

Climate Change and Health Adaptation in Northern First Nations and Inuit Communities Program
2010-2011 Funding Application

Traditional Knowledge: A Blueprint for Change

Amount of Funding Requested: \$ 118,070.00

Ed Tuttauk, Chairperson

Sivunivut Inuit Community Corporation Inc.

P.O. Box 289
1 Mission Road
North West River, NL
AOP 1M0

P/ (709) 497-8444

F/ (709) 497-8405

E/ ed.tuttauk@nunatsiavut.com

W/ www.sivunivut.ca

Sivunivut Inuit Community Corporation Inc.



22-Jan-10

Contents

Plain Language Summary	2
Community Background	2
Introduction	3
Previous Research	4
Project Description	4
Background	4
Objectives.....	5
Rationale	5
Methodology.....	6
Activities/Outcomes.....	7
Partners.....	7
Capacity Building.....	8
Traditional Knowledge	8
Work Plan and Timelines	9
Budget.....	10
Project Evaluation	12
Communication and/or Results Reporting Plan	12
Appendix A: Applicant Biography	13
Appendix B: Co-Researcher Biography	14
Letter of Support – Nunatsiavut Department of Lands and Natural Resources.....	15
Letter of Support – Town of North West River.....	16
Letter of Support – Labrador Institute of Memorial University.....	17
Appendix C: Response to Selection Committee Questions	18

Plain Language Summary

This proposal has been developed as a one-year stand alone project with the flexibility for a second year of study, dependent on the research findings and subject to funding. The budget and work schedule for this proposal cover year one only, and will include significant local Inuit youth training with respect to the collection and documentation of traditional knowledge (TK). We have approached the local university (Labrador Institute of Memorial University) to help provide training to our community members on methods for collecting and analyzing traditional knowledge, including the use of GIS, video, audio, and interviewing techniques. The response has been positive and the value-added involvement of the Institute has been built into this proposal. Once training is complete, Inuit youth of North West River (NWR) will collect traditional knowledge on the location, importance and threats to fresh water, sea ice, sensitive habitats and species. Our study area is centered on NWR and will focus on current and historic Inuit land and resource use of the region. Data collection will rely on surveys, interviews, and mapping. Video and audio records of the research will be compiled and maintained. Data will be used to direct future research, both traditional and scientific, and the data will assist the development of a climate change adaptation plan for Sivunivut Inuit Community Corporation.

Community Background

North West River (formerly known as Fort Smith) is a small sub-arctic community of 492¹ people (approximately 70% identify as Aboriginal, primarily Inuit) located in central Labrador and situated on the western shores of Lake Melville, 35 km north of Goose Bay. The town has over 260 years of documented history and has been occupied by Labrador's Innu and Inuit for an estimated 6000 years. In the mid-1700s, Europeans made their way to the area of avail themselves of the abundant wildlife in the area. North West River was the location for a year-round trading post that was established by French fur trader Louis Fornel in 1743 and was also a location for a Hudson's Bay Trading Post in later years.

North West River is one of the most southerly Inuit communities in Canada. Lake Melville is a large tidal semi-salt water lake and is home to vast natural resources including a large population of ring seals and one of the world's largest recorded congregations of moulting scoters. It has an immense biodiversity with respect to fish, seabirds, and waterfowl. Lake Melville is fed by numerous river systems, the largest being the Churchill River which is now targeted for development in the form of the "Lower Churchill" hydro-electric project, the largest currently under consideration in North America (NALCOR 2009). The Lake Melville ecoregion (Lopoukhine *et al.* 1975) is lowland area with nutrient-rich boreal forest, which in turn has numerous plant and wildlife species, and arguably contains the richest biodiversity of any ecoregion within the Ungava peninsula. The community of NWR is also near the proposed Mealy Mountains National Park, which is in final phases of negotiations between the Federal government, the province, and local aboriginal groups. The community of NWR has a university-run research centre, a municipal library and high school, and has year-round road access to the community of Goose Bay, which has a modern all-year airport. Much of the marine shipping (freight, fuel, etc.) to and from Labrador passes through Lake Melville. Several potential uranium mines, located approximately 100 km to the north, have recently been identified for possible development, and current proposals call for a road to be developed through NWR to accommodate the shipment of yellow cake to market (Aurora Energy 2008).

¹ Canada. StatCan. 2006 Community Profiles: North West River. 24 Jul. 2009. 19 Jan. 2010.

<<http://www12.statcan.ca/census-recensement/2006/dp-pd/prof/92-591/details/page.cfm?B1=All&Code1=1010022&Code2=10&Custom=&Data=Count&Geo1=CSD&Geo2=PR&Lang=E&SearchPR=01&SearchText=North+West+River&SearchType=Begins>>

Sivunivut Inuit Community Corporation Inc is the incorporated entity that represents the Inuit of NWR and Sheshatshiu, and was established in compliance with the Labrador Inuit Land Claims Agreement and the Labrador Inuit Constitution. The community of NWR is located on the southern border of what is typically considered the North (Natural Resources Canada, Northern Scientific Training program, Canadian Polar Commission, Arctic Research Infrastructure Fund, etc.) and as such is likely to experience drastic and pervasive impacts resulting from climate change. For example, changing temperature and precipitation patterns threaten to alter plant and animal distributions, and consequently impact the lifestyles and cultural traditions of northern peoples who have a symbiotic relationship with these resources. Southern Inuit communities, like NWR, are the “canary in the mine shaft”, and will be an early regional indicator of the health risks posed by climate change and industrial development to Inuit all across the north.

