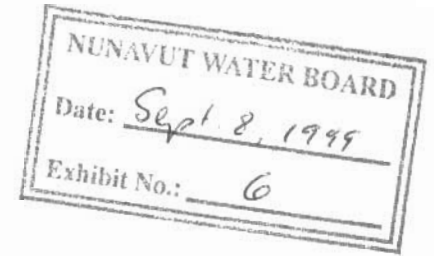




മുൻ‌നിശ്ചയിച്ചിട്ടുള്ള



Date: Sept 8, 1995

Exhibit No.: 6

Statement of Work
Consulting and Professional Services

Terms of Reference
Comprehensive Solid Waste Management Plan
Iqaluit, Nunavut

August 16, 1999

Terms of Reference – Comprehensive Solid Waste Management Plan – Iqaluit, Nunavut

S.W.1 **BACKGROUND**

Iqaluit is located on Hall Peninsula on Southern Baffin Island. The Town lies on the eastern side of Koojesse Inlet where the Sylvia Grinnell River flows into Frobisher Bay. Iqaluit is approximately 2100 kilometers north of Montreal and approximately 2300 kilometers east of Yellowknife. Apex, a satellite community, is approximately 5 kilometers south of Iqaluit. Access to Iqaluit is provided by regularly scheduled commercial aircraft year round, snowmobile trails from other Baffin Island communities in the winter and sea-lift from the port of Montreal in the summer.

The annual snowfall in Iqaluit is approximately 255 cm and the annual rainfall is approximately 19 cm. In January, normal temperatures range between a low of -30 degrees C and a high of -21.7 degrees C, with a mean of -25.8 degrees C. In July, the normal temperatures range between a low of 3.7 degrees C and a high of 11.4 degrees C, with a mean of 6.2 degrees C. Freeze-up typically starts around the end of October. Spring thaw begins around mid-June and the ice on Frobisher Bay typically begins to melt around mid-July. The amount of light in the winter decreases to approximately 4 hours a day by mid-December and increases to nearly 21 hours a day by mid-June. Prevailing winds are from the Northwest at 16.7 km/hr (Relevant recent publications, for example the National Building Code of Canada, should be used to verify information).

Iqaluit is above the tree line and within the continuous permafrost zone of Canada. The region generally consists of glacially scoured igneous/metamorphic terrain. The terrain is dissected by NNW-SSE WSW-ESE trending river and stream systems providing for parallel or in some areas a trellis drainage system. Bedrock surface features trend NNW to SSE and are controlled by bedrock structures and partly by glacial advance and retreat. Overall, a veneer of glacial drift/felsenmeer deposits are underlain by bedrock. In some locations, a thin layer of organic material is found.

Iqaluit is the Capital of the newly created territory of Nunavut. Some of the founding principles of the Government of Nunavut are:

- *Places people first;*
- *Represents and is accountable and fair to all its residents*
- *Is a servant of the people of Nunavut;*

The objective of the study shall be to develop a comprehensive long term (20 year) plan which addresses all solid waste management issues for Iqaluit. Without limiting the foregoing, the study shall:

- Identify the location, nature and relevant environmental risks associated with all Solid Waste Disposal sites in Iqaluit, whether identified in previous studies or not, with particular attention to those sites which are of Municipal responsibility (generally referred to as the Apex site, the old Iqaluit landfill and the existing solid waste disposal area). Other sites are the responsibility of other levels of government (for example the Federal Government Department of Indian and Northern Affairs).
- Develop waste generation projections based on established procedures, existing population statistics projections and input from various stakeholders.
- Provide a preferred option for a comprehensive Solid Waste Management Plan, based on criteria to be developed through the course of the study through close consultation with affected parties. All options for solid waste management shall be considered, including, but not limited to, landfill, modified landfill, burn compact and fill, incineration, plasma technology, etc. The preferred option shall also consider strategies to reduce the volume of waste in the waste stream (for example reduce, reuse, recycle strategies, specific measures to collect hazardous wastes and measures to address the handling of readily reusable waste materials, etc.). The Plan shall clearly identify site location(s), class "D" cost estimates (including annual operations and maintenance costs), ancillary infrastructure and associated costs that may be required to implement the plan (for example extra garbage compaction trucks, etc.) a reasonable implementation schedule and funding alternatives (for example P3 arrangements, service club donations, etc.). Without limiting the foregoing, the successful proponent may consider the option for private operation of a Waste Handling Facility. Complete Lifecycle costing, employing a sensitivity analysis shall be used as one of the significant factors in determining the preferred option. A further extension of the use of the existing "temporary" site may also be considered as a short term solution (less than 3 years).
- The proponent may be required to further refine all the Class "D" cost estimates and plan to a design and Class "A" cost estimate on a cost-plus basis to be defined in the proponents proposal.

