Chemical Oxygen Demand	0.007	mg/L	Q
Nitrate (as N)	0.01	mg/L	Q
Total Dissolved Solids	5	mg/L	Q
Total Suspended Solids	5	mg/L	Q
Iron, Dissolved	0.005	mg/L	Q
Manganese, Dissolved	0.01	mg/L	Q

Notes:

1. Groundwater samples are to be analyzed in accordance with SW-846 (most recent edition) when applicable test methods exist. If no test method exists under SW-846, then parameter analyses are to be performed in accordance with 40 CFR 136.
2. All chemical analyses shall be performed by a laboratory certified for such analyses by the Connecticut Department of Public Health.
3. Detection limit may vary depending upon dilutions or equipment.
4. Q = Quarterly, in January, April, July and October
5. Monitoring Wells = Monitoring Wells MW-A, MW-B, MW-C-R, and MW-4B

FIGURES

Figure 1: Site Location Plan

Figure 2: Water Quality Monitoring Site Plan

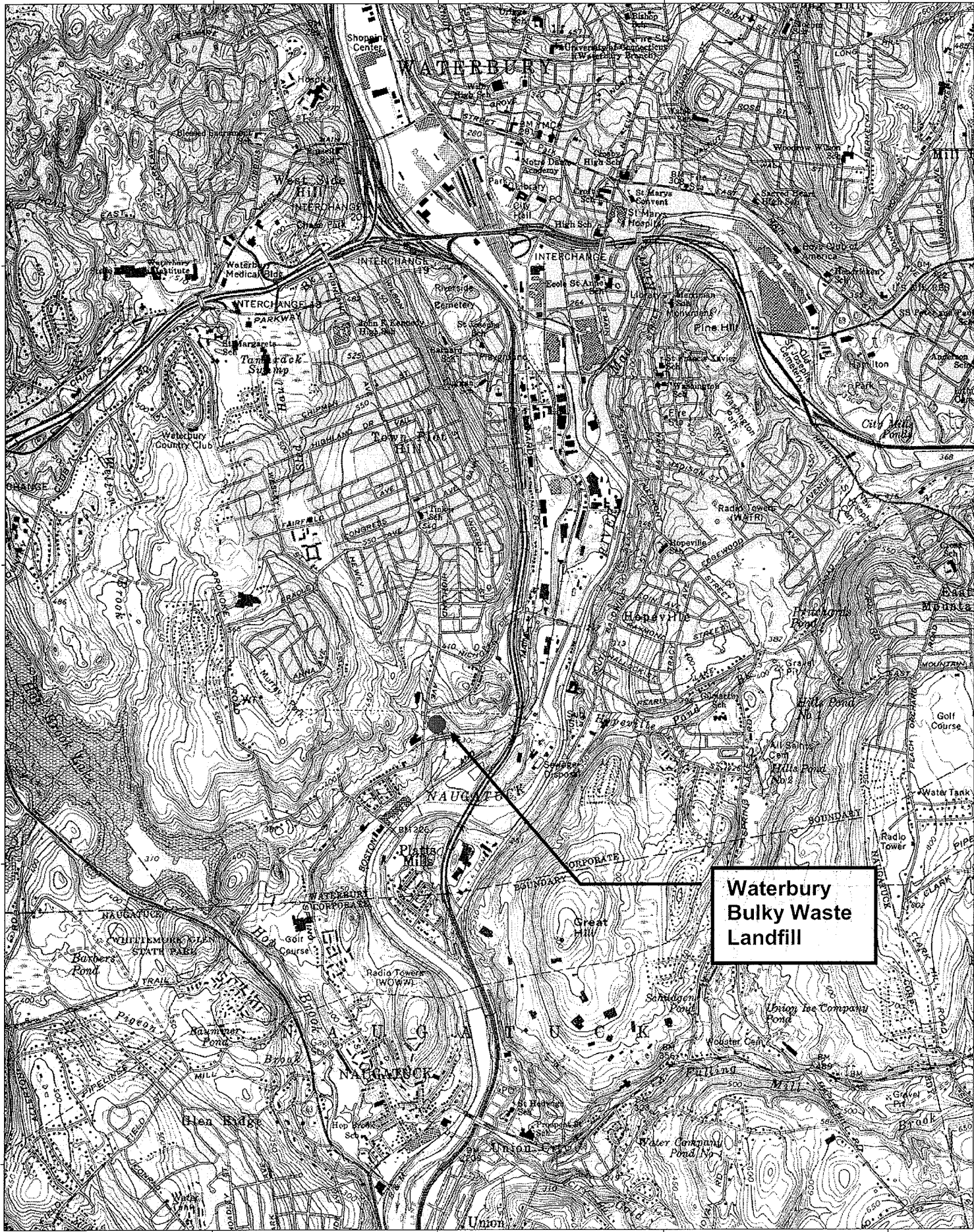
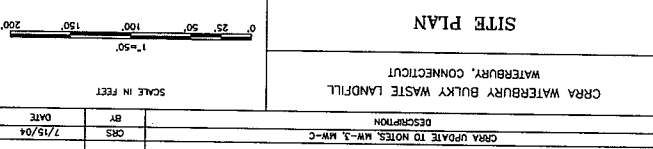


