## **EXECUTIVE SUMMARY OF WATER LICENCE APPLICATION**

February 11, 2021

Applicant: Lynn J. Gillespie

Research Project Title: Flora of the Canadian Arctic

# **Location of the Undertaking:**

- 1. North side of small lake at head of southern arm of Kangiqtualuk Uqquqti (formerly Sam Ford Fiord), Agguttinni Territorial Park [70.031111N°, -71.6175W°], July 17-24.
- 2. Vicinity of Agguttinni Territorial Park proposed shelter location at Refuge Harbour, on IOL parcel CR-18 [70.879167N°, -71.129444W°], July 24-31.
- 3. North delta at head of Gibbs Fiord, Agguttinni Territorial Park (near Park proposed shelter location at south delta) [70.621667N°, -72.727222W°], July 31-August 7.
- 4. Vicinity of Agguttinni Territorial Park proposed shelter location at head of northern arm of Kangiqtualuk Uqquqti (formerly Walker Arm) on IOL parcel CR-12 [70.278333N°, -71.736944W°, or 70.290556 N°, -71.943056 W°], August 7-14.
- 5. Ataqulisataliq (Revoir Pass), Agguttinni Territorial Park [70.488611N°, -70.656944W°], August 14-20
- 6. Clyde River and surrounding area [70.4747N°, -68.5865W°], 2-4 days between July 14 and August 26, likely before and after fieldwork in the Park.

### **Description of the Undertaking:**

The composition and distribution of plants in the Canadian Arctic is likely to experience a major shift in the coming century in response to climate change, but detailed information on lichen and plant diversity, necessary to track future change, is lacking for many Arctic regions. The flora of some Arctic regions have never been explored, and many regions are poorly and incompletely studied.

We plan to conduct field work in Agguttinni Territorial Park in July and August 2021, in collaboration with Nunavut Parks and Special Places. Plant and lichen diversity at these sites has not been studied in detail. We will document plant and lichen biodiversity at all sites by exploring (on foot and by helicopter) different habitats and making collections of all the species we find. Collections will be dried in a plant press or in paper bags, and the specimens will be stored in the plant collection at the Canadian Museum of Nature, Ottawa, where they will contribute to on-going efforts to document all the plants and lichens in the Canadian Arctic. Our research team includes four or five researchers from the museum and two bear monitors/guides from Clyde River. We will set up small, temporary camps at our five proposed locations in Agguttinni Territorial Park.

**Water use:** Water will be used only for domestic purposes (drinking, cooking, washing) in our field camps.

Quantity of water involved: 7 people x 5 L/person/day = 35 L/day = 0.035 m<sup>3</sup>/day

Waste: Grey water (from cooking and washing). Sewage (human excrement; six/seven people)

Other persons or properties affected by the undertaking: n/a

Predicted environmental impacts of the undertaking and proposed mitigation measures: None expected, as we will be using a very small volume of water, only for domestic purposes.

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- 6. ቴዮዮ৯ϽἰΛ⁺Γ ◁≪ႶՐϧ∿Ⴑσ→ [70.4747N°, -68.5865W°], 2-4 ▷←→•ω² ◁₫ቴσዮዮσ ⊀ϲΔ 14 ◁ჼĹ→ ▷ჼᲙႶ 26, Γና⁰ϟΔჼ፥²⊀\$▷< Δ→◁σ ቴ▷ጵኣΔσቴჼσ◁┧ჼ→⋂⁵ ◁ჼĹ→ ቴ▷ጵኣΔĠσჼ¢²LϲჼႶ←⊃ቦ².</p>

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P.O. Box 119

GJOA HAVEN, NU XOB 1J0 TEL: (867) 360-6338 FAX: (867) 360-6369 kNK5 wmoEp5 vtmp5 NUNAVUT WATER BOARD NUNAVUT IMALIRIYIN KATIMAYIT OFFICE DES EAUX DU NUNAVUT

# APPLICATION FOR APPROVAL FOR THE USE OF WATER OR DEPOSIT OF WASTE WITHOUT A LICENCE

Refer to the <u>Guide to the Approval for the Use of Water or Deposit of Waste Without a Licence</u> (Guide) in completing this Application.

