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NUNAVUT IMALIRIYIN KATIMAYINGI  
OFFICE DES EAUX DU NUNAVUT

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# Draft

## Industrial Supplemental Information Guideline (SIG) for Hydrocarbon Impacted Soil Storage and Landfarm Treatment Facilities (I3)

Date of Issuance: February 2010

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## 1.0 Introduction

This Supplemental Information Guideline (SIG) is for applicants seeking a water licence for hydrocarbon impacted soil storage and landfarm treatment facilities which is an undertaking classified as industrial in accordance with the *Northwest Territories Water Regulations* (NTWR or Regulations).

Supplemental information is required as part of the water licence application in accordance with section 48(2) of the Nunavut Waters Nunavut Surface Rights Tribunal Act (NWNSRTA or Act) which states:

*“An application, except in relation to a cancellation, shall be accompanied by the information and studies concerning the use of waters or the deposit of waste that are required for the Board to evaluate the qualitative and quantitative effects of the use or the deposit on waters.”*

Also, in accordance with section 48(3) of the Act, on the filing of an application, the Board may provide guidelines to the applicant respecting the information to be provided by the applicant in respect of any matter that the Board considers relevant, including the following:

- a) the description of the use of waters, deposit of waste or appurtenant undertaking, as the case may be;
- b) the qualitative and quantitative effects of the use of waters or the deposit of waste on the drainage basin where the use is to be undertaken or the deposit is to be made, and the anticipated impact of the use or deposit on other users;
- c) the measures the applicant proposes to take to avoid or mitigate any adverse impact of the use of waters or the deposit of waste;
- d) the measures the applicant proposes to take to compensate persons, including the designated Inuit organization, who are adversely affected by the use of waters or the deposit of waste;
- e) the program the applicant proposes to undertake to monitor the impact of the use of waters or the deposit of waste;
- f) The interests in and rights to lands and waters that the applicant has obtained or seeks to obtain; and
- g) the options available for the use of waters or the deposit of waste.

To provide further guidance for these requirements, as well as the requirements of section 6(2) of the Regulations which outlines more specific information requirements for proposed undertakings, the NWB has developed Supplemental Information Guidelines (SIGs or Guidelines).

The SIGs are designed in spreadsheet format to facilitate the development of a concordance table that cross references the requirements of the SIG with the documents that make up the water licence application. The tables in the following five (5) worksheets include columns for the applicant to enter information regarding the applicability of the requirement to the proposed undertaking; the title, author, and date of the document where information to address the requirement can be found; the electronic file name of the document; as well as the section of the document where the information can be found. Specific information about the proposed undertaking should not be inserted into these spreadsheets.

The applicant must complete the yellow sections of the SIG and submit the completed SIG along with the documents that address the requirements of the SIG to the NWB.

Further to this SIG, the applicant is referred to the NWB's *Guide 4 - Completing and Submitting a Water Licence Application for a New Licence*. This Guide provides more details regarding completion of the NWB's minimum information requirements, information required to complete plans including designs and reports, executive summaries and translations, as well as how, when and who to contact when submitting a water licence application.

Following submission of a water licence application, the NWB will determine whether the application is complete. If the NWB determines that an application is materially incomplete, meaning that items included in Section 2: Minimum Application Requirements are missing, the applicant will be informed by the NWB that their application has been rejected. In other cases, NWB staff will correspond with the applicant to resolve deficiencies before proceeding.

The NWB cannot issue, amend, or renew a licence where there is an applicable, approved land use plan until the NPC's requirements under the NLCA have been addressed regarding land use planning (Article 11). In addition, the NWB cannot issue, amend, or renew a licence where the appurtenant undertaking requires screening by NIRB in accordance with Part 4 of Article 12 of the NLCA until NIRB has completed its screening. Furthermore, notwithstanding sections 13.5.5 or 12.10.2 of the NLCA, where the appurtenant undertaking requires a review under Part 5 or Part 6 of Article 12 of the NLCA, the Board may not issue, amend, or renew a licence until NIRB has issued a project certificate. For this reason, the applicant must provide the NWB with written confirmation that both NPC's and NIRB's requirements under the NLCA have been addressed.

Following completion of development impact assessment in accordance with Article 12 of the NLCA, the NWB may issue additional Project Specific Information Requirements (PSIR) to the applicant.

The applicant is referred to Appendix A of these Guidelines for a list of additional documents, guidelines, legislation and standards that may be of use to the applicant in preparing the information to address this SIG.

Submission of the information required by this SIG does not relieve the applicant from confirming and following up on other information requirements which may be required during the regulatory process.



## 2.0 Minimum Application Requirements (Application Checklist)

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting ' Y ' or ' NA '	If 'NA' provide justification	Insert Title, Author and Date of Document where information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	NWB Concordance Assessment
Minimum Application Requirements	1	General Water Licence Application Form (see the NWB's <i>Guide 4: Completing and Submitting a Water Licence Application for a New Licence</i> ) or Application for Water Licence Amendment Form, if appropriate (see NWB's <i>Guide 7: Licensee Requirements Following the Issuance of a Water Licence</i> ).	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwiapp_clyderemed_fnl_20120807.pdf	Entire document	
	2	Information required to satisfy the requirements of the SIG including plans, reports and designs.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Entire document	
	3	Executive summary in english.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Non-Technical Project Summary (English) Nunami Stantec August 2012	nwb_clyderemed_summary_eng_20120807.pdf	Entire document	
	4	Translated executive summary in appropriate language and dialect.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Non-Technical Project Summary (Inuktitut) Nunami Stantec August 2012	nwb_clyderemed_summary_inuk_20120807.pdf	Entire document	
	5	Application fee.	Y	-	Money order	N/A	N/A	
	6	Water use fee.	Y	-	Money order	N/A	N/A	
	7	A table indicating concordance of the application and supporting documents to the Guidelines. These generic Guidelines are provided in excel as a tool for applicants to provide the necessary concordance table.	Y	-	NWB Supplemental Information Guideline for Hydrocarbon Impacted Soil Storage and Landfarm Treatment Facilities (I3) Nunami Stantec August 2012	nwb_sig_landfarm_clyderemed_fnl_20120801.pdf	Entire document	

