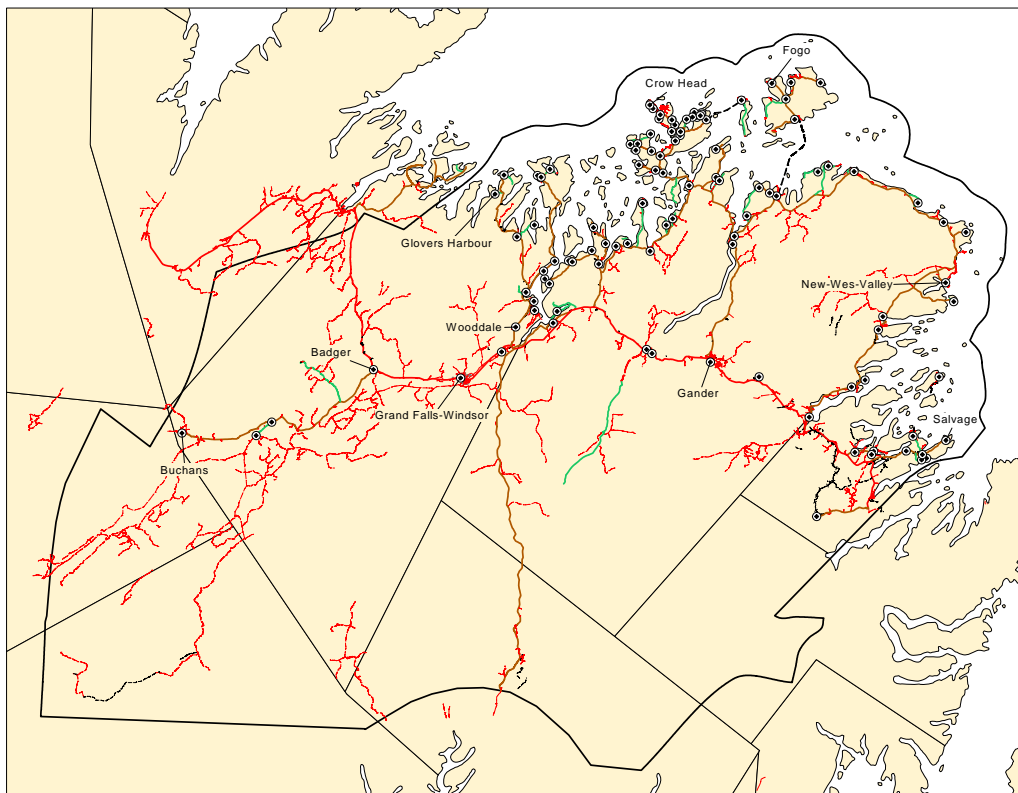

ENVIRONMENTAL ASSESSMENT REGISTRATION

CENTRAL NEWFOUNDLAND REGIONAL WASTE MANAGEMENT FACILITY

Submitted to:

Department of Environment and Conservation
Environmental Assessment Division

May 2007



ENVIRONMENTAL ASSESSMENT REGISTRATION

CENTRAL NEWFOUNDLAND REGIONAL WASTE MANAGEMENT FACILITY

Prepared for:

Department of Environment
Environmental Assessment Division
P.O. Box 8700
St. John's, NL
A1B 4J6

Prepared by:

BAE-Newplan Group Limited
1133 Topsail Road
Mount Pearl, NL
A1N 5G2

May 2007

Project No.: 722269

Title: ENVIRONMENTAL ASSESSMENT REGISTRATION,
CENTRAL NEWFOUNDLAND REGIONAL WASTE MANAGEMENT
FACILITY

Client: Central Newfoundland Waste Management Committee

C	07/05/29		Environmental Registration	MS	WM	WM
B	05/01/12		Environmental Registration	RH	WM	WM
A	04/10/17		Environmental Registration	RH	WM	WM
Rev.	Date yyyy/mm/dd	Page No.	Description	Prepared By	Reviewed By	Approved By

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1.0 NAME OF THE UNDERTAKING

CENTRAL NEWFOUNDLAND REGIONAL WASTE MANAGEMENT FACILITY

2.0 PROPONENT

2.1 *Name of Corporate Body*

Central Newfoundland Waste Management Committee

2.2 *Address*

Central Newfoundland Waste Management Committee
c/o Town of Gander
P.O. Box 280
Gander, NL
A1V 1W6