	ICATION NO: WB use only)				
1.	APPLICANT CONTACT IN (name, address)	NFORMATION	2.	APPLICANT REPRESENTATIVE CONTACT INFORMATION if different from Block 1 (name, address)	
Canad	nn J. Gillespie lian Museum of Nature, PO a, Ontario, K1Y 1X7 CANAI		Phone: Fax:		
Fax:	: 1.613.364.4075 (office), 1. 1.613.364.4027   Igillespie@nature.ca	819.271.6830 (cell)	e-mail: (Attach		
3.	NAME OF THE OWNER OWNER TO BE USED OR			E USED IN RELATION TO THE SITED	
Crown	land; Nunavut Parks and Sp	ecial Places; Qikiqta	ni Inuit A	ssociation	
4.	NAME OF PROJECT (consistent with the name of the project issued by other regulatory agencies)				
Project	t title: Flora of the Canadiar	n Arctic			
5.	LOCATION OF UNDERTA	KING			
Projec	t Extents				
NW: NE: SE: SW:	Latitude: (71°14'N) Latitude: (70°31'N) Latitude: (69°55'N) Latitude: (70°48'N)	Longitude: (71°51'W Longitude: (68°15'W Longitude: (69°49'W Longitude: (73°14'W	() !)		
Camp	Location(s):				
Project location: 7. North side of small lake at head of southern arm of Kangiqtualuk Uqquqti (formerly Sam Ford Fiord), Agguttinni Territorial Park [70.031111N°, -71.6175W°], July 17-24.					

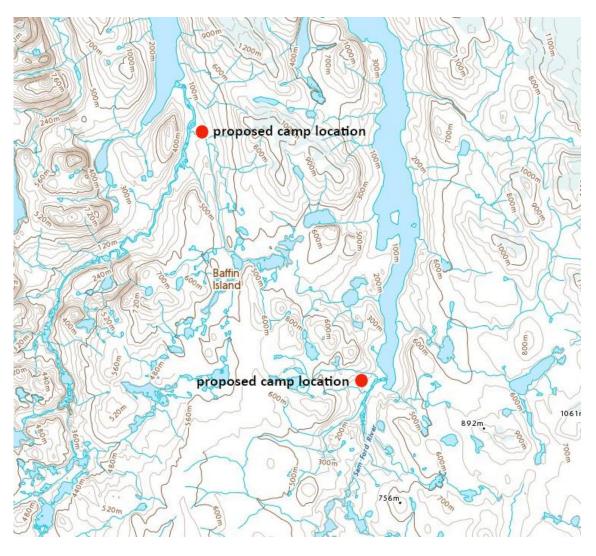
- 8. Vicinity of Agguttinni Territorial Park proposed shelter location at Refuge Harbour, on IOL parcel CR-18 [70.879167N°, -71.129444W°], July 24-31.
- 9. North delta at head of Gibbs Fiord, Agguttinni Territorial Park (near Park proposed shelter location at south delta) [70.621667N°, -72.727222W°], July 31-August 7.
- 10. Vicinity of Agguttinni Territorial Park proposed shelter location at head of northern arm of Kangiqtualuk Uqquqti (formerly Walker Arm) on IOL parcel CR-12 [70.278333N°, -71.736944W°, or 70.290556 N°, -71.943056 W°], August 7-14.
- 11. Ataqulisataliq (Revoir Pass), Agguttinni Territorial Park [70.488611N°, -70.656944W°], August 14-20
- 12. Clyde River and surrounding area [70.4747N°, -68.5865W°], 2-4 days between July 14 and August 26, depending on time and circumstances, likely before and after fieldwork in the Park.

MAP - Attach a topographical map, indicating the main components of the undertaking.