Many of NWR’s community activities are associated with the traditional trapping and hunting lifestyle. There remains a strong tie to the land, and reliance on hunting and fishing to supplement store-bought foods still continues. Cabins and family homesteads are used in both summer and winter and traditional seal hunting practices are still carried out in the area. The Inuit of North West River are fearful of direct health risks posed by climate variability, which may threaten food and water security and pose risks to winter ice travel due to compromised ice conditions. Indirect risks will manifest themselves through impacts on individual and community health, as traditional practices are altered and cultural ties are damaged in response to climate change. However, there may be other unforeseen risks that only focused research with local community members will be able to identify. While the Inuit of North West River recognize many of the potential health risks and other negative outcomes associated with changing climates, Sivunivut feels that with the right information there will be ways to adapt to and mitigate these impacts. The Sivunivut climate adaptation plan developed subsequent to this project will likely assist the adaptation planning of other northern aboriginal communities in crisis.

Introduction

For centuries, aboriginal people in Labrador have been dependent upon the land and sea for survival. Water quality, ice conditions, and habitats that form the basis of this relationship are likely to be impacted by climate change. In turn, old ways of life will be affected, impacting individual and community health. It is becoming increasingly apparent to Sivunivut that there is a need to document the location, use, and cultural traditions associated with local resources in order to determine which are most sensitive and at risk from climate change. This information will assist Sivunivut in climate change adaptation strategies and mitigation with respect to individual and community health risks.

It has long been recognized that living in the North means a heavy reliance on, and strong cultural ties to the land and environment. In fact much of aboriginal self identity, voice and self-esteem arise from relationships with the surrounding environment. For example, ice safety is of particular concern to southern Inuit communities that rely on sea ice for travel to traditional harvesting areas. Changing patterns of ice formation during the fall freeze-up and spring thaw periods pose direct dangers to people who use the ice for travel. In addition, changing ice patterns resulting from climate variability seem likely to impact local ring seal (Natsik) populations. Ring seals are marine mammals which have been and continue to be an important food source to the Inuit of the area. Undoubtedly, the habitat and breeding behaviours of ring seals will be affected by earlier springs, as this will influence the availability and suitability of seal whelping (birthing and rearing) sites. Early springs will likely have negative consequences on this population, thereby affecting both the food safety and cultural traditions of the Inuit of North West River.

The low-lying coast of Lake Melville is well known for its abundant supply of fresh “spring” water. Several climate models (Vincent 1998, Lines and Panchuria 2005) suggest that in the Lake Melville

ecoregion both temperature and precipitation will increase over the next 50 years. Consequently, these low elevation sites are at risk from changing spring run-off patterns and rising sea levels; both pose a direct health risk to those who consume and rely on these valuable water resources. In addition, climate change is likely to impact many species of flora and fauna, (e.g., southern species invade and displace typical northern species). Local Inuit knowledge is accumulating with respect to these phenomena, suggesting that the ranges of many animal species in Labrador are fluctuating and that many southern species are expanding northwards. Finally, the land has immense cultural significance to the people of North West River and as climate change alters the geographic landscape, so too will it alter traditional and cultural practices, threatening community health and sense of belonging.

Participant interviews and surveys will be structured around questions regarding fresh water sites, ice travel, sensitive habitats, and important species. Participants will use their traditional knowledge to help locate points of interest on maps, and at times may be asked to accompany researchers into the field. These points of interest will include (but not be limited to) areas with dangerous ice conditions, birthing sites (e.g., whelping, nesting spawning), and spring water locations. Once data has been collected, it will be entered into GIS software and used to create maps for future studies (e.g., academic and traditional knowledge, including but not limited to the themes of: folklore, linguistics, anthropology, environmental science, etc.) and will be used as the basis for climate change adaptation planning.

Previous Research

In the community of North West River, there has been very little research with respect to historic and contemporary Inuit land and resource use, and even less with respect to climate change adaptation. Consequently, there exists a gap between traditional knowledge, science, policy, and adaptation planning. With this said, there are some studies this project can build upon. The Aboriginal Diabetes Initiative has generated data on traditional land use and harvesting, while Felt and Procter recently conducted extensive food harvest surveys of the region, and Chaulk *et al.* (2000, 2005) have studied seabird ecology in Lake Melville and Groswater Bay. In addition to this, the *Coastal Resource Atlas*, the *Ice Survey Data*, and the *DFO Coastal Resource Inventory* from the 1980s and 1990s are existing map projects that complement this proposal. There have also been initiatives carried out by various aboriginal groups that involve both scientific and traditional knowledge data collection. *Our Footprints are Everywhere* and *Environmental Archaeology of Hamilton Inlet* cover themes and regions that are relevant to Sivunivut for health research in general and for climate change adaptation planning. The body of knowledge mentioned above will be used in assist, guide and complement our study.

The studies listed above all served a specific purpose within their independent areas of study. However, there is little information related to traditional knowledge with respect to ice, potable water, and/or seal and sea bird ecology. Our project will use GIS technology to graphically illustrate traditional knowledge in light of climate change risks to the Inuit of North West River.

