



## Transmittal

COVER PAGE			
TO:	Environment and Conservation – Pat Marrie, Project EA Chair		
CC:	Canadian Environmental Assessment Agency – Bill Coulter, Project Manager		
CC:	Innu Nation – Richard Nuna, Paula Reid		
FROM:	Rick Hendriks		
RE:	Labrador-Island Transmission Link – Historic Resources Component Study		
DATE:	June 23, 2011	PAGES:	13 (including this page)

## 1. INTRODUCTION

### 1.1. Background

An interim draft of the Historic Resources Component Study for the Labrador-Island Transmission Link (LITL) Environmental Assessment was reviewed by Innu Nation in March 2009. At that time, comments were provided to the Proponent concerning the interim draft. A response to Innu Nation's comments was provided by Nalcor in May 2009.

The review was undertaken by Mr. Peter Armitage of Wolverine & Associates Inc. on behalf of Innu Nation.

### 1.2. Scope of Review

The scope of this review encompasses primarily two reports prepared for Nalcor Energy by Stantec Consulting Ltd.:

- Labrador-Island Transmission Link: Historic and Heritage Resources Component Study (15 July 2010, Stantec 2010);
- Labrador-Island Transmission Link: Historic and Heritage Resources Component Study Supplementary Report (18 February 2011).

While the information in these reports pertains to locations both on the Island of Newfoundland and in Labrador, this review encompasses only locations in Labrador.

This review is informed by the following:

- Rick Hendrik's 23 March 2009 review of the draft "Labrador-Island Transmission Link Historic and Heritage Resources Study" on behalf of Innu Nation (Hendriks, 2009);
- Minaskuat Inc.'s 2009 draft report "Labrador-Island Transmission Link: Historic and Heritage Resources Study" (Minaskuat, 2009);



- Nalcor's "2010 Consultation Assessment Report, Supplemental Information to IR JRP.151" (27 September 2010);
- Lower Churchill Hydroelectric Generation Project Summary Report on Québec Innu, Phase 1. Submitted to Minaskuat Limited Partnership by Paul F. Wilkinson & Associates Inc., May 2008.

For the purpose of considering the adequacy of the historic and heritage resources assessment and archaeological modelling, the transmission line routing and assessment/modelling research in relation to Labrador Innu land use and occupancy (LUO) data held by the Innu Nation in addition to Quebec Innu LUO data in the public domain, including Nalcor (2010) was examined. This examination was conducted in part using MAPINFO GIS and Google Earth satellite imagery; by comparing the LUO data with the LITL study area (primarily the transmission line routing). ArcGIS shape files depicting the revised LITL Study Area (routing) were obtained in March of 2011 from Nalcor Energy via the Innu Nation.<sup>1</sup>

## 2. ISSUES OF CONCERN

### 2.1. Missing information regarding construction infrastructure

Virtually any kind of ground disturbance risks damaging or destroying historic and heritage resources. Components of the Labrador–Island Transmission Link that pose such risks include the construction and operation of various types of construction infrastructure such as access trails, water crossings, construction camps, marshalling yards, quarries and borrow pits, and tower foundation installation.<sup>2</sup> Unfortunately, the

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<sup>1</sup> See revised project description for the Transmission Link in the letter from Todd Burlingame (Manager, Environment and Aboriginal Affairs, Nalcor Energy) to Bill Coulter (CEAA) and Pat Marrie (Department of Environment and Conservation, Government of Newfoundland and Labrador) 15 Nov. 2010.

<sup>2</sup> According to Nalcor Energy, "[t]he existing paved Labrador Straits Highway (Route 510) will provide access to the eastern end. Along the remainder of the transmission right of way, one or more additional access trails or tote roads will be established from select points on the Trans Labrador Highway (TLH, Phase 3) and from the southern part of the TLH (Phase 2.4)...access to the Project areas during construction will be through a series of access trails or tote roads established from these existing roadways to select points along the transmission line right of way....wherever possible existing roads and trails will be utilized, with upgrades undertaken as required. New access trails will also be established as necessary to provide construction access to currently inaccessible sections of the transmission line route. Additionally, one or more trails will be constructed along the full length of the right of way itself, to provide the necessary access for construction and eventual maintenance equipment. This trail will be established within the cleared transmission line right of way whenever possible and practical (although in certain areas it may be necessary to route around waterbodies or other difficult terrain). As each transmission structure will require construction and installation activity involving heavy equipment, some degree of access is required to each work site....In relatively remote areas, such as the interior of southeastern Labrador and sections of the Island's Northern Peninsula, utilization of the transmission line route itself for access will be maximized....The number of new access trails established will be minimized to the degree possible. In addition, as the current plan is to undertake construction year-round, the use of winter access trails will be optimized in order to minimize disturbance....The specific number, location and characteristics of all new access trails for the Project will be determined as part of ongoing Project engineering and design....Lodging for the construction work force will be provided through small temporary construction camps established at strategic points along the right of way, as well as possibly the use of existing local accommodations where available and appropriate" (Nalcor Energy, 2009:32-33).