- *Seeks direction from the people*
- *Is shaped by and belongs to the people of Nunavut*
- *Offers programs and services in an integrated and holistic manner*
- *Promotes harmony amongst people*
- *Places ownership of well-being into the hands of individuals, families and communities.*
- *Conducts itself with integrity and openness;*
- *Encourage excellence and welcomes creativity; and*
- *Incorporates the best of Inuit and contemporary government systems.*

Current Practices

Currently there are six solid waste disposal sites not currently in use as well as a "temporary" site, which was constructed in 1995, and is due to be abandoned (i.e. full) in the year 2000. Iqaluit employs a modified landfill approach which includes a burning regime. Non-combustible materials are segregated as best as possible. Hazardous materials (for example batteries and tires) are further segregated and stored as best as possible.

None of the old sites have been abandoned and restored to the satisfaction of the various regulatory agencies.

Furthermore, a private firm currently performs "recycling" as follows:

Cans are collected in an informal manner. The proprietor has the necessary machinery to crush and compact cans into bails which are shipped via sea to the port of Montreal where they are sold as scrap.

Glass bottles are collected in an informal manner. Liquor bottles and other bottles for which a southern deposit has been paid are kept and shipped south for refund. It is unknown what is done with remaining glass bottles.

Plastics are not recycled.

Lastly, inmates at the Baffin Correctional Center, on an infrequent basis, visit certain Governmental offices where "Blue-boxes" are kept for paper recycling. The contents of the boxes are stored in a large container at the government warehouse and shipped south. Although unconfirmed, funding for this program likely comes from the Iqaluit Rotary Club.

S.W.2

OBJECTIVE

- Provide acceptable Abandonment and Restoration (A and R) Plans for those Solid Waste Disposal sites which are the responsibility of the Municipality. The successful proponent shall include a contingency to provide plans for the A and R of all Solid Waste Disposal sites.
- Review existing Municipal By-laws, policies and procedures as they relate to Solid Waste Management and provide recommendations for improvement, clearly identifying costs and implementation schedules.
- Ultimate A and R Plan for the facility (facilities) to be constructed as per the approved study.
- All work and study shall be cognizant of the particular waste stream in Iqaluit and all constraints which may affect the choice of a preferred option.
- All options and itemized plans must not rely on the completion of other events. For example, the preferred plan shall be a list of projects actions which shall be separate and distinct, in that the incompletion of one action does not necessarily preclude the completion of another action. The preferred plan must be implementable, either in whole or in part.

S.W.3

SCOPE OF WORK

The successful proponent shall:

1. Meet the objective as outlined in S.W.2, using existing data and studies available from the Client. Several studies have been conducted and pertain to solid waste management issues, community planning, zoning and by-law issues, granular source development and numerous other factors. Copies of these supplementary reports and studies will be provided to proponents upon request on a COD delivery basis. Data and other requirements will be discussed at the introductory meeting.
2. Conduct supplementary studies and investigations (including geotechnical, water and soil quality, etc.) as required.
3. Establish a reasonable presence in Iqaluit during all phases of the project. It is envisaged that numerous meetings will be required with stakeholders (see list in S.W.5) on relatively short notice. It may be possible to conduct meetings via telephone, but the successful proponent shall be responsible to ensure the successful and timely completion of meetings and consultations as required.
4. Provide all administrative support to the Client to address all questions and concerns from the various stakeholders. For example, should a stakeholder submit written concerns, it would be expected that the successful proponent would provide an adequate response and distribute to interested parties as required, with Client approval. The