2.3 *Contact*

Name: Ed Evans
Official Title: Chairman Technical Committee
Address: Town of Botwood, P. O. Box 490, Botwood, NL
Telephone #: (709) 257-2839
Fax #: (709) 257-3331

2.4 *Principal Contact Person for Purposes of Environmental Registration*

Mr. Wayne Manuel, P. Eng.
BAE-Newplan Group Limited
1133 Topsail Road
Mount Pearl, NL
A1N 5G2
Telephone: (709) 368-0118 Fax: (709) 368-3541

3.0 THE UNDERTAKING

3.1 *Nature of the Undertaking*

The purpose of the proposed project is to provide a suitable location for the establishment of a regional solid waste management facility to service communities located in the central region of Newfoundland. The proposed site is located approximately 2.0 km east of Norris Arm Harbour and covers an area of 368.9 ha. (Refer to Appendix A, Figures 1 & 2.)

The landfill will provide permanent storage of materials after the recycling and organic diversion efforts of the region's waste management system are complete. The development will consist of the following components:

- Access Road
- Scale House
- Public Drop-off Area
- In-Vessel Compost Facility
- Materials Recovery Facility
- Construction and Demolition Depot and Landfill
- Household Hazardous Waste Area
- Regional Landfill Facility.

(Refer to Appendix A, Figure 3.)

3.2 Need for the Undertaking

The undertaking will provide a suitable location for solid waste disposal to service communities located in the central region of Newfoundland. The landfill will provide permanent storage of materials after the recycling and organic diversion efforts of the waste management system are complete.

The establishment of the proposed waste management facility is necessary for the central region to meet the objectives of the comprehensive waste management strategy¹ established by the Province of Newfoundland and Labrador. The strategy has a goal of 50% diversion of materials currently going to landfills by the year 2015. The strategy also includes a reduction in the number of disposal sites, the elimination of open burning, and the phase-out of unlined landfills.

In keeping with the goals of this strategy, the Central Newfoundland Waste Management Committee has undertaken the task to oversee the development of a Solid Waste Management Plan for the Central Newfoundland Region. The Central Newfoundland Waste Management Committee is an umbrella organization made up of representatives of the community councils within the Central Region of Newfoundland.

¹ Government of Newfoundland and Labrador, Department of the Environment. *Newfoundland and Labrador Waste Management Strategy*. Revised May 2007.

4.0 DESCRIPTION OF THE UNDERTAKING

4.1 *Geographic Location*

The proposed location is situated near the community of Norris Arm, approximately 45 km west of Gander, NL (see Appendix A, Figure 1). The site is located between the Lewisporte Junction Road and the Norris Arm North Side access road and has a total area of approximately 3.7 km². The site is accessed by trails and logging roads both from the Trans Canada Highway (south of the site) and the Norris Arm North Side access road (west of the site).

4.2 *Physical Features of the Undertaking*

The development will consist of the following components:

- Access Road
- Scale House
- Public Drop-off Area
- In-Vessel Compost Facility
- Materials Recovery Facility
- Construction and Demolition Depot and Landfill
- Household Hazardous Waste Area
- Regional Landfill Facility

(See Appendix A, Figure 3.)

Site Access

Access to the landfill would be via a dedicated, two-way, paved, all-season access road between the landfill and the Norris Arm North access road.

Site Electricity and Telephone

Three-phase power would be required to service the site. Telephone and electricity lines would be brought in along the site access road.

Scale

Upon entering the site, collection and transport vehicles would be directed to the inbound scale, to have sources of incoming loads identified, weighted and directed to the appropriate disposal location. Non-haulage vehicles would bypass the scale. A scale house, either free standing or as part of the administration offices, would be located

adjacent to the scale. In addition, vehicles exiting the facility after waste disposal will be directed to an outbound scale to determine the amount of waste deposited at the facility so they can be charged the appropriate tipping fee.

Site Buildings

Located in proximity to the inbound scale would be the administration office, which would be a single storey building containing the administrative offices, lunchroom, locker rooms, first aid room and, potentially, the scale house. A permanent two-storey building and compound would be required for equipment maintenance and storage. The ground floor of the building would contain service bays, office, parts storage and washrooms. The building would be fully-serviced with on-site potable water and septic system. The area around the building would contain the septic field, water well, fire pond, and parking areas.