Project Description

Background

Climate change research and health adaptation is a relatively new concept in Canada. As Inuit become more accustomed to the idea of global warming, they are beginning to question how their daily lives, traditions, customs and the earth around them will be affected by rising temperatures, increased precipitation, melting ice, and fluctuations in plants and animals.

This is of particular interest to Sivunivut, which has a duty to seek expert advice and conduct thorough research on behalf of the Inuit of North West River, in the face of drastic change. In our region climate change is of particular interest, since the impacts are expected to be felt sooner rather than later. If we are able to prepare in advance, we will alleviate some of the stressors associated with large scale change.

North West River is one of the southernmost Inuit communities in Canada. Our proposal represents an opportunity to illustrate the early effects of climate change on Inuit and should help other communities create their own adaptation plans. The Inuit of North West River have an intimate relationship with the land which is integral to their common identity. Knowing the land and its creatures is important to survival in the country. However, as the landscape changes in the wake of global warming, people will need to adapt their lifestyles and restructure their relationship to the land.

Like the environment that surrounds us, it is quite common for the culture of any community to change over time, though this typically happens gradually. However, when change happens quickly, it becomes cause for concern. The projected changes caused by global warming may have severe and detrimental effects on the community and its people. Taking steps such as the research proposed here will be useful in mitigating and productively adapting to the changes. If we can prepare for and anticipate the changes, they may become easier to negotiate when they actually occur.

Objectives

Our project is made up of several short-term and long-term goals that we see as beneficial to the adaptation of our community to climate change.

The immediate success of our endeavour is dependent upon the proper collection, preservation, and distribution of traditional knowledge. We will ensure that this venture is successful through the thorough training of community members in qualitative and quantitative methods for the collection of TK. Unlike other projects, we will not be bringing in outside experts to collect our TK. Rather, we will hire and train members of our own community to collect this important data. The benefits of this are twofold. First of all, our TK collectors already reside in the community and are therefore privy to certain information that is not given up easily to outsiders. Secondly, the knowledge our community members have will prove useful during in-depth interviewing when the technique of prompting is needed.

Following intensive training, we will have our qualified participants conduct interviews and community surveys. The data will be preserved for future generations and subsequent TK and scientific research, but the immediate use will be in the mapping project and adaptation planning that follows. Once the TK portion of the research is complete, we propose to carry out a scientific study that examines the implications of climate change in the area. We are interested in how our people will be affected, how wildlife and their habitats will be impacted, and what the possible solutions to negative effects are. Moreover, we will endeavour to merge science, policy and TK. We will use this union to navigate the best path for combating negative effects of climate change and global warming.

Rationale

Traditional dependence on water, ice, flora, and fauna has been the Inuit way of life for countless generations and it has carried over into the modern society. Food, water, and living conditions are all at stake as the environment undergoes change. More daunting still is the notion that as the environmental conditions change, so too will our ability to lead traditional lifestyles.

For centuries, the Inuit have relied on the land to harvest animals and fish, and collect plants, berries and firewood. Moreover, reliance on fresh spring water while on the land is immense. People are familiar with particular sources of potable water, and if these sources become unsafe, health problems for Inuit may arise.

The land and ice are not only used for basic survival in the sense of food and water, but also provide the route by which these necessities are found. The landscape serves as a travel route to access food and water. Having used these routes for generations, people have a sense for the safe and dangerous areas of the landscape. There are areas of ice, for instance, that are prone to late freezing and early thawing. As the climate changes, these areas may spread and the passages that were once considered safe may become dangerous for travel.

Moreover, community and mental health may be threatened as people attempt to adapt to these changing conditions. People have come to use the land as a way to define who they are and to define their familial relationships; much of Inuit identity is based on relationships to the land and sea. If these traditional lands are altered to a point where they are unrecognizable, there is a risk that Inuit will lose touch with their traditions and consequently lose their sense of identity. While physical dangers can occur from a changing landscape, impacts to mental and emotional health may also occur.

This project will benefit the Inuit of North West River in several ways. First, through training and project implementation, existing traditional knowledge will be preserved. Second, by putting these research skills into action, important data will be collected and in turn will help focus climate change adaptation planning. Out of this we expect to develop tools that will help us incorporate tradition into the changing landscape and learn techniques that have been used to deal with change in the past. We also hope that these data can be used to direct future studies. Our data will serve as an important model to help other northern communities minimize the threat of and adapt to climate change.

Methodology

This project will rely on various methods of research. Sivunivut is limited in its capacity to offer training to the community or conduct research; however, we have partners who are prepared to work with us to make this project a success.

Firstly, we will collaborate with university researchers to train the community members who will be responsible for the data collection. These people will be trained in how to conduct tape-recorded interviews and how to administer surveys. Once these individuals have the skill sets needed to meaningfully engage in research, Inuit youth will be working within the community to collect information from Elders, as well as other citizens who are bearers of traditional knowledge. While we will engage in comprehensive methodological training with university researchers, we recognize that research skills are the result of years of training and cannot be developed overnight. Therefore, we are preparing to collaborate with the Institute throughout our study, from collection to analysis and reporting. As a result of our strong partnership, we feel we will be able to successfully conduct community driven research that bridges traditional and academic knowledge with positive implications for planning and policy development.