Proponent has defined its study area in a limited way that results in the exclusion of some infrastructure from the study area and, therefore, from historic and heritage resource assessment (see Nalcor Energy, 2009:9-13; Stantec Consulting Ltd., 2010). The most likely reason for this is that many details of construction infrastructure such as access trails and water crossings have not yet been determined by the Proponent. Nonetheless, a scientifically rigorous and complete historic and heritage resource assessment requires that all aspects of the project that could result in ground disturbance be subject to Stage 1 and 2 assessment.

The information provided in the aforementioned 2010 Stantec report is not adequate to assess, mitigate and monitor the potential effects of the Project on the historic and heritage resources of Labrador due to missing project description components related to construction infrastructure.<sup>3</sup> Archaeological potential mapping was not undertaken for construction infrastructure outside of the transmission line corridor, and no on-ground survey (including test-pitting) of these areas was undertaken.

## **2.2. Archaeological potential mapping**

The methods used by Stantec (2010:22-25,76-83) to model and map the archaeological potential throughout the study area are generally acceptable. However, future assessment work should give serious consideration to slightly modifying the zone mapping criteria (e.g. “Zone Type 01 [Contemporary Strategic Shoreline]”) to include unnavigable sections of rivers (i.e., rapids, falls) in the study area that were historic travel routes for Labrador and Quebec Innu. Historic portages may well be found in close proximity to these sections, with boil-up spots along the routes, and with campsites at either end. The rivers/brooks in the study area (or in its vicinity) that were used historically as primary travel routes by Innu included Manatueu-shipiss (Traverspine River), Tshenuamiu-shipu (Kenamu River), Utshashumeku-shipiss, Pakut-shipu,<sup>4</sup> (St. Augustin River), Aissimeu-shipu (St. Paul River), and Amishku-shipiss (Paradise River).

While the fieldwork method included visual inspection and test-pitting of many zones with high archaeological potential along the shores of these rivers, it appears that former portages were not found in these locations. My visual inspection of Innu travel route rivers in the study area using 1:50,000 scale NTS maps and Google Earth imagery pointed to rapids on a section of the St. Paul River that may well be unnavigable and therefore may have a portage associated with them (see Stantec, 2010, Appendix F, map #13). However, this would have to be verified in the field. Both

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<sup>3</sup> The Proponent states that the information from its historic and heritage resource assessment work “has and will continue to be used in Project design to avoid potential interactions where possible, to develop a management plan to gather and record information contained in any sites that may be affected, and to develop measures in the event that a historic resource is discovered during Project activities” (ibid.”78).

<sup>4</sup> The Innu name of St. Augustine, written in standard orthography, is Pakut-shipu. However, it is also spelled “Pakua Shipi,” “Pakua-shipit,” or “Pakua shipu.” Standard spellings of Innu terms are used throughout this review, unless the term is in parentheses.



sides of the St. Paul River have been rated as having high archaeological potential but no field work including test pitting has been conducted here.



Innu having a boil-up/break on a portage along the travel route between St. Augustine and Sandwich Bay (photo William Brooks Cabot, 1920).<sup>5</sup>

Of course, spatially accurate data on the locations of portages within, or in the vicinity of, the study area, obtained either through extant Labrador and Quebec Innu information sources, supplementary research using fine scale mapping, or fieldwork would be of benefit to this historic and heritage resources assessment. A priority area is the terrain between Pakut-shipu (St. Augustine River) and Pishiu-nipi to the north (see Stantec, 2011, map 8), where we lack accurate information regarding the location of the travel route and any associated portages. We know that Pishiu-nipi, which is only about 2 km north of Pakut-shipu, lies on the main travel route between the St. Augustine area and Sheshatshiu. But where exactly did Innu travel between this lake and the river; did they follow the small brook that flows from Pishiu-nipi into Pakut-shipu? Or did they portage somewhere through this area? If they portaged, where on the shores of the river did they start? Is this portage within the LITL study area?

