8.

HALIFAX
REGIONAL MUNICIPALITY

PO Box 1749
Halifax, Nova Scotia
B3J 3A5 Canada

**Halifax Regional Council**
**December 16, 2003**

**TO:** Mayor Kelly and Members of Regional Council

**SUBMITTED BY:** Brad Anguish, Director, Environmental Management Services

**DATE:** December 8, 2003

**SUBJECT:** **Soils Disposal Site - Mengoni Ave., Burnside Industrial Park**

## INFORMATION REPORT

## ORIGIN

At the October 20, 2003 In Camera Council meeting, Councillor Smith requested a report on the Mengoni Ave. Soils Disposal Site, namely how the operations of the site will take place and how the existing problems on the site are going to be mitigated. The current expansion of the Mengoni Ave. site capacity is to accommodate various HRM requirements, including impacted soil material generated from the Harbour Solutions Project.

## BACKGROUND

On May 10, 2001, HRM received approval from Nova Scotia Department of Environment and Labour (NSDEL) to construct an impacted soil disposal cell on HRM-owned land at Mengoni Ave.. The cell was built to accommodate approximately 2000 cubic metres of PAH (polycyclic aromatic hydrocarbon) and metal-impacted soils that originated from the construction site of the HRM parkade built in downtown Halifax. The Mengoni Ave. site had been used as a fill site by the former City of Dartmouth during various periods through the 1970's. As part of the approval for use of this site for an impacted soil disposal cell, a ground and surface water monitoring program was instituted. As well, the liner for the initial cell also acted as a cap for a portion of the historic fill site.

## DISCUSSION

The disposal of impacted soils is an issue that often arises during development or redevelopment of urban lands that have had business and/or commercial use over many years. Often, depending on the parameters involved in the impact, local treatment or disposal options do not exist. Some metal-impacted soils could have to be trucked out of the province at very high cost (greater than $200/ tonne) if local disposal options are unavailable. Generally, some impacted soil can often remain in place at a development site, but if there is an excess of material due to the construction, other treatment or disposal options must be found.

During negotiations for the Harbour Solutions Project, the disposal of impacted soil was one of the major issues. Under the former contract with HREP, HRM was responsible for the cost of disposing of contaminated soil under certain conditions.

During and after use of the initial soil disposal cell in 2001, HRM Real Property and Asset Management controlled the Mengoni Ave. site, and used a consultant (Jacques Whitford) to conduct the required ground and surface water monitoring. For the Harbour Solutions Project, various options for disposal of contaminated soil were investigated, and a need identified for disposal cells that could take some of the contaminated soil from this project (i.e., PAH and metal-impacted material). Opportunities existed for better environmental controls for the old fill site and for financial savings to HRM (over trucking material elsewhere) if the existing site at Mengoni Ave. could be expanded. Preliminary engineering investigations were carried out by Jacques Whitford and, after discussions with HRM and NSDEL, an application was made and approval was received for the construction and operation of an expansion at the Mengoni Ave. site (NSDEL Approval No. 2001-019194 (Amendment #2) dated July 9, 2003).

### Cell Construction / Surface and Ground Water Monitoring:

As part of the cell expansion, an RFP was issued by HRM Solid Waste Resources and Harbour Solutions Project (HSP) to expand the groundwater monitoring well network at the site (five additional wells required for the expansion). Jacques Whitford was engaged for this work and had the wells installed in October of this year. Jacques Whitford also conducted baseline monitoring for these five new wells, as well as the semi-annual monitoring for the existing three ground water wells and the two surface water stations at the site. The results of the ground and surface water monitoring revealed that **all parameters were below** the NSDEL Guidelines for Disposal of Contaminated Soils in Landfills Leachate Acceptance Parameters for Contaminated Soil.

After this baseline work was completed, Dexter commenced construction of the cell expansion at the site. As of December 5, approximately 55% of the lined cell has been constructed, which is expected to be used over the coming months for impacted material from the Harbour Solutions site work. O'Halloran Campbell has been retained by HRM as owner's engineer at this property to oversee and monitor construction and operation activities by Dexter.

The expanded Mengoni Ave. cells will have a capacity of approximately 30,000 cubic metres. The allocation of this capacity is as follows:

| | | |
|---|---|---|
| Harbour Solutions Project | Collection Systems & Sewage Treatment Plants | 25,000 cu. m |
| Other HRM projects | (e.g., develop former Kidston Glass site, Pier A, etc.) | 5,000 cu. m |
| **TOTAL** | | **30,000 cu. m** |

The cost for construction of the Mengoni Ave. site expansion is $1,980,000, which was included in the cost of sewage collection system for the HSP. There will be a recovery rate of $66.00 per cubic metre (approximately) for the use of the site for HRM projects other than the Harbour Solutions Project.

**Benefits for the HRM**

The establishment of the Mengoni Ave. impacted soils disposal cell, approved by NSDEL with the ongoing monitoring requirements, has many positive outcomes for HRM:

- Environmental benefits resulting from the capping of an old disposal site;
- Enhanced infrastructure (i.e., ground and surface monitoring wells, and a synthetic liner) has significantly reduced any future liabilities for HRM;
- A convenient and cost competitive disposal site for impacted soils for the Harbour Solutions project and other capital projects as they are identified.