### Qualifications:

- Applications that do not include all of the items listed above will be returned to the applicant as incomplete with a request for the deficient information.
- If more than one licensable activity or facility is proposed that requires a water licence (eg. multiple water sources, waste deposits, structures, crossings, etc.) the required information must be provided for each activity or facility.
- Information between all documents that make up the application package must be consistent and must be accurately cross referenced.
- The application must distinguish between recommendations or options and actual commitments to chosen alternatives.
- For additional guidance regarding the submission of electronic documentation, see the NWB's *Guide 6: Electronic Documentation: Submissions and Registry*.
- The applicant, where practical, may combine components of the information requested in the SIG into more concise plans to provide clarity and eliminate duplication. If this practice is considered, then the applicant must clearly outline, through proper referencing and clearly detailed statements, how the NWB should consider the documents that have combined elements of information. Information management is the responsibility of the applicant.
- The applicant must submit a concise executive summary of the application package. In addition, the Applicant shall submit an executive summary for each separate supporting document, report or study. All executive summaries shall be provided in English, Inuktitut and/or Inuinnaqtun (where applicable).

**The applicant must complete the yellow columns of the worksheet(s). Blue columns are for NWB use only.**

### 3.0 General Water Licence Application

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert Title, Author and Date of Document where Information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Applicant	1	Provide the full name of the applicant and contact person including contact information (position, phone number, address, fax number and email address).	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 1	-	
Applicant Representative	2	Provide the name and contact information of any party submitting the application on behalf of the applicant (including position, phone number, address, fax number and email address).	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 2	-	
	3	Provide a signed letter authorizing a party to be the applicant's representative in the licensing process.	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Attached to License Application	-	
Project Name	4	Provide the name of the project.	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 3	-	
Location of Undertaking	5	Provide coordinates of the project extents	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 4	-	
	a	Provide location by Latitude and Longitude.	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 4	-	
	b	Provide location by UTM coordinates, if available	N/A	Not available	N/A	N/A	N/A	-	
Map	6	Provide a map at a 1:50,000 scale based on the National Topographic Series indicating the location of the undertaking, watercourses and the location of waste deposits including soil, fuel, and chemicals. Additional maps at various scales may be provided if those maps will provide additional information or clarification. All maps must indicate the scale, map sheet number, and the location of north.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Appendix A	-	
Nature of Interest in the Land	7	Provide the nature of the interest in the land associated with the proposed undertaking, including:	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 6	-	
	a	Sub-surface leases from Nunavut Tunngavik Incorporated (NTI) and/or Indian and Northern Affairs Canada (INAC) as well as surface authorizations from INAC for crown land use, a Designated Inuit Organization (DIO) for Inuit Owned Land (IOL) use, or the Government of Nunavut for Commissioner's land use. Provide the permit or licence numbers.	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 6	-	
	b	The date or expected date of issuance of any authorization and the date of expiry.	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 6	-	
	8	Indicate whether the applicant is the name of the entity holding the authorization for the interest in the land and if not, provide the name of the entity holding the authorization.	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 6	-	
NPC Determination	9	Provide written confirmation from the NPC confirming that NPC's requirements under the NLCA regarding land use plan conformity (Article 11 of the NLCA) have been addressed.	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 7	-	
NIRB Determination	10	Provide written confirmation from the NIRB confirming that NIRB's requirements under the NLCA regarding development impact assessment (Article 12 of the NLCA) have been or are in the process of being addressed. Documentation may include:	Y	NIRB screening being completed concurrently; screening decision forthcoming	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	-	-	
	a	Written confirmation from NIRB that the project proposal does not require screening.	N/A	Requires screening	-	-	-	-	
	b	NIRB's screening determination.	Y	-	-	-	-	August 2012	
	c	If a review is required, NIRB's recommendation to the Minister regarding the type of review.	-	-	-	-	-	-	
	d	If a review is required, the Minister's written decision regarding the review of the development proposal.	-	-	-	-	-	-	
	e	If a review is required, NIRB's project certificate.	-	-	-	-	-	-	
	11	Provide a list of activities requested for exception in accordance with NLCA s. 12.10.2.	N/A	Requires screening	-	-	-	-	
	12	Indicate whether any Type B water licence application is for an activity to be considered for interim, short term approval in accordance with NLCA s. 13.5.5.	N/A	Not applicable to Project	-	-	-	-	



### 3.0 General Water Licence Application

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert Title, Author and Date of Document where Information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Description of Undertaking	13	Provide a complete description of the undertaking with detailed site plan(s) of all infrastructure. Include maps and/or aerial photos with scales that allow the determination of distances between the objects depicted. Differentiate any temporary components from permanent components. Consider the following in providing the description:	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_2 0120807.pdf	Section 2: Section 3.1.2.3 Appendix A Appendix B	-	
	a	Barriers to prevent site access	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_2 0120807.pdf	Section 3.1	-	
	b	Existing on site infrastructure	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_2 0120807.pdf	Section 3.1	-	
	c	Existing and proposed drainage modifications such as berms (natural or constructed) and diversion ditches	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_2 0120807.pdf	Section 3.1.2.3	-	
	d	Quarries / borrow pits	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_2 0120807.pdf	Section 3.3	-	
	e	Water use for landfarm operations if applicable	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_2 0120807.pdf	Section 2.5	-	
	f	Transportation access routes and details of any water course crossings (see the NWB's SIG for General Water Works (M1))	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_2 0120807.pdf	Section 3.2	-	
Other Applicable Supplemental Information Guidelines	14	Indicate whether any other Supplemental Information Guidelines apply to the undertaking including the following:	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fri_20120807.pdf	Section 11	-	
	a	Hydrostatic testing	-	-	-	-	-	-	
	b	Tannery	-	-	-	-	-	-	
	c	Tourist / remote camp	-	-	-	-	-	-	
	d	Landfarm and on-site storage of hydrocarbon contaminated soil	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fri_20120807.pdf	Section 11	-	
	e	Onshore oil and gas exploration drilling	-	-	-	-	-	-	
	f	Mineral exploration/ remote camp	-	-	-	-	-	-	
	g	Advanced exploration	-	-	-	-	-	-	
	h	Mine development	-	-	-	-	-	-	
	i	Municipal	-	-	-	-	-	-	
	j	General Water Works	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fri_20120807.pdf	Section 11	-	
	k	Power	-	-	-	-	-	-	
	l	Other	-	-	-	-	-	-	
Options	15	Provide a brief explanation of the alternative methods and locations that were considered to carry out the project.	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fri_20120807.pdf	Section 10	-	
Water Use	16	Provide a detailed description of all types of water uses including: (See the NWB definition of "use" in the NWB Guide 2: Terminology and Definitions)	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fri_20120807.pdf	Section 12	-	
	a	Obtain water for domestic purposes	-	-	-	-	-	-	
	b	Obtain water for industrial purposes	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fri_20120807.pdf	Section 12	-	
	c	To cross a water course	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fri_20120807.pdf	Section 12	-	
	d	To alter the flow of water, or store water	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fri_20120807.pdf	Section 12	-	
	e	Flood control	-	-	-	-	-	-	
	f	To divert a watercourse	-	-	-	-	-	-	
	g	To modify the bed or bank of a watercourse	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fri_20120807.pdf	Section 12	-	
	h	Others:	-	-	-	-	-	-	
	17	If any of the sub categories c through g of item 16 of this Section apply to the project, please refer to the NWB's SIG for General Water Works (M1).	Y	-	NWB Supplemental Information Guideline for General Water Works (M1) Nunami Stantec August 2012	nwb_sig_genwaterworks_clyders med_fri_20120807.pdf	Entire document	-	