Public Drop-off

Private vehicles exiting the inbound scale can access the building and dump waste directly into the waiting trailer.

Storage Area

Vehicles carrying construction and demolition waste, white goods or metal waste would, upon leaving the inbound scale, proceed to the temporary storage area, deposit their load and then exit the site by means of the outbound scale.

Municipal and commercial waste haulage vehicles would proceed to the tipping floor of the Materials Recovery Facility or Compost Facility where the loads would be deposited on the tipping floor. A small loader will sort the delivered waste to allow for a homogeneous waste mass that would be pushed into the in-feed conveyor of the recycling stream.

Landfill Disposal Cells

The landfill disposal cells will receive the refuse remaining after recycling and organic diversion efforts are completed. The environmental protection system of the landfill will consist of two basic elements; the first element being a leachate collection layer, and the second being a barrier system to prevent leachate from entering the surrounding environment (see Appendix A, Figure 4). Once a portion of the landfill has reached its operational height (maximum of 20 m), the area will be covered to reduce infiltration of precipitation and redirect the surface runoff to the sedimentation control system. The final cover system will consist of a multi-layer arrangement including a grading pad, a barrier layer, a filter layer, drainage layer and a vegetative layer.

Physical Features of the Proposed Location

The physical features of the proposed site are as follows:

- The site is undeveloped and consists of wooded (approximately 80%) and boggy (approximately 20%) areas (see Appendix A, Figure 2).
- The site slopes gently towards the north-northwest and presents a maximum elevation variation of approximately 60 m (approximate value from field GPS readings).
- The site geology is characterized by a 0.1 to 1.2 m thick upper organic layer underlain (in sequence) by a silt/sand layer (0.3 to 1.3 m thick), a veneer of glacial till and, finally, sedimentary bedrock of the Badger Group (sandstone, siltstone, and conglomerate). No exposed bedrock was observed on-site. Based on field observations, the inferred depth to bedrock for 20 of the 38 test pits was 0.6 to 5.2 m below surface (see Appendix B, Geotechnical Investigation Report for further information).
- Laboratory analysis revealed the following average group percentages for the site till:
 - 17.4% gravel
 - 47.7% sand
 - 34.8% silt/clay
- Field observations shortly after the excavation of 31 of the 38 test pits indicated a groundwater elevation of 0.4 to 4.4 m below surface (see Appendix C, Hydrogeological Study for further information).

Site mapping identified a number of surface water features that include bog/marsh areas and ponds that limit the land available for landfill development. Topographic features, ground slope and the shape of the available land combine with the surface features to further define the limits of the land area that is suitable for development. In the case of the proposed site, founded on these considerations, the recommended location for the landfill and associated infrastructure is near the western boundary of the area.

4.3 Construction Activities

Construction of the Regional Waste Management Facility which includes the waste disposal facility, compost facility, and materials recovery facility is proposed to begin in the fall of 2007 and be fully operational by the fall of 2011. Construction of the site will involve the removal of vegetation, grubbing, and grading of soil material for the access road, building locations, parking area and disposal area. Realizing some impact is likely on certain areas, the proponent is committed to keeping those impacts to a minimum. During

the construction and operation of the disposal site, all efforts will be made to preserve and conserve the natural environment. Vegetation will be maintained to provide natural buffer zones and any exposed slopes will be stabilized with natural vegetation where possible.

All construction activities will be conducted involving mitigation measures as per Section 4.3.2.

Vegetation Clearing

Potential concerns associated with vegetation clearing include loss of habitat, as well as sedimentation of watercourses. All vegetation clearing and associated activities will adhere to all applicable acts, regulations, and permits. Also, mitigation measures will be implemented to reduce the potential effects of vegetation removal. A cutting permit will be obtained prior to the start of any site clearing. Clearing and removal of trees will be restricted to the minimum areas needed for the site requirements and will not be outside the permitted limits. Limits of clearing will be shown on all drawings "Issued for Construction".

Disposal of cleared timber and slash will be in compliance with the Forest Fire Regulations, Environmental Code of Practice for Open Burning, and the Permit to Burn.