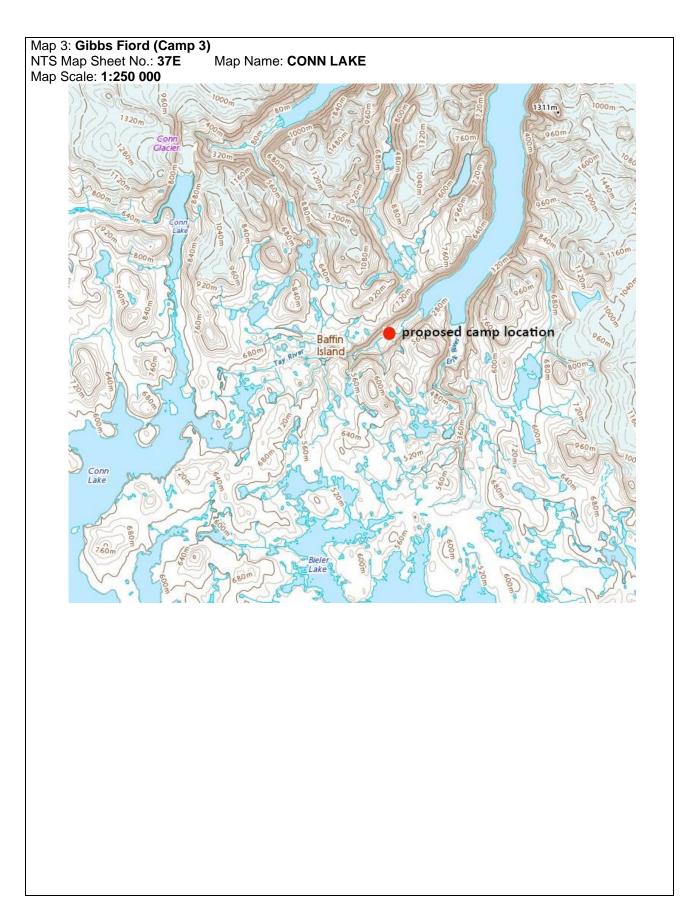
Map 1: Kangiqtualuk Uqquqti (Camp 1 & 4)

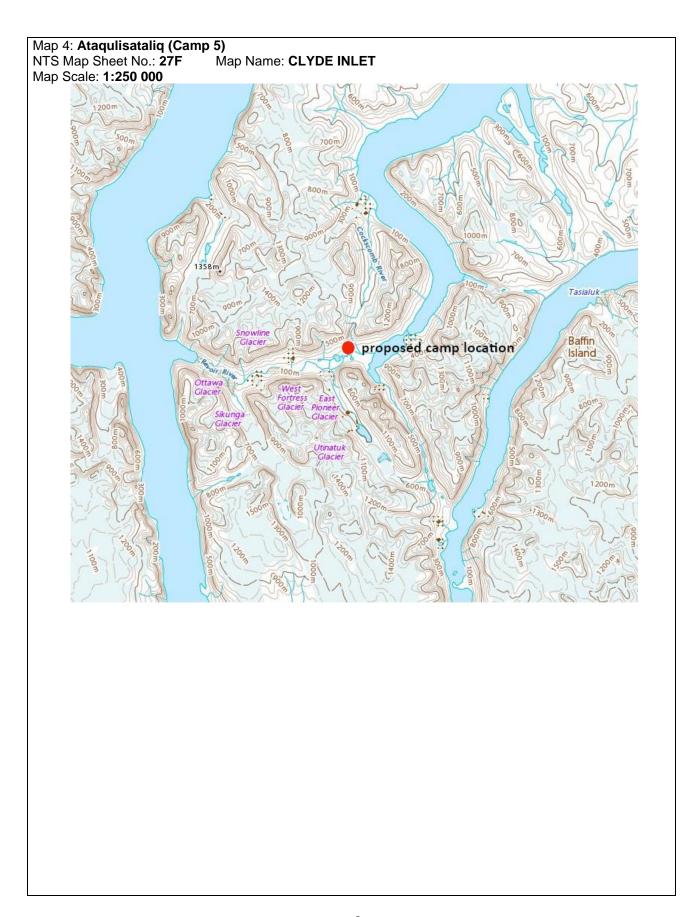
NTS Map Sheet No.: 27F Map Name: CLYDE INLET