FIGURE 2: SITE PLAN
CRA WATERBURY BULKY WASTE LANDFILL
CORNER OF HIGHLAND AVE AND HIGHVIEW ST
WATERBURY, CONNECTICUT

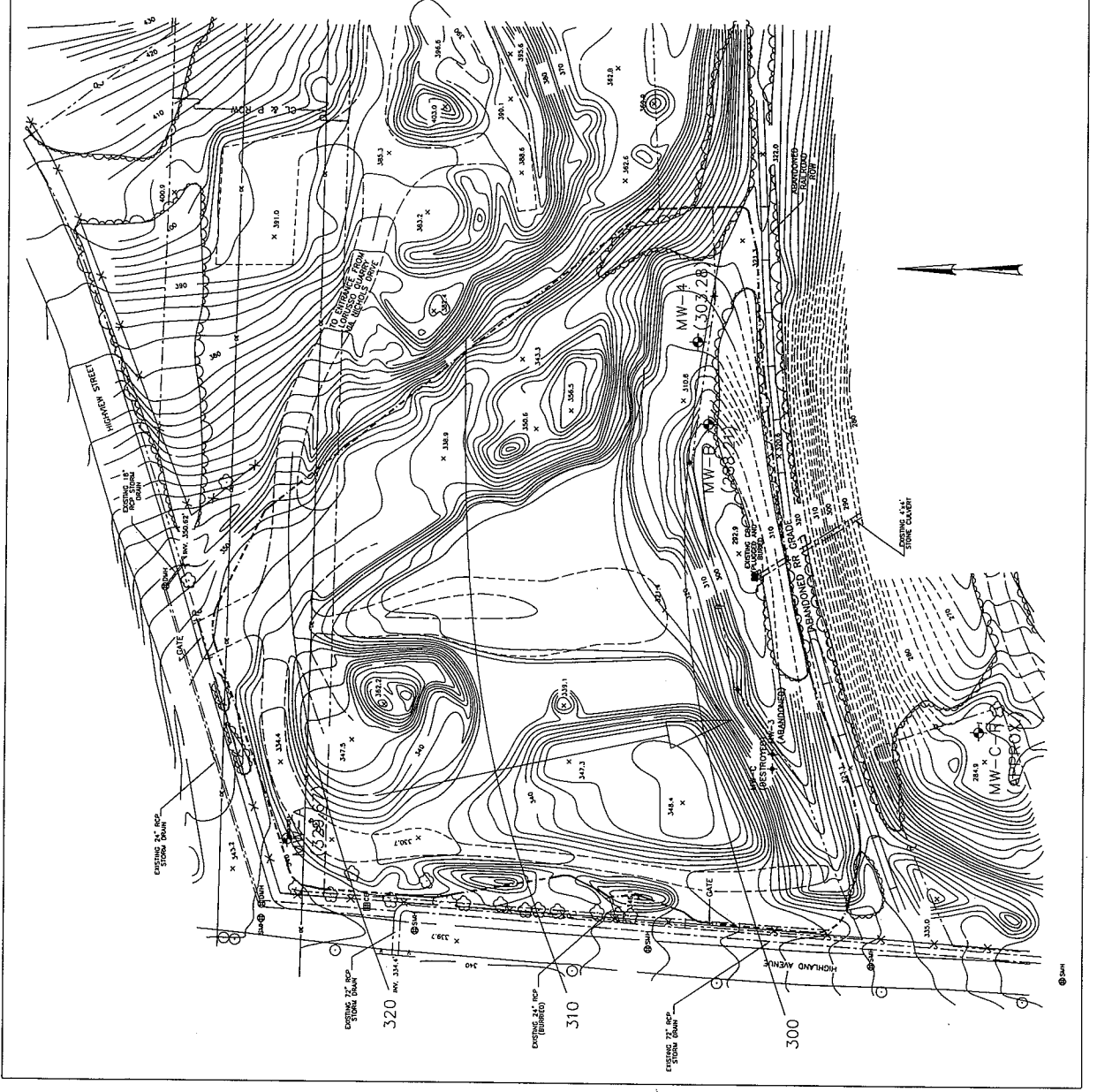


SITE PLAN
 CRA WATERBURY BULKY WASTE LANDFILL
 WATERBURY, CONNECTICUT

DATE: AUGUST 1, 1991
 SCALE: 1"=50'
 DRAWN BY: RAW (GZA)
 CHECKED BY: JDC (DES)
 REVIEWED BY: BCM (DES)

