A Socioeconomic Review of

Nalcor Energy's Environmental Impact Statement

Regarding the Proposed Lower Churchill Hydroelectric Generation Project

FINAL REVISED

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1.0 Project Background

In 2007, the Government of Newfoundland and Labrador created Nalcor Energy to assume oversight of energy development and production in Newfoundland and Labrador. Nalcor Energy has five business lines: Newfoundland and Labrador Hydro, Churchill Falls, Lower Churchill Project, Oil and Gas and Bull Arm Fabrication.[1] Of interest here is the proposed Lower Churchill Project in the Lower Churchill watershed.

The Churchill River watershed encompasses 92,355 km^2 in central Labrador. It extends from Lake Melville in the east to past the Smallwood Reservoir in the west. The Churchill River flows into Lake Melville, which is a large estuary. Lake Melville, in turn, flows into the Labrador Sea.[2]

Nalcor Energy currently operates the Churchill Falls Generating Station. The Generating Station began producing power in 1971 and has eleven turbines with a rated capacity of 5,428 megawatts. In 2008, more than 34 terawatt hours of electricity was produced, the majority of which was sold to Hydro-Québec through a long-term power purchase contract that expires in 2041. Most of the remaining production is used for mining operations in Labrador West and Hydro's Labrador Interconnected System.

Notwithstanding its current output, the Churchill Falls Generating Station's only harnesses about 65% of the potential generating capacity of the Churchill River. The remaining 35% capacity is located at two sites on the lower Churchill River: Gull Island and Muskrat Falls.[3] Gull Island is located approximately 100 km southwest of the Town of Happy Valley-Goose Bay in Labrador. Muskrat Falls, near upper Lake Melville, is 30 km to the southwest of the Town of Happy Valley-Goose Bay in Labrador

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[1] Source: http://www.nalcorenergy.com/nalcor.asp, retrieved on September 9, 2009.
[2] Nalcor Energy. Lower Churchill Hydroelectric Generation Project Environmental Impact Statement, Volume 1, Part A, Project Planning and Description. Chapter 4, Project Description, section 5.0, p. 5-1.
[3] Source: http://www.nalcorenergy.com/content.asp?page=424, retrieved on September 9, 2009; http://www.nalcorenergy.com/content.asp?page=317, retrieved on September 9, 2009.

Nalcor intends to construct hydroelectric generation facilities at Gull Island and Muskrat Falls. Collectively, this expansion of the Churchill Falls Generating Station is known as the Lower Churchill Hydroelectric Generation Project (Lower Churchill Project). In fact, the concept of the Lower Churchill Project is not new. Once the Churchill Falls Power Station was operational in the early 1970s, planning began for the generation of more power on the Churchill River. In 1980, a proposed development on the lower Churchill River was designed and a full Environmental Impact Statement was produced and progressed through a regulatory review, including public hearings. That project was approved but did not proceed. However, in 2006, a new proposed project for assessment was registered under the provincial and federal environmental assessment processes.[4]

The proposed Lower Churchill Project will involve the construction and operation of hydroelectric generation facilities at Gull Island and Muskrat Falls and interconnecting transmission lines to the existing Labrador grid or elsewhere (the final destination of the proposed new electrical power is un-determined). The Gull Island location will consist of a generation facility with a capacity of 2,250 MW and include a dam and a reservoir. The Gull Island Reservoir will be 232 km long. The area of land that will be flooded as a result of creating the Gull Island Reservoir is 85 km^2. The Muskrat Falls location will consist of a generation facility 824 MW and a reservoir that is 59 km long. 41 km^2 of land will be flooded with the creation of the Muskrat Falls reservoir. The transmission lines will consist of a 735 kV link between Gull Island and Churchill Falls and a double circuit 230 kV transmission line between Muskrat Falls and Gull Island. The 735 kV transmission line will be 203 km long and the 230 kV transmission line will be 60 km long. Both lines will be north of the lower Churchill River generally parallel to an existing right-of-way and the tower structures will be built lattice-type steel. [5]

It is anticipated that the Lower Churchill Project's two installations at Gull Island and Muskrat Falls will have a combined capacity of over 3,000 MW and has the potential to provide 16.7 terawatt hours of electricity per year. It is being touted as a clean, green renewable energy initiative, claiming that it could displace over 16 megatonnes of carbon dioxide emissions annually. This is the equivalent to annual greenhouse gas emissions from 3.2 million cars.[6]

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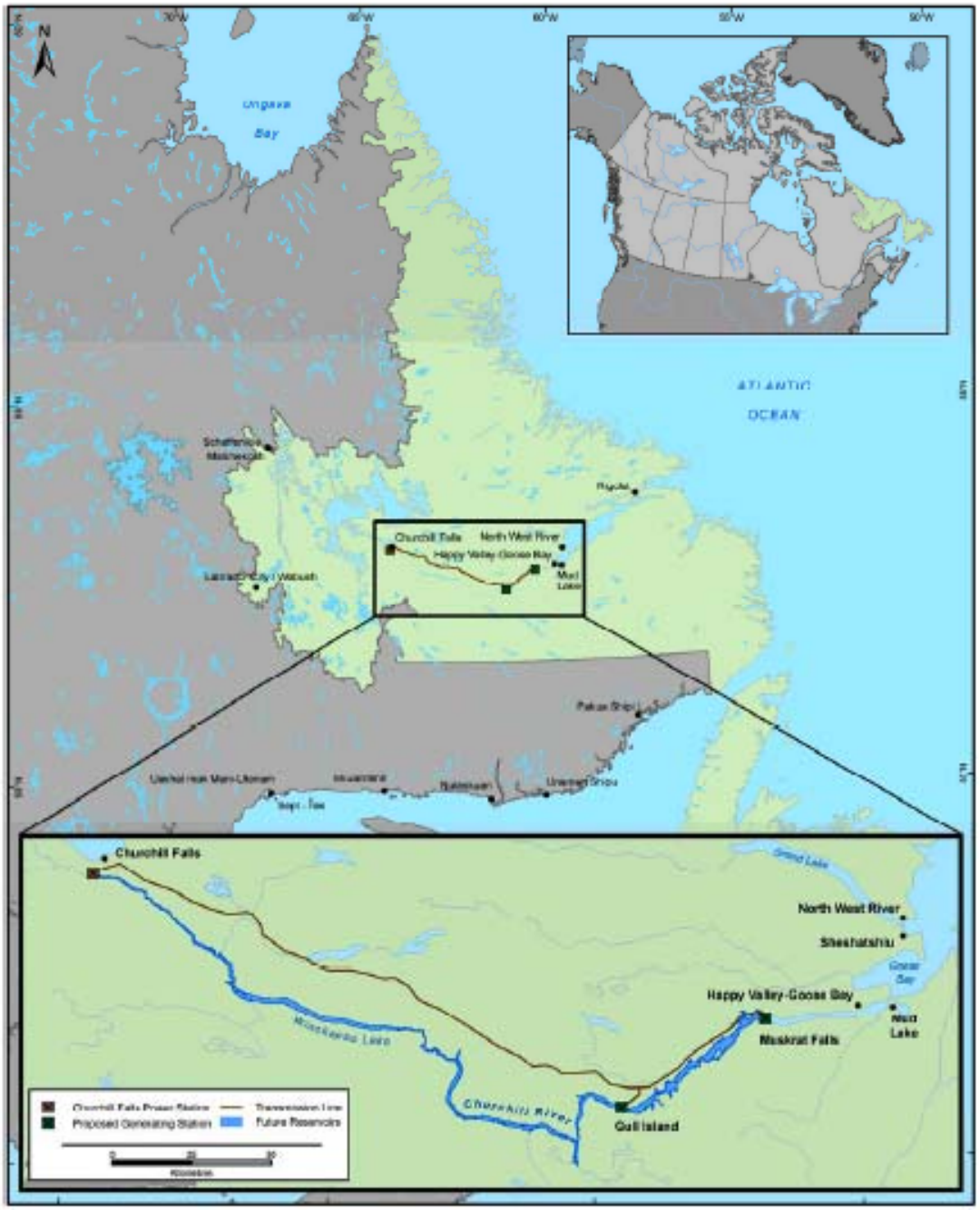
[4] Source: http://www.lowerchurchillproject.ca/LCWeb/LowerChurchill.nsf/GeneralDocs/9455C7B3A5027EFEA32572050057F4BC?OpenDocument&menucat=Environment&submenucat=&linkname=Environmental%20Assessment%20Registration, retrieved on September 9, 2009.

[5] Source: http://www.lowerchurchillproject.ca/LCWeb/LowerChurchill.nsf/GeneralDocs/9455C7B3A5027EFEA32572050057F4BC?OpenDocument&menucat=Environment&submenucat=&linkname=Environmental%20Assessment%20Registration, retrieved on September 9, 2009.

[6] Source: http://www.nalcorenergy.com/content.asp?page=317, retrieved on September 9, 2009.

The map[7] below depicts the location of the proposed Lower Churchill Hydroelectric Project within the region, province, and country. It demonstrates the location of the existing Churchill Falls power station, the two proposed generating stations, the transmission line, and future reservoirs. The Gull Island site is approximately 100 km southwest from the Happy Valley-Goose Bay, Labrador between Gull Island Rapids and Grizzle Rapids, just upstream from Gull Lake on the Churchill River. The Muskrat Falls generation site is also located on the Churchill River and is approximately 30 km southwest of Happy Valley-Goose Bay.[8]

[7] Nalcor Energy. *Lower Churchill Hydroelectric Generation Project Environmental Impact Statement, Volume 1, Part A, Project Planning and Description*. Chapter 1, Introduction, section 1.1, p. 1-2.
[8] Nalcor Energy. *Lower Churchill Hydroelectric Generation Project Environmental Impact Statement, Volume 1, Part A, Project Planning and Description*. Chapter 4, Project Description, section 4.2, p. 4-1.



Nalcor Energy has prepared an Environmental Impact Statement to identify the anticipated environmental effects of the Lower Churchill Project and to propose management measures to mitigate adverse environmental effects and enhance positive environmental effects. [9]

[9] Source: http://www.lowerchurchillproject.ca/LCWeb/LowerChurchill.nsf/GeneralDocs/9455C7B3A5027EFEA325

In response to Nalcor Energy's Environmental Impact Statement, the NunatuKavut Community Council mmissioned *Lori Ann Roness Consulting* to conduct a socio-economic review of the Environmental Impact Statement to identify any potential short term or long-term socio-economic impacts of the project, particularly as they pertain to the Labrador Inuit-Metis. *The Aboriginal Affairs Group* was then engaged to conduct relevant socio-demographic comparisons with the most relevant ethnographic populations to those of NunatuKavut: the Inuit of Nunatsiavut and those elsewhere in Canada, and comment on the EIS.

2.0 Research Questions to be Answered

This report will address the following questions:

1. What are the current social and economic conditions of the NunatuKavut Inuit?
2. What are the potential adverse and positive effects of the project on the Inuit- of NunatuKavut?
3. How can these potential adverse effects be reduced and how can positive effects be improved?
4. How could changes occurring in response to the project be tracked?
5. How could changes caused by the project be managed?

It is to be noted that an accompanying submission by NunatuKavut to the federal Department of Indian and Northern Affairs, and provided as well to the Joint Review Panel, the Proponent and to the Province of Newfoundland and Labrador, addresses a separate range of matters, including:

1. The historical/traditional use and occupancy of Inuit and their descendent communities of NunatuKavut within the project area;
2. The Treaty relationship of south-central Labrador Inuit and their successors in NunatuKavut with the Crown;
3. Contemporary or current use and occupancy within the project area and in down-stream south-central coastal areas and communities; and
4. Detailed demographic analysis of NunatuKavut's communities in relation to historic origins and the emergence of today's membership.

3.0 Overview of NunatuKavut

The Inuit ancestors of the people of NunatuKavut lived in the land now known as Newfoundland and Labrador from time immemorial. European fishermen began

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72050057F4BC?OpenDocument&menucat=Environment&submenucat=&linkname=Environmental%20Assessment%20Registration, retrieved on September 9, 2009.

arriving in the area seasonally in the early-mid 16th century, and uniformly report encountering our ancestors – even to the point of requesting armed ships to defend themselves from our ancestors' efforts to defend their territorial waters and resources. After the late 18th century, a small number of European men began taking up residence on the coast and entered into trade and marriage with NunatuKavut's Inuit women, as they eventually did as well with Inuit women in the northern (now Nunatsiavut) region. In addition, the British government attempted from 1771 onward to attempt to relocate all Inuit northwards to newly established Moravian trading mission stations. However these efforts, along with several bouts of disease introduced by Europeans, failed to alter the predominance of Inuit occupancy from Cape Charles in the south-east to the islands and shores of south-central Labrador, as well as the interior of Upper Lake Melville.

In 1763, a *Royal Proclamation* was issued that guided the then Governors of Newfoundland, including Sir Hugh Palliser, in their approach to Labrador, including Palliser's negotiation of a treaty with the Inuit ancestors of today's NunatuKavut membership, in 1765. Labrador was specifically mentioned in the Proclamation itself, somewhat strangely, in a provision dealing with Grenada, in which George III asserted "that the open and free Fishery of our Subjects may be extended to and carried on upon the Coast of Labrador, and the adjacent Islands, We have thought fit, with the advice of our said Privy Council to put all that Coast, from the River St. John's to Hudson's Streights (sic), together with the Islands of Anticosti and Magdelaine, and all other smaller Islands lying upon the said Coast, under the care and Inspection of our Governor of Newfoundland."

The Government of Newfoundland had already been established as a seasonal fishing colony in which, as with Labrador, permanent settlement was formally discouraged, if not prohibited. The Newfoundland Governor at the time was an "Admiralty Governor" in that up until Palliser's appointment in 1764 the first British Ship's Captain to arrive in St. John's harbour was named Governor by default. His task was to arbitrate over disputes concerning the seasonal fishery, prohibit settlement, and otherwise maintain the Admiralty's goal of maintaining a merchant marine-fishery that would train and permit manning of the Royal Navy. Labrador was an afterthought to this policy, which was after 1765 one of non-settlement North of Cape Charles, enforcement of exclusive British fishing rights and efforts to reduce conflict for resources by prohibiting settlement by Europeans or American colonists (including those from French Canada) and inducing Inuit further north-west along the newly claimed coast. The latter element of this policy was never successful.

Throughout the 19th century after about 1820 large numbers of "floater fishermen", usually with their families, fished off the coast of Labrador, but very few became "settlers" north of the Straits area and the lower north shore of the St. Lawrence. Up until the mid-20th century, most of the European contributors to today's Inuit descent population in NunatuKavut (by far the majority outside of Happy Valley-

Goose Bay) were comprised of about 30 individuals who left merchant service and decided to integrate into the local Inuit society, were refugees from press-gangs seeking to avoid the perils of European warfare, or were ship-wrecked.

Throughout the 19th century governance over Labrador was slight in the extreme, if it existed at all. Quebec was the sole governance authority from 1774 to 1809, but failed to actually govern. Governance over Labrador was returned to Newfoundland in 1809, towards the end of the Napoleonic wars, only to be largely forgotten, at least between the Straits settlements and the regions under nominal Moravian control, until various Protestant missionary efforts to the region were initiated in the 1820s. Even the territorial boundaries of governance over Labrador were not in fact a settled matter until 1927 with the ruling of the Judicial Committee of the Privy Council (then Canada's Supreme Court) in the *Labrador Boundary Case*. That, however, is a story that is best cited rather than re-cited.[10]

There are over 6,500 NunatuKavut Inuit or Inuit-Metis now living in Labrador. There is a large population in the community of Happy Valley-Goose Bay and majority populations in the smaller communities of Black Tickle, Cartwright, Charlottetown, Lodge Bay, Mary's Harbour, Mud Lake, Norman Bay, North West River, Paradise River, Pinsent's Arm, Port Hope Simpson, St. Lewis, and Williams Harbour. These Inuit have also lived, and continue to live, in other parts of Labrador, as well.[11] The map[12] below depicts the current communities.

[10] See NunatuKavut Community Council (2010) *Unveiling NunatuKavut*, A supplemental submission on land claims made to Indian and Northern Affairs Canada, Chapters One, Two and Three.
[11] Source: http://www.labradormetis.ca/home/33, retrieved on November 30, 2009; Source: http://www.heritage.nf.ca/aboriginal/metis.html, November 30, 2009.
[12] Source: http://www.labradormetis.ca/home/10, November 30, 2009.

The Inuit or Inuit-Metis of NunatuKavut are represented by the NunatuKavut Community Council, Inc, which was formerly known as the Labrador Metis Nation and originally, in 1986, as the Labrador Metis Association. The latter association was originally formed in the 1970s in order to represent the unrepresented and almost entirely Inuit descendants of central/southern Labrador after the Labrador Inuit Association was formed and restricted its membership to persons born in the communities of Rigolet, Postville, Makkovik, Hopedale and Nain. [13]

[13] Source: http://www.heritage.nf.ca/aboriginal/metis.html, November 30, 2009.

4.0 The Current Social and Economic Conditions of NunatuKavut

Socioeconomic and demographic information regarding the NunatuKavut population in general is lacking, if only due to Statistics Canada reporting conventions.[14] Detailed reporting at a provincial level are unavailable for the 2006 Census for Inuit, and comparisons between identity data with earlier (particularly 2001) Census data are hindered. Similar or comparable data are not readily available from the 1996 Census.

There are data provided by Statistics Canada on a broader Inuit basis, but they are reported now according to the Agency's sense of inclusion in what it describes as "Inuit Nunaat" (Inuit homelands) which is defined as including:

- Nunatsiavut (the central/northern Labrador Inuit communities of Rigolet, Makkovik, Postville, Hopedale and Nain);
- Nunavik (northern Quebec), in which there are 13 communities;
- Nunavut (central/high Arctic), in which there are 29 communities; and
- Inuvialuit, in which there are 6 communities, including those shared with the Gwich'in Dene/Metis of Aklavik and Inuvik.

Unfortunately for analysts concerned with Labrador, the 2006 data released at a refined level do not include Inuit respondents from central-southern Labrador other than to lump them together in a cross-country category as "Outside Inuit Nunaat", whether reported as rural or urban. Moreover, the data that have been released on Inuit report only identity data (and single response identity at that). In contrast, we know and have known since the 1981 Census that many Inuit identity individuals in Labrador and especially those residing in or south of the Hamilton Inlet, report their origins and identity differently. Many members of NunatuKavut report their origins as single or multiple origin Inuit, while most continue to report their identity as Metis or multiple identity (Inuit and Metis or Inuit and European).

Nevertheless, the general statistics relating to Inuit, particularly in central/ northern Labrador, in the Inuvialuit (western Arctic) region and in Nunavik (northern Quebec) provide the best apparent basis with which to compare the demographic information that is available from central-southern Labrador. These data are more likely comparators than are Metis data, if only because the people of NunatuKavut are so uniquely coastal and Inuit in origin, rather than having predominately interior and First Nation origins or First Nation-based identities.

[14] Statistics Canada has not to date included NunatuKavut's communities other than Happy Valley-Goose Bay in its practice of 100% coverage by the "long-form" Census or in post-census survey's of designated Aboriginal communities (till 2005, determined by the Federal government solely for Indian reserves or in the Yukon, N.W.T. or Nunavut) or by agreement/sponsorship by provincial governments. NunatuKavut's communities have therefore only been afforded 20% coverage, usually insufficient to allow for release of data.

In addition, it is important to note that of all mixed-descent identity populations amongst Aboriginal peoples today, the membership of NunatuKavut is unique in another way: they do not generally co-habit or overlap areas of use and occupancy with their progenitor ancestor populations, but rather they are the successors of those progenitors. Accordingly, today's membership of NunatuKavut is the modern day manifestation of the Inuit of the historic central-southern Labrador Inuit.

In most of NunatuKavut, this occupancy has and remains exclusive. For example, in the Lower Churchill Falls project footprint up to and beyond Gull Island, this is an area historically and to date dominated by NunatuKavut activity, to the general exclusion of Innu or, until the mid-late 20th century, Europeans or Canadians.

As noted, there are no recent (2006) data reported outside of the four accepted claims areas for Inuit (Nunavik; Inuvialuit, Nunavut and Nunatsiavut). Yet the vast bulk of Labrador Inuit origin respondents fall outside of the Nunatsiavut territory, including some Labrador Inuit Association beneficiaries and, of course, almost all of NunatuKavut's people. They are all, of course, within Inuit Nunaat, but have been 'penciled out' of inclusion in those reported data.

The bias in reportage from Statistics Canada apparently reflects the assertion that all Inuit territories within "Inuit Nunaat" (Inuit homelands) are embraced by the four already completed land claimant organizations. As noted by the Appeal Court of Newfoundland and Labrador in 2008, as upheld by the Supreme Court of Canada (which noted our population as part of its reasoning in 2003 in *Powley*), there is a fifth major group of Inuit in Canada – those of NunatuKavut. It is their story we wish to tell – aided where possible by Statistics Canada data – which this analysis attempts to inform by way of reviewing Nalcor Energy's Environmental Impact Statement on its proposed generation project at Gull Island and Muskrat Falls. Both areas – in most cases exclusively – fall solidly within the historic and pre-historic use and occupancy zone of NunatuKavut.

Demographic Overview

Historically, there were dozens of communities within NunatuKavut with historic connections to Inuit use and occupancy going back some five centuries or more. They were connected by political and social alliance and descent to the only pre-Confederation or early treaty ever formally concluded with Inuit, in 1765 between some 300-400 Inuit at Pitt's Harbour near Chateau Bay and Newfoundland's Governor, Sir Hugh Palliser, aided and abetted by four Moravian brothers recently arrived from Greenland, familiar with Inuktitut dialects and eager to receive missionary licences from the English along the coast of Labrador.[15]

[15] See NunatuKavut (2010) *Unveiling NunatuKavut: Describing the Lands and People of South/Central Labrador*, a supplemental land claims submission presented to the Government of Canada, Chapter

Of these communities, the largest remaining one is the "new" community of Happy Valley-Goose Bay, which did not exist other than as a NunatuKavut seasonal camp base for what appears to be intensive use of the Churchill river bas until the early 1940s, when it was transformed into an American Air base and thereafter became the administrative centre for the entire Labrador territory.[16] The remainder are all small (ranging from 20 – 600 persons), and all majority Inuit in descent, origin and increasingly, in identity, though since 1981's revival of ethnicity data, Metis identity has been a key feature of the population.[17] There are also members of NunatuKavut within the communities nominally included as part of the Labrador Inuit Association (Nunatsiavut) claims settlement area, especially Rigolet, whose families are closely intertwined by filial and other relations with those of Cartwright and Northwest River, just as there are LIA members residing within NunatuKavut's communities, particularly those of Cartwright and Happy Valley/Goose Bay.

In addition, prior to 1966 and the provincial government's forced closure of dozens of small seasonal or permanent communities along northern, central and southern Labrador coast (as in Newfoundland), there were more Inuit settlements along the coastline and particularly seasonal-use (Summer) ones on the outer bays and headlands.[18]

Also of relevance is the recent history in Newfoundland of 'designating' what is 'Native', and often for highly politic reasons. At Union in 1949, Canada and Newfoundland failed to arrive at a clear understanding about responsibilities or jurisdictions over Aboriginal peoples. At the time, Canada was reeling from the costs of a world war and keen to avoid new financial obligations. The Premier of Newfoundland was leery about the potential that the newly enfranchised people of

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Two: "The Labrador Treaty of 1975". Of importance, the Moravians were explicit in seeking mission stations in central/southern Labrador rather than in the area they were eventually, in 1771, afforded accommodation. The main Inuit concentration along the Labrador coast was in from the Hamilton Inlet southwards to Kikertek, or the 'Milles isles' off of modern day Norman Bay, and not at Nain. As a result, as noted in the above mentioned study, the Moravians had a major struggle in trying to establish, let alone maintain, their new-found monopoly over Inuit Christianization and trade.

[16] While most Labradoreans regard Happy Valley/Goose-Bay as their capital, the territory in fact has no capital, and indeed no incorporated cities or towns. Newfoundland has and continues to run municipal affairs directly out of St. John's, affording Labradoreans relatively little autonomy outside of the recently created Indian reserves of Sheshatshiu and Natuashish and the Nunatsiavut Government communities of Rigolet, Makkovik, Postville, Hopedale and Nain.

[17] The Labrador population had not generally been included in earlier Census data produced by Canada, though several communities asserted by Canada to be a part of its Dominion before 1949 were canvassed in the 1911 and 1921 Censuses (Northwest River and Rigolet). Ethnicity data was routinely collected in the 1941 Canadian and earlier censuses, but was not gathered until the addition of Aboriginal peoples and their rights in the 1982 Constitution Act occasioned a reawakened desire to gather appropriate ethnographic origin and (after 1986), identity data.

