

APPENDIX - E

Scope of Works of the Consultant to prepare Engineering design, drawings and specifications for Monitoring wells at Cape Dorset Metal dump site, Solid waste site and P-lake Sewage Lagoon Site.

Scope of works:

The registered consultant with NAPEG must consider in the design, but not limited, Hydrology, soil characteristics, permeability, depth of active layer (Permafrost level), type of contaminated liquid running through the ground and groundwater table. The consultant will visit the project area physically and conduct the following activities.

A. Monitoring Stations: (Hamlet Water License #3BM-CAP0810)

Following the permanent Bench Mark of the community, establish the elevations of the individual monitoring stations and also establish coordinates for all of them.

1. CAP-16: Monitoring well located up gradient of 2007 Sewage Disposal Facility.
2. CAP-17: Monitoring Well #1 located down gradient of the 2007 Sewage Disposal Facility.
3. CAP-18: Monitoring well #2 located down gradient of the 2007 Sewage Disposal Facility.
4. CAP-19 : Monitoring well located up gradient of the Solid waste Disposal Facility.
5. CAP-20: Monitoring well located down gradient of the Solid waste Disposal Facilities.

B. Soil characteristics:

Conduct a study on soil characteristics and prepare the grain size analysis to estimate the seepage rate. (Dillon's report is attached)

C. Active Layer (permafrost level):

Establish the active layer depth at each monitoring well with GPS coordinates.

D. Bole hole:

Determine the diameter and depth of the individual Monitoring well and establish the bottom elevation accordingly.

E. Pipe specification:

Select the specifications of the pipe for long sustainability. Diameter should not less than 150mm. Consider pipe cap at the top.

F. Design Drawing and Cost Estimates:

Prepare a site plan showing all the locations of the monitoring wells, detail design of the individual pipe and Class "A" estimate for all the Monitoring wells.

G. Technical Specifications and Tender Document:

The consultant will prepare detailed technical specifications and 5 copies of complete Tender documents. A draft needs to be approved first by the Department of Community Government Services (CGS).

H. Record Drawings

The Proponent must provide "As Built" drawings signed and sealed by NAPEG Engineer in reproducible and electronic form (AutoCAD 2004 version) once the project is 100% completed.

H. Project Record

The Proponent must provide project record documentation, including all drawings, specifications, addendums, engineering reports, site visit reports and any digital pictures taken during various stages of the project. The Project Record will be in MS word and electronic form (CD R format) to be needed over to the GN before final inspection of the project. Drawings and specification not accepted in PDF format. This is applicable for all the components of the project.

I. Operation and Maintenance Manuals

The Proponent must prepare and submit four (4) hard copies Operation and Maintenance Manuals of the Monitoring Wells with details following the Hamlet Water License # 3BM-CAP0810 and information allowing Hamlet personnel to understand the function and operation of the facility. The first draft of the manual should be available two (2) weeks prior to the substantial completion inspection. The final copies shall be bound in an expansion binder "piano hinged" with a general description heading

on the cover and side. The Proponent is to compile the Operation and Maintenance Manuals and the tender documents should be adjusted accordingly. The consultant's responsibility should be to provide record drawings, water sampling procedure and technique and technical information sheets following item 4, 13 and 15 of Part H of the existing hamlet water license.

J. Project Team

The proposal should list and provide brief resumes for the project team members that will be directly involved in the project. Their role on the project as well as their background, experience and training should be briefly noted. Prior to making any changes to a team member's involvement, the Proponent shall submit a written request to the Department of Community Government Services and obtain written approval for said changes.