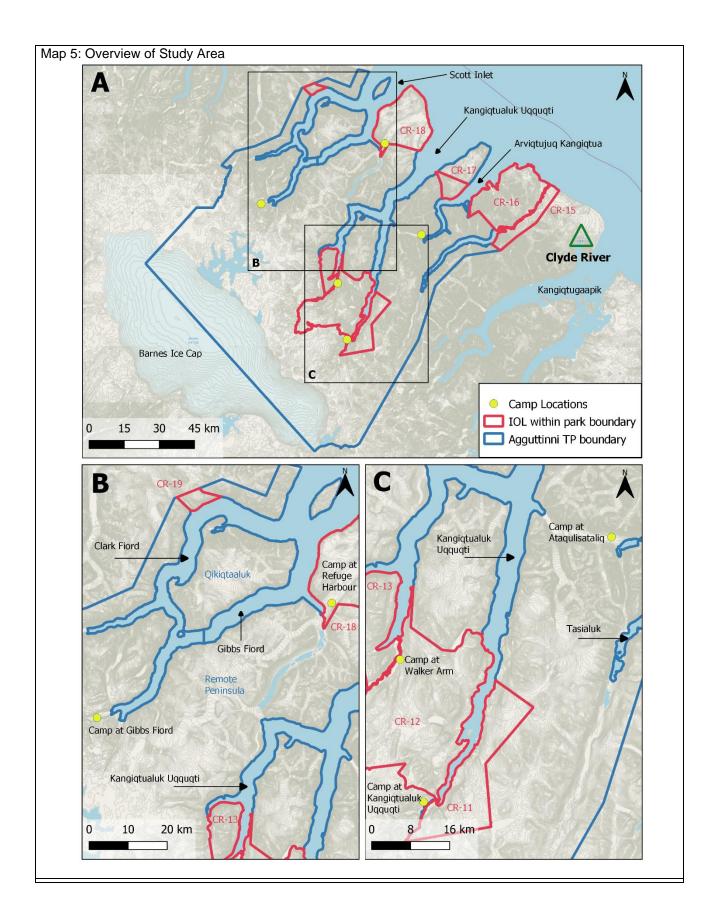
Map Scale: 1:250 000



Map 2: Refuge Harbour (Camp 1) NTS Map Sheet No.: 27F & 27G Map Scale: 1:250 000 Map Name: CLYDE INLET & SCOTT INLET proposed camp location Qikiqtaaluk Baffin Island







Name of the Water Management Area in which the Undertaking is located. (Please see Appendix D of the Guide):				
49. Sout	thwestern Baffin Bay Watershed			
	<b>CLASSIFICATION OF UNDERTAKING</b> - Indicate the clone of the following boxes.	assification of undertaking by checking		
	☐ Industrial ☐ Mining ☐ Conservation ☐ Municipal	☐ Agricultural ☐ Recreational ☐ Power ✓ Other: (describe)		
We will be conducting botanical research and collecting lichen and plant specimens to document the biodiversity and distribution of the flora in the regions in which we plan to work (see project proposal above).				

7. DESCRIPTION OF UNDERTAKING AND EQUIPMENT USED – Provide a brief description of the undertaking including a description of any equipment that will be used in using water or depositing waste.

## Vascular Plant and Lichen Biodiversity of the Canadian Arctic

Arctic regions of the world are among the most rapidly changing on the planet in response to global climate change, and substantial changes to Arctic vegetation are being documented by scientists. Understanding the composition and distribution of the Arctic flora in the past and present is critical to documenting change in the future. This research program aims to increase our knowledge of the Canadian Arctic flora through floristic and systematic studies of Arctic vascular plants and lichens. We are working to document where Arctic vascular plant and lichen species occur in time and space, to increase knowledge of their identities (i.e., taxonomy), building on the substantial body of work that has been contributed by researchers in the past, and to understand the evolutionary history of a subset of the flora. Such research is essential in serving as a basis for biodiversity, ecological, conservation, and environmental impact studies. This project will provide comprehensive baseline data on Arctic lichens and vascular plants (taxonomy, distribution, ecology), with the goal of producing a complete Arctic flora. It builds on our extensive, ongoing work on the Arctic flora (see summary of our recent research progress in Appendix B), and continues the strong, century-long tradition of Arctic botany at the Canadian Museum of Nature (CMN), the only Canadian institution with major plant and lichen systematic research activities in the Arctic.

#### **Arctic Flora**

Detailed information of the taxonomy and distributions of Arctic flora is necessary to understand potential impacts of environmental change on Arctic terrestrial ecosystems. Unfortunately, most previous regional Arctic floras are now out of print and very out of date, and there is no single publication or digital resource available that can provide up-to-date knowledge on the Canadian Arctic flora.

Although the Arctic region is a major part of Canadian natural heritage, with the area above tree line in Canada comprising approximately 40% of the country, a flora treating all the vascular plants across the whole Canadian Arctic region has never been produced. The objectives of our research are to revise, develop, increase and disseminate the taxonomic knowledge base for the Arctic flora. Our research focus is broad, examining the "big picture" of understanding Arctic plant and lichen biodiversity in Canada: what are the species, and where do they occur? Our immediate objective is to both synthesize existing

collection-based knowledge and gather new knowledge on Arctic plants and lichens by undertaking work in areas of the Canadian Arctic that are botanically poorly known.