[18] For a demographic and toponyomic analysis, see NunatuKavut (2010), *op. cit.,* Chapter Four and Appendix 1.

Labrador (who had never had the vote in anything prior to the plebiscite on Union) might not be able to vote for him if Canada extended its laws and policies as applied elsewhere in the Dominion.[19]

The result was a patch-quilt compromise. From 1954 to 1973, there were seven and then six communities, all in Labrador, designated as 'Native' for purposes of receiving special federal funding: (Okak, closed in 1966), Nain, Davis Inlet, Hopedale, Makkovik, Postville and Sheshatshiu. In 1973 three more communities were added, including Black Tickle and Mud Lake (both core NunatuKavut communities) and Conne River, or what is now known as the Miawpukek Mi'kmaq First Nation. In 1976, after an infusion of federal cash for sorely needed infrastructure, Black Tickle (which in 2006 reported about 90% Aboriginal occupancy almost all of whom were of Inuit origins) and Mud Lake (a now seasonal community of under 50 and therefore on which the Census does not report), were dropped from the provincially requested list for 'Native' designation. Rigolet, a long established winter community for Inuit of NunatuKavut and later a Hudson's Bay trading post, was added and gained affiliation with the Labrador Inuit Association, though many of its families are closely tied to those elsewhere within NunatuKavut, particularly in Cartwright, Black Tickle and Northwest River.

The process of designating communities was supplanted in the 1980s by new criteria involving the application of the *Indian Act* and the operation of federal land claims policies. In 1984 the *Indian Act* was applied to Conne River – in part because of that community's staunch opposition to provincial control over its funding under the designated communities program, and as well due to its call for the resurrection of a colonial promise of a reserve land base. In 2002, after resisting *Indian Act* recognition for more than a decade, the Sheshatshiu and Mushua Innu (the latter recently having been relocated from Davis Inlet to Natuashish) were established as bands under the Act, and received formal Indian reserves to accommodate their control and governance of their communities as well as to displace provincial involvement in social program and service delivery.

From 1988 on, the Inuit communities that remained designated became eligible for regular Federal programming designed for Inuit in the rest of Canada, including post-secondary education and non-insured health assistance as well as cultural and

[19] This has been the subject of several Canadian Human Rights Commission reports. Based on a personal communication, the author notes that the senior federal Northern Affairs official of the day informed the Premier's senior advisor that if Indian reserves were created in the new province, as had been promised in formal terms by Canada in 1947 negotiations, the individuals concerned would lose their right of franchise. Premier Smallwood apparently took this as a negative, and also may have assumed that Inuit were equally liable to lose their vote (neither of which, of course, would be true for provincial purposes unless the province forbade Aboriginal voting, a policy which it did enforce in earlier decades, but no longer maintained by the time of Confederation with Canada).

language support programs.[20] The latter has in particular been marked by an effective reversal of provincially sponsored assimilation efforts in most LIA (now Nunatsiavut) communities. Prior to 1926, when the Moravian missions turned over their trade monopolies to the Hudson's Bay Company, Inuktitut was a regular feature of the local curriculum in all these communities other than Rigolet (which had never been under Moravian control). For sixty years or so, the provincial educational system suppressed Inuktitut instruction, so much so that by 1986, as reported in the 2001 Census, less than 5% of residents in the former Moravian Inuit communities were using Inuktitut as a home language (it has, since the infusion of federally sponsored support, risen to over 17% home-language usage in the Nunatsiavut region).

In central and southern Labrador communities, Inuktitut was last observed in the 1920s, at Fox Harbour (now St. Lewis). Nevertheless, there were no provincially maintained schools along the NunatuKavut coast until the 1950s. In many settlements, the sole source of instruction was the Bible, and in some communities, this was in the form of a bi-lingual Inuktitut-English rendition of the King James version, courtesy of visiting Moravians from the north coast.

1991 Data

The last time a special analysis of NunatuKavut socio-demographics was conducted was in 1996, based upon a special tabulation of data provided by Statistics Canada from 1991 Census data. NunatuKavut (then the Labrador Metis Association) reported on the 1991 Census and Aboriginal Peoples Survey (or APS, a post-census survey) concerning its population in its first supplementary land claims submission.[21] In 1991, as in 2001 and 2006, the Census long-form (as with the APS, which surveyed long-form recipients) was only sent to 20% of NunatuKavut households. This effectively meant that data from almost all of NunatuKavut's communities were suppressed on the matter of identity (since the short-form, at 100% coverage, asked only for origin data).

6,455 persons within the province as a whole reported Inuit origins in the 1991 Census, and 4,710 self-identified as Inuit in the APS. In contrast, 1,670 persons in the province reported their origins as Metis (which rose by some 20% only three months later in the APS to 2,075 as being of Metis identity). The total multiple Aboriginal/Non-Aboriginal origin population reporting on an origins basis in Labrador itself was 3,320.

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[20] The relevant Treasury Board Minute (as amended in 1988) notes that eligibility for such programming is tied to being a member of an Inuit land claimant organization or any Indian community that, in the opinion of the Minister (of Indian Affairs) merits inclusion. Technically, this policy applies to NunatuKavut's population, as NunatuKavut is an Inuit land claimant organization.

[21] Optima Aboriginal Affairs Group (1996) "A Comparison of Metis, Inuit and Non-Aboriginal Socio-Demographics", a report prepared for the Labrador Metis Association and submitted as Appendix 5 of the latter's supplemental comprehensive land claims submission to the federal government. The citations that follow within this section draw upon the Optima report.

Within the core NunatuKavut communities,[22] origin data disclosed 1,525 persons reporting Metis origins (single or multiple) and 4,105 who reported Inuit single or multiple origins.[23] Interestingly, the listed membership of the Labrador Metis Association as of December 31, 1995 was 3,238 (95% of which were persons over the age of 16, and only those residing in Labrador). Based on the national Inuit demographic profile from 2006, which shows a median age of 22 years, this suggests a NunatuKavut resident population at the time (in 1991) of about 5,800. It also points to a very high level of formal affiliation with NunatuKavut's governance structure, then known as the Labrador Metis Association, to a degree enviable by any organization or government.

The Optima study included comparative analysis of NunatuKavut communities with those of the Labrador Inuit Association, including Rigolet, Postville, Makkovik, Hopedale and Nain. That analysis found that NunatuKavut's population at the time was only very slightly older on average than those in LIA communities, with the populations of Rigolet and Postville being most similar to that of Port Hope Simpson as holding similarly aged profiles (at 33 and 28% being under the age of 14 years respectively). Similarly, these data showed that Port Hope Simpson's young adult population in full-time school attendance (at 43%) fell below that of reporting Metis identity students in Happy Valley-Goose Bay (at 76%) as well as that of Rigolet/Postville (60%).

NunatuKavut's Population within the Nalcor Project 'Foot-Print'.

Nalcor Energy has reported in its draft EIS[24] on the socio-economic impacts of its project on Aboriginal peoples. Nalcor has not, however, been compliant with requirements of the joint EIS guidelines, which called for a "chapter-specific" assessment of named Aboriginal groups, including NunatuKavut. No such chapter exists within the EIS. Indeed, almost all data within the project footprint of relevance to NunatuKavut's interests are reported generically, and as if of Innu origin.

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[22] Then as now, comprised of (from north/central to south-eastern Labrador); Northwest River, Happy Valley/Goose Bay, Mud Lake, Paradise River, Cartwright, Black Tickle/Domino, Norman Bay, Pinsent's Arm, William's Harbour, Port Hope Simpson, St. Lewis (or Fox Harbour), Charlottetown, Mary's Harbour, Lodge Bay, and Red Bay (most of the smaller communities being reported within sub-divisions B or C of Census Division 10). There are other, minority, Inuit descendent populations (whether of NunatuKavut or Nunatsiavut alliances) in Labrador West, the Straits Settlements and on the northern Peninsulas of Newfoundland as well as in major cities such as St. John's and Corner Brook.

[23] 175 individuals reported single or multiple North American Indian origins in the NunatuKavut communities in 1991.

[24] The Review Panel for the generation project has not yet accepted the Nalcor EIS, and has noted its various deficiencies, including its failure to properly assess NunatuKavut's asserted rights within the project area and the impacts of the project on those rights and interests.

Any independent assessment of Nalcor's presentation could not report a more slip-shod approach to conducting environmental assessments. Governor Palliser, in 1765 and on his first foray into the uncharted Labrador coast-line, took care to engage experts to provide an assay of Inuit knowledge of his new-found jurisdiction, and sponsored what is surely the first formal survey of Aboriginal opinion and knowledge ever held in Canadian territory.[25] Nalcor Energy, in contrast, though having invested many millions of dollars over the past decade and more in socio-economic and Innu-specific analysis, including archaeological and other researches, has uniformly failed to assess the Aboriginal peoples most relevant to their project: the people of NunatuKavut.

It is clear from almost any vantage, including likely from Nalcor Energy's own internal expert reports that the people of NunatuKavut were and remain dominant in land use and occupancy within the proposed footprint of the generation project. Nalcor Energy's own field research studies from the 1990s sustain this truth, although these studies are miss-reported within the EIS.[26]

The historic Inuit from whom the people of NunatuKavut are descended were uniquely adapted to both an external coastal and interior caribou hunting round. Since the first recorded European foray into Hamilton Inlet, by Fornel in 1743, Inuit have been the dominant presence, and were no doubt utilizing the interior corridors for harvesting. Indeed, as reported to Fornel's company by its Inuit informants at the time, Hamilton Inlet has two interior branches, along one of which provides an overland route to Hudson's Bay, testifying to a long-established Inuit use along what was then known as the Eskimo (later the Grand, then the Hamilton and now the Churchill) River and connecting it through the George River to Ungava Bay, Hudson's Bay and the high arctic.[27]

The 2006 Census and APS Data

The Inuit population across the country is greatly outpacing the growth of the non-Aboriginal Canadian population, but not that of the identity-based populations of Metis (which overlap the membership of NunatuKavut) or First Nations. For example, of the 1,172,790 people who identified themselves as an Aboriginal person in the 2006 Census, some 50,450 self-identified as being Inuit, of which some 13,000 are listed as residing outside of Inuit Nunaat. This represents an increase of 26% increase since 1996. In contrast, the First Nation population grew by 29% and the

[25] As reported on in NunatuKavut (2010), *op. cit.,* Chapter Two.
[26] In at least one case a NunatuKavut community is reported as if it were a suburb of Sheshatshiu (in the case of Mud Lake). This is apparently because both Sheshatshiu and Mud Lake are reported in the Census as part of sub-division C of Division 10 and not otherwise distinguishable from a community vantage. Yet it is common knowledge that all historic and current residents of Mud Lake are Inuit of NunatuKavut, and are entirely un-related to the Innu community fifty or so miles away at Sheshatshiu.
[27] See NunatuKavut (2010), *op. cit.*, Chapter Four.

Metis population grew by 91% in the same period. The latter growth rate is regarded as as a phenomenon that remains to be explained, as it does not reflect any sort of natural growth rate, but rather an increase in reported identity. [28]

However, in Labrador, the total Inuit identity population at the time of the 2006 Census was 3,840, representing a small decline of 1.1 % from 2001. The total Inuit identity in Labrador outside of Nunatsiavut was 1,780, and 2,160 within Nunatsiavut.[29] The Metis ancestry (origin data) population in the province as a whole was 6,400, in contrast to a total provincial Inuit ancestry population of 8,720. The migration of reported Inuit origin to Metis identity is significant amongst those living in NunatuKavut. In Labrador, the total Metis identity population outside of Nunatsiavut was (and as noted, this population is almost all of Inuit origin) 3, 935.

Across Canada, the Inuit population was younger than the non-Aboriginal population. The median age of the Inuit in 2006 was 22 years whereas the median age of non-Aboriginal Canadians was 40 years.[30] Furthermore, nationally, 35% of the Inuit population in 2006 was 14 years old or younger as compared to 17% of non-Aboriginal Canadians.[31] However, in northern Labrador, the average age of Inuit is older than the national Inuit average, at 27% of the population. Within the total Aboriginal population (including Innu, Metis and Inuit) in central southern Labrador, the percentage of youth under 15 is 28%. Unfortunately, it is not possible to further segregate or analyze data within central-southern Labrador given the suppression of data for most NunatuKavut communities.[32] However, it is known that the Natuashish community has an under 15 population (at the time of the Census) of 26.5 %, which suggests that the NunatuKavut communities generally are approximately similar to that of Nunatsiavut.

Seniors represent a very small proportion of the Inuit population nationally. In 2006, 7.3 % of Inuit people were 65 years old and over as compared to 13% of the non-Aboriginal population.[33]

The likelihood of living with a lone parent was higher for Inuit children than for non-Aboriginal children, but lower than for either Metis or First Nations children. In 2006,

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[28] Data draft from Table 1: Size and Growth of the population by Aboriginal Identity, Canada, 1996 and 2006, from http://www12.statcan.ca/census-recensement/2006/as-sa/97-558/table/t1-2ng.cfm, retrieved August 22, 2010.

[29] Aboriginal identity population, Division 10 (2001) and Division 10 and 11 (2006); data drawn from the 2001 and 2006 Census Aboriginal Population Profiles, Statistics Canada.

[30] Median age is the point where one-half of the population is older, and the other half is younger.

[31] 2006 Census: Aboriginal Peoples in Canada in 2006.

[32] This includes the case of Sheshatshiu, which was otherwise covered 100% in the long-form Census in 2006 as well as in 2001.Shj

[33] 2006 Census: Aboriginal Peoples in Canada in 2006: Inuit, Métis and First Nations, 2006 Census: Inuit http://www12.statcan.ca/census-recensement/2006/as-sa/97-558/p12-eng.cfm, retrieved on December 23, 2009.

69% of Inuit children that were 14 years old or younger lived with two parents while, compared to the national average of 82%. 26% of children lived with a lone parent.; 4%, lived with a grandparent or another relative (without a parent living in the home). Less than 1% lived with a non-relative. [34] Of importance, the incidence of adoption of Inuit children (12%) was very high in contrast to either the Metis (1%) and First Nations children living off-reserve (2%).[35]

The 2006 Census reported that 31 % of Inuit lived in crowded dwellings (with more than one person per room), which was a decrease from 36 % in 1996. However, within Nunatsiavut the level of overcrowding was the lowest of all Inuit 'homeland' regions, at 13%, down from a province-wide figure of 37% in 1996. In contrast, 3% of non-Aboriginal people live in crowded dwellings. Despite this improvement, in 2006 28 % of Inuit lived in homes needing major repairs, up from 17% in 1996. Inuit were almost ten times more likely than non-Aboriginal people to live in a crowded home and four times more likely to live in a home in need of major repairs. Poor housing is significant because it has been linked with a range of health problems, including higher transmission rates of infectious diseases such as tuberculosis and hepatitis A, increase risk for injuries, mental health problems, family tensions and violence. [36]

Of relevance as well in relation to reliance upon access to traditional harvesting areas that might be impacted by development is the very high level of country food consumption amongst Inuit, and particularly our reference group in Nunatsiavut, which was the highest in the country at 79% reporting that at least half of all meat and fish eaten are country food, as reported in the Aboriginal Peoples Survey of 2006.[37] This is in contrast to the 56% of all Inuit in Labrador in 2001 reporting that at least have fish and meat were from country food sources. Unfortunately 2006 data were not available for Labrador Inuit or Metis outside of Nunatsiavut.

With regards to labour force activity, the 2006 Census reported as follows:

- Employment rate was 41.6 % for the Inuit identity population in the province and 46% for the Metis identity population, compared to a provincial non-aboriginal rate of 48.2%;

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[34] 2006 Census: Aboriginal Peoples in Canada in 2006: Inuit, Métis and First Nations, 2006 Census: Métis, Métis population still young but has aged. Source: http://www12.statcan.ca/census-recensement/2006/as-sa/97-558/p12-eng.cfm, retrieved on December 23, 2009.

[35] Aboriginal Children's Survey, 2006: Family, Community and Child Care. Catelogue no. 89-634-X – No. 001, p. 36.

[36] 2006 Census: Aboriginal Peoples in Canada in 2006: Inuit, Métis and First Nations, 2006 Census: Métis, Crowding and need for major repairs more common for Métis living in rural areas. Source: http://www12.statcan.ca/census-recensement/2006/as-sa/97-558/p13-eng.cfm, retrieved on December 23, 2009.

[37] Aboriginal Peoples Survey, 2006: Inuit Health and Social Conditions; Statistics Canada Catalogue no. 89-637- Table 4.7.

- Unemployment rate for the Inuit identity population was 29.7% and 31.4% for Metis, in contrast to the non-aboriginal rate of 18%;
- The labour force participation rate was 59.2% for Inuit and 67.1 for Metis, in contrast to a level for non-aboriginal people of 58.8[38]

Within Division 10 (including all of NunatuKavut and, in addition, the Innu communities of Sheshatshiu and Natuashish), the Aboriginal labour force activity was very similar to the provincial-wide rates for Inuit and Metis:

- Employment rate was 45.3%
- Unemployment rate was 31.5%.
- The labour force participation rate was 66.2.[39]

In terms of education, the Inuit and Metis populations in Newfoundland 15 years of age and older reported the following:

- 17.6 % of Inuit graduated from high school, compared to 21.3% of Metis;
- 11 % of Inuit obtained a diploma or certificate from a trade school or registered apprenticeship program; while the Metis rate was 12.9 %.
- 3.5 % of Inuit obtained a bachelor's degree, compared to 6.7% of Metis.[40]

In contrast, 86% of working-age Canadians have graduated from high school.[41] 22.9% of Canadians between the ages of 25 and 64 have a university certificate, diploma or degree at a bachelor's level of above.[42]

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[38] Labour Force Activity (8), Aboriginal Identity (8B), Age Groups (13A), Sex (3) and Area of Residence (6A) for the Population 15 Years and Over of Canada, Provinces and Territories, 2001 and 2006 Censuses - 20% Sample Data. Source: http://www12.statcan.gc.ca/census-recensement/2006/dp-pd/tbt/Rp-eng.cfm?TABID=1&LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GK=0&GRP=1&PID=92101&PRID=0&PTYPE=88971,97154&S=0&SHOWALL=0&SUB=0&Temporal=2006&THEME=74&VID=0&VNAMEE=&VNAMEF=, retrieved on December 23, 2009.

[39] Labour Force Activity (8), Aboriginal Identity (8B), Age Groups (13A), Sex (3) and Area of Residence (6A) for the Population 15 Years and Over of Canada, Provinces and Territories, 2001 and 2006 Censuses - 20% Sample Data. Source: http://www12.statcan.gc.ca/census-recensement/2006/dp-pd/tbt/Rp-eng.cfm?TABID=1&LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GK=0&GRP=1&PID=92101&PRID=0&PTYPE=88971,97154&S=0&SHOWALL=0&SUB=0&Temporal=2006&THEME=74&VID=0&VNAMEE=&VNAMEF=, retrieved on December 23, 2009.

[40] 2006 Profile of Aboriginal Children, Youth and Adults, Education. Source: http://www12.statcan.gc.ca/census-recensement/2006/dp-pd/89-635/P4.cfm?Lang=eng&age=3&ident_id=10&geocode1=007&geocode2=001, retrieved on December 23, 2009.

[41] The Conference Board of Canada. Education and Skills High-School Graduation Rate. Source: http://www.conferenceboard.ca/hcp/details/education/high-school-graduation-rate.aspx, retrieved on December 23, 2009.

Though specific socio-demographic information about the Inuit and Metis identity population in NunatuKavut communities is lacking, there is strong indication that they have:

- A fast growing and young population
- A high unemployment rate
- Do not tend to have extensive education
- Tend to be reliant on government support
- Continue to engage extensively in traditional activities, such as hunting, fishing, trapping, and gathering
- Have a higher than normal incidence of chronic health conditions
- Do not have complete access to safe drinking water.

Because of these factors and because the general Canadian population is aging rapidly, there is a window of opportunity for the people of NunatuKavut to begin to fill the labour gap that is opening up in the Canadian labour market. There is a lot of potential. Both government and private industry have a vested interest in supporting the training, skills development, and education of the Inuit within NunatuKavut to fulfill Canadian labour markets, strengthen the economy of both Newfoundland and Labrador and Canada, and reduce Canada's reliance on foreign workers.

5.0 NunatuKavut's Community Profiles

As discussed earlier, there are approximately 6,500 – 7,000 residents within NunatuKavut of Inuit origin and ancestry. The following discussion presents a brief overview of the communities with a focus on Inuit origin and identity data. The communities are:

- Black Tickle,
- Cartwright,
- Charlottetown,
- Happy Valley-Goose Bay,
- Lodge Bay,
- Mary's Harbour,
- Mud Lake,
- Norman Bay,
- North West River,
- Paradise River,

[42] Highest level of educational attainment for the population aged 25 to 64, percentage distribution for both sexes, for Canada, provinces and territories - 20% sample data. Source: http://www12.statcan.ca/census-recensement/2006/dp-pd/hlt/97-560/pages/page.cfm?Lang=E&Geo=PR&Code=01&Table=1&Data=Dist&Sex=1&StartRec=1&Sort=2&Display=Page, retrieved on December 23, 2009.

- Pinsent's Arm,
- Port Hope Simpson,
- St. Lewis, and
- Williams Harbour.

5.1 Black Tickle (Black Tickle-Domino)

Black Tickle-Domino is located on the Island of Ponds in Salmon Bight cove on the central coast of Labrador south-east of Cartwright. The island is comprised of two communities: Black Tickle and Domino but they are often referred to as one. They share most resources, such as medical, schooling, airport and employment. The main economy is the snow crab fishery. There is no road access to Black Tickle-Domino. Travel is by coastal boats during the summer season and by year round air service.

According the 2006 Census, the population of Black Tickle-Domino, which is over 90% of Inuit descent, is 210. The average personal income per capita (for every man, woman and child) was $13,000 as compared to the provincial average of $22,900. The after tax personal income per capita, adjusted for inflation, was $9,400 for Black Tickle-Domino in 2006 as compared to $14,900 for the province as a whole.

Half of the couple families in Black Tickle-Domino earned more than $32,300 in 2006. This is compared to the earnings of couple families in the province in general which was more than $56,500.

The self-reliance ratio is a measure of a community's dependency on government transfers like Canada Pension, Old Age Security, Employment Insurance, and Income Support Assistance. The higher the percentage of income that comes from transfers the lower the self-reliance ratio. Black Tickle-Domino self-reliance ratio for 2006 was 59.2% as compared to 78.5% for the province. The 2006 Census indicates almost all the homes in Black Tickle were owned compared to 78.7% for the province and 68.4% for Canada.

The unemployment rate for the month of May 2006 for people aged 15 and older was 60.0%. Conversely, the provincial unemployment rate was 18.6%. The employment rate for the entire year of 2005 for people 15 years of age and older was 78.4%. The provincial employment rate during the same year was 63.3%.

People collecting Income Support Assistance in Black Tickle-Domino in 2008 received average benefits of $5,200. The average benefits provincially were $6,600. In 2008, people in Black Tickle-Domino collected Income Support Assistance for an average of 7.3 months. The provincial average was 9.4 months during the same period. Moreover, 13.6% of the Black Tickle-Domino population received Income Support Assistance at some point during 2008 as compared to 10.0% across the province during the same year. 67.9% of the Black Tickle-Domino labour force collected

Employment Insurance in 2008 while the provincial rate was 34.0%. Furthermore, of those people in Black Tickle-Domino collecting Employment Insurance in 2008, the average benefits were $6,800. The provincial average benefits were $7,500 in 2008.

According to the 2006 Census, 64.5% of people between the ages of 18 and 64 years of age in Black Tickle-Domino do not have a high school diploma. This is compared to 25.1% of people in the province in general. 9.5% of people aged 25 to 54 in Black Tickle-Domino had a Bachelor's Degree or higher in 2006 whereas 15.1% of the population in the province as a whole had one. 44.4% of people 25 to 34 years in Black Tickle-Domino had at least a high school diploma compared to 85.4% in the province and 89.1% nationally.

A major indicator of well-being is how a person rates his/her own health status. In 2005, 52.1% of people age 12 and over in Economic Zone 04 (the zone to which Black Tickle-Domino belongs) rated their health status as begin very good to excellent. The provincial average was 64.5% and the national average was 60.2%. The rate of smoking (current daily smokers) in Economic Zone 04 (which contains Black Tickle-Domino) was 15.5% in 2005 as compared to 19.3% across the province. Nationally, the rate of smoking for those 12 years of age and older was 16.6%.