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Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert Title, Author and Date of Document where Information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Water Use: Quality and Quantity	18	Provide the following for each type of water use described in item 16 of this section:	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 13	-	
	a	The source of water including the name of the water body and the location of the water source as shown on a map;	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 13	-	
	b	A description of the quality of the water from the source as well as the available capacity of the water source;	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 13	-	
	c	The estimated amount of water to be taken from each source and the method of extraction including specific pumping rates, pumping procedures and potential for draw down;	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 13	-	
	d	The estimated amount of water to be returned to the source; and	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 13	-	
	e	Methods to ensure the quality of the water returned to source is of a quality acceptable to the NWB.	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 13	-	
Waste Disposal	19	See section 5 of this SIG for specific requirements	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 14	-	
Waste Disposal: Quality and Quantity	20	See section 5 of this SIG for specific requirements	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 15	-	
Other Authorizations	21	Provide a list of any authorizations required in relation to the project in addition to the water licence. For each additional authorization required for the project, provide the name of the authorization, the administering agency, the project activity requiring the authorization, the date or expected date of issuance and the date of expiry. Provide a description of how those authorizations may affect the NWB's water licensing process.	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 16	-	
	22	Provide a timetable for filing the appropriate plans and procedures required by government parties.	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 16	-	
	23	Indicate whether the applicant/ licensee holds any existing water licences. If applicable, provide the licence number and expiry date of any existing water licences.	N/A	No other water licenses for the Project	-	-	-	-	

### 3.0 General Water Licence Application

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Predicted Environmental Effect and Proposed mitigation measures	24	Identify the potential effect of water use and waste disposal on the following components:	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_2 0120807.pdf	Section 5	-	
	a	Groundwater and Surface Water including:	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_2 0120807.pdf	Section 5.2.2	-	
		changes in flow (including seasonal rate of flow)	-	-	-	-	-	-	
		quantity	-	-	-	-	-	-	
		quality	-	-	-	-	-	-	
	b	Land including:	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_2 0120807.pdf	Section 5.2.1	-	
		geologic structure change	-	-	-	-	-	-	
		soil contamination	-	-	-	-	-	-	
		compaction, settling and erosion	-	-	-	-	-	-	
		alteration of the permafrost regime	-	-	-	-	-	-	
		riparian zone loss	-	-	-	-	-	-	
	c	Vegetation including:	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_2 0120807.pdf	Section 5.3.1	-	
		species composition and abundance	-	-	-	-	-	-	
		non-native species introduction	-	-	-	-	-	-	
		accumulation of toxins and heavy metals (in relation to remediation objectives for closure)	-	-	-	-	-	-	
	d	Aquatic Ecosystems including:	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_2 0120807.pdf	Section 5.3.3	-	
		fish	-	-	-	-	-	-	
		benthic invertebrates	-	-	-	-	-	-	
		plankton	-	-	-	-	-	-	
	25	See sections 4, 5 and 6 of this SIG for additional information requirements	Y	-	NWB Supplemental Information Guideline for Hydrocarbon Impacted Soil Storage and Landfarm Treatment Facilities (IS) Nunami Stantec August 2012	nwb_sig_landfarm_clyderemed_fri_20120807.pdf	Sections 4 - 6	-	
Existing and Other User Water Rights	26	Provide the names, addresses, and nature of use for any known persons or properties that may be adversely affected by the proposed undertaking, including those that hold licences for water use in precedent to the application, domestic users, in-stream users, authorized waste depositors, owners of property, occupiers of property, and/or holders of outfitting concessions, registered trapline holders, and holders of other rights of a similar nature.	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwapp_clyderemed_fri_20120807.pdf	Section 17	-	
	27	Provide a description of any potential effects of the project on the persons or properties identified in item 26 of this section.	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwapp_clyderemed_fri_20120807.pdf	Section 17	-	
	28	Provide a description of the measures incorporated into the project design to mitigate effects of the project on the persons or properties identified in item 26 of this section.	N/A	No measures incorporated as no effects expected	-	-	-	-	
	29	Indicate whether compensation has been paid and/or agreement(s) for compensation have been reached with any existing or other users.	N/A	No compensation paid	-	-	-	-	