#### **Arctic Floristics**

<u>Vascular Plants</u>: We conduct field work in botanically understudied areas of the Canadian Arctic to develop new and comprehensive baseline data for these areas, contributing to our understanding of species distributions and diversity in the Canadian Arctic as a whole. Our eight Arctic field seasons since 2008 have resulted in over 10000 new plant collections, which are deposited in the National Herbarium and other herbaria in Canada and internationally. We also collect silica-gel dried material for every collection of Arctic plant and lichen for use in molecular research. For each area we work in, we aim to produce a detailed floristic account of the vascular plants of the area, based on all collections made there, including ours and those made by previous researchers.

<u>Lichens:</u> Lichens are conspicuous and abundant in the Canadian Arctic. However, most of the region has not been examined by a professional lichenologist. Many lichen species are inconspicuous and often overlooked. Only the large charismatic species have been somewhat widely collected by expedition teams sampling opportunistically. Whereas 1026 lichen species are currently recorded from the North American Arctic, our research suggests there may be as many as 700 additional species. Substantial work remains in order to understand lichen diversity in Nunavut and the Canadian Arctic.

#### 2021 Fieldwork in Nunavut

In 2021 we will partner with Nunavut Parks and Special Places at their request to conduct a botanical inventory of Agguttinni Territorial Park near Clyde River, Baffin Island. We plan to conduct field work in July and August studying the plants and lichens in the Park and in the vicinity of the community of Clyde River (see map in Appendix A). Specifically, we will work in and around:

- 1. North side of small lake at head of southern arm of Kangiqtualuk Uqquqti (formerly Sam Ford Fiord), Agguttinni Territorial Park [70.031111N°, -71.6175W°], July 17-22.
- 2. Vicinity of Agguttinni Territorial Park proposed shelter location at Refuge Harbour, on IOL parcel CR-18 [70.879167N°, -71.129444W°], July 24-31.
- 3. North delta at head of Gibbs Fiord, Agguttinni Territorial Park (near Park proposed shelter location at south delta) [70.621667N°, -72.727222W°], July 31-August 7.
- 4. Vicinity of Agguttinni Territorial Park proposed shelter location at head of northern arm of Kangiqtualuk Uqquqti (formerly Walker Arm) on IOL parcel CR-12 [70.278333N°, -71.736944W°, or 70.290556 N°, -71.943056 W°], August 7-14.
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- 6. Clyde River and surrounding area [70.4747N°, -68.5865W°], 2-4 days between July 14 and August 26, likely before and after fieldwork in the Park.

At sites 1, 2, 3, 4, and 5 we will camp and comprehensively survey the area on foot and by helicopter. These locations were all selected as they appear to be in well vegetated areas near a variety of plant habitat types, however we are flexible as to the exact location of the camps based on the needs of Nunavut Parks and the community.

Previous botanical studies and collecting within Agguttinni Territorial Park have been very limited. Several plant and lichen collections were made in the 1950s (Baird et al. 1950, Baird 1952), and since then there

has been only limited opportunistic collecting, mostly by non-botanists (Blake 1988, Løken et al. 1966), including 68 specimens collected during the Canada C3 expedition in 2017.

This proposal therefore focuses on providing the first comprehensive documentation on the vascular plant and lichen diversity of Agguttinni Territorial Park. Comprehensive botanical knowledge of the park is important to understand the natural history of the area and track future changes in species distribution, as well as to inform management decisions.

#### References

- 1. Baird, P.D., Kranck, E.H., Goldthwait, R.P., Eade, K.E., Ward, W.H., Riley, G.C., Orvig, S., Montgomery, M.R., Dansereau, P. and Hale, M.E., 1950. Baffin Island expedition, 1950: a preliminary report. Arctic, 3(3), pp.130-149.
- 2. Baird, P.D. 1952. The Baffin Island Expedition, 1950. The Geographical Journal, 118(3) pp. 267-277.
- Blake, W. 1988. Geological Survey of Canada Radiocarbon Dates XXVII. Geological Survey of Canada Paper 87-7
- 4. Løken, O.H., Andrews, J.T., Barnett, D.M., Buckley, J.T., Church, M., Feyling-Hanssen, R.W., Forester, W., Gray, N., Ives, J.D., Rannie, W., Ryder, J, Sagar, R.B., Simpson, K.G. 1966. Field Report North-Central Baffin Island, 1966. Ottawa: Dept. of Energy Mines and Resources, Geographical Branch. 93 pp.

# **Objectives:**

Our overall goals are to gain a more complete understanding of the present state of the distribution and composition of the Canadian Arctic flora and to expand the knowledge base for understanding the broad-scale impacts of environmental change on the Arctic flora. Specifically, in 2021 our goal is to carry out a detailed botanical inventory of Agguttinni Territorial Park. This work is being carried out in partnership with Nunavut Parks and Special Places as part of its broader resource inventory of the Park.