REV. NO.	DESCRIPTION	DATE
1	CRA UPDATE TO NOTES, MW-3, MW-C <td>7/15/04</td>	7/15/04
2		

PROJECT: BRIDGEPORT
 SHEET NO.: 1 OF 1



NOTES:

1. THIS PLAN IS A PART OF THE SITE PLAN FOR THE BRIDGEPORT WASTE TREATMENT PLANT, PREPARED BY GZA ENGINEERS, ARCHITECTS AND SURVEYORS, INC. (GZA) FOR THE USE OF THE BRIDGEPORT BOARD OF SUPERVISORS. THIS PLAN IS NOT TO BE USED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF GZA.
2. THE MONITORING WELLS SHOWN ON THIS PLAN WERE INSTALLED BY GZA ENGINEERS, ARCHITECTS AND SURVEYORS, INC. ON AUGUST 1, 1991.
3. THE MONITORING WELLS A, B, C, AND D WERE INSTALLED IN ACCORDANCE WITH THE MONITORING WELL LOCATION PLAN FOR CRA LANDFILL, DATED JANUARY 11, 1991, REVISION NO. 1, 1991.
4. THE MONITORING WELLS A, B, C, AND D WERE INSTALLED IN ACCORDANCE WITH THE MONITORING WELL LOCATION PLAN FOR CRA LANDFILL, DATED JANUARY 11, 1991, REVISION NO. 1, 1991.
5. THE MONITORING WELLS A, B, C, AND D WERE INSTALLED IN ACCORDANCE WITH THE MONITORING WELL LOCATION PLAN FOR CRA LANDFILL, DATED JANUARY 11, 1991, REVISION NO. 1, 1991.
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7. THE MONITORING WELLS A, B, C, AND D WERE INSTALLED IN ACCORDANCE WITH THE MONITORING WELL LOCATION PLAN FOR CRA LANDFILL, DATED JANUARY 11, 1991, REVISION NO. 1, 1991.
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10. THE MONITORING WELLS A, B, C, AND D WERE INSTALLED IN ACCORDANCE WITH THE MONITORING WELL LOCATION PLAN FOR CRA LANDFILL, DATED JANUARY 11, 1991, REVISION NO. 1, 1991.

APPENDIX A - Permits

- 151-B** **Solid Waste Permit to Construct Issued to Waterbury
Landfill Associates
(Dated March 10, 1983)
3 Pages**
- 151-B** **Transfer of Permit to Construct from Waterbury Landfill
Associates to CRRA
(Dated December 18, 1986)
1 Page**
- 151-B-O** **Solid Waste Permit to Operate Issued to Waterbury
Landfill Associates
(Dated November 14, 1986)
1 Page**
- 151-B-O** **Transfer of Permit to Operate from Waterbury Landfill
Associates to CRRA
(Dated December 19, 1986)
1 Page**
- Page 29 of** **“Groundwater Quality Monitoring”
Solid Waste (Received at CT-DEP on January 10, 1983)
Permit Appli- 1 Page
cation**

~~PERMIT TO WATERBURY LANDFILL ASSOCIATES FOR ESTABLISHING AND OPERATING
A BULKY WASTE DISPOSAL AREA IN WATERBURY, CONNECTICUT.~~

*No Report
Required*

An application for a permit dated December 29, 1982, has been submitted by:

Vincent B. LoRusso
Waterbury Landfill Associates
26 Rena Lane
Waterbury, Ct.

for establishing and operating a bulky waste disposal area on 6.2 acres of property owned by Nichols Realty (LoRusso) and located at the intersection of Highland Ave. and Highview St. in the south/central part of the City of Waterbury.

THIS PERMIT IS HEREBY GRANTED in accordance with Section 19-524b(c), Connecticut General Statutes and based on the site plans and report entitled "Operation and Management Plan for disposal of Bulky Waste at the Waterbury Landfill Associates Disposal Area" prepared for the applicant by Roald Haestad, Inc. and received by the Solid Waste Management Unit of Department of Environmental Protection on January 10, 1983

PROVIDED THAT:

1. Only bulky wastes, as defined by the Solid Waste Regulations, shall be disposed of in the area delineated on Figure 7. of the site plans.
2. The site development and operational plans, as prepared by Roald Haestad, Inc., shall be strictly adhered to throughout the site life.
3. Bulky wastes shall be incorporated into a defined working face and be spread and compacted daily. The compacted wastes shall be covered with 6" of clean soil a minimum of once each week.
4. A minimum of ~~two~~ ^{two} feet of clean fill shall be maintained between the bottom of the bulky waste disposed of at this facility and the high groundwater level and bedrock surface.