### 3.0 General Water Licence Application

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Inuit Water Rights	30	Provide a description of any potential effects of the project on the quality, quantity, or flow of waters flowing through Inuit Owned Land (IOL).	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwapp_clyderemed_fri_20120807.pdf	Section 18	-	
	31	Provide a description of the measures incorporated into the project design to mitigate effects of the project on the quality, quantity, or flow of waters flowing through IOL.	N/A	No measures incorporated as no effects expected	-	-	-	-	
	32	Indicate whether an agreement to pay compensation for any loss or damage has been reached with one or more Designated Inuit Organization (DIO); or if the parties have been unable to reach an agreement on compensation	N/A	No compensation paid	-	-	-	-	
Consultation	33	Provide a summary of any consultation meetings including when the meetings were held, where and with whom.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_20120807.pdf	Section 12	-	
	34	Provide a summary of the results of consultation meetings including a list of concerns expressed and measures proposed to address concerns.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_20120807.pdf	Section 12 Appendix G	-	
Security	35	Provide a financial security assessment that includes the following:	N/A	Proponent is Government of Nunavut	-	-	-	-	
	a	An estimate of the total financial security for final reclamation equal to the total outstanding reclamation liability for land and water combined sufficient to cover the highest liability over the life of the undertaking.	-	-	-	-	-	-	
	b	The cost of having the necessary reclamation work done by a third-party contractor if the operator defaults.	-	-	-	-	-	-	
	c	Contingency factors appropriate to the particular work to be undertaken.	-	-	-	-	-	-	
Abandonment and Restoration	36	Provide plans for the abandonment and restoration of facilities.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_20120807.pdf	Section 3.1	-	
	37	Provide a description of all remediation plans and remediation objectives.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_20120807.pdf	Section 3.1	-	
	38	Provide a list and description of any existing abandoned or restored site facilities.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_20120807.pdf	Section 3.1	-	
Financial Information	39	Provide a statement of financial responsibility.	N/A	Proponent is Government of Nunavut	-	-	-	-	
	40	If the applicant is an entity for which audited financial statements are issued, a copy of the most recent audited financial statements must be attached to the statement of financial responsibility.	N/A	Proponent is Government of Nunavut	-	-	-	-	
	41	Provide the name of the corporation, limited company or other business entity, with a list of the officers of the company and a copy of the Certificate of Incorporation or evidence of registration of the company name.	N/A	Proponent is Government of Nunavut	-	-	-	-	
Studies and Designs	42	Provide a list of studies, reports and plans relevant to the application that have been undertaken to date including:	Y	-	NWB General water license application form Nunami Stantec August 2012	nwb_genwapp_clyderemed_fri_20120807.pdf	Section 22	-	
	a	Design rational, design requirements, design criteria, design parameters, design standards/analysis/method.	-	-	-	-	-	-	
	b	Design assumptions and the limitations associated with such design assumptions.	-	-	-	-	-	-	
	c	The inclusion of clear, definable engineering qualifications with all design drawings and reports.	-	-	-	-	-	-	
	d	Site specific data and analysis to support the design and management decisions made.	-	-	-	-	-	-	
	e	Materials that appropriately delineate the particulars of a design or plan.	-	-	-	-	-	-	
	43	Provide construction methods and procedures regarding how infrastructure will be put in place on-site.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fri_20120807.pdf	Section 3.1.2.3 Appendix B	-	
	44	Provide a timetable for submission of preliminary and final-for-construction engineered designs (note: for construction designs are required for NWB approvals).	N/A	Final design drawings submitted with application	-	-	-	-	
	45	See sections 4 and 5 of this SIG for additional information requirements	Y	-	NWB Supplemental Information Guideline for Hydrocarbon Impacted Soil Storage and Landfarm Treatment Facilities (3) Nunami Stantec August 2012	nwb_sig_landfarm_clyderemed_fri_20120807.pdf	Sections 4 - 5	-	

### 3.0 General Water Licence Application

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert Title, Author and Date of Document where information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Proposed Time Schedule	46	Provide the proposed start and completion dates for each phase of development (construction, operation, closure and post closure) and any anticipated periods of seasonal shut down.	Y	-	NWB General water license application form Nunami Slattec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 23	-	
Proposed Term of Licence	47	Provide a proposed term of licence including the expected date of licence issuance and the expected date of licence expiry.	Y	-	NWB General water license application form Nunami Slattec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 24	-	
Annual Reporting	48	Provide detailed information regarding the content of annual reports and a proposed outline or template of the annual report. The annual report should include the following:	Y	-	NWB General water license application form Nunami Slattec August 2012	nwb_genwlapp_clyderemed_fnl_20120807.pdf	Section 25	-	
	a	Water related monitoring results;	-	-	-	-	-	-	
	b	Comparison of water quality and quantity monitoring data with the water quality and quantity predictions presented in the application;	-	-	-	-	-	-	
	c	A description of how any conditions in the NIRB screening decision related to the NWB mandate have been implemented;	-	-	-	-	-	-	
	d	Project changes under adaptive management;	-	-	-	-	-	-	
	e	Any actions taken in response to direction provided by the Inspector.	-	-	-	-	-	-	
Renewals and Amendments	49	If the application is for a renewal or amendment of an existing licence provide the water licence number and the date of water licence expiry.	N/A	New water license	-	-	-	-	
	50	If the application is for a renewal or amendment of an existing licence, provide a compliance assessment/status report. This report must document the status of compliance for each condition of the existing water licence taking into consideration inspector dialogues and inspector directions, responses to inspector dialogues and inspector directions, spills that may have occurred, and any reporting requirements. The report must indicate when facilities were inspected by regulatory agencies and list any spills that may have occurred including a description, location shown on a map, and the action taken to address the affected area.	N/A	New water license	-	-	-	-	