The data and specimens collected on this trip will be used in support of several research projects:

- 1. A floristic study of Agguttinni Territorial Park and the Clyde river area published in a peer-reviewed journal.
- The Arctic Flora of Canada and Alaska project, led by the Canadian Museum of Nature, which will treat all vascular plants in the entire Canadian Arctic and the North Slope of Alaska (http://arcticplants.myspecies.info/)
- 3. DNA barcoding studies of the Arctic flora (e.g., Saarela et al. 2013).
- 4. Ongoing and future taxonomic/systematic studies of Arctic lichen and plant species (e.g., Sokoloff et al. 2016; McMullin et al. 2020). Once incorporated into herbaria, the specimens will also be available to all scientists for study, and the data will be shared internationally through digital biodiversity repositories, such as the Global Biodiversity Information Facility and the Collections Online website at the Canadian Museum of Nature.

# **Management Implications:**

Our research will provide new and up-to-date information on vascular plant and lichen diversity in Agguttinni Territorial Park, all of which will be made available to Nunavut Parks and Special Places and the community of Clyde River. This baseline information will inform future resource and land management plans related to plants in Agguttinni Territorial Park and will provide data crucial to measuring the effects of climate change and development on plant life within the Park.

## **Specimen Collecting Methods:**

We will undertake research in the vicinities of each site by foot and by helicopter, complete plant inventories of all lichens and vascular plants, and collect data on conservation status, ecology, distribution, and population variation as appropriate. All of these data will be useful for long-term monitoring of potential changes in species diversity in the future.

Approximately 1000 vascular plant specimens and 500 lichen specimens will be collected, photographed, and studied. Collections will be deposited at the National Herbarium of Canada (Canadian Museum of Nature), and duplicate specimens will be provided to Nunavut Parks and Special Places and also distributed to national and international herbaria, all contributing to the permanent scientific record documenting the distributions of Arctic lichen and plant species in time and space. As time permits we will make occasional collections of algae, fungi and bryophytes.

Lichen specimens are collected from the environment by hand, using a small knife, or by using a hammer and chisel for crustose (rock-growing) specimens. These lichens are dried in the field in paper bags. Vascular plant specimens are collected and placed in a plant press, the standard method that botanists have used for several centuries. Once collected, plant specimens are arranged onto sheets of newspaper, placed between two pieces of cardboard, piled up, placed in a plant press, and tightened with two straps. The specimens are flattened and dried in the press; once dry they will last for centuries when stored in a herbarium (dried plant collection).

#### For each collection event we:

- Collect one to several individuals of a species (depending on the size of an individual, and how common the species is locally). If a species is not common, we collect only enough material to properly document its occurrence at the site. If a species is rare, we do not collect any specimens, and document its occurrence only with photographs.
- Record detailed notes on the location of the species, its local growing conditions, and other species that grow at the site. For most collections we take photographs of the species growing in its natural state.
- Preserve a small amount of tissue from the specimen in silica gel (a desiccant), which rapidly dries the genetic material in the leaf tissue in a way that is suitable for later study (e.g., DNA sequencing) in the molecular laboratory.

8.	<b>SCHEDULE</b> – Applicants are advised that approvals without a licence are issued for a one year term.					
	Proposed Start Date: <b>14 July 2021</b> (Month/Year)	Proposed Completion Date:	26 August 2021 (Month/Year)			
9.	TYPE OF USE OF WATER WITHOUT A LICENCE PROPOSED - Check the box that applie to the type of water use proposed. If none of the water uses listed below applies to the proposed water use, an application for a water licence will be required. See the NWB's <u>Guide</u> — <u>Completing and Submitting a Water Licence Application for a New Licence</u> .					
	For an undertaking other than a Pov construction of a structure across a ordinary high water mark at the poin	watercourse that is less than 5 r				