We will form a small advisory board made up of community representatives, as well as representatives from the Labrador Institute of Memorial University (LI or the Institute) and Sivunivut. The purpose of such a committee will be to guide the development of best practices for merging cultural sensitivities with academic procedures. We are dedicated to the success of this project, but only insofar as it does not alienate our participants. The advisory board will aid in the construction of thorough and complete survey questions and interview prompts.

In-depth interviews will be conducted with knowledgeable Inuit in the community. These people will be asked about the land, food, and water sources. Moreover, they will be encouraged to provide detailed narratives of their experiences and identify important regions, areas, and habitats. The data obtained from these interviews will be cross-referenced with data obtained through a community survey. Once the data sets have been collected and analyzed, we envision the placing of particular data

on maps that will be interactive and detail-oriented. This will be accomplished through the use of GIS software.

Before our research findings are finalized, we will be conducting community meetings to present the data and ask for clarification and/or further details. These meetings will allow us the opportunity to be sure we have not misinterpreted the data during analysis, and to gather further information by prompting participants with the details from other interviews. Certainly, these meetings will serve as a kind of focus group as we proceed through the horizons of meaning.

The work we propose will be done in the community of North West River and surrounding area. We will involve the community in all steps of the work from collection to reporting. Our citizens will collect data, provide data, and aid in the analysis of data. We will also work with various partners including university trainers who are experts in data collection, analysis and scientific methods. We will also rely on the Nunatsiavut Government to provide support in the form of GIS expertise. Through these various partnerships, we will guarantee quality research that is both community oriented and scientifically sound.

Activities/Outcomes

The research activities of this project – namely Elder interviews, community surveys, and GIS mapping – will lead to various deliverables. As previously mentioned, in-depth interviews and community surveys will be conducted in order to gather traditional knowledge that will be recorded on maps and subsequently digitized using GIS technology. These activities will result in a large database of traditional knowledge that will be archived, used for adaptation planning, mined by future generations of Inuit. The information gathered from the interviews and survey will also inform the mapping project that will become an interactive and visual experience which Inuit youth will use to connect the past, present and future. While we have been referring to the outcomes as “data”, the information is much more than this and should be viewed in the sense of “tradition”. Certainly, they will form a part of the living traditions of the Inuit of North West River.

We plan to involve community participants throughout the process of this research. Once we have collected the information, we will conduct community meetings to further inform the study, and allow us to refine the TK mapping and follow-up studies. The final results of our research will be posters, reports, and maps. We envision posters as a forum through which to communicate important information en masse. Reports will be written and made available in plain language to summarize the information collected. We will complement our written reports with a series of maps.

Partners

The Labrador Institute of Memorial University is based in Goose Bay and has staff with expertise in a wide range of disciplines including: health research, natural resources, traditional knowledge, mapping, sociology, archival storage, and the preservation of multimedia materials (video, audio). Starting in April 2010, the Institute will have a visiting post-doctoral fellow (Dr. Johanna Wolf) who specializes in climate change adaptation of Inuit communities. It should be noted that the Institute was recently awarded Arctic Research Infrastructure funding to enhance its research centre in North West River, and if successful this proposal will be the first project to make use of these new facilities and resources. Sivunivut feels that the Institute is in a unique position to support this project, due to its expertise, infrastructure, and community ties. Consequently, Sivunivut has been in detailed discussions with the Institute and have secured their support for this project.

The Nunatsiavut Government (NG) is our other major project partner. The Nunatsiavut Government was created as a result of Labrador Inuit Land Claims Agreement and is the governing body for the Labradorimut. The Lands Division of NG has agreed to provide support in the form of a GIS

technician and also provide access to specialized GIS software as required. Information from this study will help inform NG's land use planning and natural resource management.

Capacity Building

We are confident that this project will increase the capacity of North West River-rimiut to collect and interpret data. The result will be a community that is more empowered and as such will have the ability to reduce risks associated with climate change by a) better understanding existing and future ice conditions in the spring and fall; b) locating alternative sources of potable water, c) identifying current water resources that are threatened; (d) identifying alternative harvesting locations and e) identifying those species and habitats that can be better protected.

Traditional Knowledge

Traditional knowledge is the cornerstone of Inuit survival; it has allowed the Inuit to flourish in the harsh northern climate for centuries and will allow them to continue their way of life in the future. This project will use traditional knowledge to map culturally significant areas on the land and sea with emphasis on fresh water, sea ice, animals, and their habitats. The data will inform the community and direct future studies. Moreover, the TK collected will be preserved and archived and made available to Sivunivut as required.

By having our community members (youth in particular) collect the data, we hope to facilitate knowledge mobilization to future generations of Inuit. Furthermore, we are hopeful that our project will be used to inform other communities in Nunatsiavut and elsewhere as they begin developing their own climate change adaptation plans. Sivunivut will retain ownership of the data resulting from this project, but has agreed to allow the Labrador Institute to act as long term custodian of the data via its archive. Special publication privileges may be provided to the Institute and its staff upon consultation with representatives of Sivunivut.