Phone:

State Office Building, Hartford, Connecticut 06115 06108

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5. The site preparation grading and plugging of the culvert shall be done prior to any waste deposition at the site; and DEP Solid Waste Unit staff shall inspect the prepared site prior to use.
6. No soil excavation and removal shall occur within the 6 acre landfill area.
7. The operator will not cause, suffer or otherwise permit open burning of solid waste at this disposal area unless specifically approved by the Commissioner in accordance with P.A. 81-127.
8. The site access shall be controlled with a locked gate. The site shall have an attendant present when open during the posted hours.
9. Waste processing and disposal operations shall be conducted so as to maximize runoff, minimize infiltration and prevent erosion and the collection of standing water.
10. Disposal operations are carried on by a certified operator in accordance with Section 19-524-5 of the Solid Waste Management Regulations.
11. No septic tank wastes, liquid or semi-solid industrial wastes, waste water treatment plant sludge, or other special industrial wastes shall be disposed of unless the wastes and the specific disposal methods are approved by the Department.
12. The applicant shall furnish the Commissioner, within six months of issuance of this permit, a performance bond or other surety in the amount of \$67,750 to insure that proper site closure in accordance with applicable state statutes regulations, and site plans can be completed.
13. The ground water quality monitoring program outlined on page 29 in the plans should be followed for the life of the site, beginning 6 months after issuance of the permit (July, 1983).
14. The permanent site boundary markers shall be installed within 6 months of permit issuance.
15. The applicant's consultant shall provide the DEP with monthly water level readings for the months of March, April, May and June of 1983 to demonstrate that the water table remains 2' below the ground surface. Specific approval of site grading will be needed to expand the operation out of lift 1-A.

Upon completion of any one acre portion of the disposal area that portion shall be graded, covered with two feet of clean soil, and seeded.

17. All major sources of final cover material shall be DEP approved and shall conform to grain size specifications under Section 19-524-2 of the Solid Waste Regulations.
18. As required by DEP the operator shall retain the services of a registered land surveyor to certify that the as-built final slopes and elevations are as specified in the site plans.
19. This permit is subject to and in no way derogates any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or materials nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state, or local laws or regulations pertinent to the property or activity affected hereby.
20. This permit is transferable only with the prior written permission of the Commissioner of DEP.
21. If operation of the subject solid waste disposal area is not initiated within one year of issuance of this permit, the permit shall expire unless specifically extended by the Commissioner.
22. The operator complies with all rules and regulations of the Department of Environmental Protection applicable to the operation and maintenance of the disposal area as they may be amended from time to time.

Dated in Hartford, Connecticut this 10th day of March 1983.

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL
PROTECTION
STANLEY J. PAC, COMMISSIONER
BY [Signature]
Stanley J. Pac, Commissioner

Operator/Owner
[Signature]
Solid Waste Permit NO. 151-13

[Handwritten initials]



STATE OF CONNECTICUT ✓
DEPARTMENT OF ENVIRONMENTAL PROTECTION



December 18, 1986

Ms. Marian R. Chertow
Connecticut Resources Recovery Authority
179 Allyn St.
Hartford, CT 06103

PERMIT TRANSFER

WATERBURY, TRANSFER OF SOLID WASTE PERMIT NO. 151-B, DATED MARCH 10, 1983 FROM WATERBURY LANDFILL ASSOCIATES TO THE CONNECTICUT RESOURCES RECOVERY AUTHORITY.

In accordance with your December 5, 1986 request and Sections 22a-209-4(a) and 4(g) of the Regulations of Connecticut State Agencies, Solid Waste Permit No. 151-B, IS HEREBY TRANSFERRED to the Connecticut Resources Recovery Authority.

The landfill will be operated in accordance with the site engineering plans and permit conditions as originally approved. All other appropriate restrictions, conditions and state statutes and regulations, including construction, operation, reporting, monitoring, surety, closure, maintenance and post-closure use shall remain in force.

