

May 3, 2001

Nunavut Water Board
PO Box 119
Ghoa Haven, Nunavut
X0B 1J0

Attention: Dionne Filiatrault, Technical Advisor

Iqaluit Solid Waste Incinerator and Ashfill Facilities Approval

The City of Iqaluit has undertaken several solid waste management (SWM) planning studies to resolve long term waste management issues. As a result of this work, the City is pursuing the development of a municipal solid waste incinerator and ashfill. This project is currently in the conceptual stage, and there are many issues that will need to be addressed in the next phases of the project. One of the key issues is the licencing and permitting requirements of the facility and facility components.

The attached document describes the proposed incinerator and ashfill project. The project is essentially comprised of two aspects:

1. The construction of an incinerator facility near the existing municipal garage in the North 40 industrial area. It is intended that this facility will utilize waste heat recovery and distribution. It is expected that through the addition of this component, the incinerator facility will be able to recover usable heat from the waste, and displace significant heating fuel consumption.
2. The re-development of the existing waste disposal site in West 40 into an ashfill and metal disposal facility.

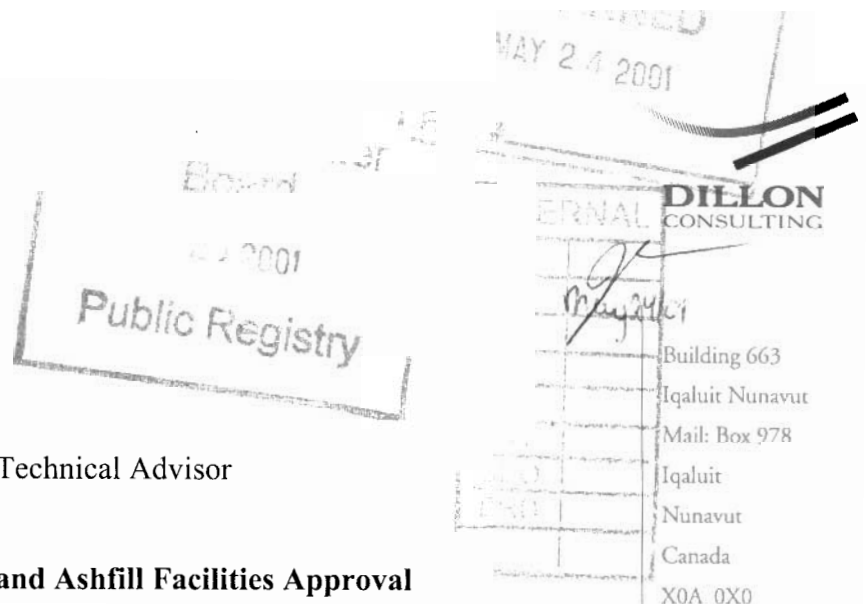
The intent of this submission is to provide the regulatory agencies with an early opportunity to review the direction that the City is pursuing and to provide meaningful input to the final decision process. It should be clearly stated that the City has not finalized the selection of the SWM system, and is still seeking input and advice from several sources. The final decision will be made by council upon review of all available information.

In the coming weeks, a representative from Dillon Consulting Limited, Ms. Krista Taverner, P. Eng, will be contacting you to discuss this project. In particular, we are interested in:

- The Department's role in the environmental review process for this project.
- The need for permits or licences from the Department prior to the completion

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- of the work.
- The Departments concerns, issues, and comments on the proposed development.
 - Expected time requirement for the Department to complete the required reviews of the project design, should it proceed.
 - Required submissions to enable the Department to complete its' review.

We thank you in advance for your time on this project, and look forward to our discussions.