45% of the population in Economic Zone 04 was obese in 2005 (had an adult body mass index of 30 or greater). The provincial rate was 24.5%. Nationally, the percentage of people obese was 15.8%.[43]

5.2 Cartwright

Cartwright is located on the central coast of Labrador south of Hamilton Inlet, and has been a long-established Inuit centre for over-wintering and year round occupation and resource procurement. The Town of Cartwright is a major service centre for coastal Labrador north of the communities serviced by Port Hope Simpson.

According the 2006 Census, the population of Cartwright is 552. Of this population, 485 people or 87.8% identified as being of Aboriginal (mostly Inuit) origin and either Inuit or Metis identity in 2006.[44] Of importance, Cartwright was the locus of the main Grenfell Mission school along the central coast, and as such became a major centre

[43] Newfoundland & Labrador Statistics Agency, Community Accounts. Source: http://www.communityaccounts.ca/communityaccounts/onlinedata/accountselectionpage.asp?p=%BD%BE%C4%9F%85%95%81%A6%AE%CDuk, retrieved on December 21, 2009.

[44] Statistics Canada 2006 Aboriginal Population Profile. Source: http://www12.statcan.gc.ca/census-recensement/2006/dp-pd/prof/92-594/details/page.cfm?Lang=E&Geo1=CSD&Code1=1010012&Geo2=PR&Code2=10&Data=Count&SearchText=Cartwright,%20Labrador&SearchType=Begins&SearchPR=01&B1=All&GeoLevel=&GeoCode=1010012, retrieved on December 23, 2009.

for education, including residential schooling, for Inuit and Inuit 'half-breed' or Metis students. It was named after Captain John Cartwright, who lived in Labrador for 16 years from 1770 onwards and mainly traded with Inuit of the area for whale and other resource items.

In 2006, the average personal income per capita (for every man, woman and child) was $18,000 as compared to the provincial average of $22,900. The after tax personal income per capita, adjusted for inflation, was $12,500 for Cartwright in 2006 as compared to $14,900 for the province as a whole.

Half of the couple families in Cartwright earned more than $43,500 in 2006. This is compared to the earnings of couple families in the province in general which was more than $56,500. Half of the lone-parent families in Cartwright had incomes of less than $25,000 in 2006 whereas half of the lone-parent families in the province had incomes of less than $25,300.

The self-reliance ratio for Cartwright was 65.1% as compared to 78.5% for the province. The 2006 Census indicates that 68.1% of the homes in Cartwright were owned compared to 78.7% for the province and 68.4% for Canada. According to the 2001 Census, the average value of dwellings in Cartwright was $31,400. The provincial average was $76,285 and the Canadian average was $162,710 for the same year.

The unemployment rate for the month of May 2006 for people aged 15 and older was 52.9%. Conversely, the provincial unemployment rate was 18.6%. The employment rate for the entire year of 2005 for people 15 years of age and older was 71.6%. The provincial employment rate during the same year was 63.3%.

People collecting Income Support Assistance in Cartwright in 2008 received average benefits of $7,500. The average benefits provincially were $6,600. In 2008, people in Cartwright collected Income Support Assistance for an average of 9.6 months. The provincial average was 9.4 months during the same period. Moreover, 13.4% of the Cartwright population received Income Support Assistance at some point during 2008 as compared to 10.0% across the province during the same year. 61.4% of the Cartwright labour force collected Employment Insurance in 2008 while the provincial rate was 34.0%. Furthermore, of those people in Cartwright collecting Employment Insurance in 2008, the average benefits were $9,500. The provincial average benefits was $7,500 in 2008.

According to the 2006 Census, 38.0% of people between the ages of 18 and 64 years of age in Cartwright do not have a high school diploma. This is compared to 25.1% of people in the province in general. 5.4% of people aged 25 to 54 in Cartwright had a Bachelor's Degree or higher in 2006 whereas 15.1% of the population in the province as a whole had one. 91.7% of people 25 to 34 years in Cartwright had at least a high school diploma compared to 85.4% in the province and 89.1% nationally.

In 2005, 52.1% of people age 12 and over in Economic Zone 04 (the zone to which Cartwright belongs) rated their health status as begin very good to excellent. The provincial average was 64.5% and the national average was 60.2%. The rate of smoking (current daily smokers) in Economic Zone 04 (which contains Cartwright) was 15.5% in 2005 as compared to 19.3% across the province. Nationally, the rate of smoking for those 12 years of age and older was 16.6%.

45% of the population in Economic Zone 04 was obese in 2005 (had an adult body mass index of 30 or greater). The provincial rate was 24.5%. Nationally, the percentage of people obese was 15.8%.[45]

5.3 Charlottetown/Pinsent's Arm/Norman Bay

Charlottetown is located in St. Michael's Bay 300 km south of Goose Bay and 180 km north of St. Anthony. Pinsent's Arm and Norman Bay are smaller communities that rely upon services from Charlottetown. Charlettetown first existed as an Inuit winter settlement, later known as "Old Cove", a winter place for summer fishing stations, and selected as a permanent settlement in the 1950s by Benjamin Powell Sr. and Clarence Perry. 'Old Cove' was renamed Charlottetown by Mr. Powell in hopes that it would become the capital of the bay, just as Charlottetown is the capital of Prince Edward Island.

Note that the figures for Charlottetown include the Municipality of Charlottetown, Local Service District of Pinsent's Arm and the Local Service District of Norman Bay. Pinsent's Arm and Norman Bay are tiny communities (under 50 persons per community), and entirely Inuit in origin, while Charlottetown, as a provincial service centre, has rather more (some 15%) non-Aboriginal residents.

According to the 2006 Census, the population of Charlottetown/Pinsent's Arm and Norman Bay is 366. Of this population, 305 people or 83.3% identified as being of Inuit origin and/or Inuit or Metis identity in 2006.[46]

The average personal income per capita (for every man, woman and child) was $16,900 as compared to the provincial average of $22,900. The after tax personal

[45] Newfoundland & Labrador Statistics Agency, Community Accounts. Source: http://www.communityaccounts.ca/communityaccounts/onlinedata/accountselectionpage.asp?p=%BD%BE%C4%9F%85%95%81%A6%AE%CDqb%5D, retrieved on December 21, 2009.

[46] Statistics Canada 2006 Aboriginal Population Profile. Source: http://www12.statcan.gc.ca/census-recensement/2006/dp-pd/prof/92-594/details/page.cfm?Lang=E&Geo1=CSD&Code1=1010013&Geo2=PR&Code2=10&Data=Count&SearchText=Charlottetown%20(Labrador)&SearchType=Begins&SearchPR=01&B1=All&GeoLevel=&GeoCode=1010013, retrieved on December 23, 2009.

income per capita, adjusted for inflation, was $11,900 for Charlottetown in 2006 as compared to $14,900 for the province as a whole.

Half of the couple families in Charlottetown earned more than $49,500 in 2006. This is compared to the earnings of couple families in the province in general which was more than $56,500.

The self-reliance ratio for Charlottetown/Pinsent's Arm/Norman Bay was 60.2% as compared to 78.5% for the province. The 2006 Census indicates that 82.8% of the homes in this area were owned compared to 78.7% for the province and 68.4% for Canada.

The unemployment rate for the month of May 2006 for people aged 15 and older was 61.4%. Conversely, the provincial unemployment rate was 18.6%. The employment rate for the entire year of 2005 for people 15 years of age and older was 83.6%. The provincial employment rate during the same year was 63.3%.

People collecting Income Support Assistance in the reported area in 2008 received average benefits of $4,500. The average benefits provincially were $6,600. In 2008, people in Charlottetown collected Income Support Assistance for an average of 6.5 months. The provincial average was 9.4 months during the same period. Moreover, 4.4% of the Charlottetown population received Income Support Assistance at some point during 2008 as compared to 10.0% across the province during the same year. 74.1% of the Charlottetown labour force collected Employment Insurance in 2008 while the provincial rate was 34.0%. Furthermore, of those people in Charlottetown collecting Employment Insurance in 2008, the average benefits were $9,400. The provincial average benefits were $7,500 in 2008.

According to the 2006 Census, 33.9% of people between the ages of 18 and 64 years of age in Charlottetown do not have a high school diploma. This is compared to 25.1% of people in the province in general. 4.3% of people aged 25 to 54 in Charlottetown had a Bachelor's Degree or higher in 2006 whereas 15.1% of the population in the province as a whole had one. 91.7% of people 25 to 34 years in Charlottetown had at least a high school diploma compared to 85.4% in the province and 89.1% nationally.

In 2005, 52.1% of people age 12 and over in Economic Zone 04 (the zone to which Charlottetown, Pinsent's Arm and Norman Bay belong) rated their health status as begin very good to excellent. The provincial average was 64.5% and the national average was 60.2%. The rate of smoking (current daily smokers) in Economic Zone 04 (which contains Charlottetown) was 15.5% in 2005 as compared to 19.3% across the province. Nationally, the rate of smoking for those 12 years of age and older was 16.6%.

45% of the population in Economic Zone 04 was obese in 2005 (had an adult body mass index of 30 or greater). The provincial rate was 24.5%. Nationally, the percentage of people obese was 15.8%.[47]

5.4 Happy Valley - Goose Bay (Town)

The Happy Valley-Goose Bay Town data reported herein includes Happy Valley-Goose Bay but excludes Mud Lake and North West River.

According to the 2006 Census, the population of the Happy Valley-Goose Bay Town was 7,572. Of this population, 2,720 or 36% reported an Aboriginal identity; or which sub-total 48.6% reported a Metis identity; 47% reported an Inuit identity and the balance (under 5%) reported either a North American identity, multiple Aboriginal identities or other identities not reported elsewhere. [48]

The average earnings for the Aboriginal population over 15 years with earnings (1,660 of a total Aboriginal identity population of 2,720) was $27,637 as compared to the provincial average of $21,305.

The unemployment rate the Aboriginal identity population aged 15 and older was 20.%. Conversely, the provincial unemployment rate was 30.1%. The employment rate for Aboriginal people 15 years of age and older was 59.9%. The provincial employment rate during the same year was 42.5%. The Aboriginal participation rate was 74.5 compared to the provincial average of 60.8%.

The median age for the Aboriginal population as a whole in the Town is 30.5, compared to a provincial median age of 32.3. In contrast to the median

According to the 2006 Census, 35.45% of Aboriginal people over the age of 15 in Goose Bay do not have a high school diploma or other certificate. This compares favourably to the 41.2% of Aboriginal people in the province. 5.6% of Aboriginal people aged 15 years or older in Goose Bay had a Bachelor's Degree or higher in 2006, whereas 15.1% of the population in the province as a whole had one. However, 58.7% of Aboriginal people over 15 in Goose Bay had at least a high school diploma or some other trades or training certificate below a Bachelor's Degree, compared to 52.2 for Aboriginal peoples over 15 in the province generally, 85.4% of non-Aboriginal peoples in the province and 89.1% nationally.

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[47] Newfoundland & Labrador Statistics Agency, Community Accounts. Source: http://www.communityaccounts.ca/communityaccounts/onlinedata/accountselectionpage.asp?p=%BD%BE%C4%9F%85%95%81%A6%AE%CDqdU, retrieved on December 21, 2009.

[48] These and subsequent data come from Statistics Canada (2007) Aboriginal Population Profile, 2006 Census. Statistics Canada Catalogue no. 92-594-XWE. Ottawa. Released January 15 2008.

Turning to data for the entire Goose Bay Area (including Mud Lake and Northwest River but excluding Rigolet and Sheshatshiu), 65.2% of people age 12 and over in Economic Zone 03 (the zone to which Goose Bay Area belongs) rated their health status in 2005 as begin very good to excellent. The provincial average was 64.5% and the national average was 60.2%. The rate of smoking (current daily smokers) in Economic Zone 03 (which contains Goose Bay Area) was 21.4% in 2005 as compared to 19.3% across the province. Nationally, the rate of smoking for those 12 years of age and older was 16.6%. [49]

23.1% of the population in Economic Zone 03 was obese in 2005 (had an adult body mass index of 30 or greater). The provincial rate was 24.5%. Nationally, the percentage of people obese was 15.8%.

5.6 Mary's Harbour

Mary's Harbour is located on the southern Labrador coast at the mouth of St. Lewis (Fox Harbour) Inlet. Mary's Harbour surrounds the St. Mary's River, which was the site of a major salmon fishery as early as the 1780's but became a permanent settlement only after 1930. The major industry is the crab fishery.

According the 2006 Census, the population of the Municipality of Mary's Harbour is 425. The average personal income per capita (for every man, woman and child) was $19,200 as compared to the provincial average of $22,900. The after tax personal income per capita, adjusted for inflation, was $13,100 for Municipality of Mary's Harbour in 2006 as compared to $14,900 for the province as a whole.

Half of the couple families in Municipality of Mary's Harbour earned more than $53,300 in 2006. This is compared to the earnings of couple families in the province in general which was more than $56,500.

The self-reliance ratio for Municipality of Mary's Harbour was 67.0% as compared to 78.5% for the province. The 2006 Census indicates that 92.6% of the homes in Municipality of Mary's Harbour were owned versus rented compared to 78.7% for the province and 68.4% for Canada. According to the 2001 Census, the average value of dwellings in Municipality of Mary's Harbour was $44,705. The provincial average was $76,285 and the Canadian average was $162,710 in the same period.

The unemployment rate for the month of May 2006 for people aged 15 and older was 58.7%. Conversely, the provincial unemployment rate was 18.6%. The employment

[49] Newfoundland & Labrador Statistics Agency, Community Accounts. Source: http://www.communityaccounts.ca/communityaccounts/onlinedata/accountselectionpage.asp?_=vb7FnYmXulCzwaKeip-JOKyjwKIZicDEv4iy15Cnm4uDjw__.

rate for the entire year of 2005 for people 15 years of age and older was 79.7%. The provincial employment rate during the same year was 63.3%.

3.7% of the population of the Municipality of Mary's Harbour received Income Support Assistance in 2008 as compared to 10.0% provincially. 63.5% of the Municipality of Mary's Harbour labour force collected Employment Insurance in 2008 while the provincial rate was 34.0%.

According to the 2006 Census, 43.1% of people between the ages of 18 and 64 years of age in Municipality of Mary's Harbour do not have a high school diploma. This is compared to 25.1% of people in the province in general. 5.3% of people aged 25 to 54 in Municipality of Mary's Harbour had a Bachelor's Degree or higher in 2006 whereas 15.1% of the population in the province as a whole had one. 66.7% of people 25 to 34 years in Municipality of Mary's Harbour had at least a high school diploma compared to 85.4% in the province and 89.1% nationally.

In 2005, 52.1% of people age 12 and over in Economic Zone 04 (the zone to which Mary's Harbour belongs) rated their health status as begin very good to excellent. The provincial average was 64.5% and the national average was 60.2%. The rate of smoking (current daily smokers) in Economic Zone 04 (which contains Mary's Harbour) was 15.5% in 2005 as compared to 19.3% across the province. Nationally, the rate of smoking for those 12 years of age and older was 16.6%.

45% of the population in Economic Zone 04 was obese in 2005 (had an adult body mass index of 30 or greater). The provincial rate was 24.5%. Nationally, the percentage of people obese was 15.8%.[50]

5.7 North West River

Statistical data for North West River is not available as a separate area within Community Accounts, and is included here under North West River/Sheshatshiu

The Town of North West River is probably central Labrador's oldest community situated on the shores of Lake Melville. North West River is a small community that is located 33 km from Happy Valley-Goose Bay. North West River was formerly known as Fort Smith, named after the first Hudson's Bay trading partner in the area, David Smith, who later was elevated to Governorship of the Bay and named Lord Strathcona.

[50] Newfoundland & Labrador Statistics Agency, Community Accounts. Source: http://www.communityaccounts.ca/communityaccounts/onlinedata/accountselectionpage.asp?p=%BD%BE%C4%9F%85%95%81%A6%AE%CDsdY, retrieved on December 21, 2009.

According the 2006 Census, the population of North West River/Sheshatshiu is 1,530. The population of North West River alone is 492. Of this population in North West River, people or 64.6% identified as being of Metis or Inuit identity in 2006.[51]

The average personal income per capita (for every man, woman and child) was $17,700 as compared to the provincial average of $22,900. The after tax personal income per capita, adjusted for inflation, was $11,700 for North West River in 2006 as compared to $14,900 for the province as a whole.

Half of the couple families in North West River earned more than $62,300 in 2006. This is compared to the earnings of couple families in the province in general which was more than $56,500. Half of the lone-parent families in North West River had incomes of less than $22,000 in 2006 compared to less than $25,300 across the province.

The self-reliance ratio for North West River was 80.5% as compared to 78.5% for the province. The 2006 Census indicates that 61.0% of the homes in North West River were owned versus rented compared to 78.7% for the province and 68.4% for Canada. According to the 2001 Census, the average value of dwellings in North West River was $66,040. The provincial average was $76,285 and the Canadian average was $162,710 in the same period.

The unemployment rate for the month of May 2006 for people aged 15 and older was 25.0%. Conversely, the provincial unemployment rate was 18.6%. The employment rate for the entire year of 2005 for people 15 years of age and older was 61.1%. The provincial employment rate during the same year was 63.3%.

9.7% of the population of the North West River received Income Support Assistance in 2008 as compared to 10.0% provincially. For those collecting Income Support Assistance in North West River in 2008, the average benefits were $2,600. Provincially the average benefits were $6,600 in the same year. The average duration or the average number of months people were collecting Income Support Assistance in North West River in 2008 was 5.1 as compared to 9.4 months for the province.

43.2% of the North West River labour force collected Employment Insurance in 2008 while the provincial rate was 34.0%. The average benefits for people collecting Employment Insurance in North West River in 2008 were $7,800; the provincial average was $7,500.

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[51] Statistics Canada 2006 Aboriginal Population Profile. Source: http://www12.statcan.gc.ca/census-recensement/2006/dp-pd/prof/92-594/details/page.cfm?Lang=E&Geo1=CSD&Code1=1010022&Geo2=PR&Code2=10&Data=Count&SearchText=North%20West%20River&SearchType=Begins&SearchPR=01&B1=All&GeoLevel=&GeoCode=1010022, retrieved on December 23, 2009.

According to the 2006 Census, 47.6% of people between the ages of 18 and 64 years of age in North West River do not have a high school diploma. This is compared to 25.1% of people in the province in general. 6.1% of people aged 25 to 54 in North West River had a Bachelor's Degree or higher in 2006 whereas 15.1% of the population in the province as a whole had one. 51.4% of people 25 to 34 years in North West River had at least a high school diploma compared to 85.4% in the province and 89.1% nationally.

In 2005, 65.2% of people age 12 and over in Economic Zone 03 (the zone to which North West River belongs) rated their health status as begin very good to excellent. The provincial average was 64.5% and the national average was 60.2%. The rate of smoking (current daily smokers) in Economic Zone 03 (which contains North West River) was 21.4% in 2005 as compared to 19.3% across the province. Nationally, the rate of smoking for those 12 years of age and older was 16.6%.

23.1% of the population in Economic Zone 03 was obese in 2005 (had an adult body mass index of 30 or greater). The provincial rate was 24.5%. Nationally, the percentage of people obese was 15.8%.[52]

5.8 Port Hope Simpson

Port Hope Simpson is located in southeastern Labrador, on the south side of the Alexis River. It was a seasonal Inuit community historically, and was established more permanently in 1934 as a logging camp and has since become the largest community in southeastern Labrador.

According the 2006 Census, the population of Port Hope Simpson is 529. Of this population, 490 people or 92.5% identified as being of Aboriginal identity -- almost all of whom reported Inuit origins and Metis identity in 2006.[53]

The average personal income per capita (for every man, woman and child) was $16,000 as compared to the provincial average of $22,900. The after tax personal income per capita, adjusted for inflation, was $11,200 for Port Hope Simpson in 2006 as compared to $14,900 for the province as a whole.

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[52] Newfoundland & Labrador Statistics Agency, Community Accounts. Source: http://www.communityaccounts.ca/communityaccounts/onlinedata/accountselectionpage.asp?p=%BD%BE%C4%9F%85%95%81%A6%AE%CDsh%5B, retrieved on December 21, 2009.

[53] Statistics Canada 2006 Aboriginal Population Profile. Source: http://www12.statcan.gc.ca/census-recensement/2006/dp-pd/prof/92-594/details/page.cfm?Lang=E&Geo1=CSD&Code1=1010009&Geo2=PR&Code2=10&Data=Count&SearchText=Port%20Hope%20Simpson&SearchType=Begins&SearchPR=01&B1=All&GeoLevel=&GeoCode=1010009, retrieved on December 23, 2009.

Half of the couple families in Port Hope Simpson earned more than $49,900 in 2006. This is compared to the earnings of couple families in the province in general which was more than $56,500.

The self-reliance ratio for Port Hope Simpson was 65.1% as compared to 78.5% for the province. The 2006 Census indicates that 82.4% of the homes in Port Hope Simpson were owned versus rented compared to 78.7% for the province and 68.4% for Canada. According to the 2001 Census, the average value of dwellings in Port Hope Simpson was $47,920. The provincial average was $76,285 and the Canadian average was $162,710 in the same period.

The unemployment rate for the month of May 2006 for people aged 15 and older was 55.6%. Conversely, the provincial unemployment rate was 18.6%. The employment rate for the entire year of 2005 for people 15 years of age and older was 74.1%. The provincial employment rate during the same year was 63.3%.

9.6% of the population of the Port Hope Simpson received Income Support Assistance in 2008 as compared to 10.0% provincially. For those collecting Income Support Assistance in Port Hope Simpson in 2008, the average benefits was $5,100. Provincially the average benefits were $6,600 in the same year. The average duration or the average number of months people were collecting Income Support Assistance in Port Hope Simpson in 2008 was 8.9 months as compared to 9.4 months for the province.

58.3% of the Port Hope Simpson labour force collected Employment Insurance in 2008 while the provincial rate was 34.0%. The average benefits for people collecting Employment Insurance in Port Hope Simpson in 2008 were $8,100; the provincial average was $7,500.

According to the 2006 Census, 43.1% of people between the ages of 18 and 64 years of age in Port Hope Simpson do not have a high school diploma. This is compared to 25.1% of people in the province in general. 5.7% of people aged 25 to 54 in Port Hope Simpson had a Bachelor's Degree or higher in 2006 whereas 15.1% of the population in the province as a whole had one. 68.8% of people 25 to 34 years in Port Hope Simpson had at least a high school diploma compared to 85.4% in the province and 89.1% nationally.

In 2005, 52.1% of people age 12 and over in Economic Zone 04 (the zone to which Mary's Harbour belongs) rated their health status as begin very good to excellent. The provincial average was 64.5% and the national average was 60.2%. The rate of smoking (current daily smokers) in Economic Zone 04 (which contains Mary's Harbour) was 15.5% in 2005 as compared to 19.3% across the province. Nationally, the rate of smoking for those 12 years of age and older was 16.6%.

45% of the population in Economic Zone 04 was obese in 2005 (had an adult body mass index of 30 or greater). The provincial rate was 24.5%. Nationally, the percentage of people obese was 15.8%.[54]

5.9 St. Lewis

St. Lewis is composed of widely separated groups of houses spread out around the sheltered harbour of St. Lewis Bay, on the north shore of St. Lewis Sound, 7 miles north of Battle Harbour and southeast of St. Lewis, Labrador. It is historically known as Fox Harbour, and the seat of the Paulo dynasty – a long established Inuit family with connections with both Mikak in the 18th century and with her successors since then, as well as being the last locale south of the Hamilton Inlet to witness regular Inuktitut being spoken.

According the 2006 Census, the population of St. Lewis is 520. Unfortunately the lack of 100% coverage by the long form Census led to the suppression of all Aboriginal identity data, but it is estimated based on NunatuKavut membership information that some 98% of all residents are of Inuit origin and most are of contemporary Metis or Inuit-Metis identity.

The average personal income per capita (for every man, woman and child) was $17,900 as compared to the provincial average of $22,900. The after tax personal income per capita, adjusted for inflation, was $12,300 for St. Lewis in 2006 as compared to $14,900 for the province as a whole.

Half of the couple families in St. Lewis earned more than $49,900 in 2006. This is compared to the earnings of couple families in the province in general which was more than $56,500.

The self-reliance ratio for St. Lewis was 68.5% as compared to 78.5% for the province. The 2006 Census indicates that 88.2% of the homes in St. Lewis were owned versus rented compared to 78.7% for the province and 68.4% for Canada.

The unemployment rate for the month of May 2006 for people aged 15 and older was 52.0%. Conversely, the provincial unemployment rate was 18.6%. The employment rate for the entire year of 2005 for people 15 years of age and older was 79.5%. The provincial employment rate during the same year was 63.3%.