#### 4.0 Baseline Information

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert Title, Author and Date of Document where information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Site Characterization	<b>1</b>	Provide a description of the site using current detailed topographic survey maps and/or aerial photos where applicable. Maps, diagram, and aerial photos must include accurate scales that allow the determination of distances between the objects depicted. The description must consider:	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 2 Section 3 Section 4 Appendix B Appendix E	-	
	<b>a</b>	location of fuel and chemical storage facilities	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 2.7	-	
	<b>b</b>	location of soil landfarm active treatment facilities	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 3.1.2.3 Appendix B	-	
	<b>c</b>	location of surface water bodies, particularly potable water sources and fish bearing waters	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 2.5 Section 4.1.3 Section 4.2.3	-	
	<b>d</b>	location of site access routes	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 3.2 Appendix B	-	
	<b>e</b>	surface water drainage patterns	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 4.1.1 Section 4.1.3	-	
	<b>f</b>	groundwater flow and direction	N/A	Unknown	-	-	-	-	
	<b>g</b>	groundwater regime	N/A	Unknown	-	-	-	-	
	<b>h</b>	surface water quality	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 3.1.1.3 Section 4.1.3 Section 4.2.3	-	
	<b>i</b>	groundwater quality	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 3.1.1.3	-	
	<b>j</b>	potential seepage in the area of the undertaking	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 3.1.3	-	
	<b>2</b>	Provide an evaluation of the soil characteristics to determine whether the soil, if contaminated, is well-suited for landfarming. Consider the following characteristics:	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 3.1.1.2 Section 3.1.2.3 Appendix H (Phase III ESA & Remedial Action Plan)	-	
	<b>a</b>	microbial population density	-	-	-	-	-	-	
	<b>b</b>	soil pH	-	-	-	-	-	-	
	<b>c</b>	moisture content	-	-	-	-	-	-	
	<b>d</b>	nutrient concentration	-	-	-	-	-	-	
	<b>e</b>	soil type	-	-	-	-	-	-	
	<b>3</b>	Provide a description of the site geology including:	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 4.1.1	-	
	<b>a</b>	the thickness of underlying soil	-	-	-	-	-	-	
	<b>b</b>	presence of bedrock	-	-	-	-	-	-	
	<b>c</b>	degree of bedrock fracturing	-	-	-	-	-	-	

#### 4.0 Baseline Information

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert Title, Author and Date of Document where information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Site Characterization cont'd.	4	Provide a description of the permafrost regime including:	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 4.1.1	-	
	a	the depth of the permafrost active layer	-	-	-	-	-	-	
	b	permafrost characteristics that may impact the construction or operation of the facility such as frost heave, presence of ice lenses, evidence of permafrost degradation	-	-	-	-	-	-	
	5	Provide a climatic assessment of the site including:	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 4.1.2	-	
	a	precipitation and temperature profiles	-	-	-	-	-	-	
	b	a discussion concerning the likelihood of flood events that could disrupt operations or threaten water quality and whether the local landforms may encourage or discourage such events (ie. a facility situated in an active flood plain)	-	-	-	-	-	-	
	6	Provide the slope of the land underlying the facility	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Appendix H (Geotechnical report)	-	
	7	Provide a description of the results of any consultation with Elders regarding the collection of baseline data.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 2.10	-	
	8	Provide a description of the historical uses of the waters affected by the project.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 4.3.1	-	
	9	Provide a description of any traditional uses of water in the project area.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 4.3.1	-	
	10	Indicate whether fish, shellfish, or other wildlife are present and harvested in or near the project area and, if applicable, indicate the species harvested and the level of harvest.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 4.2.2 Section 4.3.1	-	
	11	Provide a description of the geochemical tests which have been (or will be) performed on quarry or borrow material to determine the relative acid generation and contaminant leaching potential. Outline methods used (or to be used) and provide test results in an attached report (ie. static test, kinetic tests).	N/A	No geochemical test performed	-	-	-	-	
Fisheries	12	If applicable, provide baseline data and an evaluation of baseline data describing fish and fish habitat in the project area. The applicant is advised to consult with DFO regarding fish and fish habitat related issues and to visit DFO's website at <a href="http://www.dfo-mpo.gc.ca/habitat/habitat-eng.htm">http://www.dfo-mpo.gc.ca/habitat/habitat-eng.htm</a> . Indicate whether the applicant has consulted with DFO and provide the results of any consultation.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 4.2.3	-	
Studies	13	Provide a list of baseline studies, reports and plans relevant to the application that have been undertaken to date or are being planned including:	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_2 0120807.pdf	Section 4.3.2 Appendix H	-	
	a	Hydrological and hydrogeological studies;	-	-	-	-	-	-	-
	b	Geological studies	-	-	-	-	-	-	-
	c	Geotechnical studies	-	-	-	-	-	-	-
	d	Traditional use studies;	-	-	-	-	-	-	-
	e	Aquatic studies;	-	-	-	-	-	-	-
	f	Meteorological studies;	-	-	-	-	-	-	-

# 5.0 Waste Disposal: Quality, Quantity, Predicted Environmental Impact and Proposed Mitigation Measures

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert Title, Author and Date of Document where information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Waste Disposal	1	Provide a detailed description of all types of waste and all forms of waste disposal including: (see the NWB definition of Waste in the NWB <a href="#">Guide 2: Terminology and Definitions</a> )	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Section 3.1.1	-	
	a	Contaminated soil	-	-	-	-	-	-	
	b	Contaminated snow and ice	-	-	-	-	-	-	
	c	Wastewater	-	-	-	-	-	-	
	d	Others:	-	-	-	-	-	-	
Waste Disposal: Quality and Quantity	2	For each type of waste, provide the composition and quantity generated. Also provide the location, rate, timing, frequency and duration of the deposit.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Section 3.1.1	-	
	3	For each type of waste, provide the proposed methods and processes for collecting, storing, treating and discharging the waste. Indicate the capacity of these facilities.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Section 3.1.1	-	
	4	Provide a description of any existing or proposed measures to minimize the production of wastes.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Section 2.6 Section 3.1.1	-	
Hydrocarbon Impacted Soil Storage and Treatment	5	Indicate what products are used on site that if spilled may be treated in the landfarm	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Section 2.7	-	
	6	Provide an estimate of the volume of material(s) to be stored and/or treated	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Section 3.1.1	-	
	7	Indicate whether there are any existing landfarm facilities on site	N/A	No existing landfarm facilities on site	-	-	-	-	
	8	Indicate whether there have been any operating problems with existing landfarm facilities.	N/A	No existing landfarm facilities on site	-	-	-	-	
	9	Provide a description of the general condition of any existing landfarm and provide an explanation if it is unsatisfactory.	N/A	No existing landfarm facilities on site	-	-	-	-	
Identification	10	Indicate whether there are signs identifying any past or present landfarm sites	N/A	No existing landfarm facilities on site	-	-	-	-	
Modifications	11	Indicate whether any changes are planned for existing landfarm facilities. If applicable, see items 13 - 15 of this section.	N/A	No existing landfarm facilities on site	-	-	-	-	
	12	If the landfarm is for a municipality, indicate whether the community believes changes are needed to the landfarm facility. If applicable, provide a description.	N/A	Landfarm not for a municipality	-	-	-	-	