## BUDGET IMPLICATIONS

HSP has budgeted for the Mengoni Ave. capacity expansion as part of the overall capital works for the Harbour Solutions Project.

## FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Capital and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

## ALTERNATIVES

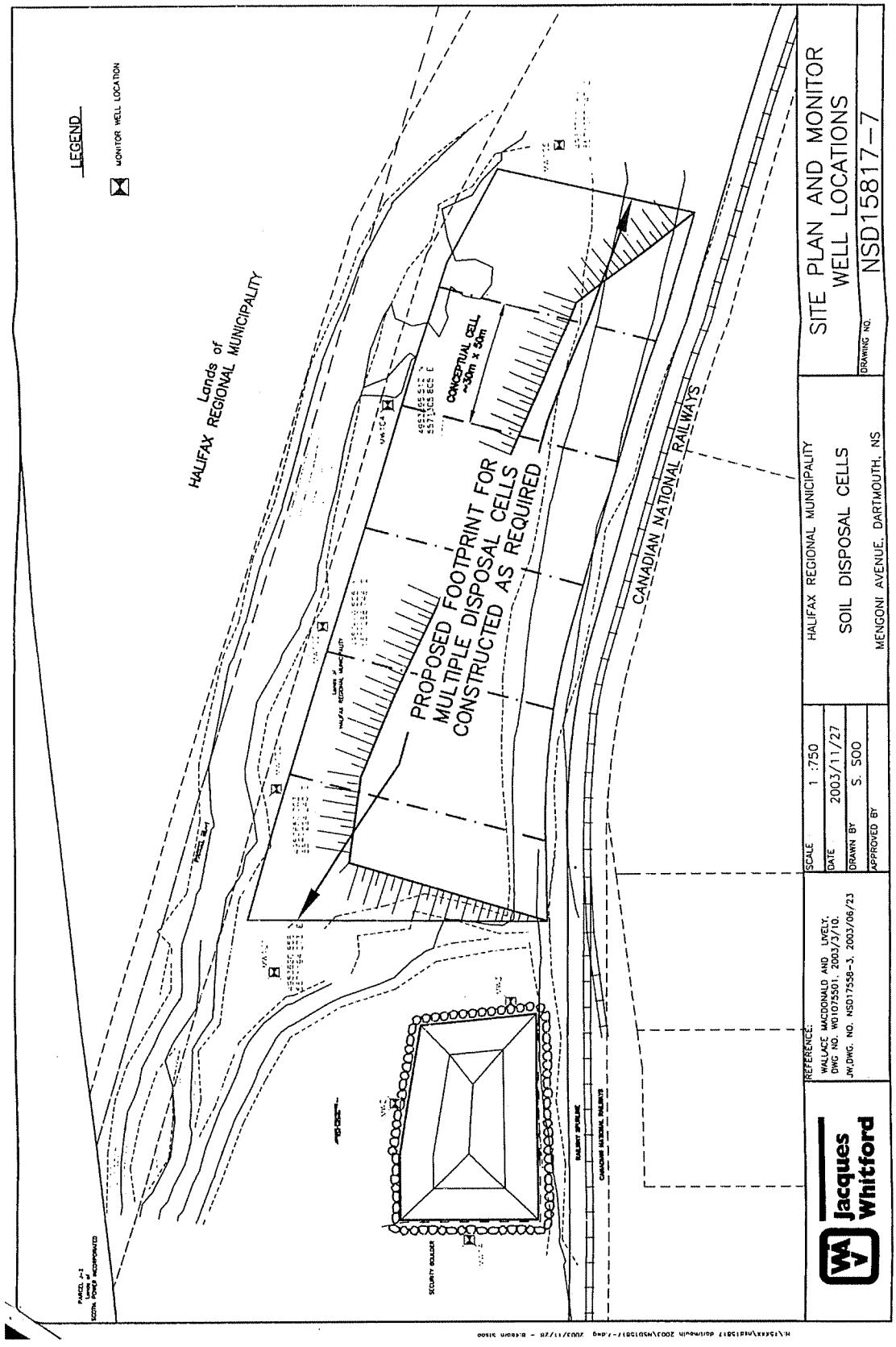
N/A

## ATTACHMENTS

Sketch of the facility site plan.

Additional copies of this report, and information on its status, can be obtained by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by: Jim Bauld , Acting General Manager, Solid Waste Resources 490-7176
Robert Orr, P.Eng. Solid Waste Engineer, 490-6698


LEGEND
MONITOR WELL LOCATION
HALIFAX REGIONAL MUNICIPALITY
Lands of
PROPOSED FOOTPRINT FOR
MULTIPLE DISPOSAL CELLS
CONSTRUCTED AS REQUIRED
CONCEPTUAL CELL
~30m x 50m
CANADIAN NATIONAL RAILWAYS
SECURITY BOULDER
SITE PLAN AND MONITOR
WELL LOCATIONS
DRAWING NO. NSD15817-7
HALIFAX REGIONAL MUNICIPALITY
SOIL DISPOSAL CELLS
MENGONI AVENUE, DARTMOUTH, NS
SCALE 1 :750
DATE 2003/11/27
DRAWN BY S. SOO
APPROVED BY
REFERENCE:
WALLACE MACDONALD AND LYDELY.
DWG NO. W01075501, 2003/3/10.
JW.DWG. NO. NSD17558-3, 2003/06/23
Jacques Whitford