[54] Newfoundland & Labrador Statistics Agency, Community Accounts. Source: http://www.communityaccounts.ca/communityaccounts/onlinedata/accountselectionpage.asp?p=%BD%BE%C4%9F%85%95%81%A6%AE%CDtbZ, retrieved on December 21, 2009.

66.7% of the St. Lewis labour force collected Employment Insurance in 2008 while the provincial rate was 34.0%. The average benefits for people collecting Employment Insurance in St. Lewis in 2008 were $8,600; the provincial average was $7,500.

According to the 2006 Census, 45.5 % of people between the ages of 18 and 64 years of age in St. Lewis do not have a high school diploma. This is compared to 25.1% of people in the province in general. 8.7% of people aged 25 to 54 in St. Lewis had a Bachelor's Degree or higher in 2006 whereas 15.1% of the population in the province as a whole had one. 57.1% of people 25 to 34 years in St. Lewis had at least a high school diploma compared to 85.4% in the province and 89.1% nationally.

In 2005, 52.1% of people age 12 and over in Economic Zone 04 (the zone to which Mary's Harbour belongs) rated their health status as begin very good to excellent. The provincial average was 64.5% and the national average was 60.2%. The rate of smoking (current daily smokers) in Economic Zone 04 (which contains Mary's Harbour) was 15.5% in 2005 as compared to 19.3% across the province. Nationally, the rate of smoking for those 12 years of age and older was 16.6%.

45% of the population in Economic Zone 04 was obese in 2005 (had an adult body mass index of 30 or greater). The provincial rate was 24.5%. Nationally, the percentage of people obese was 15.8%.[55]

6.0 NunatuKavut Interests in the Proposed Project Area

In 1991, NunatuKavut (then the Labrador Metis Association) filed a land claim with the federal government that covered territory in central and southeastern Labrador.[56] The land claim process is still underway in that supplemental research reports were filed in 1996, 2002 and 2010.

At the time of this report, NunatuKavut had filed final research in May of 2010. The region claimed by NunatuKavut covers the entire Lower Churchill development area as well as the entire area proposed by the same proponent for the Transmission Link to the island of Newfoundland. Much of both project areas are within an exclusively claimed area by NunatuKavut.

NunatuKavut's interests in the areas fall into three categories:

[55] Newfoundland & Labrador Statistics Agency, Community Accounts. Source: http://www.communityaccounts.ca/communityaccounts/onlinedata/accountselectionpage.asp?p=%BD%BE%C4%9F%85%95%81%A6%AE%CDtk%5B, retrieved on December 21, 2009.

[56] Higgins, Jenny. "Métis Organizations and Land Claims" at the Newfoundland and Labrador Heritage Web Site, 2008. Source: http://www.heritage.nf.ca/aboriginal/metis_claims.html, retrieved on: December 30, 2009.

- Aboriginal rights – established at first sustained contact with Europeans, these rights encompass a wide variety of land and marine/ice usage, including hunting, fishing, trapping, foraging, etc.
- Aboriginal Title – established at the time of sustained European sovereignty (accepted by NCC as being at 1760 or thereafter), and includes the full use and ownership of the lands or waters concerned, for all purposes and exclusive of all other uses other than by alienation other than to the Crown or destruction for subsequent Aboriginal usage; and
- Treaty rights – established at the time of the Treaty (in this case 1765) and limited generally to its intended objectives and terms. The 1765 Inuit-British treaty at Pitt's Harbour was confined to 17 articles and can best be described as a "peace and friendship/trade" treaty.

The geographic scope of these three categories of rights/entitlements of NunatuKavut's membership and communities remains somewhat un-defined. However, based on the extensive research of the NCC and supported by third-party academic researchers, it would appear that the geographic scope of the rights involved include the entire project foot-print for the proponent's generation project, and extends to above the existing Churchill Falls damn to the height of land. To the north, the NCC claims area is sustained by documented use and occupancy data north-wards to approximately 50 miles in each watershed draining southwards into the Hamilton Inlet. From the southern coastal areas from Mud Lake to the Strait of Belle Isle, the claim extends outwards on the marine side to encompass all of Hamilton Inlet, all of Sandwich Bay and other bays on the southern Labrador Sea coast, and outwards to approximately 25 miles. Along the same coast, the interior use and occupancy areas extend from 50 – 150 miles to the interior along the main rivers (of which there are 6) and essentially meet at the height of land and the border with contemporary Quebec. There is some degree of seasonal overlap usage of the latter area with Montagnais Innu from Quebec (of which the Sheshatshiu community was originally a part), just as there is north of the Hamilton Inlet with occasional and seasonal usage by Naskapi Innu (now Innu of Matuashish and Schefferville).

Overlaps and interactions between north-central and central-south coastal Inuit and their descendent communities is more difficult to document and assess, if only due to the extensive overlap of usage territories and the inter-marriages, common families and inter-marriages and trade relationships of the two nominal groups. It is well recorded, however, that Nunatsiavut and NunatuKavut Inuit populations are discrete, and have been so since at least the later 18th century. Nevertheless, there is no sudden or quick break, territorially, linguistically or politically, between the two Labrador Inuit populations, other than a general (northern) orientation towards early and Moravian-linked settlement patterns, and a southern orientation towards more traditional seasonal transhumance and, as well, association with English (later Quebec or Newfoundland-based) merchant establishments.

7.0 The Potential Adverse and Positive Socioeconomic Effects of the Project on the NunatuKavut people of Labrador

The following discussion highlights the potential socioeconomic effects that the proposed Lower Churchill Hydroelectric Project may have on the people of NunatuKavut in Labrador. A number of topics are addressed, including:

- Impacts on Aboriginal, Title and Treaty Rights
- Business and the Economy
- Culture and Traditions
- Demands on Programs and Services
- Education and Training
- Employment and Income
- Funding
- Health
- Hunting and Trapping
- Infrastructure
- Mental Health
- Mobility and Travel
- Social Problems
- Social Relations

7.1 Impacts on Aboriginal, Title and Treaty Rights

The Joint Review Panel has a unique obligation to discharge part of the joint Crown's duty to consult and accommodate Aboriginal rights in relation to the Proponent's project. NunatuKavut accepts that the JRP has only a limited role – yet an important and unique one – being the first such formal assignment of even a part of the Crown's duty to consult and accommodate to an environmental assessment body.

The JRP has delegated obligations from both governments, as per its terms of reference and the guidelines for the environmental assessment, to establish the nature of the project in relation to any asserted or established Aboriginal rights (which includes both Aboriginal rights in the judicial sense, title rights, and Treaty rights), to determine (presumably at the cost and effort of the proponent) the nature of any impacts on those rights or interests, and to assess any accommodations (also presumably on the basis of the efforts of the proponent) to reduce any infringements, interferences or possible derogations (i.e., complete elimination) of any such rights or interests.

It remains unclear to NunatuKavut where the border-line exists between what the JRP understands to be its powers and obligations, and what the proponent

understands, as a Crown (provincial) agency, to be its obligations. That is a matter that has pre-occupied NunatuKavut for much of 2010 to date, and CEAA, the province, and Nalcor, have been unable to clarify the situation to any great degree. Accordingly, upon submission of this document, the NCC will be seeking clarity on the Panel's own view of its obligations, and its view on the respective obligations of the proponent and the governmental parties, including the Aboriginal parties with asserted and/or accepted rights in the project area.

Of importance, any asserted rights by an Aboriginal group such as the NCC, if determined to be sufficiently 'deep' in nature, triggers an equally deep duty on the Crown to consult and accommodate. It is important for CEAA (as agent of the Federal Crown), the proponent (and its owner, the Province) and the JRP to understand clearly that all such rights are rights at law. They are not prospective, or subject to being acknowledged by governments, as seems clearly to be the position of both the proponent and the Province in discussions on this matter since this project was first initiated. They are rights, and if established through court determination, rights that are constitutionally protected against any adverse impacts by action of ordinary legislation or regulation.

In 2003, a similar major development, the Trans-Labrador Highway (TLH) was launched within NunatuKavut's claim's area. The NunatuKavut Council protested, and were ignored, both by the federal government (which, despite a clear triggering of the CEA Act through financial contributions, was determined to accept a screening approval) and by the province and its agent at the time, the Ministry of Transport (which similarly refused a proper EA process). At great expense to the people of NunatuKavut, they documented and monitored the shoddy construction efforts involved, and litigated when they saw so many of their pristine streams and rivers – most involving scarce north-Atlantic salmonid habitat – being destroyed or slated for destruction.

The courts – at Trial, on appeal to the Appeal Court and on appeal to the Supreme Court of Canada – all agreed with the NunatuKavut Council: they were improperly denied the duty to consult and accommodate by the Crown. The courts also determined that the section 35 (*Constitution Act, 1982*) rights being asserted were set at the 'high' end of the continuum, requiring therefore an equally 'deep' level of consultation and accommodation, and if necessary and where infringements of rights are involved, compensation, subject to consent.

None of this factual back-ground is laid out in the EIS presented by Nalcor. Nor has the province, or the federal government, attempted to enter into separate consultation or accommodation undertakings with NunatuKavut, despite our having offered clear templates for such undertakings in 2009 and again recently in 2010. In this regard, it is noted that the federal government has at least announced recently a framework for consultation and accommodation of both asserted and established Aboriginal interests in relation to the project – a framework that will, however, only take effect after the Panel reports its findings. The province has given no notice whatsoever of its intentions in this regard.

The absence of disclosure by Nalcor regarding its own obligations, as a Crown Agent, is of great concern to NunatuKavut. It suggests a studied or perhaps a directed instruction not to engage with our communities, and to simply deny that we have Aboriginal, Title or Treaty rights that, though they may be only asserted, have nevertheless stood the rigorous test of the courts in an analogous case. While Nalcor has sought (and obtained) consultative engagement with NunatuKavut for limited purposes of information exchange and community information gathering, this has not extended to the kind of detailed study of NunatuKavut community interests and rights in relation to the project, the potential impacts of the project on those interests and rights, and related accommodations.

This is unlike the situation for any other Aboriginal group in Labrador. The Nunatsiavut Government represents central-north coast Inuit (formerly the Labrador Inuit Association) and its approximately 4,000 members in five historic communities and elsewhere. They have established rights – rights that have been endorsed by modern legislation, and constitutionally recognized.

The Innu Nation in Labrador (at Sheshatshiu and Natuashish) has asserted rights that have never been tested by the courts in any fashion. The Innu Nation's land claim was conditionally accepted by Canada in 1978, but subject to further use and occupancy research that was not accepted till well into the 1990s, if it has ever been completed entirely. It was not until 1991 that Newfoundland and Labrador agreed to negotiate the Innu claim, and this was accepted as sufficient for Canada to accept the claim for negotiation without further research. Notwithstanding this more limited interest in the project area, Nalcor and the Innu Nation have entered into detailed impact-benefit negotiations and produced a draft agreement (the 'New Dawn' agreement) valued at some $500 Million.

In law, and independent of the project's territorial impacts, the NunatuKavut claim falls somewhere between that of the north-central Inuit and the Innu Nation. NunatuKavut's is an asserted claim – as with that of the Innu Nation. The NunatuKavut claim has however also been subject to the rigours of litigation, and therefore falls closer than the Innu claim toward the 'accepted' end of the continuum.

The NunatuKavut claim has not to date been accepted by governments for negotiation. That, however, is immaterial from the vantage of environmental assessment and legal duties to consult and accommodate. The courts have uniformly held that political discretion or acceptance is and cannot be a litmus test for the existence and force of Aboriginal rights – otherwise all such rights would have been denounced and accordingly denied many years ago. As a result, the NunatuKavut claim falls higher on the existing judicial continuum for consultation and accommodation purposes than any other assertion of Aboriginal, title or treaty rights in Labrador other than the demonstrated rights and entitlements of the north-central coast Inuit, represented by the Nunatsiavut Government.

NunatuKavut's claim includes the direct project foot-print area from the estuary of the Churchill River to the impoundment area above the proposed Gull Island Dam. This fact is well documented historically. Speck notes that Inuit use and

occupancy of the river valleys and adjacent hunting areas inland from the Hamilton Inset typically ran 50 miles upstream, and even to the height of land for major waterways. This was and is the case for the Churchill (or what was in the 18th century called the Eskimo) River, which was also a corridor for Inuit transit from central Labrador to the Ungava (via the George River) and to Hudson's Bay. The Inuit of central-southern Labrador, of NunatuKavut, controlled the hunting and resource usage of the interior waterways of the (now) Churchill River to and above Gull Island. Innu usage was episodic at best.

The Proponent's EIS is ignorant of these assertions of rights, and makes no attempt to either validate or contest them. The EIS as it is now drafted simply ignores NunatuKavut rights and titles in the project area, let alone down-stream. It does so primarily by simply asserting, without reference or evidence, that the main ethnographic presence in the area historically and currently is that of the Innu Nation of Labrador. This assertion is unwarranted by the historical, archaeological and the current use and occupancy data. The Proponent seems, instead, to have relied more intensely on political counseling in relation to the various accommodations being authored by the Provincial government (and the Federal Government) with the Innu Nation in relation to its lands claims assertions in various other parts of Labrador. This is unfortunate, since it ignores the fairly well documented history of Labrador Aboriginal land use and occupancy, which involves four main traits:

- A predominantly littoral occupancy of Inuit from Cape Chidely to the Lower North Shore historically (i.e., at and after contact to sovereignty);
- An interior Inuit use and occupancy throughout the lower Labrador mainland and anywhere along the river valleys up to the break of land (i.e. watershed breaks, usually 50 miles or so inland, according to Speck);
- Innu (Montagnais) interior usage of the area south and west of the Hamilton Inlet pre-contact beyond the height of land, and after contact and the establishment of friendly relationships with French interests, punctuated by a 'home-guard' association and related fighting with Inuit in the St. Lawrence north coast area and occasional forays to trade with French or later British (e.g., Hudson's Bay) posts. After the early 1820s, these forays went north from the St. Lawrence region to North West River, when it was established as a HBC post; and
- Innu (Naskapi) interior usage north of the Hamilton Inlet from the interior some 50 miles from the coast to the Schefferville area, as well as northwards into the George River basin, and occasional forays to the coast at Davis Inlet or to Northwest River for trading purposes with the Hudson's Bay Company.

This general overview is not disclosed in the proponent's description of its project, let alone in its proposed consultative agenda with NunatuKavut. Once again, Nalcor fails to instill any sort of confidence in its historical understanding of Labrador, let alone of Labrador's Aboriginal peoples.

NunatuKavut analysts realize that a clear understanding of Labrador's history is not always transparent. But it is apparent. Yet Nalcor's documentation continuously offends the people of NunatuKavut by suggesting that the dominant concern of the proponent should with the Innu.

NunatuKavut's people have no grudge against the Innu Nation. They applaud their successes and wish them well. However, NunatuKavut is on record as rejecting any accommodation for Aboriginal rights or titles in the Lower Churchill region as a sell-out unless it fully engages NunatuKavut's communities, as the dominant use and occupancy users of the project area concerned. Any other arrangement would be immoral, as well as illegal.

7.2 Business and the Economy

The construction phase may enable NunatuKavut construction companies or contractors to fulfill specific construction-related contracts. Positive impacts for such businesses could include: strengthening of the business, increased need for employees, higher employment rate among the local population, increased opportunities for skills development, increase in disposable income for owners/employees, increase in local business as a result of an increase in disposable income, etc.

The people of NunatuKavut may embark on joint ventures or lone ventures to serve the project, such as catering, waste removal, etc.

NunatuKavut may benefit from secondary and tertiary business opportunities that develop as a result of the Project, such as ecotourism, local interpretation, etc.

On-site workers will have access to a commissary at which to buy sundries. This could decrease the amount of money circulated in the local, permanent economy and lead to a decrease in sales for local retailers.

In its Environmental Impact Statement, Nalcor Energy acknowledges:

> *"While approximately $924 million in total income will be generated by activity in Labrador, there will be further leakage of income from the region because a number of workers and businesses in Labrador will be based elsewhere in the Province. For Labrador-generated incomes, it is assumed that direct income benefits will accrue primarily to those areas with the largest numbers of available construction and related-trades workers available to work on the Project. Indirect income benefits will accrue to those areas with the greatest number of businesses engaged in manufacturing and construction, while induced income benefits will accrue to those areas with the greatest share of population. Under these assumptions, Labrador West and the Upper Lake Melville area would be expected to be the primary beneficiaries of*

> *Project income effects within Labrador. However, other factors, such as the potential for expansion of mining activity in western Labrador, might limit the ability of the region to supply labour or goods and services to the Project."*[57]

For that reason, the increase in economic activity in the Project region may not be as great as is being promoted.

7.3 Culture and Traditions

Cultural and spiritual areas of importance to NunatuKavut may be affected by the Project. Traditional areas will be flooded with the creation of two large reservoirs. This will impact the ability of the residents within NunatuKavut to practice their traditional activities. Trap lines and cultural sites may also be lost, as they were with the Upper Churchill development in the late 1960s and early 1970s.

Language is inexorably tied to the land and if the connection to the land is severed, there is a danger that language will also be lost. Moreover, cultural degradation or loss will not only affect language, but NunatuKavut's spiritual connection with the land, the traditional way of life, traditional knowledge, cultural practices, traditional or historical sites, etc. Furthermore, changes in the habitat and ecology of the area of the Project may affect the aesthetics of the region. This, in turn, can influence Inuit-Metis cultural experiences.[58] It is noted that since 1988, and with the federal government's intercession to reverse the provincial agenda of assimilation, Inuktitut has been revived amongst the youth of Nunatsiavut. NunatuKavut's people wish the same benefits, and results.

7.4 Demands on Programs and Services

The project may require relocating people, or at least their seasonal occupancies. Hunting, trapping and trading activities will be affected. A population influx into established communities in the area affected by the Project, however temporary, will increase the demand and cost of housing and pressure on existing communities, programs and services. An out-migration of people from the community could disrupt families and social networks. Likewise, business endeavors may be established to specifically address the demands of new or relocated workers

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[57] EIS reference: Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.5.5.1, p. 3-13.

[58] EIS reference: Volume III, Chapter 2, Existing Environment, section 2.9, p. 2-84 – "Reservoir preparation and impounding will be the most likely Project activities to result in environmental effects on Cultural Heritage Resources, although the preparation of the transmission line corridor may also have environmental effects. Cultural Heritage Resources are essentially fixed, which limits the Assessment Area to the extent of its physical disturbance."

but these endeavors may be negatively affected quickly at the end of the construction period or as a result of a change in project direction which could impact individual entrepreneurs (e.g., in rffw7yterms of the viability of their business or their income) or employees of such initiatives (e.g., in terms of lay offs or discontinued employment).[59]

The Project will also increase demand on already existing infrastructure that will require upgrading or expansion in preparation for the Project. One such example is the Goose Bay Airport whose capacity will have to be expanded. Such upgrading and expansion may provide additional temporary employment opportunities for Inuit-Metis in the area.

An increase in mental, physical, and emotional health problems will occur and demands for health and wellness programs and services thereby increase the stress on an already stretched health and social system.

7.5 Education and Training

NunatuKavut may benefit from additional educational opportunities, including those for youth, adults, and stay-in-school programs, so they are prepared to assume employment at the Project.

NunatuKavut youth may benefit from mentorship, summer internship, career development, and on-the-job training opportunities. Likewise, NunatuKavut may benefit from capacity building and pre-employment initiatives that assist the community to compete, obtain, and retain employment at the Project.
The need for additional training to employment to qualify for Project employment could add stress to Inuit families of NunatuKavut who may not necessarily be able to afford tuition and training costs.

The Project's demand for trained employees may increase competition at post-secondary institutions, which may, likewise, affect the number of seats available to members or NunatuKavut.

The Project could undertake incentive programs to encourage greater employment, such as sponsored training, educational, or certification opportunities, guaranteed training to employment programs, etc within NunatuKavut.[60]

7.6. Employment and Income

Nalcor states that the construction requirements for the proposed project include access roads, the main accommodations complex, reservoir clearing camps,

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[59] EIS reference: Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.2.1, p. 3-4..

[60] EIS reference: Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.5.5.3, p. 3-14 – *"Project socio-economic benefits to the economy of Labrador and the Province as a whole will increase if residents and businesses within the region and Province can take advantage of the job and business opportunities that arise from the Project."*

fuelling and fuel storage facilities, concrete and crushing plant, and diversion facilities. There is an asserted potential for employment within NunatuKavut during all aspects of construction. Potential employment opportunities may include, but are not limited to: environmental monitoring, construction foremen, managers, and supervisors, heavy equipment operators, labourers, electricians, plumbers, carpenters, painters and finishers, fuel specialists, transportation crew personnel, foresters and forest technicians, etc.[61] Nalcor also indicates that there will be a need for unskilled and semi-skilled labour. Nalcor estimates that at its peak, the proposed Project will employ approximately 2,000 people during the construction phase.[62] *Please also refer to Appendix A, Forecasted Labour Resource Requirements for the Construction Phase.*

NunatuKavut's people could fulfill any of these positions with the proper training and expertise. Our members could certainly undertake unskilled and semi-skilled labour and therefore could benefit from the temporary employment. However, because of the small number of skilled labour anticipated, there will be limited opportunity for our members to meet skilled labour opportunities. Skilled labour requires certain certification and our members will only qualify for such positions if they have the skills and experiences the employer will be looking for, which without advance and planned training will be impossible to fulfill.

Likewise, the planned facilities that will be constructed include: accommodations, dining room, kitchen, coffee shop, commissary, recreation facilities, medical clinic, post office, and administrative offices. There will also be sewage transportation, a laboratory/water treatment facility, a maintenance workshop, a fire and ambulance shelter, a communications building, parking areas, warehouses, fuelling and fuel storage facilities, concrete and crushing plant, and diversion facilities. Spin-off employment opportunities for Inuit-Metis could include: managers and supervisors, housekeeping, kitchen staff and catering, security, administrative support, transportation crews and drivers, waste disposal technicians, site engineers, mechanics, fire and ambulance personnel, monitoring and maintenance personnel, and communications and information technology personnel, etc.[63]

The presence of the Project's workforce could lead to increased hunting in the area. This could negatively affect species abundance which could, in turn, impact the ability of NunatuKavut's people to carry out their hunting and trapping livelihoods, on which many rely.

NunatuKavut may benefit from training and employment opportunities, which may, in turn, increase family income, increase in standards of living, and increase of self-esteem, pride, personal potential, and sense of accomplishment. However, it is important to note that the project is not a long-term 'fix' as employment

[61] EIS reference: Volume 1a, Chapter 4, Project Description, section 4.4.1.1, pp. 4-33 – 4-41.
[62] EIS reference: Volume 1a, Chapter 4, Project Description, section 4.9.1, p. 4-78.
[63] EIS reference: Volume 1a, Chapter 4, Project Description, section 4.4.1.1, p. 4-37.

opportunities for this Project are largely short-term and will not extend beyond the construction phase.

Living costs for NunatuKavut workers at the Project site(s) could decline as living and commuting costs will be covered by the employer while the employee is on site. A reduction in living costs will increase the amount of disposable income available.

Filling employment needs is not guaranteed to occur by the local Inuit-Metis workforce (or the local workforce in general). As such, there is the potential for employment opportunities to be filled by people from outside of the Inuit-Metis community and/or outside the region. Should this happen, the employment levels of local Inuit-Metis will not be positively impacted by new employment opportunities with the Project.

Inuit of NunatuKavut may not have the necessary skills set or qualifications required by the Project and so may not be able to compete for employment opportunities, particularly those that require a certain degree of skill, education, or training.

Nalcor anticipates that staff that will oversee the day-to-day administration, engineering, and maintenance of the two generation facilities will be based in Happy-Valley-Goose Bay. Nalcor anticipates requiring 31 staff for the generation sites as follows:

Workforce Requirements – Gull Island Operations – Happy Valley-Goose Bay[64]

Position	Quantity	Classification/Expertise
Plant Manager	1	Electrical/Mechanical Engineer
Plant Engineer	1	Electrical/Mechanical Engineer
Technical Supervisors	2	Protection & Control (P & C) Operations/Mechanical/Electrical
Technical Operators	8	P & C/Communications Operations/Millwrights/Electricians-Trades and Technologists
Utility	4	Building Maintenance
Asset Specialist	1	Electrical/Mechanical Engineer/Technologist
Civil Technologist	1	Civil Technology
Planner	1	Mechanical/Electrical Trade or Technology
Area Office Clerk	1	Administration, Management Systems
Accounting Clerk	1	Clerical/Document Control
HSE/Security Administrator	1	Safety and Environment Technology

[64] Nalcor Energy. *Lower Churchill Hydroelectric Generation Project Environmental Impact Statement, Volume 1, Part A, Project Planning and Description*. Chapter 4, Project Description, section 4.9.2.1, pp. 4-79-4-80.