Work Plan and Timelines

Project Activities	Timeline	Factors Affecting Timeline
Hiring individuals to conduct survey and interviews	30 days	<ul style="list-style-type: none"> • Number of applicants • Availability for interviews
Collaborating with university trainers	14 days	<ul style="list-style-type: none"> • Availability for travel • Number of people to train
Methodological training for community members	5 days	<ul style="list-style-type: none"> • Scheduling of trainers and trainees • Weather • Facility rental
Survey and interview development	30 days	<ul style="list-style-type: none"> • Availability of university reps., Sivunivut, advisory board, and researchers
Community consultations	1 day	<ul style="list-style-type: none"> • Availability of participants
Elder interviews and surveys	75 days	<ul style="list-style-type: none"> • Availability of participants
Interpretation and data analysis	30 days	
Field research	50 days	<ul style="list-style-type: none"> • Availability of charters • Weather/trail conditions
Community meetings	1 day	<ul style="list-style-type: none"> • Availability of participants
Report preparation, poster production, map generation	30 days	<ul style="list-style-type: none"> • Clarity of information • Availability of NG service providers
Community reporting	2 days	<ul style="list-style-type: none"> • Scheduling of participants • Facility rental

Budget

Expense	Description	Health Canada Funding Request	Funding from Other Sources (including in-kind)	Comments
Core Expenditures				
Salary	Honoraria for community members	\$ 11,250.00	\$ -	\$150.00 per day per person for 75 days.
Salary	Senior Community Researcher	\$ 17,500.00	\$ -	\$25 per hour
Salary	Junior Community Researcher	\$ 14,000.00	\$ -	\$20 per hour
Professional Services	Project design and oversight	\$ 16,450.00	\$ -	LI staff (\$70 per hour for 235 hours)
Translation	Nunatsiavut Government	\$ 5,000.00	\$ -	\$50 per page for 100 pages
Training fees	LI staff	\$ 6,580.00	\$ -	7 days (2 persons), 7 days (1 person)
Transportation, accommodation, and meals	Ground transport, boat charters, snowmobile charters, meals	\$ 15,050.00	\$ -	50 days on the land
Equipment and facilities	Audio/video equipment, laptops, and software	\$ 21,460.00	\$ -	
Other	Preparation of data for Internet publishing	\$ 5,000.00	\$ -	\$50 per hour for 100 hours
Other	Wellness expenses for community meetings	\$ 1,680.00	\$ -	

Core Expenditures Subtotal 1	\$ 113,970.00	\$ 113,970.00	\$ -	
Administrative/Management Costs				
Office materials/supplies		\$ 500.00	\$ -	
Copier and photocopies		\$ 500.00	\$ -	
Telephone and telecommunication		\$ 200.00	\$ -	
Material and equipment rental	In-kind from Nunatsiavut Government	\$ -	\$ 5,000.00	GIS Software
Maintenance and repairs		\$ -	\$ -	
Postage, shipping and handling		\$ 500.00	\$ -	
Accounting fees		\$ -	\$ -	
Human resources, pay services	In-kind from Nunatsiavut Government	\$ -	\$ 10,800.00	Salary: Sivunivut chair, GIS specialist
Other	Office space rental	\$ 2,400.00	\$ 5,000.00	NG in-kind (\$5000)
Other				
Admin Subtotal 2	\$ 24,900.00	\$ 4,100.00	\$ 20,800.00	
Total Cost of Project	\$ 138,870.00	\$ 118,070.00	\$ 20,800.00	

Project Evaluation

This project relies heavily on the community's traditional knowledge with respect to the risks and dangers posed by climate change. Although we will be collecting information from various community members through interviews and surveys, we plan to hold community meetings to vet our findings before they are formally reported. On occasion, meanings can be lost during the data analysis phase of research, but through the community consultation process, we hope to alleviate these issues by first revisiting our data with the community to which it belongs. We hope this process will allow us to clarify the information and expand upon particular issues as required. As this project is entirely composed of community-based TK collection, we are confident that presenting the data back to the people and asking for their feedback is the ultimate technique to evaluate our success. Moreover, the use of non-technical reports, posters, and maps will aid Sivunivut in reiterating our findings.

Communication and/or Results Reporting Plan

As mentioned above, we will create numerous opportunities to report our findings to the community. Prior to project start, we will hold community consultation sessions to provide a context and background and allow for community input on topics and themes to research. Once data collection has been completed, we will host additional community meetings and provide a project update, identify adjustments to the timeline in terms of final reporting, and assess overall success of the project. Our advisory board will be heavily involved in the assessment of our information and the presentation of it to the community. We will rely on board expertise for background and context of the themes identified in the data and will expect their guidance throughout the reporting process. Once a draft report is complete we will hold our last community reporting session, which will allow us to approve our final report.

We will make use of a variety of reporting mechanisms. For those who are interested in a detailed explanation, we will have a non-technical report available. We will also have maps created using the data collected; these will be interactive and computer based. In addition, we will be developing a companion website for the project. This will not be stand-alone; rather it will be incorporated into the existing websites of Sivunivut. Finally, we will design and print a line of bilingual posters that will display a concise presentation of our findings; these will be distributed throughout the community and the area. As an agency of the Government, Sivunivut will use NG Inuttitut translation services for all the documents we produce.

The information from our research project will then inform and direct the writing of a draft climate change adaptation plan. However, in order for the adaptation plan to be successful, it will require additional consultation with government bodies and policy makers beyond the boundaries of Sivunivut. The adaptation plan will not be completed by the end of project funding.

Appendix A: Applicant Biography

Edward Tuttau is the current Chairperson of the Sivunivut Inuit Community Corporation. This is an elected position Mr. Tuttau has held since December 2007. In his capacity as Chairperson, Ed represents the Inuit of North West River and Sheshatshiu in the Nunatsiavut Assembly. He is the lead on this project.