- successful proponent is to provide all administrative assistance for a "One Window" approach to communication through the Client.
5. Meeting Number 1 – Upon award of the contract, arrange and engage in an introductory meeting, at the office of the Client, with all Stakeholders (in so far as is possible) to review project and data requirements, and to address any specific concerns. The successful proponent may recommend to the Client, any changes in scope, methodology, etc., which are of benefit to the Client, which will meet the Objective of the project. The successful proponent shall generate minutes of this meeting and copy all Stakeholders.
 6. Maintain a complete registry of all correspondence associated with the project and deliver to the client on a regular basis and providing a complete registry at the termination of the project.
 7. Preliminary Plan – The successful proponent shall provide to the Client, a Preliminary Plan which shall include the following:
 - Any conclusions/changes in scope arising from Meeting Number 1
 - Work Plan and travel schedule if appropriate
 - Listing and possible summary of all reports and documentation available and to be used, both from the Client and other sources (for example professional associations, experts in the field, etc.)
 - Draft evaluation criteria reflecting the needs and concerns of various stakeholders.
 - Basic assumptions to be used (if any)
 8. Arrange meetings as and when required and provide written record to all stakeholders.
 9. Public meetings and consultation will form a key component of the study. It is envisaged that at least 2 public meetings will be required and the successful proponent will be responsible to arrange these meetings and provide suitable and appropriate presentation materials.
 10. The successful proponent shall maintain formal contact with the Client throughout the term of this contract to ensure that all work is done to the satisfaction and approval of the Client. Every two weeks, formal progress reports are expected from the successful proponent. Billings can be made once per month.
 11. The successful proponent shall not be permitted to make changes to personnel during the course of this contract without consultation and concurrence of the Client.

No changes affecting the cost, time plans or quality will be made without the written approval of the Client.

If additional work is necessary due to a change of requirements, the successful proponent shall notify the Client in writing immediately. No work shall be undertaken which is additional or supplemental to or in

substitution of the work specified, unless authorized in writing by the Client.

S.W.4

OUTPUT

The successful proponent shall submit the following to the Client:

1. Minutes of all meetings within 2 working days, or as approved by the Client.
2. A Preliminary Plan as per S.W.3.6 within 2 (two) weeks of contract award.
3. A Discussion Paper, for presentation at the first public meeting which will outline all possible options for Solid Waste Management as well as criteria for the public to provide meaningful comments.
4. A draft final report incorporating comments from stakeholders and the general public. This report shall be presented to the public for final comments.
5. A final report providing the preferred option and all other criteria as stipulated above in the Objective and Scope of Work.

The discussion paper, draft final report, and final report, as outlined above, must be translated and submitted in both English and Inuktitut.

For each report, the successful proponent must submit the required number of hard copies (to be determined at meeting number one) as well as one electronic copy compatible with Microsoft Office 97 software packages (Word, Excel). Any photographs must be of a digital nature, provided on disk and useable with common graphic packages.

All documents and reports produced under this project should be written for managers, engineers and planners not familiar with local conditions and practices. In addition, the successful proponent may produce documents for the general public in a manner that is easily understandable.

S.W.5

STAKEHOLDER AND CLIENT ENVIRONMENT

The client for this project shall be the Municipality of Iqaluit as follows:

Mr. Denis Bedard, P.Eng.
Director, Engineering and Planning
Municipality of Iqaluit
P.O. Box 460
Iqaluit, Nunavut
X0A 0H0

Ph: 867-979-5600

Fax: 867-979-5300

Furthermore, the Government of Nunavut, Department of Community Government, Housing and Transportation will assume a co-client role as follows:

Mr. Douglas R. Sitland, P.Eng.
Municipal Planning Engineer
Department of Community Government, Housing and Transportation
P.O. Bag 800
Iqaluit, Nunavut
X0A 0H0

Ph: 867-975-5300

Fax: 867-975-5305

e-mail: dsitland@gov.nu.ca

Various Regulatory Agencies are responsible for administering various Acts and Regulations as they relate to the disposal of Solid Waste and associated activities. A preliminary List is as follows:

1. Nunavut Water Board
Contact: Ms. Dionne Filiatrault, 867-380-6338
2. Baffin Region Health and Social Services Board
Contact: Ms. Nicole Ritchie, 867-979-7654
3. Federal Department of Indian and Northern Affairs Canada
Contact: Mr. Paul Smith, 867-979-4405
4. Federal Department of Fisheries and Oceans
Contact: Ms. Margaret Keast, 867-979-6274
5. Department of Sustainable Development
Contact: Earle Baddaloo, 867-979-5119
6. Federal Department of the Environment
Contact: Ann Wilson, 867-669-4735

The proponent is advised that each regulatory agency has various different Acts and Regulations which they administer and each may also have guidelines which may be of value. During the course of tendering, proponents may contact any/all of the regulatory agencies. Furthermore, during the course of the project, close interaction with this group will be required.