Position	Quantity	Classification/Expertise
Storekeeper/Tool Crib	1	Warehousing Attendant

Workforce Requirements – Muskrat Falls Operations – Happy Valley-Goose Bay[65]

Position	Quantity	Classification/Expertise
Technical Supervisors	1	P & C Operations/Mechanical/Electrical
Technical Operators	1	P & C/Communications Operations/Millwrights/Electricians-Trades and Technologists
Utility	2	Building Maintenance
Clerk	1	Document Control/Management Systems

Seven additional staff will be required for the ECC in St. John's as follows: [66]

Position	Quantity	Classification/Expertise
System Operators	1	Electrical Technology
Marketing Analyst	1	Marketing/Engineering
System Operations Engineer	2	Electrical Engineer

[65] Nalcor Energy. *Lower Churchill Hydroelectric Generation Project Environmental Impact Statement, Volume 1, Part A, Project Planning and Description*. Chapter 4, Project Description, section 4.9.2.1, p. 4-80.

[66] Nalcor Energy. *Lower Churchill Hydroelectric Generation Project Environmental Impact Statement, Volume 1, Part A, Project Planning and Description*. Chapter 4, Project Description, section 4.9.2.1, p. 4-80.

Ten staff will be required to maintain the Project transmission lines as follows:[67]

Position	Quantity	Classification/Expertise
Line Workers	3	Trades
P & C Technologist	2	Electrical Technology
Communication Technologist	1	Communication Technology
Asset Specialist	1	Electrical Engineer/Technologist
Electricians	3	Trades

The post-construction, operational phase of the project presents extremely limited employment opportunities. Competition for those positions will likely be high and candidates will be required to have the necessary qualifications and experience.

7.7 Funding

There may be additional support and funding for new and existing social programs., including, youth programs, outreach, family support, drug, alcohol, and substance abuse counselling and support, budget management, etc. Funding may also become available to assist NunatuKavut to pursue education and training so that they can become qualified for employment at the Project. However, Nalcor Energy has been foresworn against entering into any impact-benefit agreements with NunatuKavut. Accordingly, such funding arrangements are precluded, in clear violation of the Supreme Court of Canada's requirement that our people be accommodated, and not only consulted, as to developments within our territories.

7.8 Health

A significant portion of the diet of many Inuit of NunatuKavut consists of wild food. Ingestion of contaminants by the animals/fish would in turn negatively affect the health of our people when they eat wild food.

If the quality of wild food declines and is no longer as abundant or edible, our people will become increasingly reliant on store-bought food which is more expensive than wild food and tends to worsen rather than improve indigenous health. This is an established fact based on repeated Health Canada studies.

Pollution will have adverse affects on population health, most immediately on the health of people living in the immediate vicinity of the project. For example, herbicide use by the Project may impact growth of vegetation, most notably berries and other food plants. The ingestion of poisoned berries and plant food will affect

[67] Nalcor Energy. *Lower Churchill Hydroelectric Generation Project Environmental Impact Statement, Volume 1, Part A, Project Planning and Description*. Chapter 4, Project Description, section 4.9.2.2, p. 4-80.

the physical health of the NunatuKavut peoples. Changes in water quality and fish quality will affect their health. Consumption of fish with high levels of mercury can have serious health implications. The fish that swim in the Churchill River are still used as food. Any contamination of the fish will ultimately impact the health of the people that consume food fish.

7.9 Hunting and Trapping

Displacement of the caribou will ultimately affect the people of NunatuKavut, who rely on the caribou as an important food source and have done so for centuries. Moreover, the caribou have cultural significance to our people. Their absence or decline will affect our culture as well.[68]

Marten is also an important animal to the NunatuKavut. The construction of the transmission line will affect the primary and secondary habitat of that species. Moreover, the construction of the reservoirs will represent the greatest habitat alteration ever experienced by the marten in the last few centuries. As a result, NunatuKavut will be affected as the marten are affected since their people have regularly trapped marten.[69]

The people of NunatuKavut also hunt moose and a variety of birds, like grouse, ptarmigan, geese and such migratory birds, such as black ducks, and they also regularly snare rabbits (snow hares). Changes to habitat that affect these animals will also impact the people's ability to carry out traditional hunting and trapping pursuits.

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[68] EIS reference: Volume II, Part B, Chapter 5, Environmental Effects Assessment – Terrestrial Environment, section 5.7.1.1, p. 5-17 – *"Displacement distances of Caribou from disturbances are variable but range from under 1 km to over 10 km, and may extend up to 50 km for some disturbances."*

[69] EIS reference: Volume II, Part B, Chapter 5, Environmental Effects Assessment – Terrestrial Environment, section 5.11.1.8, p. 5-50 – The lower Churchill River valley supports mature and overmature forests that provide the structural diversity most favoured by Marten. All terrestrial sites within the Assessment Area provide at least some level of Marten habitat quality. Much of the transmission line construction will be within a forested area, so there will be effects to primary and secondary Marten habitat, with disturbance possibly reducing suitability for Marten during construction. The loss of forest cover during reservoir preparation will directly influence Marten, as it generally avoids clear-cuts (Steventon and Major 1982; Thompson and Harestad 1994; Potvin et al. 2000). The upgrading and constructing site access roads and other Project activities (i.e., site preparation and construction of site buildings, excavation for and installation of generation components, and quarrying and borrowing) will contribute to fragmentation of contiguous forest and are obstacles to movement for Marten. The dust and noise associated with these Project activities will further affect adjacent habitat not surficially disturbed. For Marten, reservoir preparation and impounding will represent the greatest habitat alteration as a result of the Project. Once the reservoirs are complete, approximately 86.2 km2, or 2.0 percent of the primary Marten habitat in the Assessment Area (11.6 percent of the lower Churchill River valley) will be transformed into open water … .

7.10 Infrastructure

Flooding from a dam malfunction or break or other accidents could affect the water levels near NunatuKavut communities, which could, in turn, affect housing, sewage and sanitation systems, and population health.

7.11 Leisure Activities

The leisure activities of the NunatuKavut may be affected by the proposed project. For example, certain areas that were visited during leisure time (e.g., to camp, fish, or gather) that were accessible prior to the proposed project may no longer be accessible because of flooding or other changes.

7.12 Mental Health

The loss of culture, language, and traditional ways of living could impact the population of NunatuKavut's mental health. Moreover, changes to the terrain and to the social fabric of our life-styles can increase social stress, which can negatively impact mental health. Impacts on mental health could manifest themselves in a variety of ways, such as in the form of stress, anxiety, alienation, apathy, or depression.

7.13 Mobility and Travel

Changes in the ice freeze and thaw can affect travel – both in terms of when travel can take place and safety because the level of predictability of the ice will decline.[70] Thus, NunatuKavut mobility and ability to travel will be affected.

Changes in water and ice conditions could affect winter travel among the NunatuKavut's people, particularly around Mud Lake. Freeze up is important to the community of Mud Lake as the community relies on the ice bridges for transportation across the channel throughout the winter. Disturbances in ice flow or in the freezing

[70] EIS reference: Volume II, Part B, Chapter 5, Environmental Effects Assessment – Terrestrial Environment, section 5.11.2.2, p. 5-62 – *"The ice dynamics model of the Churchill River predicts that it will take longer for the ice cover to progress up the river from Goose Bay to Muskrat Falls than it does under existing conditions. First, the delay in cool-down will delay the start of the ice cover formation. Second, the dam at Muskrat Falls will cut off the supply of frazil ice coming from upstream, so the rate of ice cover progression from Goose Bay to the base of the falls will be slower. Depending on climate conditions, ice could take three to six weeks longer to reach Black Rock Bridge, and at least one month to reach Muskrat Falls, as compared to existing conditions (Hatch 2007). … There will no longer be an ice dam downstream of the Muskrat Falls because of the lack of frazil ice from upstream. Instead, a small area of open water will persist during the winter. … For average winter climate conditions, it is estimated that ice formation near Mud Lake will be delayed by approximately two weeks, with a one-week delay in ice break-up. At Black Rock Bridge, ice formation will be delayed by three to six weeks, and break-up will be delayed by approximately two weeks."*

or thawing of ice could impact the ability of Mud Lake citizens to travel, in turn affecting their safety and their livelihood. The ice may become unreliable.

7.14 Social Problems

With increased employment and income, there is the potential for tertiary social problems to result, such as alcohol, drug and other substance abuse, and gambling. This, in turn, could lead to substance abuse-related crime and abuse.

7.15 Social Relations

The Project will attract non-Inuit to the area which increases the potential for social and cultural conflicts.

Marital and family stress may increase due to prolonged absences of family members who are employed with the Project.

Different benefits may be negotiated between Nalcor and the Inuit, Innu and Inuit-Metis respectively. This may lead to greater division, strife, and stress among the Aboriginal people in the region.

8.0 How These Potential Adverse Socioeconomic Effects May be Reduced and How Positive Effects May be Improved

In discussing EIA good practice, the United Nations University Centre emphasizes that the first priority addressing the effects of a project is, first and foremost, to avoid adverse impacts through preventative measures. Mitigation can be accomplished structural or non-structural measures, often integrated into an environmental impact statement. Structural measures include such activities as design or location changes, engineering modifications and landscape or site treatment. Non-structural measures include items such as economic incentives, legal, institutional and policy instruments, provision of community services and training and capacity building.[71]

Nalcor Energy has completed an environmental impact statement concerning the proposed Lower Churchill Hydroelectric Project that does address mitigation measures. It did not, however, comply with the EIS guidelines and failed to produve a people-specific chapter on NunatuKavut.

[71] United Nations University Centre (UNU Online Learning). EIA Training Resource Manual, Second edition 2002. Source: http://eia.unu.edu/course/?page_id=118, retrieved on: December 21, 2009.

Prior to any Panel report, it is essential that the Panel hold Nalcor Energy to account for its failure to comply with the Panel's own guidelines. We have sought in this study to point the way to how such compliance can be achieved.

In addition, during the construction and operations phases, a litmus test for the Panel will be to monitor Nalcor Energy to ensure that it is fulfilling its commitments and that it is taking corrective action when required.

Indeed, environmental impact assessment follow-up is important in that it provides information about the consequences of implementation as they occur and gives the responsible parties (proponent and/or competent authorities) the opportunity to take adequate measures to mitigate or prevent negative effects on the environment.[72] Building on this, environmental impact assessment follow-up can involve a number of elements:

> *Monitoring* is in essence the collection of data (measuring) with the aim of providing information on the characteristics and/or functioning of (environmental) variables. For this purpose, monitoring usually consists of a program of repetitive observation, measurement and recording of environmental variables and operational parameters over a period of time for a defined purpose … More specific types of monitoring are baseline monitoring (measuring the initial state before action is undertaken), monitoring of compliance with, and effects of, the consent decision, and area wide monitoring (measuring the general state of the environment in an area).
>
> *Auditing* is … a periodic activity that involves comparing monitoring observations with a set of criteria (such as standards, predictions or expectations), and reporting the results. In contrast to the continual activity of monitoring, audits are single or periodic events. Environmental auditing may be carried out to facilitate management control and to assess compliance. In environmental management systems, auditing serves as a self-regulation of the activity's own stated environmental policy, for instance, the ISO 14000 standards series.

[72] Arts, Jos, Caldwell, Paula, and Morrison-Saunders, Angus. "Environmental impact assessment follow-up: good practice and future directions — findings from a workshop at the IAIA 2000 conference" in *Impact Assessment and Project Appraisal*, volume 19, number 3, September 2001, p. 177.

> *Evaluation* is a term much used in planning and policy for the generic process of gathering, structuring, analysing and appraising information. Evaluation explicitly involves value judgements. It often relates to subjective policy-oriented judgements rather than purely scientific and technical analysis.
>
> *Ex ante* evaluation (for instance, an EIS) focuses on the preparation phase of the planning cycle, including problem analysis, formulation of project goals, and development and pre-selection of alternatives. *Ex post* evaluation concerns the appraisal of a policy, plan or project which has been or is currently being implemented. It involves an evaluation of the activities and situations that followed a particular decision.
>
> *Post-decision analysis* is, like EIA follow-up, a generic term referring to a wide range of activities that can occur after a decision has been made and the implementation of a project has commenced.
>
> *Environmental management system* (EMS) operationalizes the implementation of all measures developed in the predecision stage (regulatory, mitigative, environmental agreements and so on) while integrating a follow -up system that will ensure compliance to these measures and an evaluation of their effectiveness. [73]

According to Sosa and Keenan, an additional way to minimize the negative impacts and maximize benefits of a project such as the proposed Lower Churchill Hydroelectric Project is through binding agreements between the company and the affected communities. Such agreements are commonly called impact benefit agreements or IBAs.[74] NunatuKavut has sought such an agreement with Nalcor Energy, but been to date rebuffed.

An impact benefit agreement, sometimes referred to as a socio-economic

[73] Arts and Nooteboom (1999) as cited in Arts, Jos, Caldwell, Paula, and Morrison-Saunders, Angus. "Environmental impact assessment follow-up: good practice and future directions — findings from a workshop at the IAIA 2000 conference" in *Impact Assessment and Project Appraisal*, volume 19, number 3, September 2001, p. 176.

[74] Sosa, Irene and Keenan, Karyn. Impact Benefit Agreements between Aboriginal Communities and Mining Companies: Their Use in Canada. Toronto: Canadian Environmental Law Association, 2001, p. 2.

agreement, is a legally binding agreement between a proponent and a community that serve to ensure that communities have the capacity and resources required to maximize the potential positive benefits stemming from a project development.[75] It is a mechanism " … for establishing formal relationships between … companies and local communities". Sosa and Keenan state that the main purposes of IBAs are: "i) to address the adverse effects of commercial … activities on local communities and their environments, and ii) to ensure that [Aboriginal communities] receive benefits from the development of … resources."[76] IBAs also establish a protocol to ensure community involvement in or consultation during assessment and monitoring.[77]

Impact benefit agreements cover a range of topics, including:

- Aboriginal access – e.g., advanced notice of positions, priority hiring, Aboriginal employment coordinator or liaison officer, etc.
- Aboriginal consultation processes – e.g., negotiation of benefits to the community, etc.
- Business opportunities – e.g., priority to Aboriginal companies, joint ventures, Aboriginal tender targets, workshops on how to pursue company tenders, Aboriginal business registry, etc.
- Dispute resolution mechanisms – e.g., community-based consultation and dispute identification and discussion/talking circle approach, etc.[78]
- Education and training – e.g., apprenticeship opportunities, professional development, career support measures, scholarships, etc.
- Employment provisions – e.g., hiring policy, targets for Aboriginal employment for the company and sub-contractors, prior learning assessment recognition (PLAR) that considers both work and education in the hiring process, etc.[79]
- Environmental monitoring and protection – e.g. on the ecosystem, of sites of cultural importance, baseline and follow up studies, involvement of Aboriginal people in monitoring, contingency measures, provisions for claims for environmental damages or harm caused by the project, etc.[80]

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[75] Noble, Bram F. Introduction to Environmental Impact Assessment: A Guide to Principles and Practice. Toronto: Oxford University Press, 2010, p. 155.
[76] Sosa, Irene and Keenan, Karyn. Impact Benefit Agreements between Aboriginal Communities and Mining Companies: Their Use in Canada. Toronto: Canadian Environmental Law Association, 2001, p. 2.
[77] Sosa, Irene and Keenan, Karyn. Impact Benefit Agreements between Aboriginal Communities and Mining Companies: Their Use in Canada. Toronto: Canadian Environmental Law Association, 2001, p. 2.
[78] Fidler, Courtney, and Hitch, Michael. "Impact and Benefit Agreements: A Contentious Issue for Environmental and Aboriginal Justice" in *Environments Journal*, 2007, volume 35(2), p. 61.
[79] Fidler, Courtney, and Hitch, Michael. "Impact and Benefit Agreements: A Contentious Issue for Environmental and Aboriginal Justice" in *Environments Journal*, 2007, volume 35(2), p. 61.
[80] Fidler, Courtney, and Hitch, Michael. "Impact and Benefit Agreements:

- Environmental restrictions – e.g., negotiated protected areas and limited access regulations, etc.
- Financial arrangements – e.g., royalties, profit sharing, fixed cash amounts, equity interests in the project, compensation to individuals who suffer loss as a result of the project (such as hunters or trappers), trust fund or security deposit by the company, specifically for covering future reclamation costs, negotiation costs, etc. [81]
- Guaranteed benefits and revenue sharing – e.g., annual minimum payments, minimum wage and benefit agreements, guaranteed employment hiring, percentage return of profits coordinated by the overall governing body, such as the Labrador Metis Nation, etc.
- Health and safety – e.g., Workplace Hazardous Materials Information System (WHMIS) training, public safety demonstrations, and training for youth, etc.
- Social and cultural provisions and infrastructure – e.g., programs to remove cultural hurdles to participation, flexible work schedules to accommodate traditional activities, mutual cultural sensitivity training, counselling, limitations on or prohibitions against non-Aboriginal hunting, trapping or fishing, financial or infrastructural support for community projects, recreational programs, targeted programs for people at risk (e.g., women and youth), etc.[82]

We encourage the Panel to require Nalcor Energy to enter into an appropriate impact-benefit agreement with NunatuKavut.

While there is no legal obligation the part of the company to negotiate an IBA, embarking on negotiations with NunatuKavut would be beneficial to the company on a number of fronts.[83] It is, moreover, financially prudent, since the regulatory agencies involved (federal and provincial) will likely insist on such accommodations, as will the courts, should the Panel decide to proceed with recommendations in their absence.

Likewise, negotiating an IBA may be beneficial to the NunatuKavut in that IBAs might: allow NunatuKavut to promote its own agenda and put forth its priorities,

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A Contentious Issue for Environmental and Aboriginal Justice" in *Environments Journal*, 2007, volume 35(2), p. 61.

[81] Fidler, Courtney, and Hitch, Michael. "Impact and Benefit Agreements: A Contentious Issue for Environmental and Aboriginal Justice" in *Environments Journal*, 2007, volume 35(2), p. 61.

[82] Sosa, Irene and Keenan, Karyn. Impact Benefit Agreements between Aboriginal Communities and Mining Companies: Their Use in Canada. Toronto: Canadian Environmental Law Association, 2001, pp. 9-19; Fidler, Courtney, and Hitch, Michael. "Impact and Benefit Agreements:
A Contentious Issue for Environmental and Aboriginal Justice" in *Environments Journal*, 2007, volume 35(2), p. 61.

[83] Sosa, Irene and Keenan, Karyn. Impact Benefit Agreements between Aboriginal Communities and Mining Companies: Their Use in Canada. Toronto: Canadian Environmental Law Association, 2001, p. 8.

increase awareness among the community about the project, related issues and opportunities, and engage them in the process, ensure an engagement of its labour force during construction and operation, and establish goals and mandates that include Labrador and NunatuKavut-specific participation in environmental management, follow-up and adaptive management.[84]

Impact benefit agreements are not without their limitations. For example, unless an IBA contains a provision for revenue sharing, the economic benefit will be extremely localized (to the nearest affected or largest community, for example) and there will not be any regional benefit even though the project will have widespread impacts. IBAs also create competitiveness in that where several Aboriginal groups are negotiating with a company, those Aboriginal groups might find themselves competing with one another for the 'best' provisions. This is certainly the case in respect of the proposed generation project, despite NunatuKavut's dominance within the project foot-print.

Moreover, some Aboriginal groups might find themselves left out of the process altogether. There are also no regulatory guidelines for negotiating IBAs and therefore there is much latitude in the negotiation of IBAs and uncertainty about parties' roles and responsibilities. Consequently, the strength of the agreement from an Aboriginal point of view is often dependent on matters over which the Aboriginal party has no control.[85]

A significant barrier to an impact benefit agreement for NunatuKavut is garnering the participation of Nalcor energy in negotiating one. The negotiation of IBAs between ourselves and resource development companies is uncommon. But they are essential.

8.1 The Case Law Respecting NunatuKavut

In 2007 NunatuKavut launched a Supreme Court action in Newfoundland, which was varied but upheld by the Appeal Court of the province in 2008 and denied appeal from the province by the Supreme Court of Canada in the same year.

This was an important case: it held that the Supreme Court's ruling in Haida Nation and Taku T'linkit applied in Labrador as to the asserted rights of NunatuKavut.

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[84] Sosa, Irene and Keenan, Karyn. Impact Benefit Agreements between Aboriginal Communities and Mining Companies: Their Use in Canada. Toronto: Canadian Environmental Law Association, 2001, pp. 8, 9.

[85] Sosa, Irene and Keenan, Karyn. Impact Benefit Agreements between Aboriginal Communities and Mining Companies: Their Use in Canada. Toronto: Canadian Environmental Law Association, 2001, pp. 20-21.

Since that date, any development within the core regions of NunatuKavut are legally required to pre-consult and, where appropriate, accommodate any affected interests. The generation project along the Churchill River is one such development. The fact that Nalcor Energy is also an effective agent of the provincial Crown has merely highlighted this essential requirement. Nalcor Energy has been deficient in responding to the Joint Review Panel's stated guidelines. It has also refused to enter into any impact-benefit discussions with NunatuKavut, apparently on the orders of the Premier.

The Joint Review Panel is held to a higher standard, and must comply with its own guidelines and orders. Nalcor may be deficient. That is their choice, as it is of the province. NunatuKavut only asks that the Panel reply accordingly, and be held appropriately accountable, particularly as it is uniquely engaged as a partial agent of both Crowns in relation to the discharge of the duty to consult and accommodate.

8.2 Additional Socioeconomic Elements to Note about Nalcor's Environmental Impact Statement

The following discussion highlights additional socioeconomic elements to note about Nalcor Energy's Environment Impact Statement. The comments are organized by topic, as follows:

- Communities
- Conflict of Interest
- Consultation
- Education and Training
- Employment
- Enforcement
- Inuit-Metis Inclusion
- Inuit-Metis Land Claim
- Management
- Monitoring
- Safety
- Socioeconomic Impacts
- Support
- Third Parties
- Usage

8.3 Communities

The description of the communities in the EIS is quite scant. The discussion really only names the major communities in Labrador but does not provide any specific information or a demographic profile.[86]

8.4 Conflict of Interest

Nalcor Energy is a provincial Crown corporation owned by the Government of Newfoundland and Labrador.[87] There is clear and present conflict of interest. The Government of Newfoundland and Labrador should not be an advocate of development affecting the health and welfare of its citizens, namely people of NunatuKavut, while at the same time taking active steps to implement the Lower Churchill Hydroelectric Project. There is the potential for damage and ill effects, as there are with any project of this magnitude, and if something goes wrong, how will the government balance its interest and massive financial investment in the project with the health and welfare of its citizens?

8.5 Consultation

Nalcor is obligated to integrate Aboriginal traditional and community knowledge of the existing environment into its Environmental Impact Statement to the extent that it is available. It was specifically required to report on NunatuKavut interests and rights, and related impacts of the development. If failed to do so.

It is noted that Volume I, Chapter 8[88], which addresses Aboriginal consultation, provides a detailed explanation of consultations with and involvement of the Innu. Notwithstanding the importance of involving the Innu meaningfully, there was and remains an opportunity to involve NunatuKavut meaningfully as well. Section 8.3.3 states that discussions were held with the NunatuKavut executive (then the Labrador Metis Nation) in the spring of 2007. In turn, the Labrador Metis Nation provided comments on the draft EIS Guidelines as part of the public review process. Thereafter, during the spring and summer 2008, senior Project personnel met with representatives of the Labrador Metis Nation in Happy Valley-Goose Bay to exchange information about the Project, the environmental assessment and possible LMN interests. Since that time, NunatuKavut has provided pointed objections to Nalcor's supplemental submissions to amend the EIS. The EIS is simply unacceptable as now presented. NunatuKavut has also prepared at its own cost a proposed research agenda to permit the proponent to remedy the deficiencies noted by the Panel in late 2009 and early 2010. NunatuKavut has to date been entirely rebuffed, with Nalcor seeking to acquit its deficiencies by only holding a quick, 4-month long community

[86] EIS reference: Volume III, Chapter 1, Introduction, section 1.2, p. 1-3.
[87] EIS reference: Volume 1a, Chapter 1, Introduction, section 1.0, p. 1-1.
[88] Nalcor Energy. *Lower Churchill Hydroelectric Generation Project Environmental Impact Statement, Volume 1, Part A, Project Planning and Description*. Chapter 8, Aboriginal Consultation, p. 8-4-8.10.

tour of NunatuKavut communities to present its required 'Plain language summary' of the project.