Mr. Tuttau was born in Hopedale, in northern Labrador, in 1965. His family moved to Happy Valley seeking employment when he was 4 years old. He received his formal education in Happy Valley, graduating from Goose High School in 1985. Ed studied at Memorial University and has since worked in various managerial positions, the most recent being Team Leader of the Nunatsiavut Department of Health and Social Development community office in North West River. Ed has lived in NWR since 1998 and is involved in the community in a variety of capacities



Mr. Tuttau is involved in a number of volunteer committees. He has been a member of the North West River Town Council, he is chair of *UKausituKavuttinik Utittisigausalinnik* (NWR Inuktitut Language Committee), a member of *Inuktitut UKâlalautta katimajinget* (Regional Inuktitut Language Committee), Chair of *Television Community Recreation* (local community channel), and a board member of Iliget Community Partnerships Inc. He has recently been selected as the NWR board member of the OKâlaKatiget Society. Ed is Co-chair of the *Nunatsiavut Health and Environment Review Committee*; a committee that is funded by the Northern Contaminants Program that is meant to communicate and educate Labrador Inuit on long-range contaminants in traditional foods and health issues associated with contaminants in the region.

Mr. Tuttau is a beneficiary of the Labrador Inuit Land Claims Agreement. He leads and Inuit way of life and frequently takes part in traditional harvesting. Ed enjoys spending time in the country and considers the land an important aspect of his identity. Aside from his personal activities on the land, Ed has a background in natural resources and biology through his education and involvement in the community of North West River.

Appendix B: Co-Researcher Biography

K eith Chaulk is the Director of the Labrador Institute of Memorial University. Keith has a PhD in Cognitive Behavioural Ecology from Memorial University of Newfoundland, MSc in Biology from Acadia University, and BSc in Biology (advanced major) from Dalhousie University. Dr. Chaulk is also an Inuit-Canadian from North West River, and is a beneficiary of the Labrador Inuit Land claim agreement.

Dr. Chaulk was previously employed as the Chief of Staff for the Nunatsiavut Governments (NG) Department of Lands and Natural Resources and sat on the NG Land Use Planning Authority; Keith has detailed knowledge of Labrador Inuit Land Claims Agreement, and Inuit land use and occupancy. Keith has also been employed as a Biologist with the Canadian Wildlife Service; Research Scientist and Renewable Resource Coordinator for the Labrador Inuit Association; and Project Manager with Environment Canada and has worked on numerous traditional knowledge projects in the areas of natural resources. Keith is a past recipient of a Nasivvik PhD scholarship in the area of Inuit Environmental Health.



In his spare time, Keith enjoys spending time at his cabin and taking part in traditional harvesting activities. Having been born and raised in North West River, Keith is familiar with the land and has dedicated his academic career to studying the environment of Labrador.

Letter of Support – Nunatsiavut Department of Lands and Natural Resources



Nunatsiavut
kavamanga Government

Nunaligninikmik amma
Nunamiutanik Ujaganik Imaniklu

Lands and Natural Resources

January 19, 2010

Mr. Ed Tuttauk
Sivunivut Inuit Community Corporation Inc.
General Delivery
North West River, NL
A0P 1M0

Dear Ed:

**RE: TRADITIONAL LOCAL FRESHWATER SOURCES AND
HISTORICAL HAZARDOUS ICE AREAS IN LAKE MELVILLE**

On behalf of the Nunatsiavut Department of Lands and Natural Resources, I would like to express support in your initiative with for this research project which includes the use of traditional knowledge. As well, the findings from this type of research should prove beneficial for safety reasons because of the changes over time of the ice conditions in this area and its effect on animal species traditionally harvested in this area.

Sincerely,
NUNATSIAVUT GOVERNMENT


Doug Blake
Deputy Minister

17 Sandbanks Road, PO Box 70, Nain, NL, Canada A0P 1L0 ▶ Tel: 709.922.2942 Fax: 709.922.2931 ▶ Email: nain_reception@nunatsiavut.com

Makkovik
PO Box 92
Makkovik, NL A0P 1J0
Tel: 709.923.2385
Fax: 709.923.2386

Hopedale
PO Box 91
Hopedale, NL A0P 1G0
Tel: 709.933.3777
Fax: 709.936.3746

Rigolet
PO Box 47
Rigolet, NL A0P 1P0
Tel: 709.947.3389
Fax: 709.947.3371

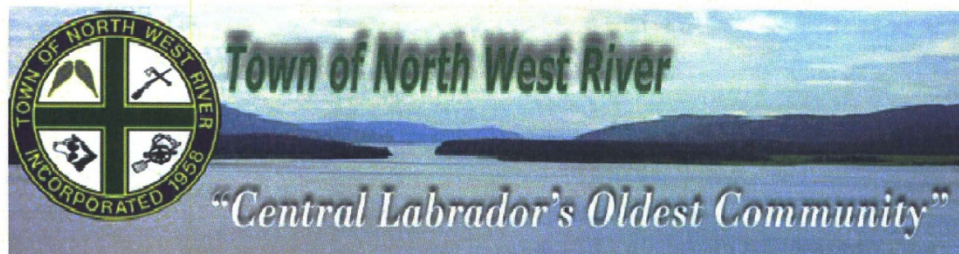
Postville
General Delivery
Postville, NL A0P 1N0
Tel: 709.479.9880
Fax: 709.479.9891