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<sup>5</sup> Photo courtesy Stephen Loring, Smithsonian Institution.



### **2.3. Additional fieldwork in high priority areas**

Stantec (2011, 2010) identified a number of areas on the shores of lakes, rivers and brooks with high archaeological potential. However, not all of these areas were subject to fieldwork including on-the-ground visual inspection and test-pitting. In some cases, testing was conducted in only a few places. Areas of interest to Labrador Innu with high archaeological potential that should be field researched and extensively test-pitted include:

- Mush-nipi (see Stantec, 2011, map 2). No testing locations are depicted on the north shore of this lake on this map;
- Tshenuamiau-shipu (Kenamu River) (see Stantec, 2010, map 4). No testing locations are depicted on this map;
- Aissimeu-shipu (St. Paul River) (see Stantec, 2010, map 13). No testing locations are depicted on this map;
- Aissimeu-shipu (St. Paul River) (see Stantec, 2010, map 14). Three testing locations are depicted on this map;
- Aissimeu-shipu (St. Paul River) (see Stantec, 2010, map 15). Two testing locations are depicted.

More fieldwork in the high potential zones along these river sections would provide a higher level of confidence that historic resources will not be damaged or destroyed by Project activities. This fieldwork should be conducted well in advance of Project commencement to allow time for modification to the transmission line routing, the demarcation of any archaeological sites if found, and Stage 3 salvage archaeology if necessary.

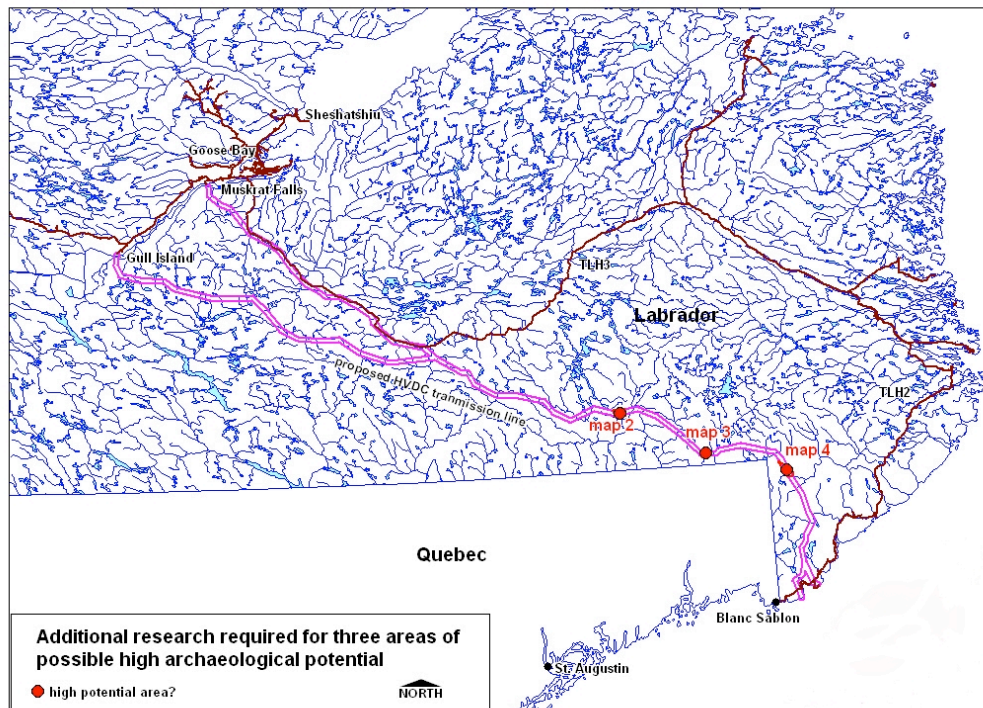
### **2.4. Fieldwork in areas rated as low potential**

Three areas of possibly high archaeological potential were rated low by Stantec. These include a cluster of lakes, ponds and brooks near the headwaters of the St. Paul River, a section of Chanion Brook, and a tributary in the headwaters of the Pinware River (see Maps 1-4).<sup>6</sup> These areas should be given serious consideration for fieldwork evaluation because they were seasonal Innu land use areas (e.g. hunting and trapping areas) or historic travel routes.