Nalcor Energy states that

> *Aboriginal traditional and community knowledge was considered in the preparation of the EIS in accordance with the EIS Guidelines".* In section 9.1.2, Nalcor states that *"local community knowledge was obtained from residents of Upper Lake Melville and Churchill Falls through: focus groups held in conjunction with the Communities … [valued environmental components (VEC)] … ; interviews and discussions with representatives of public and private training groups; technical workshops; community meetings such as the meeting in Mud Lake, which provided access to important information regarding ice formation and break-up; and open houses and focused face-to-face or telephone surveys such as were done to support consideration of the Land and Resource Use VEC and the Cultural Heritage Resources VEC [*VEC=valued environmental components].[89]

However, there is insufficient information provided in the EIS, and what information that is provided is entirely Innu-specific. The EIS failed to specifically target the people of NunatuKavut, which was an explicit requirement of the Panel's guidelines. There is also little indication as to whether NunatuKavut or its constituent communities put forth any specific VECs and/or whether our people agree with the VECs listed in the EIS document.

8.6 Decommissioning

Nalcor does not include any details about decommissioning of the project in its environmental impact statement because it states that *"there are no plans to decommission the Project".*[90] It then goes on to state that if decommissioning does take place, *"future decommissioning/abandonment activities will be subject to future examination under the NLEPA [Newfoundland and Labrador Environmental Protection Act] and CEAA [Canadian Environmental Assessment Act] or other legislation as applicable at the time of decommissioning".* [91]

[89] Volume 1a, Chapter 9, Environmental Assessment Approach and Methods, sections 9.0 and 9.1.2, pp. 9-1; 9-7-9-8.
[90] Volume 1a, Chapter 4, Project Description, section 4.6, p. 4-62.
[91] Volume 1a, Chapter 4, Project Description, section 4.6, p. 4-62.

Recognizing that legislation evolves over time and that it is not possible to predict what legislation will be in place in the future, Nalcor should nonetheless include in its environmental impact statement a detailed discussion about what its decommissioning plan might look like, subject of course, to future legislative requirements.

8.7 Education and Training

"Nalcor Energy and Innu Nation have agreed to cooperate in the development of a specific Innu Training Plan to help encourage and assist Innu to participate in and become qualified for employment on the Project.[92]*"* There is no NunatuKavut-specific training plan in place at this time, or any being offered by Nalcor Energy. Having one would directly address how Nalcor will grow NunatuKavut's presence among the Project workforce. The absence of one, as at present, simply calls Nalcor Energy's entire plan into question.

8.8 Employment

In order to maximize economic benefits, Nalcor will plan and implement strategies to provide long term employment and business opportunities for "local people". There is a need to make explicit mention of NunatuKavut's people as specific constituents in the project's overall goals.[93]

To better understand anticipated employment and training needs, it would be helpful to know the exact types and numbers of employment opportunities that the Project anticipates. In that way, NunatuKavut could better anticipate the Project needs and seek training, education, and certification accordingly. (Nalcor does discuss the anticipated types of employment the construction phase will require in Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.7.5.1, p. 3-29, but by its own admission, this presentation is very general.) Additionally, particular focus on the commitment of Nalcor to construction and post-development monitoring will be essential in the comprehensive review process. There will need to be continuous monitoring on the part of NunatuKavut.

Nalcor states,

> *"The problem of increasing competition for labour from across the country is compounded by the nationwide effects of an aging population, generally declining birth rates and, until recently, a general lack of awareness and interest in opportunities in the skilled trade occupations.*

[92] Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.6.5.2, p. 3-26.
[93] EIS reference: Volume 1a, Chapter 1, Introduction, section 1.0, p. 1-1.

> *Newfoundland and Labrador has an additional problem in that, particularly through the 1990s, following the collapse of the fishery, there has been a net out-migration of skilled workers to other provinces.*[94]*"*

The population of the general Canadian population is indeed increasing. However, the Aboriginal population is increasing dramatically. As such, the Aboriginal workforce represents a potential pool of labour that the Project could tap into.

"Operation and maintenance activities will require a much smaller workforce to operate the generation facilities and maintain the equipment and associated transmission line infrastructure." [95] What, then, happens to all these newly trained people from the Project areas who have received training, education, and certification and quite possible potential employment during the construction phase? With the onset of the operation and maintenance phase, there is the potential for these newly trained people to lose their employment. Given the limited employment in the region outside of the Project, these people will be faced with either leaving the region, as so many others have done, or remain at home but drawing employment insurance. This will tax the province's social system and have personal repercussions, including: a decline in income, mental health concerns, such as depression and poor feelings of self-worth, separating families when members leave for work out of province, substance abuse, etc.

Nalcor presents an adjacency principle for hiring that puts qualified and experienced residents of Labrador as the top of the list. However, the EIS does not specifically address the priority of Aboriginal hiring or, specifically, hiring priorities for the people of NunatuKavut, who are most impacted by the development. Nalcor should mandate its contractors to, at minimum, follow the same adjacency principle that Nalcor establishes for itself. Nalcor also mentions that it will require its contracts to *" … develop a human resources plan, including employment objectives and targets, in support of the commitment to women's employment"*[96]. Notwithstanding the importance of women's employment, there is no mention of a human resources plan to support the commitment to Aboriginal, and in particular, NunatuKavut employment. Nalcor should provide such a plan.

Nalcor also reports that it *"will also engage employees and potential employees directly through a variety of programs and practices including: … proposing an engagement and benefits strategy with stakeholder groups, including … Labrador*

[94] Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.6.5.1, p. 3-22.
[95] Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.6.5.2, pp. 3-23.
[96] Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.6.5.2, pp. 3-24-3-25.

Métis Nation …, which will be developed in consultation with these groups." [97] However, when most recently requested to offer an impact-benefit agreement with NunatuKavut, Nalcor Energy was staunch in refusing the requested accommodation, apparently at provincial instruction.

Nalcor intends to hire an Innu Employment Coordinator and establish an Innu Liaison position.[98] Such positions will be very important to attracting and maintaining Innu employment. However, parallel positions for the NunatuKavut would also be vital to attracting and maintaining the employment of our people.

In Volume III, Nalcor makes numerous references to the positive impacts at Voisey's Bay, with respect to Aboriginal employment in particular. However, there have been equally numerous challenges with that project. Nowhere in the EIS does Nalcor acknowledge such difficulties or discuss how it will address, prevent, mitigate, or ameliorate similar challenges if they arise in the context of the Lower Churchill Project.

A number of questions remain. What kind of training to employment programs will be put in place for the members of NunatuKavut to attract or to enable our members to compete effectively for employment opportunities? Will a certain number of opportunities be ear-marked specifically for NunatuKavut candidates? How will our candidates be assessed against other Aboriginal applicants? Will there be certain number of opportunities allocated to different Aboriginal groups (e.g., NunatuKavut, Nunatsiavut or Innu) or will all Aboriginal applicants all compete on an equal footing?

8.9 NunatuKavut's Inclusion

Nalcor states that *"In cooperation with the Innu Nation, Innu Traditional Knowledge was collected and has been incorporated in verbatim quotes throughout the EIS."*[99] Notwithstanding the importance of Innu Traditional Knowledge, other forms of traditional knowledge have been excluded from the EIS, including the Traditional Knowledge of NunatuKavut. This is a particular irritant as out people are the dominant users of the Upper Lake Melville are, in which Innu have occasionally been witnessed, but seldom held control.

[97] Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.6.5.2, p. 3-26.
[98] Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.6.5.2, p. 3-27.
[99] Volume Ia, Preface, p. i.

Each of the key indicators in the EIS is discussed in general and in terms of the cultural importance these species have for the Innu.[100] The cultural importance of these species to NunatuKavut is not considered.

"Two sites of cultural and spiritual importance to the Innu in the Assessment Area include the hill on the north side of Muskrat Falls (Manitu-utshu), and the site of a shaking tent ceremony at Upper Brook (south side) (Ushkan-shipiss)."[101] Notwithstanding the importance of these two sites, no other cultural sites appear to be identified in the EIS. Indeed, the archeological survey conducted by Jacques Witford in 1998-1999 along the middle reaches of the Churchill River recorded a predominant presence of Inuit and mixed-blood Inuit, and a relative absence of Innu, in the area.[102]

As such, sites that may be significant to the Inuit-Metis may have been overlooked.

"Nalcor Energy is currently involved in IBA negotiations with Innu Nation." [103] Negotiating an IBA with the Innu Nation is important to the Innu Nation. At the same time, there is no equivalent negotiations occurring with the Inuit-Metis and as such, the Inuit-Metis may not have the same commitment from Nalcor in terms of hiring and training, procurement, support of Inuit-Metis businesses, direct payments, and valued Inuit-Metis social and cultural components.

"Facilitating the participation of Aboriginal people in the Project is an important goal. An IBA is being currently negotiated with Innu Nation, which, once concluded, will define how Labrador Innu will participate in, and benefit from the Project. While all of the above measures will be sensitive to the particular needs of Innu, some may be further defined as part of the IBA."[104] Meaningful incorporating the Innu Nation into the development of the Project is important. At the same time, the Innu are not the only Aboriginal people that will be affected by the project. The people of NunatuKavut are the main Aboriginal people that will be affected by the project. Addressing their concerns and how they will be impacted, both positively and negatively must be more explicitly addressed by Nalcor.

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[100] Volume II, Part B, Chapter 5, Environmental Effects Assessment – Terrestrial Environment, pp. 5-2-5-10.
[101] Volume III, Chapter 2, Existing Environnent, section 2.8.11, p. 2-74.
[102] Personal communication with Stephen Loring, Smithsonian Institution.
[103] Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.2.4, p. 3-7.
[104] Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.6.5.2, p. 3-26.

Nalcor's discussion about personal health and well-being is directed only at the Innu.[105] The discussion about social environments and social support networks (particularly preservation of language and culture and traditional lifestyle) is also largely restricted to the Innu.[106] Such a discussion is important but effects on other peoples, such as those of NunatuKavut, who are equally if not more important.

The EIS equates 'Aboriginal' with 'Innu' and does not consider the NunatuKavut Inuit, which are also Aboriginal resource users.[107]

Volume III, Chapter 5, Environmental Assessment – Cultural Heritage Resources, section 6.5.5.1, pp. 6-6; 6-10; Volume III, Chapter 8, Conclusions and Sustainability, section 8.2.4, pp. 8-6 – at p. 6-6: *"In all, 46 archaeological sites with assigned Borden numbers, the Canadian registry for historic and archaeological sites, have been identified in the Assessment Area … Included are 26 sites with pre-contact components, six historic tilts, 14 historic campsites and other indeterminate historic occupations, and two historic Hudson's Bay Company trading posts."* There are also 2 cultural/spiritual sites deemed to be significant to the Innu. At p. 6-10: *"Because 40 sites are situated close to the shoreline of the Churchill River within the area to be inundated, reservoir preparation and impounding is the principal Project activity that will cause loss."* At p. 8-6: *"Forty-four historic and archaeological sites will be disturbed or lost as a result of the Project."* Thorough mitigation should occur well before flooding. Some of these sites, particularly the trading posts, may be of particular significance to the NunatuKavut. Our people no doubt have a vested interest in the results of archaeological activities and should be meaningfully involved and informed throughout the process.

8.10 The NunatuKavut Land Claim

Nalcor states that "[t] he LMN has asserted a land claim in the region that overlaps the Project Area; however, this claim has not been accepted for negotiation by either the federal or the provincial governments"[108]. This statement ignores the reigning Supreme Court decision in the matter, as stated in *Haida Nation*. An Aboriginal assertion of rights must be taken, if it is minimally warranted, as if it were a statement of right upheld by the courts. The NunatuKavut case in question was upheld by the Supreme Court of Newfoundland, the Appeal Court, and the Supreme Court of Canada. This at least implies that a judgment has been made about the claim

[105] EIS reference: Volume III, Chapter 4, Environmental Assessment of Socio-Economic Effects – Community Health, section 4.7.5.1, p. 4-35.
[106] EIS reference: Volume III, Chapter 4, Environmental Assessment of Socio-Economic Effects – Community Health, section 4.7.5.5, p. 4-45.
[107] EIS reference: Volume III, Chapter 5, Environmental Assessment – Land and Resource Use, section 5.2.
[108] Nalcor Energy. *Lower Churchill Hydroelectric Generation Project Environmental Impact Statement, Volume 1, Part A, Project Planning and Description*. Chapter 8, Aboriginal Consultation, section 8.2, p. 8-3.

in the area. Why Nalcor Energy is so reluctant to close an impact-benefit agreement is a resultant mystery.

NunatuKavut has been granted extensive funding to develop its comprehensive land claim applications, which it has been working on for the past several year, the results of which it has filed with Canada in 1991, 1996, 2002 and 2010. NunatuKavut has now asked the federal government to respond on the basis of the latest information, as quickly as possible and preferably by the end of 2010.

Of importance, the provincial government does not negotiate land claims with Aboriginal peoples. It holds no such writ. Nalcor's statement about whether the province has accepted a claim by the NunatuKavut is therefore moot. Nalcor evidently expects a refusal of NunatuKavut's claim. A refusal to negotiate a land claim or a rejection of a land claim by the federal government does not mean that an Aboriginal nation did not reside in or use a particular area traditionally. It merely means that the responsible government does not accept that claim. Canada has a long history of denying claims from Aboriginal people, and subsequently been overturned by the courts. Since NunatuKavut is submitting a claim that may be accepted by Canada, would it not be better for Nalcor to adopt the precautionary principle that it claims to operate under and deal effectively with NunatuKavut at this stage rather than have to back track further down the line?

8.11 Management

The people of NunatuKavut may wish to identify a more clearly articulated resource management/co-management and resource sharing policy, as part of this assessment process.

8.12 Monitoring

Section 4.6.4 of the EIS Guidelines states that: *"The EIS shall describe the environmental and socio-economic monitoring and follow-up programs to be incorporated into construction, operation and maintenance activities"*[109]. However, Nalcor Energy has not provided any details about its monitoring plan other than an overview of the subject areas the monitoring plan will cover. More specific information is required as to how Aboriginal people, particularly those of NunatuKavut, will be incorporated into the monitoring process.

Monitoring of community health is largely restricted to monitoring methylmercury levels in fish.[110] There does not seem to be any discussion of how other community health indicators will be monitored.

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[109] Volume 1a, Chapter 9, Environmental Assessment Approach and Methods, section 9.10, p. 33.
[110] EIS reference: Volume III, Chapter 4, Environmental Assessment of Socio-Economic Effects – Community Health, section 4.9.3, p. 4-57.

NunatuKavut may wish to have Nalcor develop a cumulative effects or major accident policy and compensation plan as part of the overall project assessment. Such a policy should allow for continued effects monitoring and mitigation, as Nalcor does not see the project ever being decommissioned.

8.13 Safety

The majority of employees at the Project will most likely be male. This raises some important safety questions for women, particularly those who will be among a predominantly male workforce in an isolated location. Diligent safety provisions must be undertaken to protect the health, welfare, and safety of NunauKavut women and all women that work out at the Project site.

8.14 Socioeconomic Impacts

Nalcor rates all socio-economic effects resulting from this project as either positive and significant or not significant.[111] Is this to imply that Nalcor does not foresee any negative repercussions socio-economically at all? The discussion omits such negative consequences as: consequences resulting from having more disposable income or social and mental health consequences of working at distant camps, interacting with other Aboriginal people, non-Aboriginal people or out of province or foreign workers, cultural conflicts, family violence, etc.

"The residual socio-economic effects will be measured by the number of Labrador and Newfoundland residents employed on the Project and in Project-related jobs, and in subsets of that population including Innu and women."[112] Those of NunatuKavut should be considered in these measures to properly gauge the socio-economic impacts directly on them.

Given that the socio-economic analysis does not appear to consider all potential variables, particularly negative ones, Nalcor's discussion around monitoring socio-economic effects on the economy, employment, and business[113] seems incomplete. Moreover, there is no discussion about how members of NunatuKavut will be consulted on the socio-economic effects their community experiences. Nor is there any incorporation of NunatuKavut into the development or implementation of the monitoring plan in terms of its membership.

Volume III, Chapter 4, Environmental Assessment of Socio-Economic Effects – Communities, does not address the Aboriginal experiences of projects of the same magnitude as the proposed Lower Churchill Project. Such a discussion would be

[111] EIS reference: Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.8, pp. 3-37.
[112] Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.8.2, p. 3-34.
[113] EIS reference: Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.9, pp. 3-37-3-38.

beneficial to NunatuKavut and would help our members prepare better for the Project at the community level, in terms of additional resources and training to deal with potential or anticipated socio-economic effects.

Nalcor selected the following key indicators to assess socio-economic impacts on communities:

> • *Physical Infrastructure and Services, which include those associated with:*
> *– transportation, power, communications;*
> *– water, sewer and waste;*
> *– industrial and commercial real estate; and*
> *– municipal planning and services.*
>
> • *Social Infrastructure and Services, which include those associated with:*
> *– security (policing and fire protection);*
> *– education; and*
> *– housing and accommodation.*
>
> • *Community Health, which is based on the determinants of community health approach (Health Canada 2004), includes:*
> *– income, employment and social status;*
> *– health services;*
> *– personal health practices and coping skills;*
> *– healthy child development;*
> *– social environment and social support networks; and*
> *– physical environments.*[114]

These variables do not incorporate other important factors, such as: alcohol, drug, and substance abuse, family and community stability and cohesion, or impacts on NunatuKavut's culture. Nor do these key indicators include the effect of workers coming in from other regions of the country or from outside Canada, increased demand for rental properties, or demand for childcare spaces.

"Workers passing through the community or at the Project sites are unlikely to have any other socio-economic effects on community services and infrastructure except in the case of accidental events, … Other security-related indicators are unlikely to be affected

[114] Volume III, Chapter 4, Environmental Assessment of Socio-Economic Effects – Communities, section 4.3, p. 4-11.

in a major way."[115] However, one cannot anticipate for sure whether crime rates will increase and while not anticipated at the EIS stage, reality may result in increased safety and home security concerns as a result of an influx in temporary workers.

Nalcor suggests that some workers from outside the region (or community of Happy Valley-Goose Bay) may be interested in purchasing a home in Happy Valley-Goose Bay.[116] The likelihood of this is not clear, particularly given Nalcor's discussion of the fact that temporary workers usually opt to not relocate permanently to the closest community to the work. However, if for the sake of this argument, workers from out of town do choose to purchase a house, this could inflate housing prices. This may be beneficial in the short term because people selling their home may be able to list their house at a higher price. However, if someone who lives in Happy-Valley Goose Bay or surrounding communities purchases a house during the construction phase (at a higher price), several years later, after Project construction is over and the temporary workers have left, they may have difficulty selling their home and they could potentially lose money on their investment.

Nalcor discusses the possibility of in-migration from other parts of Canada and the potential of employing temporary workers from outside of Canada. Nalcor goes on to say that if foreign employees are required, they would live in Happy Valley-Goose Bay.[117] Yet despite this and the potential ramifications, Nalcor concludes (at p. 4-28) that "Potential socio-economic effects on Social Infrastructure and Services in Labrador communities beyond the Upper Lake Melville area are expected to be not significant". This conclusion, however, does not appear to be substantiated.

Nalcor asserts that *"Project employment will mean higher incomes, increased self-esteem and improved social status for some. Employment may also affect personal health practices and coping skills."*[118] These positive effects are certainly possible and hoped for. However, having higher income can also lead to alienation from the rest of one's community that is not enjoying the same success. In turn, this can negatively affect stress levels, coping skills, and mental health. (Nalcor does acknowledge the potential income gap between 'haves and have-nots' somewhat in section 5.7.5.1 at p. 4-36.)

[115] Volume III, Chapter 4, Environmental Assessment of Socio-Economic Effects – Communities, section 4.6.5.1, p. 4-25.
[116] Volume III, Chapter 4, Environmental Assessment of Socio-Economic Effects – Communities, section 4.6.5.3, p. 4-27.
[117] Volume III, Chapter 4, Environmental Assessment of Socio-Economic Effects – Communities, section 4.2.4, pp. 4-7-4-8 and section 4.6.5.4 and section 4.6.5.4, p. 4-28.
[118] Volume III, Chapter 4, Environmental Assessment of Socio-Economic Effects – Community Health, section 4.47, p. 4-34.

8.15 Support

"The demand for Project construction workers as a whole is expected to gather momentum in Year 2, peak in Year 5 and decline thereafter. This timeline will probably not allow sufficient lead time to train workers to the journeyperson level in many of the skilled trades for Project employment."[119] This may very well be accurate however the Inuit-Metis could pursue training, education, and certification now to be ready for when the project begins. Government-supported education and training would support the members of NunatuKavut in pursuing this option.

Nalcor comments that

> *A challenge to training local workers for the Project will be their educational background and academic preparedness. Provincially administered tests show that more students in rural Labrador perform at levels below the provincial norm, school attendance rates are generally lower, drop-out rates are higher, the demand for post-secondary education is not as great, and that many potential students require academic upgrading (Sections 2.6.5 and 4.6.5.2). … Strategies to optimize the socio-economic effect of Project employment will focus on increasing opportunities for residents of Labrador, in particular, and of the Province, generally, to gain employment and improve their skill sets and experience levels.*[120]

What types of programs will be specifically targeted to members of NunatuKavut in order to raise school retention, reduce drop-out rates and provide opportunities for academic upgrading and further training? Nalcor mentions strategies to optimize the socio-economic effect of the Project however little detail is provided about the strategy specifically. How will the NunatuKavut members be specifically targeted by such a strategy? This is unstated by Nalcor.

8.16 Third Parties

"For some of these issues, it is anticipated that third parties (e.g., government and business) will respond to new demands, consistent with their roles and responsibilities."[121] It is not clear how Nalcor reached this conclusion. One could argue that government, as one important 'third party' has not yet fulfilled its past or current obligations, let alone new demands that may arise as a result of the Project.

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[119] Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.6.5.1, p. 3-22.
[120] Volume III, Chapter 3, Environmental Assessment of Socio-Economic Effects – Economy, Employment and Business, section 3.6.5.1, pp. 3-22-3-23.
[121] Volume III, Chapter 4, Environmental Assessment of Socio-Economic Effects – Communities, section 4.1, p. 4-2.

8.17 Usage

The EIS says that

> *Less than 10 percent of the total Central Labrador population (i.e., combined populations of Happy Valley-Goose Bay, Mud Lake, North West River and Churchill Falls) angled on the lower Churchill River between Churchill Falls and Muskrat Falls in the previous year. A maximum of approximately 14 percent of the total central Labrador population angled on this section of river in a typical year.*[122]

This is a bald misstatement of reality. The NunatuKavut claims documentation for 2010 amply documents intensive harvesting (fishing) usage of the lower Churchill by our membership. The implication of Nalcor's finding is that since the percentage of the population that angles on the river is so low, the impact of the Project on cultural and recreational land use is also low. This is not the case as the significance of river usage may be quite high to the people that do indeed use it even though the overall percentage of users may be low. More to the point, NunatuKavut's people have experienced a suppressed and provincially repressed usage of our traditional water-ways. As an agent of the provincial Crown, it unsurprising that Nalcor Energy denies the rights of NunatuKavut members to prosecute their entitlements within their traditional territories. The Panel is called upon to make its own judgment in the matter.

9.0 How Changes Occurring in Response to the Project may be Tracked

Once the project is underway, it will be important to follow up on and track or monitor Nalcor's observance of its commitments regarding socioeconomic impact mitigation. Monitoring "… is the collection of data with the aim to provide information on the characteristics and/or functioning of (environmental) variables. For this purpose, monitoring usually consists of a programme of repetitive observation, measurement and recording of environmental variables and operational parameters over a period of time for a defined purpose".[123]

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[122] Volume II, Part A, Chapter 4, Environmental Effects Assessment – Aquatic Environment, section 4.16.3.2, pp. 4-60.

[123] Arts, Jos and Nooteboom, Sibout. "Environmental Impact Assessment Monitoring and Auditing" in Petts, Judith, ed. *Handbook of Environmental Impact Assessment, Volume I, Environmental Impact Assessment: Process, Methods and Potential*. Edinburgh: Blackwell Science Ltd., 1999, p. 232.