Grubbing and Disposal of Related Debris

The principal concerns associated with grubbing are the potential effects of erosion on marine and freshwater ecosystems, as well as water quality. All grubbing and disposal of related debris near watercourses will adhere to relevant regulatory requirements, including permits from the Department of Environment and the formal "Letters of Advice" and Authorizations for Works and Undertakings Affecting Fish Habitat from the Department of Fisheries and Oceans. Grubbing activities shall be minimized where possible and limits of stripping shall be placed on all drawings "Issued for Construction".

Measures will be implemented to minimize and control runoff of sediment-laden water during grubbing, and the re-spreading of the grubbed material. Erosion control measures will be implemented in areas prone to soil loss.

Grubbed materials will be stockpiled for use in other areas of the project. Areas used for stockpiling will not be adjacent to any water bodies.

Filling, Excavation, Embankments, and Grading

Excavation, embankment, and grading will only be completed upon conclusion of grubbing and stripping. Where engineering requirements do not require grubbing and stripping, filling shall occur without any disturbance to the vegetation or upper soil horizons. Excavation, embankment, and grading shall be done in a manner that ensures that erosion and sedimentation will not impact watercourses in the area.

4.3.1 Potential Source of Pollutants During Construction

The potential sources of pollutants are generally those associated with land development and construction. Adherence to permit conditions and application of sound construction practices will protect against the release of pollutants into the surrounding environment.

Strict monitoring and sound construction practices will control activities to minimize risks associated with:

- Silt and sediment
- Dust
- Construction debris
- Risk of fuel, lubricant and hydraulic fluid release
- Airborne emissions from construction equipment
- Noise pollution from construction activities

4.3.2 Mitigation Measures During Construction

Mitigation measures to reduce the environmental concerns associated with construction activities include:

- Silt laden runoff from construction areas will not be permitted to discharge directly into any body of water or watercourse. Runoff will be diverted to settling basins to ensure silt is settled out prior to release into the water. Silt fence construction of filter fabric will be used where necessary to preclude release of construction water directly into any body of water. The measures will include natural vegetation buffer, stone rip rap, wire mesh, settling ponds, and drainage channels.
- Efforts will be made to minimize dust generation during the construction phase of the project. Dust from construction activities will be controlled using the frequent application of water. Any application of calcium chloride will be in accordance with applicable guidelines from the Department of Transportation and Works.
- Solid waste disposal practices will be in compliance with the *Environmental Protection Act* and associated regulations. Any construction debris generated during the course

of the project will not be permitted to be disposed of on site, but will be contained in steel boxes on site for disposal at a municipal solid waste disposal facility. Where possible, construction waste will be recycled.

- All machinery will be inspected for leakage of lubricants or fuel and must be in good working order. Any accidental spills or leaks will be promptly contained, cleaned up, and reported to the 24-hour environmental emergencies report system (1-800-563-2444).
- All fuel handling and storage will be in compliance with *The Storage and Handling of Gasoline and Associated Products Regulations*. Also, to minimize the risk of fuel, lubricant or hydrocarbon release, construction equipment will not be permitted to be refuelled within 30 m of any water body. If fuel storage is necessary, it will be stored only in approved containers with all necessary permits in place. Basic petroleum spill clean-up equipment will be on-site and made accessible to all contractors and/or employees.
- Equipment exhaust systems will be maintained to provide emissions meeting the standards designed for the equipment by the manufacturer.
- Exhaust systems will be maintained to ensure noise levels are within the design specifications of the machinery.

4.4 Operations

The Central Newfoundland Regional Waste Management Facility is estimated to begin operations in 2011 and be operational for approximately a 50 year period. The following provides a summary of the operations of the facility; however, a detailed description is provided in the Central Newfoundland Solid Waste Management Plan Executive Summary Report (2004) (see Appendix D for further information).

The operational process of the waste management site begins as a material delivery vehicle enters the facility and proceeds to the weigh scale station. An employee registers the vehicle, weighs it, and directs it to the receiving area/tipping floor. Vehicles back into the building and deposit their loads directly onto the concrete tipping floor.