	For an undertaking other than a Power undertaking and for a use of water related to the training of an intermittent watercourse.				
	For an undertaking other than a Power undertaking and for a use of water related to the training of a watercourse that involves the infilling of the watercourse, if the watercourse has no inflow or outflow and a surface area of less than 0.5 hectares.				
	For an undertaking other than a Power undertaking and for a use of water related to the training of a watercourse that involves removal or placement of less than 100 m³ of material.				
	For an undertaking other than a Power undertaking and for a use of water related to the construction of a temporary structure in a watercourse for the purpose of flood control.				
	For an undertaking other than a Power undertaking and for any use of water related to the storage of 2,500 m3 or less.				
$\boxtimes$	For an undertaki 50 m³ per day.	ng other than a Power und	ertaking and for any use of	water less than	
10. QUANTITY AND QUALITY OF WATER INVOLVED - For each type of water use indicated in Block 9, provide the source of water, the estimated quantity to be used in <u>cubic metres per day</u> , and the periods during which water will be extracted.					
				cubic metres per day,	
Type of			Estimated quantity of water to be used in cubic	Periods during which water will be extracted	
Type of indicat  For an uother the undertal any use	f Water Use	ring which water will be ext  Name of water	Estimated quantity of water to be	Periods during which water will	
For an undertal any use less that day.	f Water Use ted in Block 9 undertaking tan a Power king and for to of water tin 50 m3 per	Name of water source Unnamed streams or lakes in study region  T OF WASTE PROPOSED	Estimated quantity of water to be used in cubic metres per day  0.035 m³/day	Periods during which water will be extracted  14 July-26 August 2021	
For an undertain any use less that day.	f Water Use ted in Block 9 undertaking tan a Power king and for to of water tin 50 m3 per  TYPE OF DEPOSI deposit of waste, a	Name of water source  Unnamed streams or lakes in study region  T OF WASTE PROPOSED oposed. If none of the deponance application for a water lice	Estimated quantity of water to be used in cubic metres per day  0.035 m³/day	Periods during which water will be extracted  14 July-26 August 2021  es to the type of apply to the proposed the NWB's <i>Guide 4</i> —	
For an undertain any use less that day.	f Water Use ted in Block 9 undertaking an a Power king and for of water in 50 m3 per  TYPE OF DEPOSI deposit of waste, a Completing and Su  For an Industrial storage tanks an	Name of water source  Unnamed streams or lakes in study region  T OF WASTE PROPOSED oposed. If none of the deponance of the d	Estimated quantity of water to be used in cubic metres per day  0.035 m³/day  O - Check the box that application for a New Licence related to hydrostatic testir posit of waste resulting from	Periods during which water will be extracted  14 July-26 August 2021  es to the type of apply to the proposed the NWB's <u>Guide 4</u> — ce.	
For an undertain any use less that day.	f Water Use ted in Block 9 undertaking tan a Power king and for to of water tin 50 m3 per  TYPE OF DEPOSI deposit of waste pr deposit of waste, a Completing and Su  For an Industrial storage tanks an testing or cleanir  For an Industrial and for any depo	Name of water source  Unnamed streams or lakes in study region  T OF WASTE PROPOSED oposed. If none of the depon application for a water lice of the material water Licence of the depon application for an activity dispellines, and for any deing of unused storage tanks undertaking, for an activity dispellines, and for any deing of unused storage tanks	Estimated quantity of water to be used in cubic metres per day  0.035 m³/day  0 - Check the box that applicates of waste listed below a ence will be required. See Application for a New Licentary related to hydrostatic testing posit of waste resulting from or pipelines.  related to quarrying and grosited to surface water and	Periods during which water will be extracted  14 July-26 August 2021  es to the type of apply to the proposed the NWB's <u>Guide 4—</u> ce.  ag or cleaning of n hydrostatic  eavel washing,	

For a Mining undertaking, for an activity related to exploratory work, any deposit of sewage to a sump.						
	For a Power undertaking, any deposit of sewage to a sump.					
	For an Agricultural undertaking, any deposit of sewage to a sump.					
	For a Recreation undertaking, any deposit of sewage to a sump.					
	For any Other type of undertaking not listed above, other than Municipal, any deposit of sewage to a sump.					
E	12. QUANTITY AND QUALITY OF WASTE INVOLVED – For each type of waste indicated in Block 11, describe the quantity in cubic metres/day, measures to avoid or mitigate adverse impacts, and periods of deposition.					
	e of Waste ted in Block 11	Quantity to be deposited in cubic metres per day	Measures to avoid or mitigate any adverse impacts	Periods during which waste will be deposited		
				14 July-26 August		
For any Other type of undertaking not listed above, other than Municipal, any deposit of sewage to a sump.  (Sewage)  Minimal (6-7 people)  Minimal (6-7 people)  Minimal (6-7 people)  flown out for disposal by Nunavut Parks helicopter.  14 July-26 August 2021						
13. SIGNATURE						
I, (print name), certify that the information given on this form is, to the best of my knowledge, correct and complete.						
✓ Yes						
OR						
I, (print name), as an authorized representative of the Applicant,, certify that the information given on this form is, to the best of my knowledge, correct and complete.						
information given on this form is, to the best of my knowledge, correct and complete.						