Follow up "ensure[s the] terms and conditions of project approval are implemented; verif[ies] environmental compliance and performance; [helps the company and community] cope with unanticipated changes and circumstances; [enables the company to] adjust mitigation and management plans accordingly; and [supports wide-spread] learn[ing] from and disseminat[ing] experience with a view to improving the EIA process and project planning and development".[124] In other words, there are three main reasons for the following up on and tracking EIS and project implementation:

1. *Compliance* – to determine compliance with regulations, agreements, legislation, or best management practices. In this sense follow-up has a 'control' function, ensuring that a project is operating within specified standards and guidelines.
2. *Management* – to provide information about the progress of a particular project and the effectiveness of impact management measures; confirming anticipated outcomes by type, magnitude, location, and alerting managers [and others] to unanticipated effects. In this sense follow-up has a 'watch dog' function that may allow managers [and others] to respond in a timely fashion when necessary.
3. *Knowledge* – to help better understand the complex relationships between human actions and environmental and social systems. In this sense follow-up has a 'learning' function by increasing knowledge and understanding which can be applied to the science of assessment of future projects or related policy decisions. [125]

Thus, monitoring enables one to assess:

1. Outputs – the concrete and tangible products of the project
2. Processes – the methods and approaches used for the project

[124] Sadler, 1996 as cited in Noble, B.F. Environmental Impact Assessment Follow-up Prescription and Reporting Framework for the Grasslands Grazing Experiment and Reintroduction of Plains Bison: Grasslands National Park of Canada. Technical report (5P407-C6-009) prepared for Grasslands National Park of Canada. Department of Geography, University of Saskatchewan, Canada, 2006, p. 10.
[125] Storey and Noble, 2004 as cited in Noble, B.F. Environmental Impact Assessment Follow-up Prescription and Reporting Framework for the Grasslands Grazing Experiment and Reintroduction of Plains Bison: Grasslands National Park of Canada. Technical report (5P407-C6-009) prepared for Grasslands National Park of Canada. Department of Geography, University of Saskatchewan, Canada, 2006, pp. 10-11.

3. Outcomes – the changes that occur within the community or with the project that can be attributed, at least partially, to the project process and outputs
4. Impact – overall changes that occur in the community as the result of an initiative
5. Reach – who is affected by the project and who acts because of this influence

There are two different types of monitoring activities one could undertake: compliance monitoring and effects monitoring. Compliance monitoring verifies whether the strategy or project is performing as required. Compliance monitoring could be assessed using a wide range of tools, such as: a review of documents, visual inspection, interviewing employees, checking the performance of mitigation measures, taking samples from the environment, etc. Effects monitoring is the measuring of the impact of an implemented project on the environment.[126]

A key aspect to monitoring is understanding the environment *before* change occurs. Thus, in order to understand the effect an action has on the environment or on people, one must understand what the situation was before anything happened. Assessing the 'before' picture is called baseline monitoring. Baseline monitoring refers to "the measuring of the initial state of environmental indicators before action is undertaken. Such monitoring provides the basis for prediction and evaluation …".[127] Baseline monitoring activities could include developing a picture of the social and biophysical environment prior to development, conducting a historical background of the area, noting contemporary issues, and political and social structures, documenting culture, attitudes and social-psychological conditions, and population characteristics.[128]

The following discussion presents a number of different techniques that the Labrador Metis Nation may use in order to document and track changes occurring in response to the Lower Churchill Hydroelectric Project. Monitoring allows for the "regular systematic collection and analysis of information to track the progress of program implementation against pre-set targets and objectives."[129]

As a caution, one should note that regardless of the approach used, a tracking system is only as good as the information that is inputted. If an approach is underused or improperly used, it will not be helpful.

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[126] Arts, Jos and Nooteboom, Sibout. "Environmental Impact Assessment Monitoring and Auditing" in Petts, Judith, ed. *Handbook of Environmental Impact Assessment, Volume I, Environmental Impact Assessment: Process, Methods and Potential*. Edinburgh: Blackwell Science Ltd., 1999, p. 230.
[127] Arts, Jos and Nooteboom, Sibout. "Environmental Impact Assessment Monitoring and Auditing" in Petts, Judith, ed. *Handbook of Environmental Impact Assessment, Volume I, Environmental Impact Assessment: Process, Methods and Potential*. Edinburgh: Blackwell Science Ltd., 1999, p. 232.
[128] Vanclay, Frank. "Social Impact Assessment" in Petts, Judith, ed. *Handbook of Environmental Impact Assessment, Volume I, Environmental Impact Assessment: Process, Methods and Potential*. Edinburgh: Blackwell Science Ltd., 1999, p. 309.
[129] IFC Advisory Services Business Enabling Environment Business Line in association with GTZ and DFID. *Monitoring and Evaluation for Business Environment Reform: A Handbook for Practitioner*. Washington: Investment Climate Department The World Bank Group, 2008, p. 21.

9.1 Socioeconomic Monitoring Plan (Strategy) and Program

To track the project, NunatuKavut could implement a socioeconomic monitoring plan and program. Such a program would enable the organization to detect early warning of negative impacts so that corrective actions can be quickly put in place. Monitoring also acts a 'check and balance' to ensure that the company's plans are being implemented as they should be.

The monitoring plan would be the framework for developing and implementing a Lower Churchill Hydroelectric Project monitoring program. A monitoring plan is a strategy for collecting information with timelines and can also describe areas of responsibility (in other words, the plan or strategy could describe who will do what and when in terms of monitoring the project). The strategy would also enable NunatuKavut to monitor Nalcor's activities and to ensure compliance and that the implementation is consistent with the project commitments outlined in the Environmental Impact Statement and any subsequent documentation. The plan would also equip the LMN with the information required to address any challenges or negative impacts. In other words, the monitoring plan or strategy would allow the LMN to verify predictions, monitor compliance with regulatory compliance, evaluate effectiveness of mitigation measures, and provide information for use as part of the management procedures.

The monitoring plan could address the following elements:

- What project elements will be monitored?
- What techniques or methods will be used to monitor project elements?
- Who will oversee monitoring?
- Who will conduct the monitoring of the project elements?
- Where will the monitoring be conducted?
- Where will data and other information be stored?
- When will monitoring occur? What is the timeline?
- What will each monitoring activity cost?

A monitoring plan should specify for each indicator: the measurement technique, frequency, locations, responsibilities, timelines, reporting and data storage methods, etc.[130]

Benefits of a monitoring plan include: providing a harmonized organizational framework for the collection of comparable monitoring data or information, being a framework or structure for activities that fit with an overall vision or series of objectives, planning for activities that allow comparable data to be collected on a

[130] Arts, Jos and Nooteboom, Sibout. "Environmental Impact Assessment Monitoring and Auditing" in Petts, Judith, ed. *Handbook of Environmental Impact Assessment, Volume I, Environmental Impact Assessment: Process, Methods and Potential*. Edinburgh: Blackwell Science Ltd., 1999, p. 242.

regular and timely basis, setting up timelines and deadlines for activities, and becoming a tool against which one can measure individual employee performance and departmental or secretariat performance.

Drawbacks of a monitoring plan include: being costly to develop and implement, being difficult to orchestrate the activities of many people that may be situated at different locations.

9.2 Environmental or Regulatory Monitor

NunatuKavut may opt to hire one or more environmental or regulatory monitors to observe, monitor, and report on the Lower Churchill Hydroelectric Project.

Environmental Monitors observe the environment and the impacts of human and industrial activities, and communicate their observations to different stakeholders to help minimize or mitigate negative environmental impacts. Regulatory Monitors monitor an industry's or company's compliance with land-use or other environmental impact agreements.[131]

An environmental or regulatory monitor may:

- Keep track of the effects that the project has on the environment;
- Attend and report on work-force based engagement in pre-construction, construction, maintenance and de-commissioning efforts;
- Collect samples to study pollution or other changes;
- Operate and maintain field and lab equipment; and
- Identify archaeological resources.

Benefits of environmental or regulatory monitors include: having a locally trained environmental workforce, adding a layer of scrutiny to the Project, and providing an ongoing view of the environmental performance of the Project.

Drawbacks of environmental or regulatory monitors include: cost, the job often requires travel to remote locations which may isolate the employee and make it difficult to have the position consistently filled, and the monitor may be exposed to toxic substances and dangerous working conditions which may become a health and safety concern that the LMN would have to be prepared to address.

9.3 Compliance Officer

The role of the compliance officer would include:

- Monitoring EIS implementation, including seasonal engineering studies and surveys.

[131] BEAHR Learning Institute. *Environmental Monitor Training Program Introduction for Aboriginal Communities*, p. 3.

- Participating in a compliance audit to determine if Nalcor Energy is complying with its policies, procedures and guidelines.
- Investigating complaints about the Project.
- Providing advice and recommendations to the LMN.

Benefits of having a compliance officer include: having a dedicated person on staff to focus on Nalcor's implementation of the environmental assessment, having a consistent NunatuKavut presence at the Project site and within the assessment area, and having someone to establish relations with and liaise with the company on an ongoing basis. The compliance officer may also play a role in the monitoring of agreements between Nalcor and the NunatuKavut, as well as tracking changes in population, employment, housing, and other infrastructure in order to assign costs associated with the project and to ensure compliance with the stated agreements negotiated.

Drawbacks include: the added cost of creating a new position, and ensuring that the officer has authority for enforcement.

9.4 Compliance Visits, Audits and Evaluations

Compliance visits, audits, and evaluations would be done to check and audit[132] Nalcor Energy's compliance with the terms of the project. Compliance visits, audits, and evaluations would verify whether the company is conforming to statutory requirements and industry standards, provide indication as to whether the company is implementing the necessary systems and procedures to build and operate the Project, provide opportunities for the company to provide feedback to the compliance officers on progress, and facilitate enforcement of project parameters. Auditing referring points may include information in the environmental impact statement, such as the impacts as predicted and the described reference situation (the baseline and no-development condition). Other relevant criteria could also include legal standards, regulations and policies, new investigations and insights.[133]

Benefits of compliance visits, audits, and evaluations include: helping to ensure good processes and controls are established and used in the execution of the project, a valuable tool for reviewing and assessing the practices and procedures that impact how well the company complies with environmental regulations, identifying problems and challenges so that they can be addressed such that negative impacts

[132] "Environmental auditing is a periodic activity that involves comparing monitoring observations with a set of criteria and reporting the results." (Arts, Jos and Nooteboom, Sibout. "Environmental Impact Assessment Monitoring and Auditing" in Petts, Judith, ed. *Handbook of Environmental Impact Assessment, Volume I, Environmental Impact Assessment: Process, Methods and Potential*. Edinburgh: Blackwell Science Ltd., 1999, p. 232.)

[133] Arts, Jos and Nooteboom, Sibout. "Environmental Impact Assessment Monitoring and Auditing" in Petts, Judith, ed. *Handbook of Environmental Impact Assessment, Volume I, Environmental Impact Assessment: Process, Methods and Potential*. Edinburgh: Blackwell Science Ltd., 1999, p. 244.

are eliminated or minimized, and valuable in identifying areas for continuous improvement and planning.

Drawbacks include: the difficulty of traveling to the assessment area, particularly more remote regions of the assessment area, resistance to or lack of cooperation of company or government to share information, the complexity of reviews require an extensive amount of time and resources, etc.

9.5 Formal Surveys and Interviews

Surveys can be used to collect information from a sample of people regarding the socioeconomic impacts of the Lower Churchill Hydroelectric Project. Surveys may focus on one topic or cover a range of topics, such as employment with the project (e.g., job type, length of employment, income level), shopping patterns, trapping and consumption of country food, perceptions about development, etc. The surveys and interviews could also follow the same lines as the VECs used by Nalcor since this is what Nalcor will be using to measure impact. It is noted that Nalcor has already conducted such surveys with Innu Nation respondents over the past year.

There are many different types of surveys, including:

- Baseline surveys conducted at the beginning of the project to provide a reference point for comparison and understanding changes in the community Expenditure tracking surveys – to "… track the flow of funds and determine the extent to which resources actually reach the target groups". [134]
- Key informant interviews
- Trend studies – focus on a particular segment of the population, which is sampled and scrutinized repeatedly to show trends over time (while samples are of the same population, they are typically not composed of the same people.) An example of a trend study is a public opinion poll.
- Cohort studies – focus on cohorts. A cohort is a group of people who share a common characteristic or experience within a defined period (e.g., are born, leave school, lose their job, etc.). Thus a group of Inuit-Metis people who graduated high school in a 2010 form a cohort. Cohorts may be compared to the general population from which the cohort is drawn (e.g., members of the general Canadian population who graduated high school in 2010). Subgroups within the cohort may also be compared with each other. For example, Inuit-Metis females who graduated high school in 2010 may be compared to Inuit-Metis males who graduated high school during the same period.

[134] The International Bank for Reconstruction and Development/THE WORLD BANK. *Monitoring & Evaluation: Some Tools, Methods & Approaches*. Washington: The International Bank for Reconstruction and Development/THE WORLD BANK, 2004, p. 18.

- Panel studies – allow the researcher to find out why changes are occurring. The same subjects are used every time. That sample of subjects is called a panel.

Benefits of surveys include: providing baseline data against which to compare project performance, comparing different groups at a given point in time, comparing the same group over different periods of time, allowing one to gauge experiences and expectations and understand participant reactions, collecting feedback about observations, perceptions, and experiences, allowing one to assess what is working and what is not, etc.

Drawbacks of surveys include: the length of time that may be needed to tabulate the results, cost of administering and tabulating the survey, surveys only gather information about the questions asked, one-time surveys will not provide information about trends, it may be difficult to access a population of concern, etc.

9.6 Impact Evaluation

"Impact evaluation is the systematic identification of the effects – positive or negative, intended or not – on individual households, institutions, and the environment" [135] caused by the Lower Churchill Hydroelectric Project.

Impact evaluations can be used for:

- Measuring outcomes and impacts of an activity and distinguishing these from the influence of other, external factors.
- Helping to clarify whether costs for an activity are justified.
- Informing decisions on whether to expand, modify or eliminate projects, programs or policies.
- Drawing lessons for improving the design and management of future activities.
- Comparing the effectiveness of alternative interventions.
- Strengthening accountability for results. [136]

Benefits of impact evaluations include: allowing one to estimate outcomes and impacts for different communities, in different parts of Labrador, over time, allowing one to better understand the impacts and results of the project and whether activities or cost is justified, is a systematic analysis. [137]

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[135] The International Bank for Reconstruction and Development/THE WORLD BANK. *Monitoring & Evaluation: Some Tools, Methods & Approaches*. Washington: The International Bank for Reconstruction and Development/THE WORLD BANK, 2004, p. 22.
[136] The International Bank for Reconstruction and Development/THE WORLD BANK. *Monitoring & Evaluation: Some Tools, Methods & Approaches*. Washington: The International Bank for Reconstruction and Development/THE WORLD BANK, 2004, p. 22.
[137] The International Bank for Reconstruction and Development/THE WORLD BANK.

Drawbacks of impact evaluations include: being expensive and time intensive, and specific impacts of the project or activity may be difficult to monitor in a direct, causal way.

9.7 Monitoring Secretariat

NunatuKavut could establish a monitoring secretariat that, as a department, would oversee the monitoring process. The role of the monitoring secretariat could be multi-level. In terms of coordination, the secretariat could coordinate all NunatuKavut monitoring efforts, identify strategic issues of concern to the its people, and review Nalcor's activities to ensure conformity. In its advisory capacity, the secretariat could promote liaison between Nalcor and NunatuKavut's membership, assist in interpretation, review and advise on the monitoring program and ensure accountability. The monitoring secretariat could be spear-headed by a monitoring working group (see section 7.9 below) that would advise or set the direction for the secretariat based on the mandate provided to it by the leadership.

Secretariat functions could include:

- Developing and overseeing the implementation of a LMN monitoring strategy.
- Oversight and accountability for monitoring activities.
- Coordination of monitoring programs.
- Financial oversight of monitoring operations.
- Providing policy support to LMN leadership.
- Point of contact for external agencies.
- Coordination of activities, including emergency response activities.
- Facilitation of community consultations and liaison once the Project is initiated.
- Communications – with the LMN leadership, LMN membership, Nalcor Energy, governments, the public, etc.
- Information management of all monitoring-related information.
- Marketing – to advance the mission and position of the LMN, particularly with regards to the Project and monitoring activities.

Benefits of a monitoring secretariat are: allows for overall coordination of monitoring for NunatuKavut; it would be a monitoring 'hub', a closer and focused coordinator of monitoring activities, giving the potential for better alignment of monitoring activities and with goals/objectives, facilitates the implementation of NunatuKavut's monitoring strategy, and opens the possibility of an integrative approach to monitoring.

Monitoring & Evaluation: Some Tools, Methods & Approaches. Washington: The International Bank for Reconstruction and Development/THE WORLD BANK, 2004, p. 22.

9.8 Monitoring Teams

NunatuKavut could enlist the help of monitoring teams to measure and assess the impact of the project on a range of variables, including and not limited to the valued ecological components (VECs) outlined in the EIS. Monitoring teams could be set up in areas throughout the assessment area. The teams could be comprised of local members of NunatuKavut who live in the area and have first hand knowledge of the area. The teams could be remunerated or enlisted on a voluntary basis.

Benefits of monitoring teams include: having local people who are familiar with the area involved in monitoring Project activities, and having a consistent NunatuKavut presence at the Project site and within the assessment area.

Drawbacks of monitoring teams include: cost, difficulties in recruiting and retaining team members, particularly if team participation is voluntary rather than paid, and expertise among members may be lacking.

9.9 Monitoring Working Group

NunatuKavut may establish a monitoring working group to oversee and monitor the Lower Churchill Hydroelectric project as it progresses and to monitor how Nalcor addresses challenges and addresses socioeconomic issues resulting from the project. The monitoring working group could be responsible to NunatuKavut. The monitoring working group could be under the umbrella of a monitoring secretariat or, if the option of a secretariat were not pursued, could be the body that oversees monitoring.

The monitoring working group could also be established to facilitate the development and implementation of recommended monitoring actions that will guide monitoring of the project. The monitoring working group could be responsible for identifying monitoring gaps, prioritizing needs, developing strategies and recommended actions to address monitoring issues, and guiding implementation of monitoring actions.

NunatuKavut may also consider forming an inter-organizational monitoring working group comprised not only of its ownInuit but other Aboriginal communities/representative organizations or local groups with shared interests.

The functions of the monitoring working group would function as the steering group for development and implementation of the monitoring program and monitoring plan (strategy) could include:

- Developing, reviewing, modifying and eventually endorsing a monitoring plan.
- Overseeing monitoring activities.
- Identifying and seeking information and input on issues that require a broader community view.

- Meeting to discuss the outcomes of reviews and monitoring activities and consider the issues raised.
- Reviewing reports and other documentation.
- Making recommendations to the Inuit-Metis leadership with regards to the direction to take.

Benefits of a monitoring working group include: enabling the contribution and sharing of a wide range of expertise and knowledge, promoting inclusion and multi-stakeholder involvement, fostering collaboration, broadening learning opportunities, helping to coordinate and centralize monitoring activities, assisting in the dissemination of results and information to communities and the NunatuKavut membership, advocating and engaging in and encouraging dialogue about the project.

Drawbacks of monitoring working group include: difficulty in coordinating schedules for many people, difficulties in reaching a decision or consensus among multiple people or groups, and the expense of meetings.

9.10 Performance Indicators

NunatuKavut could select performance indicators with which to measure inputs, processes, outputs, outcomes, and impacts of the project. Indicators can enable one to compare variables, track progress on those variables, and then act or respond. Performance indicators can be used to set performance targets and assessing progress in achieving them, and identify problems or challenges as change occurs and allow for corrective action to be taken. [138]

The Organization for Economic Cooperation and Development (OECD) defines an indicator as: "...a statistic or parameter that, tracked over time, provides information on trends in the condition of a phenomenon and has significance extending beyond that associated with the properties of the statistic itself".[139] Or, put more simply, an indicator is "… a measure, for which we have data, that helps quantify the achievement of a desired result. Indicators help answer the question: "How would we know a result if we achieved it?"[140]

Indicators provide a framework for gathering feedback about a program or initiative that helps policy makers, program managers, and staff understand and make adjustments to a program at any point during an undertaking. As such, indicators can

[138] The International Bank for Reconstruction and Development/THE WORLD BANK. *Monitoring & Evaluation: Some Tools, Methods & Approaches*. Washington: The International Bank for Reconstruction and Development/THE WORLD BANK, 2004, p. 24.
[139] Organization for Economic Cooperation and Development, 1994, as cited in Warren, Paul. *Key Indicators in Canada*. Ottawa: Ministry of Industry, 2005, p. 6.
[140] Lewis and Lockhart, p. 3.

provide a "sense of direction, coherence & meaning".[141] Moreover, indicators also help define defined baseline data against which progress can be measured.

Indicators are not static. They change over time. They can be modified or replaced altogether. New indicators can also be created. As Cardinal and Adin assert, "indicators need to be contemporary in order to remain relevant and useful; hence, indicators should evolve …".[142]

Indicators (and indicator frameworks) should be created by or with Aboriginal people to ensure that they are culturally, locally and community relevant and provide the maximum possible information about the social, economic, and/or environmental factors being considered in Aboriginal communities.[143]

Regardless, indicators should be flexible enough to be able to show trends over time so that one can measure changes over time. Indicators should also be credible, defensible, and supported by solid, reliable and valid data.[144] Indicators should be SMART and SPICED. SMART indicators are:

Specific: Reflect what the project intends to change and are able to assess performance.
Measurable: Must be precisely defined and able to be measured and interpreted unambiguously.
Attainable: Achievable, realistic and feasible within the allocated budget.
Relevant: Relevant to the project in question.
Time bound: Describes when a certain change is expected within the available timeframe.[145]

SPICED indicators are:

Subjective: Contributors have a special position or experience that gives them unique insights which may yield a high return on the evaluator's time. What may be seen by others as 'anecdotal' becomes critical data because of the source's value.
Participatory: Indicators should be developed together with those best placed to assess them, including beneficiaries, staff, and communities.
Interpretable: Explained and widely understandable.
Cross-checked: The validity of assessment needs to be cross-checked, by

[141] Ibid., p. 27.
[142] Ibid., p. 16.
[143] Ibid., p. 17.
[144] Cardinal and Adin, p. 23.
[145] IFC Advisory Services Business Enabling Environment Business Line in association with GTZ and DFID. *Monitoring and Evaluation for Business Environment Reform: A Handbook for Practitioner*. Washington: Investment Climate Department The World Bank Group, 2008, p. 50.

comparing different indicators and progress, and by using different informants, methods, and researchers.

Empowering: The process of setting and assessing indicators should be empowering in itself and allow groups and individuals to reflect critically on their changing situation.

Disaggregated: There should be a deliberate effort to seek out different indicators from a range of groups. This information needs to be recorded in such a way that these differences can be assessed over time.[146]

Benefits of using performance indicators include: being an effective way to measure progress towards objectives and assessing performance, and facilitating benchmarking comparisons. [147]

Disadvantages of using performance indicators include: the risk of poorly defining indicators which are not a good measure of success, the tendency to use too many indicators that can end up being underused and expensive, and using indicators that may not pick up on the nuances of different communities or situations. [148]

9.11 Project Implementation Oversight Committee

NunatuKavut may lobby for the establishment of such a Project Implementation Oversight Committee, which would act as an independent environmental monitoring agency, and secure LMN representation on the committee. The committee may be comprised of regulating agencies, Aboriginal representative organizations, such as the NunatuKavut, the federal and provincial governments, and potentially other representative groups as well. The committee would oversee project activities, participate in compliance and regulatory processes, review and comment on monitoring and management plans, the implementation process, and results, bring forth Aboriginal and public concerns about the project, and serve as a forum to discuss and resolve implementation problems. [149]

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[146] IFC Advisory Services Business Enabling Environment Business Line in association with GTZ and DFID. *Monitoring and Evaluation for Business Environment Reform: A Handbook for Practitioner*. Washington: Investment Climate Department The World Bank Group, 2008, p. 50.

[147] The International Bank for Reconstruction and Development/THE WORLD BANK. *Monitoring & Evaluation: Some Tools, Methods & Approaches*. Washington: The International Bank for Reconstruction and Development/THE WORLD BANK, 2004, p. 24.

[148] The International Bank for Reconstruction and Development/THE WORLD BANK. *Monitoring & Evaluation: Some Tools, Methods & Approaches*. Washington: The International Bank for Reconstruction and Development/THE WORLD BANK, 2004, p. 24.

[149] Sosa, Irene and Keenan, Karyn. Impact Benefit Agreements between Aboriginal Communities and Mining Companies: Their Use in Canada. Toronto: Canadian Environmental Law Association, 2001, p. 18; Arts, Jos, Caldwell, Paula, and Morrison-Saunders, Angus. "Environmental impact assessment follow-up: good practice and future directions — findings from a workshop at the IAIA 2000 conference" in *Impact Assessment and Project Appraisal*, volume 19, number 3, September 2001, p. 181.