Delivery vehicles would be directed by a staff person to place the material on the floor of the tipping room in a designated area where it would be visually inspected for contaminants, and then moved by a loader into the appropriate stockpile or directly onto the in-feed conveyor. Contaminants would be removed and placed into containers for approved disposal. Staff would be properly trained to recognize hazardous materials and

the method of handling. Hazardous materials would be segregated and stored for off-site disposal.

After discharging the material, vehicles then proceed back to the weigh scales to have the empty weight registered before leaving the site.

After a member of the staff has inspected the material, the approved material is pushed onto the process line in-feed conveyor by a front-end loader or skid steer loader.

The in-feed conveyor (rubber belted with steel cleats) would carry material to an inclined conveyor that raises the material to the height of the sorting station platform, approximately 4.5 metres.

Since the material on the conveyor consists of commingled fibres and containers, automatic pre-screening would be required to remove large pieces of cardboard and other material from the material stream that may hinder the sorting of other items and prevent bridging of the bag opener.

An automatic drum style bag opener would open any bags still in the material stream.

The material would then enter the sorting stations. Sorting stations would be enclosed for heating and ventilation purposes. This would provide a more comfortable and safe atmosphere for the employee. It also allows for heating of a small work area instead of the entire process room.

All stations would be manual sort stations, with the exception of the magnetic separator. Material is manually picked off the conveyor line and deposited into a drop chute where it falls into a collection bunker. The height of the sorting platform is a function of the volume of material to be stored in a bunker and the ability of the equipment to manoeuvre under the platform and push material out of the bunker.

Sorted material would be pushed from the collection bunkers onto the baler conveyor by a small loader. Completed bales would be transferred by a forklift and stored in a dedicated area of the building. For safety reasons, it is assumed that the bales would only be stored a maximum of three high and that the storage area would be separated from the process area by a fireproof partition. The bales would be stored until there is enough to fill a minimum of one trailer load and then shipped to market. Non-ferrous aluminium would be compacted by a densifier separate from the baler. Sorted glass would fall into individual containers and be stored and shipped in the same containers.

The final bunker, larger than the bunkers for recyclable materials, provides storage for negatively sorted residue. This material would be loaded into trucks for disposal at the landfill.

To accommodate the varying types and volumes of materials that will be processed, the conveyors would be equipped with a variable speed control to allow the process line to be slowed or accelerated as the material type and volume changes.

The operation will be conducted in a fashion which protects public health and safety, minimizes fire hazard, does not create a nuisance to adjacent areas, and will not contaminate ground or surface waters off-site.

All operational activities will be conducted involving mitigation measures as per Section 4.4.2.

4.4.1 Potential Source of Pollutants During Operations

The potential sources of pollutants during operations will consist of those associated with daily transportation and storage of waste debris.

Strict monitoring and mitigation practices will control activities to minimize risks associated with:

- Silt and sediment
- Dust
- Sewage
- Risk of fuel, lubricant and hydraulic fluid release
- Airborne emissions from trucks and equipment
- Noise pollution from daily activities
- Leachate from waste
- Methane emissions from waste
- Scattered debris

4.4.2 Mitigation Measures During Operations

The operation will be conducted in a fashion which protects public health and safety, minimizes fire hazard, does not create a nuisance to adjacent areas, and will not contaminate ground or surface waters off-site. All mitigation measures for vehicle use and silt/sediment control that were implemented during the construction phases will also apply during operation of the facility. In addition, the following mitigation measures will be implemented during operation of the site to address potential impacts:

Receiving Waste – All vehicles delivering waste to the site shall be screened to make sure they are carrying acceptable materials and, if required, weighed to determine waste quantities for accounting purposes.

Site Access – Public access to the site is to be controlled so that the general public does not have direct access to the facility unless accompanied by staff members.

Hazardous Waste – Any hazardous waste received at the site shall be properly segregated, stored, and removed from the site on a regular basis by an approved licensed contractor.

Contingency Plans – Up-to-date contingency plans must be in place to effectively handle the results from fire, odour, flood, power outage, spill, delivery of hazardous waste, or any other issue which could cause a disruption to proper facility operation.

Animal, Rodent, and Vector Control Program – An active vector and rodent control program is required.

Litter Control Program – Includes the requirement for tarping of loads and regular litter collection. Also mobile litter collection fencing will be used where appropriate.

Dust Control Program – Roads shall be properly maintained and dust control programs implemented as required.