Happy Valley - Goose Bay
1A Hillcrest Road, PO Box 909, Stn. 'B'
Happy Valley - Goose Bay, NL A0P 1E0
Tel: 709.896.8582
Fax: 709.896.2610

North West River
7-10 River Road, PO Box 234
North West River, NL A0P 1M0
Tel: 709.497.8356
Fax: 709.497.8311

www.nunatsiavut.com

Letter of Support – Town of North West River



January 20th, 2010

Sivunivut Inuit Community Corporation Inc
P.O. Box 289
North West River, NL
A0P 1M0

Dear Mr. Tuttauk;

Re: Climate Change and Health Adaptation in Northern First Nations and Inuit Communities Program

We are pleased to add our voice in support of the above application for funding from Health Canada.

This should provide additional valuable resources for our citizens as they deal with the effects of global climate change.

Yours very truly,
Town of North West River

A handwritten signature in blue ink, appearing to read "Ernest McLean".

Ernest McLean
Mayor

Letter of Support – Labrador Institute of Memorial University



Labrador Institute

Labrador Institute
P.O. Box 490, Station B, Happy Valley-Goose Bay, NL Canada A0P 1E0
Tel: 709.896.6210 Fax: 709.896.2970 www.mun.ca/labradorinstitute

March 24, 2010

Mr. Ed Tuttauk
Sivunivut Community Corporation Inc.
1 Mission Road
P.O. Box 289
North West River, NL A0P 1M0

Dear Mr. Tuttauk:

Please accept this letter as a gesture of support and commitment from the Labrador Institute for Sivunivut's submission to Health Canada's *Climate Change and Health Adaptation in Northern First Nations and Communities Program*.

The Labrador Institute believes that this research will benefit the community in the short and long term. The information will inform future generations of Inuit, and aid the development of the community's climate change adaptation plan. The Institute firmly believes that youth training is an important step for overall community health and sustainability.

The Labrador Institute supports the research objectives and will provide you with the expertise and resources necessary to make this project a success. We look forward to a positive response from Health Canada and wish you the best of luck in your research.

Sincerely,

A handwritten signature in blue ink, appearing to read "Keith Chaulk".

Keith Chaulk, PhD
Director

Appendix C: Response to Selection Committee Questions

1. The Committee would like you to expand on your methodology to include aspects like:

- a. **How many youth will be involved?**

Sivunivut will be hiring two youth² to work on the project. We anticipate the Junior Research position will be filled by an individual who has recently graduated from High School and the senior research position will be filled by someone who has been out of High school for a few years, and has had the opportunity to gain some life/work experience.

We will also make a concerted effort to involve youth in the community consultation and dissemination sessions. It is unlikely that they will have extensive land use knowledge; but including them in the consultation and dissemination sessions, along with elders and other knowledge bearers, will further develop their understanding of issues relating to climate change and the importance of community participation and traditional knowledge to their culture and society.

Furthermore, we plan to use a portion of the “fieldwork” budget to organize a participation session, where elders and knowledge bearers will demonstrate and involve youth of all ages in the application of Inuit ecological knowledge on the land, over a minimum of three days. This will be set at one or more of the significant locations identified during the course of the community consultation and interviews; which will highlight the history and the significance of Inuit traditional knowledge in respect to these important locations.

- b. **How will participants be selected?**

A list of elders and other individuals with land use and traditional knowledge will be compiled during the initial public consultation meeting. These people will be contacted for interviews. Interviewees will also be asked to suggest people they feel should be contacted. If these individuals do not already appear on our list they will be added.

The two individuals hired will be selected based on their interest and qualifications, including their knowledge of the environment and the community.

- c. **How will data be analyzed?**

This is project to collect and record traditional knowledge. Each public consultation and dissemination meeting will be video recorded. The site specific data gathered from each participant will be recorded on 1:50000 NTS maps and then entered into a GIS database. Data sheets created for each site identified will include, but may not be limited to: a map indicating the site location; the resource category (i.e. spring, open winter water, or seal whelping location); a description of the site environment; the period of use; the antiquity of use; the cultural significance (e.g. stories or specific events associated with site); and the name and contact information for the site informant. Each public consultation and dissemination meeting will be video recorded.

This GIS database will be developed into a web-based resource accessible through Sivunivut Corporation website and/or other web portal (Labrador Institute), where the site specific

² People under the age of 29 are considered youth by Nunatsiavut government program guidelines.

information can be viewed in summary and detail. Also, a hardcopy document summarizing the locations and number of each site type identified, and the concerns of the community in relation to potential impacts to these sites and land use activities as a result of climate change will be produced. Where appropriate, access to some information may be protected (e.g., location of archaeological sites, location of nest sites of protected species, etc).

The research project will be overseen and guided by Scott Neilsen, a research associate with the Labrador Institute and PhD candidate in Anthropology at Memorial University. Mr. Neilsen is permanent resident of Northwest River, and has a long-term interest in heritage and ecological issues in Labrador. He will be involved in all aspects of the project from training and planning to data collection and reporting.

Once compiled the results of this project, i.e. the dataset will become the foundation of Sivunivut's long-term research goal, which is to monitor, document and appreciate the interplay between environmental and cultural transformation, in an effort to maintain an Inuit identity into the future.

d. Will youth be involved in analyzing data?