Lastly, there are several other stakeholders which certainly have a stake in this project. A non-exhaustive list includes:

1. Nunavut Tunngavik Inc.
2. Qikiqtani Inuit Association

3. Nunavut Impact Review Board
4. Nunavut Planning Commission
5. Nunavut Wildlife Management Board
6. Amarok Hunters and Trappers Organization
7. Qikiqtaaluk Wildlife Board

The successful proponent will be responsible to determine each of these (and others which may come to light) stakeholders interests and address their concerns during the course of the study. Such consultation shall be fully documented.

S.W.6 **CONTRACT DURATION**

The duration of this contract is 8 months upon signing, but in no case shall this contract extend beyond March 31, 2000.

S.W.6 **OWNERSHIP**

Any electronic and or paper copies of documents provided to the successful proponent by the Client shall remain the sole property of the Client and are not to be further used or distributed outside the domain of this contract. The Client will also retain intellectual property rights and other property rights for materials produced under this contract. All information shall be turned over to the Client at the conclusion of this project.

S.W.7 **PROPONENT'S PROPOSAL**

The successful proponent's proposal, insofar that is not in variance with anything contained in the contract documents, shall apply to and form part of the contract. This Request for Proposal shall also form part of the contract.

No fee will be paid for the proposal submission. The Client reserves the right to short list a reasonable number of proposals and request additional information from these short listed proponents.

S.W.8 **FEE STRUCTURE**

All fees for this project should be clearly identified in the proposal. Fees on a per unit basis where appropriate are permissible and will form the basis for negotiated extras where applicable. Where unit basis fees are suggested, the proponent must provide a reasonable estimate, based on the scope of work for the total value of the item.

Unless there is a significant change in the scope of work, the total cost (Ceiling Limit) submitted with the proposal will be the maximum paid for the work.

S.W.9 INVOICING

Upon acceptance of the various Output items by the Client, the successful proponent Project Manager shall submit an invoice, accompanied by a letter with a summary of contract amount, total paid to date and free balance. The proponent may also suggest alternative invoicing arrangements.

S.W.10 INNOVATION

Project proponents may suggest to the Client in the proposal any alternatives or innovative methods which, in their opinion, may result in a more desirable end product for use by the Client. Such innovation must be in sufficient detail to permit a proper evaluation and to form part of the basis for administration of the project. Ultimately, the Client, in its sole discretion will determine the appropriateness and desirability of any innovation.

S.W.12 GENERAL TERMS OF REFERENCE

If not explicitly stated above, the Government of the Northwest Territories, Department of Municipal and Community Affairs (MACA) General Terms of Reference for Studies, Guidelines for the Planning, Design, Operation and Maintenance of Solid Waste Modified Landfill Sites in the NWT and any other applicable guidelines will apply. Without limiting the foregoing, generally MACA works on a 20-year planning horizon, uses an 8 % Discount Rate for economic evaluations, etc.. This does not limit the proponent in the use of innovative approaches in the preparation of the proposal or subsequent reports.

Evaluation and Selection Criteria

Proposals will be measured against the requirements called for in the project's Terms of Reference and will be rated in accordance with the following criteria:

1. Contractor Firm – Weight 10

Experience and satisfactory performance on similar work in the same subject area.

2. Project Team – Weight 20

The management structure, qualifications and experience of personnel to be assigned to the job.

3. Northern Experience – Weight 10

4. Proposal

4.1 The depth and detail of the submission which indicates the understanding of the complexity and time constraints of this type of work, in particular how it relates to Iqaluit and Nunavut – Weight 25

4.2 The methodology proposed for the performance of the work, and any innovative or constructive ideas presented – Weight 15

5. Cost – Weight 20

The total cost of the work, which includes fees and expenses. The Client will make all necessary adjustments as per the Government of Nunavut's Business Incentive Policy and proponents are obligated to clearly identify their qualifications and eligibility.

Notes:

1. Only acceptable proposals will be considered.
2. The proposal which achieves the highest rating in the evaluation will be deemed to represent the best value to the Client.
3. The Client need not enter into a contract with the proponent providing the best value to the Client, nor any other proponent, at the sole discretion of the Client.
4. All proposals shall remain the property of the Client and will not be returned to the proponents.
5. Only 3 (three) copies of the proposal need to be submitted and faxed copies are not acceptable.
6. Proposals must be submitted by 15:00 est., Monday September 13, 1999. Late proposals will not be accepted.
7. The Proposal Review Committee shall be comprised of Mr. Bedard, Mr. Sitland and representatives to be defined by the Municipal Council.