Fire Safety Program – Develop fire safety program in consultation with the local fire department and, where required, the Department of Forest Resources and Agri-Foods.

Groundwater / Surface Water Monitoring Program – Surface water control is required to minimize the impact on the environment from the construction activities and operation of the landfill. The basic element of surface water controls is to maintain post-development flow rates at pre-development levels and not to alter the pre-development water quality. It is important to minimize the contact between sediment and surface water by:

- constructing ditches to intercept and divert surface water from areas of sediment;
- constructing temporary measures to separate surface water from placed waste to minimize leachate generation; and
- installing a low permeability cover to limit infiltration.

Landfill Liner – The environment protection system of the landfill will consist of two basic elements. The first element will be a leachate collection layer and the second is a barrier

system to prevent leachate from entering the surrounding environment (see Appendix A, Figure 4). Once a portion of the landfill has reached its operational height (maximum of 20 m), the area will be covered to reduce infiltration of precipitation and redirect the surface runoff to the sedimentation control system (see Appendix A, Figure 3). The final cover system will consist of a multi-layer arrangement including a grading pad, a barrier layer, a filter layer, drainage layer and a vegetative layer.

Methane Control – In addition to the conservation of landfill volume, removing organics from landfills reduces methane generation that will be accomplished through composting. For safety, an active methane ventilation system would be installed under all buildings to prevent accumulation of methane gas.

Reporting Requirements – An annual report summarizing the operation of the site is required.

4.5 *Potential Valued Ecosystem Interactions and Mitigation*

Resource Conflicts

Fish & Fish Habitat

Small streams (< 1m) were identified on the site which may be suitable habitat for brook trout, but none were observed. Further investigation may be required to ascertain if these are fish-bearing streams. However, this does not preclude development, as fish-bearing habitat can be created elsewhere to meet the DFO no-net-loss principle for habitat conservation.

Construction activities will be conducted in such a manner as to prevent the release of sediment or other deleterious materials into water bodies. These measures are discussed in previous sections.

Wildlife

Operations of the regional waste management facility are not expected to cause any direct wildlife conflict. There were no rare or endangered plants or animal species identified during the investigation that would represent a constraint to development (see Appendix E, Biological Reconnaissance Survey for further information).

Forestry

Approximately half of the proposed site contains timber licensed to Corner Brook Pulp and Paper. The company will be contacted regarding this proposal.

The project area consists mainly of grass with some forest cover. Construction activities will be such as to minimize the clearing of the forested areas.

Adjacent Areas

During operations, maintenance equipment will be confined to the areas of the site and will not be permitted in adjacent areas in order to conserve their natural state.

Human Activities

Human activities will place extra demand on the local services available; however, these activities are expected to have a positive economic impact.

There is no expected conflict with the surrounding natural environment as site-related activities will be conducted within the boundaries of the waste management site.

5.0 OCCUPATIONS

5.1 Construction Phase

It is expected that approximately two hundred and ninety (290) people will be employed during the construction phase of the project. The Central Newfoundland Waste Management Committee offers an equal employment opportunity, free of gender-specific qualifications.

National Occupational Classification Group Title Code	Potential Positions # Anticipated	Description
0711	10	Construction Managers
2152	5	Landscape Architects
2154	10	Land Surveyors
7217	30	Contractors & Supervisors, Heavy Construction Equipment Crews
7219	20	Contractors & Supervisors, Other Construction Trades, Installers, Repairs & Services
7241	10	Electricians
7244	5	Electrical Power Lines & Cable Workers
7411	25	Truck Drivers
7412	15	Heavy Equipment Operators
7611	75	Construction Trades Helpers & Laborers
2264	5	Construction Health & Safety Inspectors
7612	80	Other Trades Helpers and Laborers

5.2 Operational Phase

It is expected that approximately sixty six (66) people will be employed (including 20 part time) during the operation phase of the facility.