The two youth employees will be heavily involved in all aspects of the data collection, compilation and presentation for the project.

Youth, other than the two hired, will also be invited to take part in the training component of the project, provided by Mr. Neilsen, in anticipation of requiring additional researchers to complete the subsequent stages of Sivunivut's long-term research goal.

If additional funding is secured and the research proceeds into years two, three and beyond, these youth will continue to gain experience, and will likely begin to undertake portions of the research on their own, with Mr. Neilsen being available to provide guidance as needed.

2. Will four days be enough time to consult with community?

Yes. These four days are not for individual interviews, but are set aside as community consultation/open houses. These will be used to introduce the project, seek guidance, update our progress, and disseminate results.

Northwest River is a small community and typically has an engaged citizenry. We anticipate interest in this project to be high, and with proper advertising/invitation it should not be difficult to have a good turn-out at these community sessions. We will also set up an e-mail address, and informal review/comment area for the project at the Town Office, so people who may not feel comfortable in a public setting, or who may not be available during the days of our community sessions will be able to provide feedback to the project personnel.

3. Is there a long term plan that will sustain this work past the one year of funding?

Yes. Sivunivut has very concrete ideas on how we would like to proceed with future research, growing directly from this preliminary data collection process (Stage I).

Stage II of the project will involve a significant amount of fieldwork and primary scientific data collection. All of the sites identified during Stage I will be visited and documented

during Stage II. Each site will be recorded in detail through photographs, video and field notes. This data will be added to the Stage I database and analyzed to identify a representative sample of significant Inuit land use locations, which will become the focus of Sivunivut's long-term monitoring study.

Once identified, each location will be revisited to collect and record detailed – baseline – environmental data, including, but not necessarily limited to: water temperature, water sample; air temperature; animal habitat; ice conditions, and vegetation species (and may be monitored over the course of the year). This information will be compiled into an ecological database, which will form the baseline for Stage III.

Stage III will see these particular locations monitored over a number of years. Changes at each location will be recorded and quantified, along with the impacts on the Inuit use of each location. Not only will this provide valuable information on how the Inuit in the region adapt to environmental changes that are on-going over a period of time, the multi-year, site specific database will prove invaluable to scientists in any number of disciplines in the future.

More immediately, the land use information, i.e. knowing where these significant environmental features are on the landscape, will provide information for researchers and regulators in fields such as archaeology and cultural resource management, who can use this data to predict the locations of historic and more ancient cultural sites, which are under increasing destructive pressure from human activity (e.g. mining, roads, cabins, etc) and climate issues (e.g. sea level rise). Sivunivut currently has no specific plans in this field but is well aware of the possibilities/needs and hopes to pursue this, and other research avenues in the future, which will stem directly from the data and experience acquired during this initial, Stage I, data gathering project.

4. The Committee thought that 75 days of interviews and 30 days for analysis would not be enough time.

As stated above, Northwest River is a small community with a small population. Given this and our well developed research plan we feel that 75 days is ample time to conduct our interviews. And, as described above, analysis will be on-going throughout the life of the project as data is gathered during the community consultations sessions and interviews; therefore, the 30 additional days will ensure we are able to compile our database in a clear and presentable manner.

5. Please provide more information with regards to the field work.

As envisioned for Stage I, with which this application is concerned, fieldwork may include limited trips on the land with an interviewee who is unable to identify a particular location on a map. For the most part however, the fieldwork is more of a fieldtrip, where we will involve elders, other community members with knowledge of the land and youth to a multi-day land-based workshop (see answer to 1a).

6. The Committee would like more information on how data will be stored.

Hard copy data collected during the consultation sessions and interviews will be stored on maps and in note books. At the completion of the project this information will be placed in the archives at the Labrador Institute. Digital data will initially be recorded on project

computers, but will be backed up and stored on external hard drives in the Labrador Institute Archives and at the Sivunivut office. As stated above, a web-based version of the database will also be created. Video recorded will be in digital format, with copies at the Labrador Institute Archives and Sivunivut office. Copies of the reports produced will also be made available in both locations.

If funds allow, we also hope to produce project information posters which will be placed in the Northwest River School, the Labrador Interpretation Centre and the Northwest River Town Hall.

7. Budget Breakdown.

i. Equipment:

Item	Price/Unit	Quantity	Cost
Handheld Digital Camera	\$1,000.00	2	\$2,000.00
Digital Video Camera (high definition)	\$4,500.00	1	\$4,500.00
Camera Accessories (mics, cases, stands, etc)	\$3,000.00	1	\$3,000.00
Storage media			
blank cd's	\$50.00	2	\$100.00
blank dvds	\$20.00	8	\$160.00
flash drives	\$50.00	4	\$200.00
external hard-drives	\$600.00	3	\$1,800.00
Laptop computers	\$1,300.00	3	\$3,900.00
mapping software (map info for windows)	\$3,000.00	1	\$3,000.00
GPS units	\$700.00	4	\$2,800.00
Total			\$21,460.00

ii. Honoraria are listed at \$150 per person. How many people does that include?

The amount listed is based on the number of person days required to complete the interviews. We had anticipated 75 days to complete the interviews, however more than one person maybe interviewed in any one day.

iii. Preparation of data for internet publishing: there are amounts but who is doing this?

The preparation of data for internet publication will be conducted by staff at the Labrador Institute and by staff hired under funding from this project.