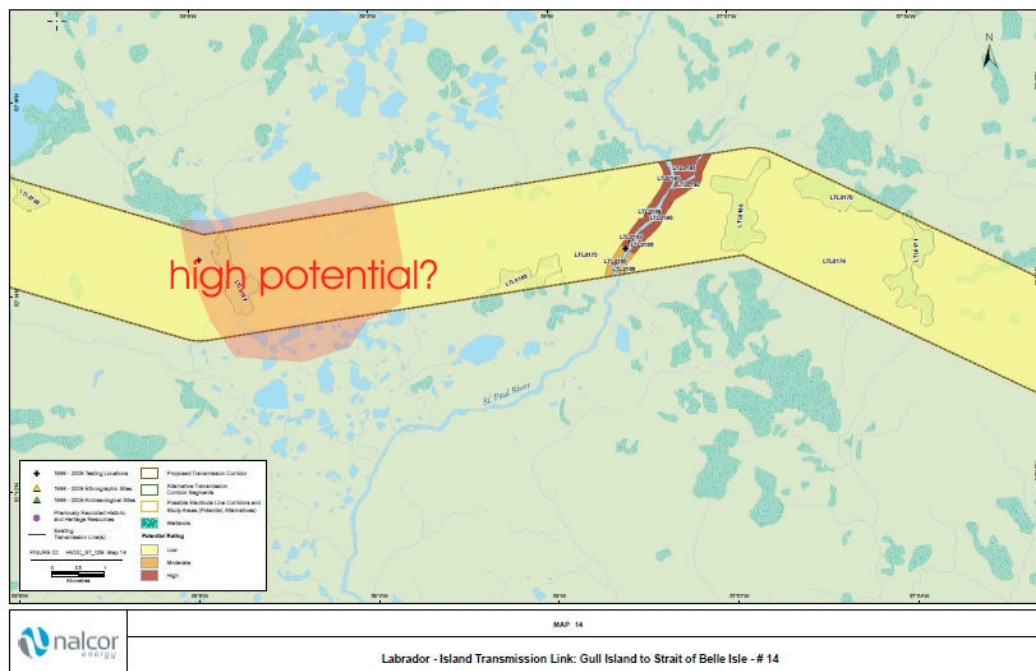
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<sup>6</sup> Maps 2, 3 and 4 are taken from Stantec (2010), maps 14, 16, and 18 respectively.