Benefits of a project implementation oversight committee may include: being an independent body, offering opportunities for stakeholder and public involvement, providing better access to monitoring data, activities, and findings, enhancing Aboriginal communities' and the public's ability to participate in the monitoring process, building better two-way communication among local communities, representative organizations, the company, and regulating agencies. [150]

9.12 Project Management Software

There is a wide array of project management software that the Labrador Metis Nation may utilize to track the Lower Churchill Hydroelectric Project. Project management software allows one to track and manage a range of projects. Project management software may be purchased at office supply stores or are web-based.

Project management software tend to have the following features:

- Portfolio management
- Project management, including project templates, workflow tools, milestone tracking, project level permissions, timeliness indicator, progress calculation, Gantt charts
- Task management, including activity templates, expected hours estimation analysis, activity timeliness indicator, progress calculation
- Request management, including customer (change) request tracking
- Issue management, including issue (defect) tracking
- Time management, including time cards, timers and time entry system, personal and shared calendars
- Resource management, including resource details, resource reports, schedules, cost tracking, budget tracking for projects and tasks, expense tracking, billing reporting
- Team collaboration, including email notifications and alerts, due task reminders, message boards, file sharing
- Reporting, including report generator, Gantt charting

Benefits of project management software include: being able to maintain up-to-date project information that is available to team members at any time, reduces paperwork and paper use, centralizes information and data, eliminates the need for project managers to micro-manage routine tasks, and facilitates communication and information sharing.

Drawbacks of project management software include: having the necessary technology to run the software, have the technical ability to using the software,

[150] Arts, Jos, Caldwell, Paula, and Morrison-Saunders, Angus. "Environmental impact assessment follow-up: good practice and future directions — findings from a workshop at the IAIA 2000 conference" in *Impact Assessment and Project Appraisal*, volume 19, number 3, September 2001, p. 182.

acquiring the necessary training to use the software may be expensive, and ensuring it is used consistently throughout the organization.

9.13 Public Tracking Table

Public concerns regarding the project could be recorded and tracked using a public tracking table. A public tracking table would allow all public comments, concerns, observations, and submissions made to the Labrador Metis Nation to be catalogued for easy accessibility and referencing. A public tracking table might look as follows:

Tracking Number	Specific Item	Person's Name	Comment Origin or Context	Issue or comment	Location in Documents	Action Taken	Response	Review Status
P-1 (as an example)	A brief description of comment subject	Name	A brief description of the context in which the comment was made (e.g., date and time of a specific meeting or public consultation or the name of a reference document or publication)	Details of the issue or comment	The name of the document along with related volumes, sections, and page numbers	Details of what actions were taken to respond to or follow up on the comment or issue	Details on how Nalcor (or another respondent) responded to the comment or issue	Details on whether the item has been addressed, is pending, requires follow up, etc.

Rows could be added to the above table, as required. This type of tracking table could also be used to track the project in general above and beyond 'public concerns'. In other words, this type of format could be used to track all sorts of issues.

Benefits of a public tracking table include: being a concise, at-a-glance summary of issues raised, how they were addressed, and relevant document references.

Drawback of a public tracking table include: necessitating diligence in maintaining the record in order for the public tracking table to be useful. If the public tracking table is not maintained with the appropriate level of detail or often enough, and it will quickly become out of date and irrelevant.

9.14 Rapid Appraisal Methods

Rapid appraisal methods are "quick, low-cost ways to gather the views and feedback of beneficiaries and other stakeholders, in order to respond to decision-makers' needs for information".[151]

[151] The International Bank for Reconstruction and Development/THE WORLD BANK. *Monitoring & Evaluation: Some Tools, Methods & Approaches*. Washington: The International Bank for Reconstruction and Development/THE WORLD BANK, 2004, p. 14.

Such methods may be used to gather information quickly so that managers or leaders can expedite decision-making. They provide a qualitative understanding of complicated socioeconomic changes or situations that can, in turn, be used to contextualize quantitative data collected.

Rapid appraisal methods include:

> **Key informant interviews** - a series of open-ended questions posed to individuals selected for their knowledge and experience in a topic of interest. Interviews are qualitative, in-depth, and semi-structured. They rely on interview guides that list topics or questions.
> **Focus group discussion** - a facilitated discussion among 8–12 carefully selected participants with similar backgrounds … The facilitator uses a discussion guide. Note-takers record comments and observations.
> **Community group interview** - a series of questions and facilitated discussion in a meeting open to all community members. The interviewer follows a carefully prepared questionnaire.
> **Direct observation** - use of a detailed observation form to record what is seen and heard at a program site. The information may be about ongoing activities, processes, discussions, social interactions, and observable results.
> **Mini-survey**—a structured questionnaire with a limited number of close-ended questions that is administered to 50–75 people. Selection of respondents may be random or 'purposive' (interviewing stakeholders at locations such as a clinic for a health care survey). [152]

Benefits of rapid appraisal methods include: the potential for lower costs, can be conducted quickly, are flexible enough to allow for exploring new ideas or approaches. [153]

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[152] The International Bank for Reconstruction and Development/THE WORLD BANK. *Monitoring & Evaluation: Some Tools, Methods & Approaches*. Washington: The International Bank for Reconstruction and Development/THE WORLD BANK, 2004, p. 15.
[153] The International Bank for Reconstruction and Development/THE WORLD BANK. *Monitoring & Evaluation: Some Tools, Methods & Approaches*. Washington: The International Bank for Reconstruction and Development/THE WORLD BANK, 2004, p. 14.

Drawbacks of rapid appraisal methods include: the difficulty of generalizing the findings as they are usually site or community or person specific and tend to be less valid, reliable and credible than more formal survey approaches. [154]

9.15 Real Time Monitoring

The installation of web-cameras installed at a building site for example, may offer a way to monitor the Project, particularly at locations that are difficult to access.

Benefits include: being able to watch and monitor all activities at any time and without company 'editing'.

Disadvantages include: being expensive, the equipment may become damaged and thus become costly to replace, the company might object to this 'big brother' approach.

9.16 Web-Based Cyber Environmental Monitoring and Auditing System

While not strictly an LMN-led initiative, a web-based cyber environmental monitoring and auditing system could be something that the LMN lobbies for. It would involve the company creating and maintaining a dedicated website about the Project implementation for public access. This could also establish a forum for the public to document observed changes as a result of the Project.

Benefits of this system include: opening access to information about implementation to unlimited web users, allowing real-time monitoring images and data collected from the Project site to be uploaded onto the website as they are collected, facilitating two-way communication between the company and the public who would be able to comment or register concerns on the Project through the website, and improving the knowledge base about EIA processes and implementation.[155]

10.0 How Changes Caused by the Project may be Managed

Y66The proposed Lower Churchill Hydroelectric Project may cause numerous, and potentially unforeseen, changes to the environment, to species, and to the people living in the region. To some degree, changes caused by the Project will have to be assessed on a case-by-case basis based on the particulars of the case at a particular moment in time.

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[154] The International Bank for Reconstruction and Development/THE WORLD BANK. *Monitoring & Evaluation: Some Tools, Methods & Approaches*. Washington: The International Bank for Reconstruction and Development/THE WORLD BANK, 2004, p. 14.

[155] Hui, 2000 as cited in Arts, Jos, Caldwell, Paula, and Morrison-Saunders, Angus. "Environmental impact assessment follow-up: good practice and future directions — findings from a workshop at the IAIA 2000 conference" in *Impact Assessment and Project Appraisal*, volume 19, number 3, September 2001, p. 182.

At the same time, the Labrador Metis Nation could be poised to better react to changes caused by the Project by considering the following. These activities would help the Labrador Metis Nation be better prepared to address changes in a quick and efficient manner because the support and infrastructure will already be in place before incidences occur. These proposed activities compliment the proposed tracking activities discussed above in section 7.0.

10.1 Environmental Impact Assessment Follow-Up Process

NunatuKavut may lobby for the establishment of an environmental impact assessment follow-up process. Such a process would monitor effects of both construction and implementation, foster better communication between interested parties and the company and increase capacity to address changes in the least obstructive way.[156]

10.2 Leadership Role

The involvement of NunatuKavut's leadership will be vital in managing changes caused by the project. The leadership may be employed to reach out to high-ranking officials in government (federal and/or provincial), Nalcor Energy or contractors depending on the circumstances. Strong leadership may be required to lobby for or promote the interests of the NunatuKavut's membership, raise awareness of the impacts the project is having on the membership, or lobby for additional funding, programs, or services.

10.3 Monitoring Secretariat

As discussed above in section 7.1, NunatuKavut could establish a monitoring secretariat to oversee the monitoring process. Because the monitoring secretariat would be the monitoring hub for the orgainzation, it would be in tune with the activities of the project at all times and therefore be poised to manage changes caused by the Project. The secretariat could respond to changes in a timely manner by developing response strategies that respond to particular circumstances, could oversee implementation, coordinate the development of response teams, and mobilize the NunatuKavut community accordingly.

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[156] For example, further discussions about environmental impact assessment processes, please see Denis (2000) who discusses the La Grande Hydroelectric Complex in Quebec and Austin (2000) who discusses the EIA follow-up programs for the Glen Canyon Dam project and the offshore oil and gas development in the Gulf of Mexico. See: Austin, Diane. (2000), "Community participation in EIA follow-up", paper presented at IAIA '00 BACK TO THE FUTURE conference, EIA Follow-up Stream, Hong Kong Convention and Exhibition Centre, 19–23 June, 2000 Hong Kong and Denis, Robert. "Lessons derived from the environmental follow-up programs on the La Grande Rivière, downstream from la Grande-2A Generating Station, James Bay, Quebec, Canada", paper presented at IAIA '00 Back to the Future conference, EIA Follow-up Stream, Hong Kong Convention and Exhibition Centre, 19–23 June, 2000 Hong Kong. See also: 'La Grande Complex: Environmental Follow-Up' at http://www.hydroquebec.com/sustainable-development/documentation/complexe_lagrande.html.

10.4 Monitoring Working Group

In building on the concept of the monitoring working group discussed in section 7.9, a monitoring working group could also be employed to manage changes to caused by the Project. The monitoring working group would work under the umbrella of the monitoring secretariat if one were established or could be the oversight body itself. Because of its mandate for ongoing monitoring of the Project, the monitoring working group would be able to provide oversight to management activities that would be required in response to changes caused by the project.

10.5 Elders Council

An Elders council could be formed to provide advice to and guide the leadership and to the monitoring secretariat or monitoring working group (or any other group that is formed). The Elders council could provide input based on their experience, wisdom and traditional knowledge. Involving the Elders into the project management process would also additional purposes. It would serve as a reminder to Inuit-Metis people, particularly youth, that traditional knowledge and local customs have modern-day application. It would also serve to educate and remind Nalcor that such knowledge and customs are current and applicable and that it is incumbent upon Nalcor to ensure that the it and the project proceeds with respect, not only to the Inuit-Metis people of the area but to the land itself.

10.6 Monitoring Plan (Strategy)

The monitoring plan (strategy) concept proposed in section 7.1 above could contain a change management component so that managing change becomes integrated directly into the monitoring plan.

10.7 Change Management Strategy

Alternatively, the LMN may opt to develop a free-standing change management strategy to respond to changes that the Project may cause. A change management strategy includes several elements:

- Situational awareness – activities in the strategy revolve around creating a deeper understanding of the particular circumstances or situation under change. Understanding change requires answering: What is the scope of the change? How many people will be impacted? Who (or what) is being impacted? Are people (or species) being impacted the same or are they experiencing the change differently? Creating situational awareness involves developing a map of who (or what) is being impacted by the change and how they are being impacted.
- Supporting structures – this element of the strategy identifies who will be undertaking the change management activities. It will also describe the way that the leadership, managers, members, etc. need to be engaged in order for the change management strategy (or mitigation measures) to be successful.

- Strategy analysis – involves a consideration of risk, anticipation of resistance or denial of change (e.g., if Nalcor Energy denies that a change is taking place when in fact it is), identifying where resistance may be expected so that one can strategize on how to overcome that resistance, and special tactics that one could adopt in dealing with changes caused by the Project.
- Implementation – this involves how change management activities will be implemented.

10.8 Environmental or Regulatory Monitor

If an environmental or regulatory monitor were employed (see section 7.2 above), s/he would be in the field regularly and would therefore directly observe any changes caused by the project. S/he could be integral to documenting changes, implementing a change management strategy, and in working with technicians and particular specialists in developing on the ground mitigation measures.

10.9 Monitoring Teams

Similarly, monitoring teams (see section 7.5 above) may likewise be in place to measure and assess project impact, identify changes caused by the Project, and implement change monitoring activities.

10.10 Compliance Officer

In monitoring compliance, the compliance officer (see section 7.3 above) would be directly responsible for monitoring company compliance in responding to any changes caused by the Project and to any ensuing strategies or activities that are planned to respond to those changes.

10.11 Compliance Visits, Audits and Evaluations

Compliance visits, audits, and evaluations, as discussed earlier in section 7.4, would be an additional tool that NunatuKavut might use to check and audit Nalcor Energy's compliance, not only with the terms of the project, but with any change management or response activities that may be undertaken as a result of foreseen or unforeseen changes resulting from the project.

10.12 Emergency Action Plan

NunatuKavut could develop an emergency action plan to help it (or its members) respond to emergency situations. Having an emergency action plan would assist the organization in increasing its level of preparedness in responding to emergencies well.

10.13 Quality of Life Monitoring Tool

A quality of life monitoring tool would enable NunatuKavut to assess the impacts of the proposed project on the quality of life of its members. A number of different aspects could be considered, such as the impact of the project on factors like

employment (satisfaction, opportunities and training), lifestyle, scenery, tradition and cultural satisfaction, safety, recreation and leisure, noise, wildlife, health, crime, discrimination, air/water quality experience, etc. Quality of life monitoring would enable NunatuKavut to assess how the project is perceived by its membership. In other words, quality of life monitoring would allow NunatuKavut to determine whether the project is perceived by its members as having improved the quality of life, negatively affected the quality of life or as having no affect at all.

In assessing quality of life, one could take a two-pronged approach to measuring quality of life. The first aspect of a quality of life monitoring tool could be more quantitative in nature and use statistical indicators. The second aspect could be a qualitative analysis based on perceptions of the conditions of life. Results of quality of life monitoring could then in turn be used to lobby for more support and/or develop future programming to mitigate negative affects and build on improvements.

10.14 Socioeconomic Effects Monitoring Program

NunatuKavut could implement a socioeconomic effects monitoring program that would determine " … the accuracy of predictions and forecasts contained in … [the environmental impact statement] … and to allow the mitigation of negative effects and the enhancement of beneficial effects".[157] Components such as business/employment, community services and social infrastructure (education and social services), housing and public services, commercial and industrial infrastructure[158] could be measured to assess a range of social conditions and how the proposed project impacts them. Specific follow up goals and objectives would be an important component of such a monitoring program.

10.15 Dissemination Activities

A communication strategy is an important tool for NunatuKavut to communicate with its membership regarding the Lower Churchill Hydroelectric Project. The following discussion presents a number of communication options that the NCC may employ and/or integrate into a communication strategy.

Target groups for the dissemination of information regarding the Lower Churchill Hydroelectric Project could include:

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[157] Lawrence, David P. "Appendix A-8. Hibernia, BHP and Diavik: Significance and Social and Economic Effects Monitoring" in *The Significance of Social and Economic Impacts in Environmental Assessment*. Lawrence Environmental, Series 2003; source: http://www.ceaa-acee.gc.ca/default.asp?lang=En&n=CD221BCC-1&offset=19&toc=show, retrieved on January 10, 2010.

[158] Lawrence, David P. "Appendix A-8. Hibernia, BHP and Diavik: Significance and Social and Economic Effects Monitoring" in *The Significance of Social and Economic Impacts in Environmental Assessment*. Lawrence Environmental, Series 2003; source: http://www.ceaa-acee.gc.ca/default.asp?lang=En&n=CD221BCC-1&offset=19&toc=show, retrieved on January 10, 2010.

1. Leaders
2. Member communities
3. Aboriginal representative organizations, such as friendship centres, the LIA, etc.
4. Nalcor Energy and/or its sub-contractors
5. Environmental organizations
6. Compliance agencies, such as the Canadian Environmental Assessment Agency
7. Academic institutions and the research community
8. Non-Aboriginal businesses and corporations and the general public
9. Industry representatives, such as sector councils
10. Media and news outlets, including Aboriginal and mainstream media outlets
11. Regional organizations
12. Government (members of parliament and the provincial legislature, program directors or managers, etc.)
13. Youth

10.16 Events

Information about the project, such as project purpose, key activities, and results can be disseminated within NunatuKavut (and to other interested parties) at:

- Conferences
- Workshops
- Meetings
- Computer-based social networking sites, such as blogs, Twitter, etc.
- Training events

Activities could involve presentations regarding the project and its results and/or the dissemination of material regarding the project.

These fora could be venues for disseminating material, could enable more public discussion, or lead to discussions about other strategic and substantive issues of interest to the wider community.

10.17 Information Products

Information may be dissemination through:

- Briefing notes
- Reports
- Presentations
- Articles (e.g., journal, newspaper)
- Media releases
- Newsletters

- Website postings
- Leaflets and promotional material
- Annual reports
- CDs - Information about the project, including the project report and supporting materials, could be burned to CDs and distributed to target groups.
- Case studies (or features)
- Annual reports

10.18 Electronic Mailing Lists

Information may be distributed through internal lists, e.g., to the Inuit-Metis leadership, NunatuKavut staff, etc. and would provide a mechanism for internal project communications.

Information may also be distributed via external lists. External parties may include: government, the media, Aboriginal organizations in other regions, environmental organizations, think tanks, etc.

10.19 The Internet

NunatuKavut may post communications regarding this project by posting the report, or a summary, on its website. Other posted information could include contact details, background information, a summary of activities, news and updates, etc. Other internet avenues include blogs and social networking sites, such as Facebook and Twitter.

10.20 Meetings

Project information and updates may be disseminated at various meetings and gatherings, such as regular staff meeting, annual general meetings, meetings with Nalcor Energy, meetings with government, etc.

10.21 Dissemination Events

NunatuKavut could hold periodic information dissemination events. This type of activity would provide an opportunity for those interested in the Project to learn about the progress of the Project, share information and report on effects. Dissemination events could include press conferences, open houses, public information sessions, etc.

10.22 Media Events

Information may be disseminated through a variety of media activities, including:

- Media press conferences
- Radio shows on community radio stations
- Television spots on local television
- Interviews by media personnel regarding the project

- Door to Door Community Information Campaigns

Door-to-door community information campaigns may be used to ensure that all members of the community receive information regarding the Project. Door-to-door campaigns are generally done in person but may also be in the form of an information flyer distributed to each household.

11.0 Conclusions

Notwithstanding the breadth of Nalcor's environmental impact statement, there are major deficiencies with its specific reference to NunatuKavut and its constituents. Because the proposed Project is still in the preparatory stage, there still may be ample opportunity for Nalcor to respond to the NunatuKavut's concerns and work towards a more inclusive approach that takes the our people into better consideration.

At the core of the matter is respect. Respect for NunatuKavut, and for our knowledge and local customs, and for the land itself. To date, NunatuKavut has not been as involved in the Nalcor EIS process as we should be given our traditional use and presence in the territory. Meaningful involvement of our people would signal Nalcor Energy's commitment to consult properly with the NunatuKavut and foster a good working relationship with the NunatuKavut members.

This above discloses many of the socioeconomic implications of the Nalcor report, and discusses the potential results of the project. In addition, this report presents additional issues that are of importance to NunatuKavut's relationship with Nalcor Energy and the provincial government, as well as with the federal government.

Appendix A

Forecasted Labour Resource Requirements for the Construction Phase

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Forecasted Labour Resource Requirements for the Construction Phase

The following table reflects Nalcor Energy's anticipated labour requirements during the construction phase of the proposed Lower Churchill Hydroelectric Project (see Newfoundland and Labrador Hydro, *Component Studies, Socio-Economic Environment, Report 5 of 6, Forecasted Labor Resource Requirements by National Occupation Classification for Generation Projects*, 2009, p. 8.).

The National Occupational Classification (NOC) is the nationally accepted reference on occupations in Canada. It organizes over 30,000 job titles into 520 occupational group descriptions. The NOC tool classifies occupations with a four-digit code according to skill type and skill level. NOC descriptions include example job titles that fall under that particular NOC unit (category), main duties, and employment requirements (e.g., education and experience). For more information about the NOC and what each NOC Unit code and labour description involves, please refer to: Human Resources and Skills Development Canada at: http://www5.hrsdc.gc.ca/NOC/English/NOC/2006/QuickSearch.aspx?val65=.*

Estimated Construction Peak Labour Demand by NOC Code

NOC Unit	Labour Description	Approx. No. of Personnel
0112	Human Resources Managers	10
0123	Other Business Services Managers	12
0211	Engineering Managers	7
0213	Computer & Information Systems Managers	2
0632	Accommodation Service Managers	12
0711	Construction Managers	32
0721	Facility Operation & Maintenance Managers	1
0911	Manufacturing Managers	1
1111	Financial Auditors & Accountants	8
1121	Specialists in Human Resources	6
1212	Supervisors, Finance & Insurance Clerks	1
1215	Supervisors, Recording, Distributing & Scheduling Operators	5
1225	Purchasing Agents & Officers	22
1241	Secretaries (Except Legal & Medical)	8
1411	General Officer Clerks	89
1413	Records Management and Filing Clerks	4
1431	Accounting & Related Clerks	7
1432	Payroll Clerks	6

NOC Unit	Labour Description	Approx. No. of Personnel
1463	Couriers, Messengers and Door to Door Distributors	0
1473	Production Clerks	6
1476	Transportation Route and Crew Schedulers	6
2113	Geologists, Geochemists & Geophysicists	1
2121	Biologists & Related Scientists	1
2122	Forestry Professionals	2
2131	Civil Engineers	93
2132	Mechanical Engineers	11
2133	Electrical & Electronics Engineers	16
2141	Industrial & Manufacturing Engineers	15
2142	Metallurgical & Materials Engineers	1
2144	Geological Engineers	8
2151	Architects	1
2154	Land Surveyors	15
2223	Forestry Technologists & Technicians	2
2231	Civil Engineering Technologists & Technicians	2
2233	Industrial Engineering & Manufacturing Technologists & Technicians	38
2234	Construction Estimators	10
2241	Electrical & Electronics Engineering Technologists & Technicians	6
2253	Drafting Technologists & Technicians	23
2254	Land Survey Technologists & Technicians	23
2263	Inspectors in Public & Environmental Health & Occupational Health & Safety	16
2264	Construction Inspectors	6
2282	User Support Technicians	4
3112	General Practitioners & Family Physicians	4
3152	Registered Nurses	2
3234	Ambulance Attendants and Other Paramedical Occupations	1
6465	Other Protective Service Occupations	2
6651	Security Guards & Related Occupations	22
6663	Janitors, Caretakers & Building Superintendents	17
7211	Supervisors, Machinists & Related Occupations	1
7212	Contractors & Supervisors, Electrical Trades & Telecommunications Occupations	33
7213	Contractors & Supervisors, Pipefitting Trades	14
7214	Contractors & Supervisors, Metal Forming, Shaping & Erecting Trades	8
7215	Contractors & Supervisors, Carpentry Trades	35
7216	Contractors & Supervisors, Mechanic Trades	12

NOC Unit	Labour Description	Approx. No. of Personnel
7217	Contractors & Supervisors, Heavy Construction Equipment Crews	72
7219	Contractors & Supervisors, Other Construction Trades, Installers, Repairers & Servicers	9
7241	Electricians (Except Industrial & Power System)	34
7242	Industrial Electricians	98
7244	Electrical Power Line & Cable Workers	18
7251	Plumbers	11
7252	Steamfitters, Pipefitters & Sprinkler System Installers	30
7264	Ironworkers	67
7265	Welders & Related Machine Operators	17
7271	Carpenters	135
7281	Bricklayers	2
7282	Concrete Finishers	12
7291	Roofers & Shinglers	8
7311	Construction Millwrights & Industrial Mechanics (Except Textile)	49
7312	Heavy-Duty Equipment Mechanics	139
7321	Automotive Service Technicians, Truck & Bus Mechanics & Mechanical Repairers	5
7371	Crane Operators	39
7372	Drillers & Blasters – Surface Mining, Quarrying & Construction	32
7411	Truck Drivers	172
7421	Heavy Equipment Operators (Except Crane)	173
7436	Boat Operators	5
7443	Automotive Mechanical Installers & Servicers	27
7452	Material Handlers	5
7611	Construction Trades Helpers & Labourers	288
7612	Other Trades Helpers & Labourers	8
8221	Supervisors, Mining & Quarrying	4
8231	Underground Production & Development Miners	13
8231	Underground Production & Development Miners	19
8241	Logging Machinery Operators	40
8421	Chain Saw & Skidder Operators	14
8616	Logging & Forestry Labourers	20