National Occupational Classification Group Title Code	Potential Positions (# Anticipated)	Description
0912	1	Utilities Manager
1211	2	General Office and Administrative Support
7217	1	Supervisor and Heavy Construction Equipment Crews
4161	4	Landfill Supervisor and Process Supervisors (Compost & Dry Recyclables)
9613	2	Scale House Operators
6651	2	Security Guards and Related Occupations
7421	4	Heavy Equipment Operators
9619	30 (fulltime)	Other Laborers in Processing
9619	20 (part-time)	Other Laborers in Processing

6.0 APPROVAL REQUIRED FOR THE UNDERTAKING

The permits, approvals, and authorizations that may be necessary for the undertaking include:

PERMIT, APPROVAL OR AUTHORIZATION	ISSUING AGENCY
<ul style="list-style-type: none"> ● Approval for the Undertaking 	Minister of Environment and Conservation
<ul style="list-style-type: none"> ● Water Course Alterations, Certificate of Environmental Approval to Alter a Body of Water ● Application for Water Use Authorization ● Water Course Crossings, Certificate of Environmental Approval ● Construction (Site Drainage) Certificate of Approval ● Culvert Installation, Certificate of Approval ● Certificate of Approval – Water and Sewer Distribution System. 	Water Resources Division, Department of Environment and Conservation

PERMIT, APPROVAL OR AUTHORIZATION	ISSUING AGENCY
<ul style="list-style-type: none"> ● Approval under the National Building Code of Canada ● Approval under the National Fire Code of Canada ● Certificate of Approval for any Water Supply >4,500 L/day 	Engineering Services, Department of Government Services
<ul style="list-style-type: none"> ● Building Accessibility Design Registration ● Fuel Storage and Handling-Temporary Storage/Remote Locations 	Operations Division, Department of Government Services
<ul style="list-style-type: none"> ● Crown Lands Applications/Licenses ● Develop Land – Protected Road Zoning and Development Control Regulations – Preliminary Application to Develop Land ● Electrical Permit 	Customer Services, Department of Government Services
<ul style="list-style-type: none"> ● Permit to Burn 	Forest Fire Protection Specialist, Department of Natural Resources
<ul style="list-style-type: none"> ● Authorization for Works or Undertakings Affecting Fish Habitat 	Fisheries and Oceans Canada
<ul style="list-style-type: none"> ● Permit to Cut Crown Timber ● Operating Permit/Fire Season 	Newfoundland Forest Service, Department of Department of Natural Resources

7.0 BACKGROUND INFORMATION

7.1 *Public Education Process*

During the course of the Solid Waste Management Study, the Central Newfoundland Waste Management Committee conducted a number of education sessions for the communities in the central region. The public meetings occurred in various communities from April 7, 2001 to May 20, 2004 (see Appendix G for the list of meetings). The meetings were open to the public and were designed to provide citizens with an opportunity to discuss, and provide input concerning the proposed waste management facility.

The entire Solid Waste Management Study for Central Newfoundland consisted of two detailed phases. As a result, the Central Newfoundland Waste Management Committee issued a condensed version of the study, The Central Newfoundland Solid Waste Management Plan Executive Summary (2004) (see Appendix D for details on the Executive Summary). The Executive Summary was designed to combine Phases I and II into one report to provide the public with an overview of the entire study. The following items from the detailed Phase I and II reports were covered in the Executive Summary:

Phase I Report

- Determination of Study Area Boundary
- Waste Generation Rates and Population Projections
- Transportation and Technology
- Waste Generation for Central Newfoundland
- Analysis of Waste Management Systems
- Existing Disposal Site Evaluations
- Alternative Approaches to Engineered Landfills
- Identification of Potential Local Waste Management Facility Locations

Phase II Report

- Identification of Potential Locations for the Regional Waste Management Facility
- Preferred Local Waste Management Facility System
- Materials Recovery Facility
- Compost Facility
- Household Hazardous Waste Depot
- Construction and Demolition Materials Facility
- Landfill Facility
- Cost Overview of the System
- Closure of Existing Landfill Facilities

The Executive Summary was sent to 89 communities that were a part of the proposed Solid Waste Management Plan. As a follow up to the Executive Summary, the Central Newfoundland Waste Management Committee set up public meetings during March 2004 to further explain and discuss the report. Participants were given an opportunity ask questions which were answered by members of the committee. The public meetings were held in Summerford, Norris Arm, Traytown, New-Wes Valley and Fogo Island. These communities were selected for the meetings based on their central locations for surrounding communities in the region. Details on the public meetings can be found in Appendix G.