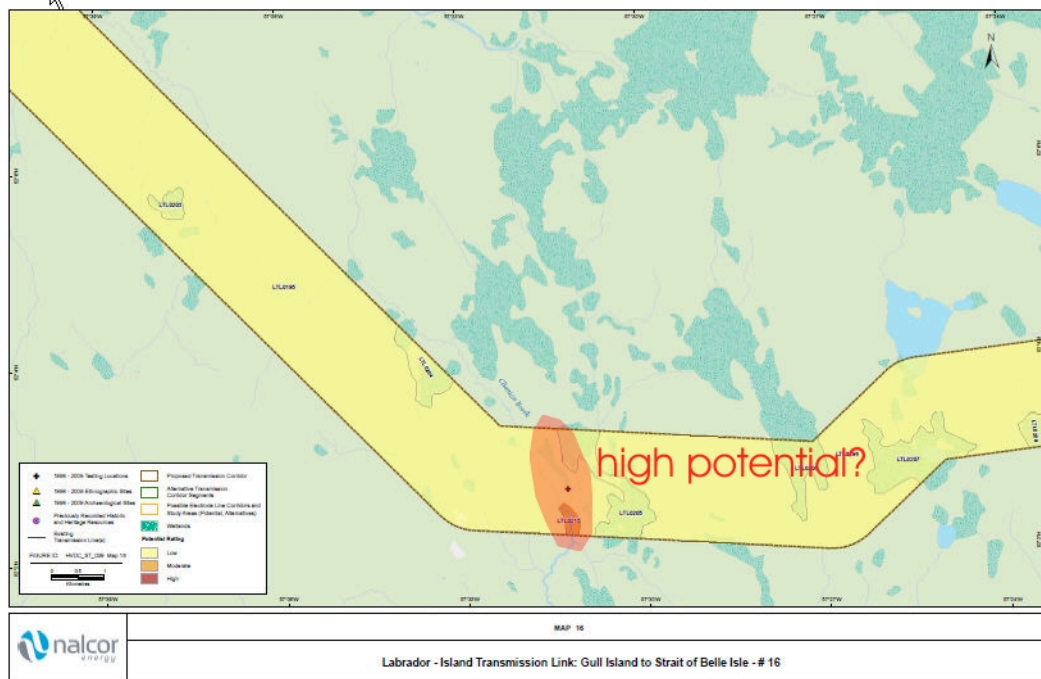




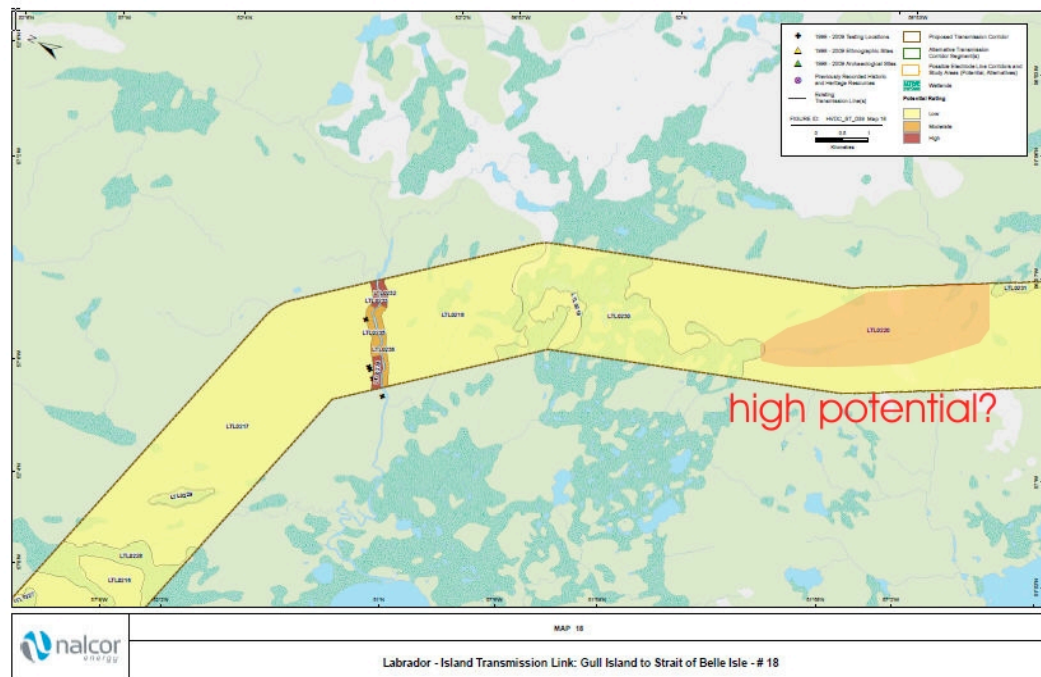
### Map 1 – Three areas of possible high archaeological potential



## Map 2 – High potential archaeology zone, headwaters of St. Paul River?



Map 3 – High potential archaeology zone along Chanion Brook?



Map 4 - High potential archaeology zone, headwaters of Pinware River?



## **2.5. Regional context and incorporation of archaeological/historical data**

In August 2001, I reviewed a report concerning historic resources potential mapping on behalf of the Innu Nation, and met directly with Newfoundland and Labrador Hydro staff and its consulting archaeologists to discuss the review (Armitage, 2001).<sup>7</sup> At the time, I noted that a previous draft of the report had failed “to place the project area in its proper regional context. Relevant portions of adjacent Quebec, especially the Quebec Côte-Nord, had been excluded”. However, I noted that the problem had “been rectified through the redefinition of the regional study area (see Fig.4.2) and the addition of new text (e.g. p. 45) and a map showing sites on the Quebec Côte-Nord (Fig. 4.5).” Furthermore, I noted that the recognition given to “the location of the Churchill River in a complex network of Innu travel routes is explicit (p.46).”

However, attention to the full regional archaeological and historic context for the assessment research related to the LITL has narrowed in terms of its geographic extent in the most recent reports by Stantec (2011, 2010) and Minaskuat (2009), and it is no longer clear that important data from the Quebec portion of the territory are being used for the purpose of archaeological potential mapping, the design of survey strategies, and the interpretation of results. For example, no evidence is apparent that the results of archaeological research by Archéotec Inc. in relation to the Hydro-Québec’s Romaine Hydroelectric Complex have been consulted by Stantec archaeologists (e.g. Archéotec inc., 2000a, 2000b). Nor has Pintal, et al.’s study (1986) concerning the archaeology of the St. Augustine River been consulted (see also Groison, et al., 1985). Archaeological data for the entire Quebec Lower North Shore area is directly relevant to the historic and heritage resource assessment of both the Lower Churchill Project and the LITL and should be relied upon heavily for all archaeological research on the Labrador side of the border.