	that the Nunavut Planning Cout ut Land Claims Agreement ha		use planning requi	rements under Article 11 of the
		✓ Yes		□No
	that the Nunavut Impact Rev NLCA have been met.	iew Board's devel	lopment impact rev	riew requirements under Article 12
		✓ Yes		□No
	that the proposed water use specified by column 3, in resp			chedule 2 of the Regulations that is mn 1. See list in Block 9.
		✓ Yes	□NA	□No
2 and 3	that the proposed deposit of 3 of Schedule 3 of the Regulatule 3. See list in Block 11.			d then further specified in columns at is set out in column 1 of
		✓ Yes	□NA	□No
	that the proposed water use the watercourse whose water		e will not substanti	ially affect the quality, quantity or
		✓ Yes		□No
	that the proposed water use waters flowing through Inuit C		e will not substanti	ially affect the quality, quantity or
		✓ Yes		□No
would b	pe entitled to compensation ur	nder sections 58 c	or 60 of the <i>Nunav</i> u	e use of waters by a person who ut Waters Nunavut Surface Rights ed by an applicant for a licence.
		✓ Yes		□No
I certify that a licence is not required for another use of water, or deposit of waste in respect of the proposed undertaking.				
		✓ Yes		□No
	read and agree to comply with navut Waters Regulations:	the following cor	nditions outlined in	sections 4(3), 5(4), 5(5) and 6 of
1.				rs or deposit waste in relation to that right, as if that applicant had a licence for the use
2.	Measures must be taken prior to us are to be used, and the measures s			d or banks of a watercourse whose waters e undertaking.
3.	No waste is to be deposited to surfa	ice water or within 31	metres of the ordinary h	nigh water mark of any body of water.
4.	The waste shall not contain more th hydrocarbon sheen.	an 15 milligrams per li	itre of petroleum or petr	roleum product and must not have a visible

<ol> <li>Prior to the closure or abandonment of the undertaking or end of the period authorized for the use of water or deposit of waste without a licence, whichever occurs first, the site shall be restored — to the extent practicable — to the state in which it was before the water was used or the waste was deposited.<sup>a</sup></li> </ol>						
6. An applic a. b. c. d.	6. An applicant who is authorized under the Regulations to use waters or deposit waste without a licence shall:  a. maintain accurate and detailed books and records of:  i. the quantity of water, in cubic metres, used each day,  ii. the quantity, in cubic metres, of waste deposited each day,  iii. the type of waste deposited each day,  iv. where the waste is deposited,  v. the concentration of the substance, or substances, in the deposited solid or liquid that has the effect of making the deposit waste,  vi. the methodology used to calculate or determine the information referred to in items (i) to (iv), and vii. the measures that were taken to avoid or mitigate any adverse impacts of the deposit of waste.  b. keep the books and records on the site of the undertaking during the period of its operation and make them available during that period to an inspector on request;  c. submit to the Board a report containing a summary description and supporting photographs of the restoration of the site of the undertaking within 30 days after the earliest of (i) the day on which the undertaking is closed or abandoned, and (ii) the last day of the period authorized for the use or deposit without a licence; <sup>b</sup> and					
	Notes:					
	a) A site need not be restored prior to the end of the period authorized for the water use or deposit of waste without a licence, as required by Item 5, if the Board issues a licence for the use of water or deposit of waste on that site prior to the end of that period.					
	b) An applicant need not submit the report referred to in Item 6 (c), to the Board if the applicant obtains the Board's approval for a use of water or deposit of waste without a licence, or a licence for a use of water or deposit of waste, on the same site within thirty (30) days after the last day of the period authorized for the use or deposit.					
		✓ Yes	□No			
licence will be a The use or dep	authorized for authorities on the second sec	a period of one year after the o	use of water or deposit of waste lay on which the Board approves es the Application and it is only v he declaration above.	the Application.		
		✓ Yes	□No			
I understand that if I have answered "No" to any of the above statements a water licence is required from the Nunavut Water Board prior to the use of water or deposit of waste.						
		✓ Yes	□No			
Lynn. J. Gi	llespie	Research Scientist	Lym Silv	11 February 2021		
Name (P	rint)	Title (Print)	Signature	Date		