**5.0 Waste Disposal: Quality, Quantity, Predicted Environmental Impact and Proposed Mitigation Measures**

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert Title, Author and Date of Document where information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Proposed Facilities	13	Provide design plans for proposed facilities including descriptions of the following:	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	See below	-	
	a	Design parameters including seismic design if applicable.	N/A	Not applicable	-	-	Section 3.1.2.3 Appendix B	-	
	b	The capacity of the facility	Y	-	-	-	Section 3.1.2.3 Appendix B	-	
	c	Retaining structures	Y	-	-	-	Section 3.1.2.3 Appendix B	-	
	d	Spillways	-	-	-	-	-	-	
	e	Barrier or liner systems including properties and installation details	Y	-	-	-	Section 3.1.2.3 Appendix B	-	
	f	Leachate and/or runoff control systems including sumps, pumps, storage ponds/tanks, and any other measures	Y	-	-	-	Section 3.1.2.3 Appendix B	-	
	g	Identification of discharge point(s).	Y	-	-	-	Section 2.4	-	
	h	Method of discharge.	Y	-	-	-	Section 2.5	-	
	i	Proposed discharge effluent criteria;	Y	-	-	-	Section 2.6	-	
	j	Details regarding direction and path of wastewater flow from the area or infrastructure	Y	-	-	-	Section 4.1.1	-	
	k	Existing and proposed drainage modifications such as berms (natural or constructed) and diversion ditches	Y	-	-	-	Section 3.1.2.3	-	
	l	Construction schedule and sequence taking into account any timing restrictions.	Y	-	-	-	Section 2.1	-	
	m	Construction methods.	Y	-	-	-	Section 3.1.2.3	-	
	n	Equipment to be used.	Y	-	-	-	Section 2.4	-	
	o	A description of the source, type, and composition of the material to be used in construction.	Y	-	-	-	Section 3.3 Appendix H (Geotechnical report)	-	
	p	Water quality and environmental monitoring stations and associated equipment (design, placement, etc.)	Y	To be developed prior to site operations	-	-	-	May 2013	
	q	Construction monitoring plans	Y	-	-	-	Section 3.1.2.3	-	
	r	Construction quality assurance and quality control measures;	Y	-	-	-	Section 3.1.2.4	-	
	s	Operation and maintenance plans	Y	A Hydrocarbon Contaminated Soils Treatment Plan for the Landfarm to be developed following contract tendering	-	-	-	January 2013	
	t	Contingency plans to address the possibility that contaminated materials exceed expected volumes and/or sump volumes are exceeded.	Y	-	-	-	Section 3.1.2.3	-	
	u	Closure plans (see items 21-23 of this section )	Y	-	-	-	Section 3.1.2.3	-	
	v	Design drawings in plan and profile, drawn to scale, including all relevant dimensions.	Y	-	-	-	Appendix B	-	
	14	Final plans and drawings for construction must be stamped by a Professional Engineer licensed to practice in Nunavut. (See Section 7 of the NWB's <i>Guide 4: Completing and Submitting a Water Licence Application</i> for more information regarding design drawings).	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Appendix B	-	
Predicted Environmental Effects and Proposed mitigation measures	15	Provide detailed treatment plans for discharges from any waste treatment facility. Waste treatment plans should include estimates of treatment efficiency for each parameter of concern.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Section 2.6 Section 3.1.1.2	-	
	16	Clearly outline proposed discharge criteria, how the criteria were developed, standards to be applied, and how these criteria will be used to prevent ecological effects in the receiving environment.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Section 2.6	-	
	17	Provide a description of measures to prevent damage to any liner or barrier system during mechanical operation of the landfarm	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Section 3.1.2.1 Section 3.1.2.3	-	

5.0 Waste Disposal: Quality, Quantity, Predicted Environmental Impact and Proposed Mitigation Measures

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert Title, Author and Date of Document where information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Operations and Maintenance	18	Provide procedures to determine whether soils may be accepted at the Facility including	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	See below	-	
	a	Chemical, physical and biological characterization of the soil and the associated hydrocarbon and metal contaminant concentrations	Y	Determined during Phase III ESA	-	-	Section 3.1.1.2 Appendix H (Phase III ESA)	-	
	b	Treatability studies to determine the viability of landfarm treatment	Y	Determined during Phase III ESA and development of Remedial Action Plan	-	-	Section 3.1.1.2 Appendix H (Phase III ESA & Remedial Action Plan)	-	
	c	Sampling frequency and number of samples per volume of soil accepted	Y	A Hydrocarbon Contaminated Soils Treatment Plan for the Landfarm to be developed following contract tendering	-	-	-	January 2013	
	19	Provide procedures to be used during active landfarming operations in the active treatment cells	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	See below	-	
	a	Treatment cell development and material placement therein	Y	-	-	-	Section 3.1.2.3	-	
	b	Contaminated soil thickness in treatment cells	Y	-	-	-	Section 3.1.2.3	-	
	c	Method of mechanical aeration in treatment cells	Y	-	-	-	Section 3.1.2.3	-	
	d	Oversize material management	Y	-	-	-	Section 3.1.2.3	-	
	e	Surface water management, leachate containment and/or treatment, and site grade planning	Y	-	-	-	Section 2.6 Section 3.1.2.3	-	
	f	Process water management and treatment prior to discharge	Y	-	-	-	Section 2.6	-	
	g	Site volume and operational monitoring programs	Y	-	-	-	Section 3.1.1.2	-	
	h	Dust control programs	Y	-	-	-	Section 2.6 Appendix F	-	
	i	Staff operational training programs	Y	-	-	-	Section 2.9	-	
	20	Provide Soil Quality Remediation Objectives (SQROs) to which the applicant is intending to achieve.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Section 3.1.1.2 Appendix H (HHERA report)	-	
Closure	21	Provide a description of closure procedures	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Section 3.1.2.3	-	
	22	Provide details regarding the ultimate deposition of treated soils	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Section 3.1.2.3	-	
	23	Provide a disposal plan for soils contaminated with bioremediation - unsuitable compounds, or for soils that do not respond well to the proposed landfarming treatment	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Section 3.1.1.2	-	