## **2.6. Issues previously raised by the Innu Nation**

In 2009, Innu Nation advisor, Rick Hendriks, raised a number of issues with respect to Minaskuat Inc.’s draft report “Labrador-Island Transmission Link: Historic and Heritage Resources Study” (Minaskuat, 2009; Hendriks, 2009). The current study (Stantec, 2010) was reviewed with these issues in mind, and the results follow.

### **2.6.1. Data concerning Quebec Innu LUO**

One important issue that has been partially rectified is the lack of Quebec Innu LUO data in the draft report. The Proponent and its consultants have made a concerted effort to obtain and review publicly available LUO information including LUO reports completed by the Conseil Attikamek-Montagnais in 1983. While they were not able to conduct research in La Romaine, Natashquan, Mingan, Sept-Iles/Maliotenam and Schefferville, a “Community Engagement Agreement” was reached with the First

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<sup>7</sup> In addition to myself, participants included Fred Schwarz, Yves Labrèche, Rick Hendriks, Larry LeDrew and possibly Dave Kiell.





Nations government of “Pakua Shipi” (St. Augustine) with respect to research in the community (Nalcor, 2010, Appendix 2, Records of Consultation, pp.23-30). Pursuant to that Agreement, 11 interviews were conducted there with 22 respondents between June 29 and July 14, 2010. The results of the research were published as “Appendix 4, Land and Resource Use Interviews Report – Pakua Shipi” in Nalcor (2010).<sup>8</sup>

It is beyond the scope of this review to undertake a systematic evaluation of the “Pakua Shipi” report. However, the report suffers from a number of serious deficiencies which have a direct bearing on the conduct of historic resource assessment in the LITL study area. In brief, these include:

- the methods and reporting do not in any way conform to the best practices described by Tobias in his data collection guide for indigenous use and occupancy map surveys. Data quality standards have not been met in terms of objectivity, reliability, validity, precision, accuracy, integrity, auditability and representativeness (Tobias, 142-145). For this reason, the data presented in the report, especially on the map of “Current Land and Resource Use – Pakua Shipi,” are not credible;
- mapping was conducted at 1:250,000 scale and relied heavily on large polygons. As noted by Tobias (2009:384), “large-polygon maps often don’t provide the accuracy, precision, reliability and other attributes required for credibility.”<sup>9</sup> For example, the large, rose-coloured, hatched polygon over the Mealy Mountains is labelled “cultural site (birth places, burial grounds, spiritual places, meeting places, etc.)” with no further information provided either on the map or in the text of the report. This area is a core, historic land use area for Innu who settled in Sheshatshiu, and even though the Sheshatshiu people who lived in this area have strong kinship connections with the Innu in Pakut-shipu, people who settled in the latter community and their descendants have not used this part of the Mealy Mountains area in the post settlement period (i.e. 1960s). More detailed, credible information is required in order to support claims of “current” land use by Pakut-shipu Innu in this particular area;
- the temporal aspect of the LUO research is poorly defined although the aforementioned map describes the spatial data as “current.” What does current mean here – LUO within the last 10 years, 20 years, 50 years, within living memory? The interview questionnaire asks respondents to indicate when they lived/stayed at an overnight location, when birds were hunted, fish caught, etc. at specific locations, but no indication is given as to whether all mapped land use features were consistently tagged with temporal information;

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<sup>8</sup> The author(s) of this report are not identified in the document itself but they appear to have been Brittany Mestokosho (“Community Coordinator”) in collaboration with Virginia Soehl (“Nalcor Aboriginal Planning Lead”) and Elisabeth Poirier-Garneau (“Nalcor Aboriginal Planning Coordinator”) (Nalcor, 2010, Appendix 2, Records of Consultation, pp.23-30).

<sup>9</sup> See Tobias’ lengthy discussion concerning the problem of large polygons (2009:384-391).