7.2 Project Related Documents

Please refer to the following documents for further information:

- **Appendix B** - Newfoundland Geosciences Ltd., 2003. Geotechnical Investigation, Proposed Waste Management Facility, Central NL.
- **Appendix C** - Jacques Whitford Ltd., 2003. Preliminary Hydrogeological Study, Proposed Waste Management Facility, Norris Arm, NL.
- **Appendix D** - BAE-Newplan Group Limited, 2004. Central Newfoundland Solid Waste Management Plan Executive Summary.
- **Appendix E** - Jacques Whitford Ltd., 2003. Biological Reconnaissance Survey.

- **Appendix F** - Jacques Whitford Ltd., 2004. Stage 1 Historic Resources Overview Assessment, Waste Management Facility, Norris Arm, NL (Draft Report).
- **Appendix G** – Information on Public Meetings.
- **Appendix H** – Correspondence from Government Stakeholders

7.3 *Summary of Findings*

The proposed location has undergone both a screening level and intermediate level site investigation to collect sufficient data to assess the site for potential use as a regional waste management facility. The phases included in the assessment of site suitability include:

- Phase 1 - Preliminary Identification (Constraint Mapping)
- Phase 2 - Site Screening (Ranking)
- Phase 3 - Financial Investigation
- Phase 4 - Detailed Investigations

Locations that fell within the constraint areas were excluded from the site selection process. Also, only areas that fell within the opportunity criteria were considered as suitable sites for the waste management facility. This process identified five possible locations for the waste management facility. (See Appendix A, Figure 5.)

The collective results of these studies support an informed opinion on the suitability of the proposed location near Norris Arm. A brief discussion of the results of the assessment is provided below (See Appendix D, Central Solid Waste Executive Summary Report for further information.)

The subject property meets the size and location criteria established by the Committee for development of a regional facility. The site has a sufficient buffer zone from residential wells. The site access alternatives appear feasible and will not interfere with planned development in the area.

There were no unique habitats identified on the site and the wetland areas are not considered to be restrictive. Small streams (< 1m) were identified on the site which may be suitable habitat for brook trout, but none were observed. Further investigation may be required to ascertain if these are fish-bearing streams. However, this does not preclude development, as fish-bearing habitat can be created elsewhere to meet the DFO no-net-loss principle for habitat conservation. There were no rare or endangered plants or animal species identified during the investigation that would represent a constraint to development.

The overburden strata consists primarily of organic soils and silty sands overlying sandy glacial till and bedrock. Bedrock was encountered between 0.6 and 5.2 metres below

grade. Bedrock was observed to be sandstone, siltstone, and conglomerate of the Badger Group, which was observed to be severely fractured to moderately jointed. Groundwater was observed between 0.4 and 4.4 metres below grade. The geologic and hydrologic conditions do not preclude development; however, the high groundwater table and bedrock outcrops will require site grading and drainage to facilitate the construction of a liner and leachate management system.

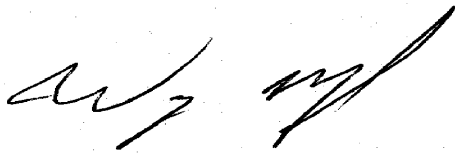
The site investigation did not reveal any potential archaeological or heritage features. The site screening investigation has revealed some provincial land-use restrictions with regards to forest resources, but due to the mass size of the site, it is likely that these land-use restrictions can be avoided.

8.0 SCHEDULE FOR RELEASE FROM ENVIRONMENTAL ASSESSMENT

Construction of this project is scheduled to begin in September 2007 with a completion date of October 2011. In order to meet this proposed scheduling, the requirements of the *Environmental Assessment Act* must be completed as soon as possible.

9.0 FUNDING

Financing of this project is expected from various government sources.



Wayne Manuel, P. Eng.
BAE-Newplan Group Limited

May 31, 2007
Date

APPENDIX A

Maps and Sketches

APPENDIX B

Geotechnical Investigation Proposed Waste Management Facility

APPENDIX C
Hydrogeological Study

APPENDIX D

Central Newfoundland Solid Waste Management Plan Executive Summary

APPENDIX E

Biological Reconnaissance Survey

APPENDIX F

Historic Resources Overview Assessment

APPENDIX G

Information on Public Meetings

APPENDIX H

Correspondence from Government Stakeholders