5.0 Waste Disposal: Quality, Quantity, Predicted Environmental Impact and Proposed Mitigation Measures

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting ' Y ' or ' NA '	If 'NA' provide justification	Insert Title, Author and Date of Document where information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Fisheries	24	If applicable, provide a description of any potential impacts to fish and/or fish habitat. (Indirect effects may include project effects, water quality, or aquatic organisms. Direct effects may include degradation or alteration of fish habitat). The applicant is advised to consult with DFO regarding fish and fish habitat related issues and to visit DFO's website at <a href="http://www.dfo-mpo.gc.ca/habitat/habitat-eng.htm">http://www.dfo-mpo.gc.ca/habitat/habitat-eng.htm</a> .	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Section 5.3.3	-	
Studies	25	Provide a list of studies, reports and plans relevant to the application that have been undertaken to date or are being planned, including design and management decisions. Studies, reports and plans may include:	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_fnl_20120807.pdf	Section 1.1 Appendix H	-	
	a	Options analysis;	-	-	-	-	-	-	
	b	Weather data for purposes of design;	-	-	-	-	-	-	
	c	Fisheries assessment;	-	-	-	-	-	-	
	d	Construction plan;	-	-	-	-	-	-	
	e	Construction quality assurance and quality control plan;	-	-	-	-	-	-	
	f	Operation and maintenance plan;	-	-	-	-	-	-	
	g	Contingency plan;	-	-	-	-	-	-	
	h	Closure plan;	-	-	-	-	-	-	
	i	Monitoring plans (see section 6);	-	-	-	-	-	-	

## 6.0 Monitoring

Section Title	Section No.	Information Requirement	Indicate whether Information Requirement is applicable by inserting 'Y' or 'NA'	If 'NA' provide justification	Insert Title, Author and Date of Document where information is provided	Insert electronic file name of document where information is provided	Insert Section of document where information is provided	If information is not available at the time of application, indicate when the information will be made available	NWB Concordance Assessment
Monitoring	1	Provide a Monitoring Plan including a description of the methods, procedures, standards, and schedules proposed. Monitoring may be required for water use; effluent, surface and/or groundwater water quality, quantity, or flow; ground temperature; ground settlement; etc.	Y	To be developed prior to site operations	-	-	-	May 2013	
	2	Indicate who is responsible for sampling including that person's position, contact information and level of training.	Y	To be developed prior to site operations	-	-	-	May 2013	
	3	Indicate the name and contact information of the certified laboratory performing the analysis of samples.	Y	To be developed prior to site operations	-	-	-	May 2013	
	4	Provide an Inspection Plan including a description of the methods, procedures, standards, and schedules proposed.	Y	-	Remediation of the Old Town Site, Clyde River, NU - Environmental Screening Nunami Stantec August 2012	enviroscreen_clyderemed_inl_2 0120807.pdf	Section 3.1.2.3	-	
	5	Provide a Quality Assurance/ Quality Control (QA/QC) Plan that addresses both field sampling and laboratory analysis.	Y	To be developed prior to site operations	-	-	-	May 2013	
	6	Provide a summary table that details the monitoring plan. The table should include stations numbers, location, parameter(s) and frequency. Provide a map detailing the location of monitoring sites.	Y	To be developed prior to site operations	-	-	-	May 2013	

## **APPENDIX A: ADDITIONAL SOURCE DOCUMENTS TO ASSIST THE APPLICANT**

This appendix provides a list of reference documents including legislation, guidelines and standards that may be of use to the applicant in preparing the supplemental information.

### **Federal Legislation**

*Canadian Environmental Protection Act, [1999, c.33]*

*Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations, [SOR/2008-197]*

*Environmental Emergency Regulations, [SOR/2003-307]*

*Fisheries Act, [R.S.C. c. F-14]*

*Navigable Waters Protection Act, [R.S. 1985, c. N-22]*

*Navigable Waters Bridges Regulations, [C.R.C., c. 1231]*

*Navigable Waters Works Regulations, [C.R.C., c. 1232]*

*Nunavut Land Claims Agreement*

*Nunavut Waters and Nunavut Surface Rights Tribunal Act, [2002, c.10]*

*Northwest Territories Waters Regulations, [SOR/93/303]*

*Territorial Lands Act, [R.S. 1985, c. T-7]*

*Territorial Land Use Regulations, [C.R.C., c. 1524]*

*Territorial Quarrying Operations, [C.R.C., c. 1527]*

*Transportation of Dangerous Goods Act, [1992, c.34]*

*Transportation of Dangerous Goods Regulations, [SOR/2001-286]*

### **Territorial Legislation**

*Environmental Protection Act (Nunavut), [R.S.N.W.T. 1988, c. E-7]*

*Used Oil and Waste Fuel Management Regulations, [N.W.T. Reg. 064-2003]*

*Safety Act, [R.S.N.W.T. 1988, c. S-1]*

*Work Site Hazardous Materials Information System Regulations, [R.R.N.W.T. 1990 c. S-2]*

*Transportation of Dangerous Goods Act, [R.S.N.W.T. 1988, c. 81 (Supp.)]*

*Transportation of Dangerous Goods Regulations, [1991, N.W.T. Reg. 095-91]*

## **Guidelines and Policies**

*CCME – Environmental Code of Practice for Aboveground and Underground Storage Tank Systems containing Petroleum and Allied Petroleum Products (2003);*

*CCME – Canadian Environmental Quality Guidelines Guidelines (CEQG) and Canadian Water Quality Guidelines for the Protection of Aquatic Life;*

*CCME – Canada-Wide Standards for Petroleum Hydrocarbons in Soil (CWS-PHC) (2008);*

*CCME – Subsurface Assessment Handbook for Contaminated Sites (1994);*

*CCME – Canada-Wide Standards for Dioxins and Furans (2001);*

*CCME – Canada-Wide Standards for Mercury Emissions (2000);*

*Canadian Standards Association (CSA) Environmental Site Assessment Standards Z768-01 (2001) and Z769-00 (2000) for Phase 1 and 2;*

*DFO – Freshwater Intake End-of-Pipe Fish Screen Guideline (1995);*

*DFO – Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters (1998);*

DFO – *Policy for the Management of Fish Habitat (2001);*

DFO – *Operational Statements;*

DFO - Other documents are available from DFO's website at <http://www.dfo-mpo.gc.ca/habitat/habitat-eng.htm>;