- the report contains no discussion of how the sample of respondents was designed. cursory demographic information (e.g. gender, age, employment) concerning the sample is provided but there is no rationale for why the respondents were selected for interviews in the first place. Therefore, external reviewers cannot evaluate the quality of the sampling method in terms of potential bias and representativeness;
- the report contains no description of data gaps and research limitations, further evidence that it is not auditable, and therefore not credible social science;
- while small scale LUO mapping can provide useful, background information to support historic resource assessment, in terms of the survey strategy, archaeological potential mapping, and the interpretation of archaeological sites and material, mapping at a larger scale (1:50,000) would have provided more accurate and precise data concerning camp locations, caches, portages and travel routes of greater benefit to the archaeological consultants working for Nalcor Energy. The fact that a finer scale of mapping was not used constitutes a missed opportunity. Moreover, the Proponent missed an opportunity to validate, complement, and improve upon the accuracy of, the spatial data presented in the 1983 CAM report for Pakut-shipu;.
- Having commissioned and conducted the LUO research in Pakut-shipu, Nalcor Energy is largely responsible for the scientific accuracy and validity of the research results. If methods are chosen and the research conducted in such a way that data quality standards are compromised, that is entirely the Proponent's responsibility. Therefore, it is inappropriate for Nalcor Energy to say that it *"takes no position with respect to the accuracy or validity of any of the information produced or assertions made by an Aboriginal community, group or organization or by a third party for or in respect of an Aboriginal community, group or organization"* which may be contained herein and the inclusion of or reference to such information or assertion in this Report is not and shall not be construed as evidence of its endorsement or acceptance by Nalcor Energy" (2010, Disclaimer, p.16-1, my italics).

#### 2.6.2. Integration of Innu LUO data

Hendriks was "concerned that the [draft] Report is unclear as to how available Innu land use information was used to inform the determination of areas of high potential and field testing locations" (2009:2). While the maps showing "Archaeological Potential Mapping" (e.g. Stantec 2010, Appendix F) are of sufficient scale to review decisions concerning the delineation of various potential zones, I share Hendriks' concern with respect to the integration of Innu LUO data into the potential mapping exercise. Stantec should describe in greater detail the way in which it integrated Labrador **and** Quebec Innu LUO data into the determination of archaeological potential. Were the data used only in a general way, for example, to identify the rivers that served as major travel routes? Or, were campsites, portages and other LUO data digitized and analyzed in a GIS environment in conjunction with topographic variables?



### **2.6.3. Presentation of results**

Hendriks noted that “Innu Nation review of the 1998 RFP indicated that the Study team archaeologist(s) must make presentations concerning the results of the archaeological work in Sheshatshit and Mingan” (Hendriks, 2009:3). It is now June 2011, and no reporting back to Sheshatshiu community members has yet been undertaken. The brief presentation by Dr. Fred Schwarz at the Joint Review Panel hearing in Sheshatshiu in March 2011 does not meet the obligation to report back to community members. In collaboration with the Innu Nation, the principal researchers for Stantec should coordinate a public presentation in Sheshatshiu in the near future using well-illustrated, text-light, multi-media and plain English summary methods with Innu-aimun interpretation. This is an ethical research requirement.

### **2.6.4. Innu-aimun translation**

Hendriks also noted that the “1998 RFP indicated that a summary of the study must be completed in Innu-aimun and made available to the Innu Nation” (2009:3).” It is now June 2011, and no such summary has yet been made available with the Labrador-Island Transmission Link Historic and Heritage Resources Component Study report.

### **2.6.5. Use of illustrations**

“Innu Nation review of the 2006 report requested inclusion of a sheet for each area surveyed, including pictures and illustrations....[Hendriks noted] that archaeological and ethnographic sites are described but no visual information is provided” (ibid.:6). This deficiency in the 2009 draft has not been rectified in the more recent version. The inclusion of such graphics would greatly facilitate interpretation of research findings (cf. photos in Archéotec inc., 2000b).

### **2.6.6. Watershed map**

According to Hendriks (2009:7), “Innu Nation review of the 2006 report recommended superimposing the main river watersheds over the transmission line route. This is probably best done by including an additional map for this purpose, with the names of the Rivers and the names of the Innu communities (including those in Quebec) included on the map.” The inclusion of such a map in the revised report has not been done. Major historic Innu travel routes should also be depicted on this map. Given the relationship between historic Innu LUO and watersheds, this map would enhance our understanding of the hydrographic network that provided the foundational Innu travel infrastructure between central Labrador and the Quebec North Shore.



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