Yours sincerely,
Dillon Consulting Limited

for Gary Strong, P. Eng.,
Project Manager

Municipality of Iqaluit

Matthew Hough, EIT
Director of Engineering &
Public Works

**SUMMARY OF PROPOSED SOLID WASTE FACILITY
IQALUIT, NUNAVUT**



Dillon Consulting Limited
May 2001

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1.0 INTRODUCTION

In January 2001, Dillon Consulting Limited (Dillon) prepared a draft report for the Municipality of Iqaluit entitled, "Solid Waste Facility Site Selection, Draft Report". Outlined in the report were a number of solid waste disposal site options. These solid waste management (SWM) site options were ranked by the SWM steering committee which was comprised of town council members and the public. The recommended option is an incinerator facility located at the existing municipal garage site on Federal Road with an ashfill system at the current landfill site in West 40. The purpose of this document is to summarize this recommendation, the facility components, and facility sizing.

2.0 BACKGROUND

The existing Iqaluit landfill facility was built in 1995, and was intended as a temporary site until funding for a permanent solution could be allocated. Waste disposal techniques at the existing landfill include burning, compaction and covering with granular fill. Due to the limited size of the existing landfill, burning is necessary to reduce the volume of waste. There is concern from both the regulatory agencies and the public regarding health risks and the unpleasant sight and odors emitted by burning at the landfill.

In October 1999, the Municipality of Iqaluit, in conjunction with the Department of Community Government & Transportation (CG&T), commissioned a Solid Waste Management Planning Study for Iqaluit. The study was completed by JL Richards & Associates and Golder Associates Limited in September 2000. Extensive community consultations were completed as part of the study to address residents' concerns. One recommendation from this study was to develop an incinerator and ash disposal facility to address the long term solid waste management of the community.

Current estimates indicate that the existing landfill will reach its design capacity prior to November 2001. As a result, there was an immediate need to select the long term solid waste management system and the locations for the components of this new system. In October 2000, the Municipality retained Dillon to complete a solid waste facility site selection. This study was the next step in addressing the long term solid waste management issues in Iqaluit.

3.0 FACILITY DESCRIPTIONS

This section describes the proposed solid waste management system including facility locations, sizes, and rationale for selection of the sites.

3.1 Location

The proposed incinerator facility location is on the municipal garage property on Federal Road in Iqaluit.

The proposed ashfill location is the existing landfill site at West 40. The locations of the incinerator and ashfill are illustrated in Figure 1. Figure 2 is an airphoto of Iqaluit with an overlay of the proposed incinerator and ashfill sites.

3.2 Location Rationale

The following briefly describes some important aspects associated with locating the incinerator facility at the municipal garage site on Federal Road:

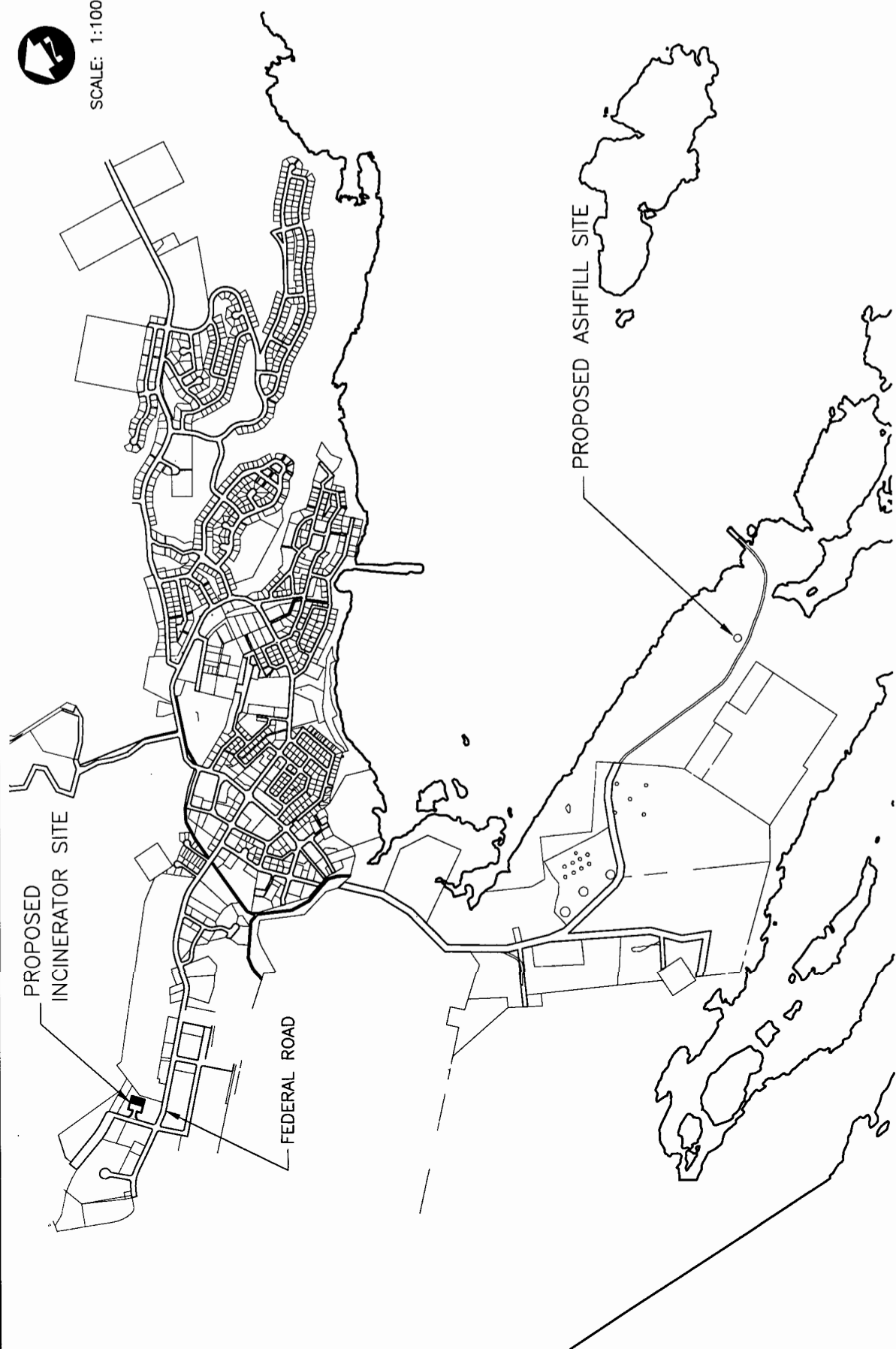
- The site is adjacent to buildings which can utilize waste heat generated by the incinerator;
- The site is located in an industrial zone rather than residential/commercial zone; and
- The site is not a tourist area or recreation area.

The following briefly describes some important aspects associated with locating the ashfill facility at the West 40 site:

- The existing road to the landfill would be utilized for the ashfill therefore major road upgrades would not be required;
- This existing road is currently cleared and sanded during the winter as it is used for the tank farm access road. The road is also fairly flat therefore trucks would have little difficulty delivering ash to the site during winter months;
- This site is considered an environmentally impacted site therefore the continued use of the site as an ashfill would prevent impacting another area;
- The existing operator building would be utilized therefore the construction of a new building would not be necessary;
- Power is currently supplied to the site therefore the installation of poles and wires to the site would not be required;
- The route from the incinerator site to the ashfill site is not through residential areas; and
- Using the existing landfill site for the ashfill also significantly reduces the cost of closing/capping landfill sites as there would only be the cost to close the West 40 site in 20 years time rather than the West 40 site in next couple of years and the ashfill site in 20 years.



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PROJECT		PROJECT NUMBER
SOLID WASTE FACILITY SITE SELECTION IQALUIT, NUNAVUT		00-8308
		DATE
PROPOSED LOCATION FOR INCINERATOR ON FEDERAL ROAD AND ASHFILL AT EXISTING SITE		APR 01
		FIGURE NUMBER
		FIG 1



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