Dated in Hartford, Connecticut, this 18th day of Dec., 1986

Sincerely,

Stanley J. Pac
Stanley J. Pac
COMMISSIONER

SJP/JE/jpw
cc: City of Waterbury

Phone:

165 Capitol Avenue • Hartford, Connecticut 06106

An Equal Opportunity Employer



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



* in
computer as
151-B

PERMIT TO WATERBURY LANDFILL ASSOCIATES TO OPERATE A SOLID WASTE FACILITY, LOCATED AT HIGHLAND AVENUE IN THE CITY OF WATERBURY OWNED AND OPERATED BY WATERBURY LANDFILL ASSOCIATES FOR DISPOSAL OF BULKY WASTE (EXCLUDING HAZARDOUS WASTE) AND OTHER SPECIAL WASTES AS SPECIFICALLY APPROVED.

This Permit to Operate is issued in accordance with Section 2 (c) of PA 85-334 and Section 22a-209-4 (c) of the Regulations of Conn. State Agencies and is based on the Permit to Construct a Solid Waste Facility No. 151-1-B issued to Waterbury Landfill Associates on March 10, 1983.

The owner or operator agrees to operate this Solid Waste Facility in accordance with all applicable state statutes, regulations and guidelines, and the approved site engineering plans referenced in the permit to construct.

Within sixty (60) days of issuance of this permit the owner shall post a surety with the Commissioner stated in the specific language for options selected under the requirements of Section 22a-209-4(i) of the Regulations of State Agencies, and shall maintain and update such surety as required by the referenced Federal Regulations.

This permit to operate is issued for an existing permitted solid waste disposal area which operated on Feb. 21, 1985 in accordance with Sec. 22a-209-4(c)(1) and may be revoked, suspended or modified in accordance with the reasons and procedures set forth under Section 22a-209-4(h) of the Regulations of Conn. State Agencies.

Dated in Hartford, Connecticut, this 14th day of November, 1986.

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Stanley J. Pac
Stanley J. Pac
Commissioner

P.O. No. 151-1-B-0
cc:
Mayor of Waterbury

Phone:

165 Capitol Avenue • Hartford, Connecticut 06106

An Equal Opportunity Employer



DEPARTMENT OF ENVIRONMENTAL PROTECTION



* in computer as 151-B

Ms. Marian R. Chertow
Connecticut Resources Recovery Authority
179 Allyn St.
Hartford, CT 06103

TRANSFER OF PERMIT TO OPERATE

~~WATERBURY, TRANSFER OF SOLID WASTE PERMIT TO OPERATE NO. 151-B-0,
DATED NOVEMBER 18, 1986, FROM WATERBURY LANDFILL ASSOCIATES TO THE
CONNECTICUT RESOURCES RECOVERY AUTHORITY.~~

In accordance with your December 5, 1986 request and Sections 22a-209-4(a) and 4(g) of the Regulations of Connecticut State Agencies, Solid Waste Permit to Operate No. 151-B-0, IS HEREBY TRANSFERRED to the Connecticut Resources Recovery Authority.

The landfill will be operated in accordance with the site engineering plans and permit conditions as originally approved. All other appropriate restrictions, conditions and state statutes and regulations, including construction, operation, reporting, monitoring, surety, closure, maintenance and post-closure use shall remain in force.

~~Dated in Hartford, Connecticut, this 19th day of December, 1986~~

Sincerely,


Stanley J. Pac
COMMISSIONER

SJP/JE/jpw
cc: City of Waterbury

Phone:

165 Capitol Avenue • Hartford, Connecticut 06106

An Equal Opportunity Employer

D. Groundwater Quality Monitoring

During the life of the site, it is proposed to monitor groundwater quality as follows:

1. In July of 1983, Wells A and B shall be tested for the full range of parameters as follows:

pH	Ammonia
Specific Conductance	Nitrate
Total Dissolved Solids	BOD ₅
Suspended Solids	COD
Alkalinity (CaCO ₃)	Iron
Chloride	Manganese

2. Assuming the July test results do not disclose anything out of the ordinary, the wells shall be tested quarterly in October, January, and April for specific conductance only.

3. The full range of tests would then be performed in July of 1984. The above parameters would be followed in subsequent years unless test results showed significant change from previous results. Copies of all test results will be provided to SWM, DEP. Any change in the testing program must be approved by DEP.

All testing shall be done to the accuracy required to test for drinking water criteria. Details of the sampling procedure may be found in Appendix E.

Each time a well is sampled, the elevation of the groundwater at that well must be measured and recorded with a copy sent to SWM, DEP.

It is noted that, as waste is deposited in the area of Well B, the 2-inch PVC well and its steel casing with locked cap should be extended upward periodically to maintain access to the well. The length of each extension of the steel casing must be accurately measured so that the new elevation of the top of cap may be determined.