EC – *Guidelines for the Preparation of Hazardous Material Spill Contingency Plans (1990);*

GN – *Spill Contingency Planning and Spill Reporting in Nunavut. A Guide to the New Regulations.*

GN – *Environmental Guideline for Contaminated Site Remediation (2002);*

GN – *Environmental Guideline for General Management of Hazardous Waste in Nunavut (2002);*

GN - *Environmental Guideline for Ozone Depleting Substances (2002);*

GN - *Environmental Guideline for Waste Antifreeze (2002);*

GN - *Environmental Guideline for Waste Asbestos (2002);*

GN - *Environmental Guideline for Waste Batteries (2002);*

GN - *Environmental Guideline for Waste Paint (2002);*

GN - *Environmental Guideline for Waste Solvent (2002);*

GN - *Guideline for the Management of Waste Lead and Lead Paint (2001);*

GN - *Municipal Solid Wastes Suitable for Open Burning;*

GN - *Disposal Guidelines for Fluorescent Lamp Tubes;*

GN – *Occupational Health & Safety Guidelines (2006);*

GNWT - *Guidelines for the Discharge of Treated Municipal Wastewater in the Northwest Territories, (1992)*

GNWT – *A Field Guide to Ice Construction Safety (2007);*

*Guidelines for the Preparation of an Operations and Maintenance Manual for Sewage and Solid Waste Disposal Facilities in the Northwest Territories*, Duong and Kent, 1996

INAC – *Guidelines for Spill Contingency Planning* (2007);

INAC - *Quality Assurance (QA), Quality Control (QC) Guidelines for Use by Class "B" Licensees in Collecting Representative Water Samples in the Field and for Submission of a QA/QC Plan* (1996);

INAC – *A Policy Respecting the Prohibition of Bulk Water Removal from Major River Basins in Nunavut* (2003);

The proponent where applicable should consider the application of the Canadian Dam Association “*Dam Safety Guidelines*” (January 1999) in the design, construction, operation, monitoring, decommission and closure of dam infrastructure. (Referenced within the guidelines as CDA);

*Workplace Hazardous Materials Information System* (WHMIS);

SAIC - *Federal Guidelines for Landfarming Petroleum Hydrocarbon Contaminated Soils*, Science Applications International Corporation (2005)

The NWB maintains a folder on its FTP site containing electronic copies of reference documents. Federal legislation may be found on the Department of Justice Canada website at <http://laws.justice.gc.ca/>. Territorial Legislation may be found on the Canadian Legal Information Institute's website at <http://www.canlii.org/>. The applicant is encouraged to consult with government agencies on technical issues and to obtain the most up to date copy of reference documents.

It is the applicant's responsibility to ensure that all relevant standards and guidelines are considered in the water licence application and to incorporate proper footnotes and references.



## APPENDIX B: COMMONLY USED ACRONYMS

AA	Authorizing Agency
ABA	Acid Base Accounting
AMD	Acid Mine Drainage
AP	Acid Potential
A&R	Abandonment and Restoration
ARD	Acid Rock Drainage
ANFO	Ammonium Nitrate and Fuel Oil
BOD	Biological Oxygen Demand
BTEX	Benzene, Toluene, Ethyl-benzene and Xylene
CBOD	Carbonaceous Biological Oxygen Demand
CEA	Cumulative Environmental Assessment
CCME	Canadian Council Ministry of the Environment
CFU	Colony Forming Units
COD	Chemical Oxygen Demand
CWQS	Canadian Water Quality Standards
DFO	Department of Fisheries and Oceans
DIO	Designated Inuit Organization
DO	Dissolved Oxygen
DSG	Dam Safety Guidelines
DSI	Dam Safety Inspection
DSR	Dam Safety Review
EC	Environment Canada
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
EPP	Emergency Preparedness Plan
ERSCP	Emergency Response Spill Contingency Plan
GN-DoE	Government Nunavut – Department of Environment
GN-CGS	Government Nunavut – Department of Community Government Service
GN-CLEY	Government of Nunavut - Department of Culture, Language, Elders and Youth
HDPE	High Density Polyethylene
FTP	File Transfer Protocol
IIBA	Inuit Impact Benefit Agreement
INAC	Indian and Northern Affairs Canada (also known as DIAND)
IOL	Inuit Owned Lands
IQ	Inuit Qaujimajatuqangit
IR	Information Request
LPA	Local Project Area
MSDS	Material Safety Data Sheet
MAC	Maximum Acceptable Concentration
MCE	Maximum Credible Earthquake
MDE	Maximum Design Earthquake
MMER	Metal Mining Effluent Regulations
NLCA	Nunavut Land Claims Agreement

NP	Neutralization Potential
NNP	Net Neutralization Potential
NPR	Neutralization Potential Ratio
NIRB	Nunavut Impact Review Board
NLCA	Nunavut Land Claims Agreement
NPC	Nunavut Planning Commission
NSA	Nunavut Settlement Area
NTI	Nunavut Tunngavik Incorporated
NTU	Nephelometric Turbidity Unit
NTWR	Northwest Territories Waters Regulations
NWB	Nunavut Water Board
NWNSRTA	Nunavut Waters Nunavut Surface Rights Tribunal Act
NWPP	Navigable Waters Protection Program
O&M	Operations and Maintenance
PAH	Polycyclic Aromatic Hydrocarbons
PC	Project Certificate
PCB	Poly-Chlorinated Biphenyl
PMF	Probable Maximum Flood
PMP	Probable Maximum Precipitation
POP	Persistent Organic Pollutant
PSIR	Project Specific Information Requirement
PVC	Polyvinyl Chloride
QA	Quality Assurance
QC	Quality Control
RBC	Rotating Biological Contactor
RPA	Regional Project Area
SIG	Supplemental Information Guidelines
SS	Suspended Solids
TDS	Total Dissolved Solids
TKN	Total Kjeldahl Nitrogen
TOC	Total Organic Carbon
TOD	Total Oxygen Demand
TS	Total Solids
TSP	Total Suspended Particulates
TSS	Total Suspended Solids
TK	Traditional Knowledge
UTM	Universal Transverse Mercator
UV	Ultraviolet Light
VOC	Volatile Organic Compound
VEC	Valued Ecosystem Component
WHMIS	Workplace Hazardous Material Information System